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INDIVIDUAL AND ENVIRONMENT

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Niš, 2016.

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INTRODUCTION

Publication titled “*Individual and Environment*” is thematic proceedings from the Tenth Anniversary Conference and the first International Conference “Days of Applied Psychology” held in 2014 at the Faculty of Philosophy, University of Niš, Serbia, which is traditionally organized every year by the Department of Psychology. The first conference was held in 2005. Over time, it developed and acquired conditions to reach the international conference level both by number and composition of the Program and Organizing Committee of experts, as well as by number of participants and papers from foreign countries. In a certain sense, development of the conference reflects growth and development of the Department of Psychology of the University of Niš.

International thematic proceedings “*Individual and Environment*” comprise 48 scientific papers, of which 22 have been written by foreign authors. The total number of authors is 103, of whom 43 are foreign authors coming from several foreign countries: Bosnia and Herzegovina, Croatia, Macedonia, Bulgaria, Romania, Greece, Italy, Albania, Russia, USA, Brazil.

Thematic proceedings “*Individual and Environment*” discuss complex relationship between the individual and his/her psychological and social environment from various aspects and from the focus of different paradigms. It reflects an effort to integrate research findings into various theoretical and methodological approaches concerning psychosocial conditions of life of the individual, but also to gather together people from different regions in order to present their opinion. It is about basic problem of the complex relationship between the individual and the environment and quest for mechanisms of psychological, socio-psychological and bio-psychological adaptation and affirmation of the individuals and groups in “open” ecological human system.

The publication is organized into eight thematic sections: 1. Introduction 2. General Psychology, 3. Personality - Measurement and Research, 4. Individual and Social Environment, 5. Mental Health – between Theory and Practice, 6. Individual and Family Environment, 7. Individual in Educational Environment, 8. Individual in Work Environment.

Proceedings begin with two plenary lectures – with the lecture of Majda Rijavec “Self-help and positive psychology: can happiness be learned?”, which deals with issue of human happiness and, within the context of positive psychology, possibility of using positive interventions for improving welfare of the individual in all domains of life.

According to the lecture of Mirosava Đurišić Bojanović, titled “Subjective well-being: the meaning and consequences in work environment”, great importance for personal well-being has work engagement and finding meaning in such engagement, as well as the importance of active strategies that have greater adaptive value for the individual in comparison to withdrawal and resignation. Lectures are the reflection of the Proceedings concept and its basic guideline - relationship between man and his environment.

Papers deal with different aspects of the environment and experience of the environment: starting from subjective experience of the individual stimuli from the environment - color, aesthetic experience of photography, through measurement of humor styles and individual differences in identity styles, to role of temperament in pro-social behavior of the individual. Within the scope of papers, there were researched: altruism, life satisfaction, social and emotional loneliness. In total, under the title: Mental Health - between theory and practice, there were discussed: attitude of the environment towards people with mental illness, today more and more actual electronic communication and cyber violence, then – papers on helping people to better channel the life energy and to adapt to higher level and achieve higher living satisfaction. Research papers are related to family relationships, parenting styles, family functionality. Also, papers deal with social self-efficiency, emotional competence, social and professional competence of teachers, inclusion of children with developmental disabilities, overcoming low academic achievement, low self-esteem and social skills deficits. In general, under the title: The individual in the work environment, papers refer to difficulties in making career decisions, relationship leader - follower, employee motivation, organizational impact of culture and system of work safety, assertiveness training of employees in participation in decision-making, success factors and problems of successful professionally renowned women in Serbia, preferred styles of leadership and followership of employees.

Thematic international proceedings “*The individual and the environment*” is publication that is focused on problem of understanding *relationship between the individual and the environment* with the aim to offer researchers, professionals and everyone involved in creation of educational, social, organizational

policies, theoretical and empirical supports, which would redefine, and improve status of the individual, social, professional and especially marginalized groups. The papers in this publication should encourage further efforts of scientists, theoreticians and practitioners in finding an alternative for solving the controversy between *superiority of active relationship*, as opposed to the withdrawal and passivity *of the individual towards requirements of the environment*, even when they violate rules and standards of the environment.

All papers have been individually reviewed, and proceedings as a whole, by four foreign reviewers. On this occasion we would like to express our thankfulness to the reviewers who, with their expert opinions and relevant assessments, contributed to the quality of the publication.

Niš, September 2016

Editors:

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PLENARY LECTURES:

INDIVIDUAL IN ENVIRONMENT FROM THE VIEW POINT OF POSITIVE PSYCHOLOGY

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SELF HELP AND POSITIVE PSYCHOLOGY: CAN HAPPINESS BE LEARNED?

Abstract

Within positive psychology, well-being (happiness) is the main criteria for positive functioning and is generally considered a worthwhile life goal. The benefits of happiness are evident across a wide range of domains including social relationships, health and longevity, work and income, and benefits at the societal level. Happiness is related to various positive life outcomes with evidence that it can be both their cause and consequence. In addition to genetic and environmental factors, intentional activities and practices play an important role in an individual's chronic happiness level. Positive psychology interventions (PPIs) are treatment methods or intentional activities that aim to cultivate positive feelings, behaviours or cognitions. In the last decade a great number of studies have documented the positive effects of these activities on the level of happiness. Recently, however, researchers have begun shifting the focus from whether PPIs can increase well-being to methods of implementation, long-term sustainability and various personal, situational and cultural factors. Some have warned about possible dangers, including incomplete understanding of human happiness, flawed attempts to translate research into effective practice and the paradoxical effect of making people unhappier. Before we have a complete understanding of how these activities work, and for whom they work, positive psychology-based activities should be disseminated with caution.

Key words: *positive psychology, self-help, happiness, well-being, interventions*

The human pursuit of happiness

Since ancient times, people have been speculating over questions about happiness, its causes and consequences. Many of the great philosophies and religions have attempted to deal with it in order to help both individuals and communities achieve greater joy and fulfilment. In Nichomachean Ethics, Aristotle claimed that the aim of life is eudaimonia (or happiness), which he defined as virtuous activity in accordance with reason. Socrates and Plato also believed that individuals become happy by pursuing a virtuous life. Later, John Stuart Mill argued that pleasure and freedom from pain are the only desirable ends for people. He postulated the "Greatest Happiness Principle", saying that we should seek the richest amount of happiness to the greatest extent possible, not just for the individual but for mankind as well. Thomas Jefferson even declared "the pursuit of happiness" as one of the basic human rights. In the twentieth century, Maslow and other humanistic psychologists based their studies on healthy, creative individuals, focusing on topics such as self-actualization, love, creativity, growth, peak experience, and similar.

Within the positive psychology that emerged at the beginning of this millennium, well-being is the main criteria for positive functioning and is generally considered a worthwhile goal to be pursued in life. In this article the term *happiness* is used as a common-sense, lay representation of well-being.

What is happiness?

Although, there is no consensus on the definition of well-being, this term usually refers to optimal psychological functioning and experience. Current research on well-being has been derived from two general approaches (Ryan & Deci, 2001). The first is the hedonic approach, supporting the idea that happiness is equivalent to subjective experiences of pleasure and satisfaction. The second is the eudaimonic approach, which is focused on meaningful goal pursuits and self-realization. Within this approach well-being is defined in terms of the degree to which a person is fully functioning. Recently, attempts have been made to recognize the benefits of both the hedonic and eudaimonic approaches (Keyes & Annas, 2009), and the term flourishing has been used to include both aspects of well-being.

However, the dominant conception of well-being in current psychological literature is the notion of subjective well-being (SWB) derived primarily from the hedonic approach. SWB is considered a multidimensional construct, encompassing how people evaluate their own lives in terms of both affective and

cognitive explanations (Diener et al., 1999). The affective component of SWB relates to how we feel about our life, and the cognitive component to how we think about it. As an operational definition, SWB is most often interpreted to mean experiencing a high level of positive affect, a low level of negative affect, and a high degree of satisfaction with one's life.

Why is it good to be happy?

The benefits of high SWB are evident across a wide range of domains such as social relationships, work and income, health and longevity and others (for reviews see Huppert, 2009; Lyubomirsky et al., 2005). However, the majority of studies in this field are correlational so it is not always possible to determine whether happiness is the cause or the consequence of the aforementioned life benefits. Despite this, some longitudinal and experimental studies give evidence that happiness is for certain, at least in some cases, their cause.

Longitudinal and prospective studies on the relationship between happiness and income are much less extensive than the correlational ones, but they are more persuasive regarding causal direction. In longitudinal studies, happiness has been found to predict success in social and work settings as well as in health and longevity (for review see Jacobs Bao & Lyubomirski, 2014; Lyubomirski et al., 2005). Both long-term happiness and short-term positive effects tend to precede the desirable characteristics, resources, and behaviours with which they are correlated. For example, happiness raises the probability that the person will eventually get married and have higher marital satisfaction. It also predicts higher social and recreational activities. Young people who are happy at the age of 18 have a higher probability of obtaining a job later in life as well as having greater job satisfaction. Several work-related outcomes have been found to be related to positive affect, i.e. less absenteeism at work, higher self-rated work productivity, better supervisor evaluations and a higher income.

A review of experimental studies revealed that positive emotions promote the development of sociability and activity, altruism, liking of self and others, strong bodies and immune systems, and effective conflict resolution skills (for review see Lyubomirsky et al., 2005). In summary, it can be concluded that happiness is related to various positive life outcomes with evidence that it can be both their cause and consequence.

Can happiness level be changed?

In several longitudinal studies, levels of SWB have been found to be relatively stable over time (for review see Schimmack & Oishi, 2005). These studies suggest that certain life events and circumstances can have an initial strong impact on individual happiness levels but, due to habituation or adaptation to the new circumstances, have no lasting influence. So, after some time people tend to return to an affective neutral point (according to the "hedonic treadmill" principle, Brickman & Campbell, 1971), or to their individual set-point of happiness (Headey, 2008). Evidence from twin studies suggests that well-being levels are strongly influenced by genetics, with heritability estimates ranging from 36% to 56% (Lykken & Tellegen, 1996). These results support the set-point of happiness principle. On the other hand, environmental influences including income, education, unemployment, religion, exercise, marriage/divorce, friendship and the economic/political environment explain 16–30% of the variance in SWB, leaving a large part of environmental variance in SWB unexplained (for review see Luhman et al., 2012). Layous and Lyubomirsky (2014) argue that people can choose how to think and behave in their daily lives and that these differences in thinking and behaviour can partly explain variance in SWB.

Summarizing previous studies, Lyubomirsky et al. (2005) proposed that a person's chronic happiness level is determined by three factors: a genetically based happiness set point (accounting for approximately 50% of the individual differences in chronic happiness), life circumstances that affect happiness (10%), and intentional activities and practices (the remaining 40%). Although we are not able to influence the set point of happiness nor often our life circumstances, factors under voluntary control can be improved upon.

Is there empirically supported self-help?

The number of studies dealing with psychological interventions for increasing happiness has shown enormous growth in the last ten years. In spite of that, there is still no common definition of a "positive intervention". Also, a single, empirically-based theoretical framework that unifies positive interventions has not yet been developed. Sin and Lyubomirsky (2009, p. 468) define positive psychology interventions (PPI) as "treatment methods or intentional activities that aim to cultivate positive feelings, behaviours or

cognitions”. According to this definition, methods and activities aimed at fixing or remedying something pathological or deficient are not included among positive psychological interventions.

All positive psychological interventions are simple, take relatively little time and can be self-administered. In positive psychology interventions participants are usually randomly assigned to control and experimental groups. Those in experimental groups practice one or several activities created to increase some aspect of well-being while activities for “controls” are neutral regarding their potential for raising well-being. Before the intervention, participants complete several questionnaires, practice the activity for a predefined time period ranging from one to six weeks, and then complete post-intervention questionnaires. In some cases, participants may complete one or more long-term follow up questionnaires as well.

A great number of positive psychology activities aimed at improving happiness have been developed and tested. Parks et al., (2012) attempted to classify positive interventions according to the distinction between pleasant, engaged and meaningful life proposed by Peterson et al. (2005).

Activities in the area of pleasant life focus on building pleasure. A great number of studies have shown the positive effects of these activities on the happiness level (for review see Layous & Lyubomirsky, 2014; Parks & Biswas-Diener, 2013). They include for example counting one’s blessings, writing letters expressing gratitude to someone, writing three positive events that happened during the day, meditating on positive feelings towards one-self and others and savouring pleasurable momentary experiences.

Interventions for building engagement are focused on building strengths (positive personality traits) and engaging in social connections. Typical strengths interventions involve their identification, use and development. Seligman et al., (2005) found that these interventions resulted in an increase in happiness and a decrease in depressive symptoms. It seems that knowing one’s strengths is not enough and that using them is a necessary condition.

Engaging in social contacts includes activities such as performing kind acts (Lyubomirsky, Sheldon, et al., 2005), more active-constructive responding (Gable et al., 2006) and forgiving. Forgiveness interventions have been studied including both process-based models and smaller scale interventions such as benefit writing. One study showed that believing in the benefits of forgiving is positively related to well-being (Rijavec et al., 2013).

The Sin and Lyubomirsky (2009) meta-analysis strongly supports the overall efficacy of positive interventions. This analysis of 51 positive interventions revealed that positive interventions significantly increase well-being (mean $r = .29$) and alleviate depressive symptoms (mean $r = .31$). Another meta-analysis (Bolier et al., 2013) revealed a standardized mean difference of 0.34 for subjective well-being, 0.20 for psychological well-being and 0.23 for depression, suggesting small effects for positive psychology interventions. The effects were smaller after three to six months’ follow-up, but still significant for both subjective and psychological well-being. These results indicate that the effects of positive psychology activities are fairly sustainable.

New challenges in the area of positive interventions

In the last decade the aforementioned studies have demonstrated the overall efficacy of positive psychology interventions. However, recently, researchers have begun to fine-tune this literature by shifting their focus from whether PPIs can increase well-being to methods of implementation, long-term sustainability and various personal, situational and cultural factors.

Method of implementation

As previously mentioned, positive psychology interventions are effective for increasing well-being, but their effectiveness depends on the method of implementation, specifically the time and dosage. For example, counting your blessings activity increased well-being if people counted their blessings once a week, but not if they did it more than three times a week (Froh et al., 2009). In a study by Lyubomirsky et al. (2005), it was found that doing several acts of kindness at once resulted in higher levels of happiness and lower levels of negative affect and stress. However, the group in which participants carried out their acts of kindness did not report any significant improvement in well-being. In a further study, varying the acts of kindness resulted in larger boosts in well-being compared to repeating the same kind of acts each week (Tkach, 2006). So, although it is evident that happiness can be increased through intentional activities, the question of when and how these activities should be undertaken remains to be answered.

Personal and situational factors

Personal factors include variables such as motivation to become happier, personality traits, initial affective state and various sociodemographic characteristics. Studies suggested that people who are motivated to be happier and put more effort into activity benefit more from it (Lybomirsky et al., 2011). Individuals who score higher on extraversion and openness to experience are especially prone to benefit from positive activities (Senf & Liao, 2012) as well as those who are low in positive affect (Froh et al., 2009).

It is possible that certain positive activities might be more effective for certain types of people. Layous and Lyubomirski (2014, p. 486) argue “that the greatest gains in well-being from practicing positive activities will emerge when the specific intervention format matches the individual preferences or characteristics of the person (i.e., the degree of person-activity fit).” When individuals engaged in preferred positive activities they benefited more and were more prone to continue with this activity after the study was over (Schueller, 2011).

Sociodemographic variables such as age and gender have also been researched in relation to positive interventions. The results demonstrated that men were less likely to benefit from expressing gratitude (Kashdan et al., 2009) and that older people benefit as much as younger individuals (Prover et al., 2014). In one study with fourth graders it was found that positive psychology activities were effective for raising optimism for girls, but not for boys (Ivanković & Rijavec, 2012).

Research on the role of person-activity fit in raising happiness is still at the beginning, as well as our understanding of how the match between activities and individuals doing these activities might lead to the greatest benefits for them.

Positive psychology interventions in different cultures

Christopher et al., (2008) argue that positive psychology seems to prescribe individualistic ideals and values that are not shared by collectivistic cultures that are predominant in the world’s population. In addition to that, the level of wealth of the country is often neglected. For example, the well-documented finding that intrinsic life aspirations contribute to well-being while extrinsic ones often detracts from it (Kasser & Ryan, 2001), may not be valid in less wealthy and transitional countries. Research from Croatia and other, less rich countries (such as Russia, China, Hungary and Macedonia) suggests that striving for extrinsic aspirations is not negatively related to well-being (for review see Brdar et al. 2008). These findings suggest caution in generalizing results from positive psychology activities as well. Some activities seem to be beneficial universally. For example, in a sample of 136 countries (representing 95% of the world’s adult population) it was found that prosocial spending is consistently associated with greater happiness. In an experiment testing the causal relationship between prosocial spending and happiness, the effect was conformed within two very different countries, Canada and Uganda (Aknin et al. 2013). However, the effects of some activities might not be the same for different cultures. In one study (Layous et al., 2013) the effect of practicing gratitude or kindness was moderated by culture. South Korean participants benefitted significantly less from practicing gratitude than did U.S. participants, while similar increases were found for both samples when performing kind acts. Boehm et al., (2011) state that Westerners might gain more from positive activities since they value and express happiness more. Future studies need to continue to investigate the cultural and economic factors that might impact the efficacy of positive activities.

Positive psychology interventions and real life

How long do the effects of positive psychology activities last? Studies have shown that some activities have more lasting effects (such as Three good things, Seligman et al., 2005) while others result in a strong initial burst of happiness which does not last for long (such as a Gratitude letter and a Gratitude visit, Seligman et al., 2005).

However, the crucial factor seems to be continuation of the activity after the study is over. Several studies have demonstrated that people who engage in positive activities after the prescribed study period continue to show improvements in well-being over a control group (Cohn & Fredrickson, 2010). If a person stops doing the activities, she or he will probably slip back to previous levels of lower well-being. Intentionality and effort toward activities are major contributors to their efficacy (Lyubomirsky, et al., 2011). If a person stops trying, the effect will gradually disappear.

The dissemination of positive psychological interventions for self-help is also an important issue. Individuals interested in these interventions should have access to evidence-based strategies to increase their happiness. This access must be financially and logistically practical (Parks et al., 2012). It includes classes,

workshops, books, and modern technologies such as Internet sites and mobile applications. Parks and Szanto (2013) documented that self-help books are one important vehicle by which PPIs can be successfully delivered to consumers. In their study, in a 6 month follow-up, a positive psychology-based self-help book was more effective in raising life-satisfaction and lowering depression than a cognitive-behavioral self-help book.

The dark side of positive psychology interventions: can we do harm?

As already mentioned, the effectiveness of positive psychology interventions depends on the method of implementation and various personal and situation factors that can make some of the activities less effective or even ineffective. But can we do harm with positive psychology interventions?

In 2007, Spence warned about possible dangers in this area including simplification of empirical work, insufficient understanding about human happiness, inadequate attempts to translate research into effective practice and the paradoxical effect of making people sometimes unhappier rather than happier. Held (2002) pointed to the “dark” side effect of positive psychology when victims of unfortunate circumstances are blamed for their unhappiness. They are expected to show optimism, strengths and willpower, and if they fail to do it – this is their own fault. Several studies have doubted the efficacy of certain positive psychology interventions. For example, focusing on strengths may encourage individuals to think of strengths as permanent and unchangeable and in turn decrease the individual’s motivation to improve (Diener et al., 2011). In addition, for certain people certain positive activities may be ineffective or even harmful (Sergeant & Mongrain, 2011) or too high a level of happiness can produce maladaptive outcomes (for a review see Gruber et al., 2011).

Before we have a complete understanding of how these activities work, and for whom they work, positive psychology-based activities should be disseminated with caution.

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Rezime

U okviru pozitivne psihologije, blagostanje (sreća) je glavni kriterij pozitivnog funkcionisanja i uglavnom se smatra vrednim životnim ciljem. Pozitivne posledice sreće dokazane su u različitim domenama uključujući socijalne odnose, zdravlje i dužinu života, posao i prihode, a pozitivne posledice postoje i na nivou celog društva. Sreća je povezana sa različitim pozitivnim životnim ishodima, a može biti njihov uzrok ali i posledica. Uz genetske faktore i faktore okoline, namerne aktivnosti igraju važnu ulogu u kroničnoj razini sreće pojedinca. Pozitivne intervencije su metodi tretmana ili namerne aktivnosti čiji cilj je kultivirati pozitivna osećanja, ponašanja i kognicije. U zadnjih desetak godina u velikom broju istraživanja dokazani su pozitivni efekti ovakvih aktivnosti na nivo sreće. U zadnje vreme, istraživači su preusmerili fokus sa pitanja da li pozitivne intervencije povećavaju blagostanje na metode implementacije, trajnost efekata te različite lične, situacione u kulturalne faktore. Neki upozoravaju i na moguće opasnosti uključujući nepotpuno razumevanje ljudske sreće, pogrešne pokušaje primene znanstvenih istraživanja u efikasnu praksu i paradoksalni efekt činjenja ljudi nesretnijima. Prije nego u potpunosti shvatimo kako te aktivnosti funkcioniraju potreban je oprez kod njihovog korištenja u praksi.

Ključne reči: pozitivna psihologija, samo-pomoć, sreća, blagostanje, intervencije

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SUBJECTIVE WELL-BEING: THE MEANING AND CONSEQUENCES IN THE WORK ENVIRONMENT

Abstract

The psychological indicators of the subjective well-being relate to the level of satisfaction with the self, others and the world. It has been assumed that a more positive attitude toward the self and others and an active approach to resolving personal and professional challenges contribute to an individual's more successful adaptation which is in turn reflected in better physical health. But we have supposed that adaptive pressures of the changed environment change the meaning of the well-being concept in the work environment. We have re-examined this assumption by reviewing the data from the literature and from our own research, in which we collected the measures of personality, stress and health relations. Our results demonstrate the need to differentiate between the dimensions and criteria used to consider the phenomenon of the subjective well-being: psychological, cultural, evolutionary, individual and social. The individual subjective well-being does not, in every case, have to be in harmony with that of wider social and work groups. Based on our results, work engagement and finding meaning in such engagement, seem to be of the greatest importance. However, if we estimate the adaptive value of behaviour through the criteria of physical health then, from the evolutionary perspective, it comes as no surprise that even if the cost is the violation of social and ethical norms, active strategies have a greater adaptive value for individuals than withdrawal and resignation. In the conceptual sense, the obtained data suggest the need to differentiate between the intrapersonal, interpersonal, group and social well-being. The results also suggest that it makes sense to include physical health into a research on the subjective well-being as a critical criterion for understanding and differencing between the intrapersonal and interpersonal significance of the well-being. We have reexamined some ideas related to the protection and development of the personal well-being in the work environment, too. The complexities and challenges of a social and professional competition/cooperation require more attention. To what extent is physical health supported by psychological mechanisms of adaptation? How can we resolve the controversy between what is socially desirable and what is evolutionarily supported? How can general discontent with the self and others set in motion an individual's desire to replace strategies of withdrawal with those of activation? Can human inventiveness and creativity, in spite of evolution cultural controversy, be an alternative? Those are just some of the questions which need addressing.

Keywords: *well-being in the work environment, intrapersonal and interpersonal dimensions of subjective well-being, physical health.*

Introduction

With the revival of the ideas of humanist psychology in the 1990's, the so-called positive psychology moved the research focus from the pathological towards those phenomena which represent the psychophysical well-being. Thus, the psychophysical well-being became the key holistic construct in the new understanding of mental health (Scheier & Carver, 1987; DeNeve & Cooper, 1998; Diener, & Chan, 2011; Seligman & Csikszentmihalyi, 2000; Ryff, & Singer, 2006). However, along with the research on the well-being, the epiphenomenalist tradition also continued with the belief that a certain neurophysiological status may contribute to experiencing the well-being (Urry et al., 2004; Emerson, 2008). On the other side, within the framework of the interactionist tradition, mental health is described as the level of a psychological well-being where personality dispositions appear to have multilevel, temperamental, experiential, and instrumental effects on the psychological well-being (McCree & Costa, 1991; Ryff, & Singer, 2006). There is increasing evidence of the ability of our perception of ourselves and others, our style of stress management as well as our genetic structure to influence the immunity system (Cohen, & Williamson, 1991; Cohen, Doyle, & Turner, et al., 2003; Kiecolt-Glaser et al., 2001; Goldberg, 2010; Sternberg, & Gold, 2011).

Even though the construct of the subjective well-being is conceptualised as the cognitive and affective

evaluation of one's own life, the most frequent definition of the well-being is linked to a general satisfaction with life or experiencing happiness (Lyubomirsky & Lepper, 1999; Diener, 2000; Abdel-Khalek, 2006).

If we accept the holistic position regarding the link between psychological and physiological processes, the question remains as to whether the absence of negative indicators is a sufficient condition for experiencing the well-being. Can a psychologically subjective well-being be measured by means of indicators of mental and physical health? If the principles of the holistic approach are consistently followed, positive and negative indicators should be included, but in that case the question of their internal relationship remains. What does the construct of the well-being represent? The evolutionary perspective is the third trend in the study of the well-being, as an indicator of the level of an individual's adaption to different environmental demands (Gutierrez et al., 2013, Michalski, & Shackelford, 2010; Penke, Denissen, & Miller, 2007). Despite being widely adopted, the individual adaptation theory demands revision in terms of differentiating between various personal goals which may change during one's life depending on life events. Apart from that, the individual may also have several simultaneous goals (Diener et al., 2009). The general postulate of adaptation includes the implicit and explicit concept of equilibrium as a positive alternative between life's social challenges and the individual's response. Is it the capability of an individual to adapt to the demands of the community in which they live and work, or the power to be themselves and make autonomous and authentic choices (Bojanovic, 1986)?

The conceptualisation of intrapersonal and interpersonal dimensions of the subjective well-being

The World Health Organization defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (WHO, 2010).

Since the subjective well-being is a multidimensional construct, there are several criteria which could be included in its estimation (Keyes, Shmotkin, & Ryff, 2002; Ryff, 2014; Stewart & Ware, 1998).

In keeping with the holistic interactionist approach and the assumptions of positive psychology, a positive image of the self, others and the world, and a smaller gap between expected and real experiences, should be linked with a higher level of the subjective, psychosocial and physical well-being (Emerson, 2008). On the other hand, a poor image of the self, others and the world erodes the experience of the well-being and results in poor physical health. Our research perceives the subjective well-being as a dynamic phenomenon which reflects a person's ability to make real choices and build productive relationships with their surroundings. To what extent that will be achieved depends on implicit assumptions about the self, others and the surroundings (John, et al., 2008). We assume that an individual's ability to adapt to their surroundings, as well as the creation and change of the personal standards on which the events in their personal life and surroundings are evaluated, are determined to a great extent by a personal psychological context. The personal psychological context of an individual integrates a series of implicit assumptions about the self, others and the world and represents the starting point, i.e., the framework for evaluating and pre-evaluating the events in their personal life and environment.

The Interrelation between the subjective well-being, estimation of the self and others and physical health

The efforts made to achieve a balance between activities and a successful adaptation to different life, personal and professional demands, as well as to fulfil personal needs, may result in experiencing a personal well-being, but also psychophysical difficulties and a deterioration of physical health (Emmons, 1991; Emerson, 2008). Hence our assumption that physical health could be an indicator of a long-term poor adaptability and inadequate strategies to deal with life challenges, which are determined by implicit assumptions about the self, others and the world (Bowling, 2005). We tried to operationalize the subjective well-being through negative and positive indicators which relate to all three domains: evaluation of the self, other people and the world, but also physical health. The general research problem was formulated through the following question: (1) Is there a link between the identified psychological indicators of the subjective well-being and physical health? Specific problems are represented by the questions: (2) Is there a connection between our perceptions of ourselves and others and implicit assumptions about the world and physical health? (3) Do different latent psychological configurations correlate with that relationship in different ways, i.e. contribute to the physical well-being and health to different degrees?

We assume that the level of adaption, i.e. the subjective well-being, may be measured indirectly through a group of psychophysical indicators and subjective and objective evaluations of health. We assume

that generally a more successful adaptation to the environment in which an individual lives and works contributes to his physical well-being and health (McClenahan, Giles, & Mallett, 2007). It is assumed that if there is a significant gap between the estimation of the self and the world and satisfaction with personal achievements, this will reflect negatively on physical health.

Method

Study 1¹

The subject of our study is the relation between well-being and physical health. From the holistic perspective of human beings, our assumption is that a psychological balance and the ability to adapt successfully, cope with life stresses, and master a range of demands significantly contributes to physical health. The basic problem is whether there is a relation between the identified psychological indicators and physical health. The specific problems concern the plausible relations: (a) between the identified positive psychological indicators and physical health and (b) between the identified negative psychological indicators and physical health.

The research method was a correlation design conducted on the sample of Serbian university students (N = 110) and was carried out in 2012. The research was conducted by means of Bojanovic Scale of Psychophysical Wellbeing. The subscales which represent the negative indicators of implicit assumptions of the self, other people and the world are: negative perceptions of the self, others and the world, unsuccessful self-determination, irrational positions, unachieved expectations, depression, paranoid, destructive tendencies, lack of tolerance for uncertainty, experience of failure and unfulfilled expectations. Those which represent the positive indicators of the estimation of the self, others and the world are: activity, life plan, acceptance of different mental maps, self-determination, life success, positive expectations, positive perceptions of self, others and the world, fitness and health.

The Cronbach alpha reliability level ranged from .74 to .88. The results confirmed some of our hypotheses. By applying the factor analysis procedure we extracted four factors. The first factor, which we named Destructive Orientation, mostly saturates a tendency towards isolation, irrational beliefs, destructivity, and intolerance, and explains 39.554% of the whole variance extracted through the sum of the squared saturations.

The second factor, called General Discontent with the Self and Others, mostly saturates: does not expect success in life, does not tolerate uncertainty, poor self-perception, unfulfilled expectations, life failures, and depression, and explains 14.597% of the total variance.

The third factor, named Adaptation, mostly saturates: the world as an organised place, inclined toward a positive perception of others, self-determination, activity, narcissism, and tolerates uncertainty, and explains 8.779% of the total variance.

The fourth factor, Ambitiousness, mostly saturates: narcissism, perception of others as rivals/enemies, dominance, ethic deficit/manipulability, and aspires to exceptional success in life, and explains 5.974% of the total variance).

Ambition Orientation, Adaptive Orientation, and Destructive Orientation showed no significant correlation with physical health, while the factor named General Dissatisfaction With Oneself and the People showed a significant negative correlation with physical health ($r = -.339$ $p < .01$).

Study 2²

In this study, the theoretical framework is based on the assumption of the interactional holistic approach to understanding the subjective well-being as one of the domains of physical and mental health (Djurisic-Bojanovic & Bojanovic 2012; Friedman, Kern, & Reynolds, 2010 ; Hatala, 2012) . The aim of the study was formulated by the following questions: (1) Is there a correlation between selected psychological indicators of mental health, occupational stress and physical health?(2) Is it possible to identify latent psychological configurations that mediate the relationship between the psychological well-being, stress and

¹ Djurisic-Bojanovic, M. & Bojanovic R. (2012). Well-being: Evolutionary perspective , in: *Abstract from the 10th Alps Adria Psychology Conference*, September 27th-29th 2012, Lignano Sabbiadoro, Italy, Review of Psychology.

² Djurisic-Bojanovic, M., Cabarkapa, M. & Miladinovic, I. (2014). Psychological correlates of subjective well-being of employees in conditions of exposure to occupational stress. *28th International Congress of Applied Psychology (ICAP) From Crisis to sustainable Well-being*, July 8-13th 2014, Paris.

physical health? The research was designed as a correlation study on a sample (N=150) of professional civil service employees during the year 2013.

For the investigation of the subjective well-being, the shortened version Scale of Psychophysical Wellbeing (Bojanovic, 2012*) was employed, which consists of the following sub-scales: self-perception, ethical deficit, depression, narcissism, disintegration, destructiveness, the negative perception of the world and physical health assessment. The Cronbach alpha reliability level ranged from .70 to .88. The Job Content Questionnaire (adapted version) was used to investigate the psychosocial stress at work. By applying the factor analysis procedure, we extracted three factors: 1. Destructive orientation 2. General dissatisfaction with oneself and others 3. Self-promotion and ambition. Destructive orientation, Self-promotion and Ambition did not provide a significant association to physical health. However, a statistically significant negative correlation ($r = -.389$ $p < .01$) was established between the General dissatisfaction with oneself and others and Physical health. Factors relating to the Destructive orientation and General dissatisfaction with oneself and others are connected by a moderate experience of psychosocial stress ($r = .260$ $p < .01$ and $r = .252$ $p < .01$) while there is no correlation between the factor of Self-promotion and Ambition and occupation stress. The results of the correlation and factor analysis suggest the existence of three latent psychological structures that moderate the relationship between the psychological well-being, occupational stress and physical health.

Discussion

Our conceptual starting point was based on two basic positions of the holistic interactionist approach. Firstly, there is an interdependence and interaction between physical and mental entities, i.e. the physical health and psychological characteristics of an individual. Secondly, physical health may be an indicator of the subjective well-being. The first question posed in the presented research was: 1) is there a link between psychological indicators of well-being and physical health? Since the subject of our research refers to the research on the interrelations between the subjective well-being, evaluation of the self and others, and physical health, the results partially confirm the general hypothesis about the link between the psychological characteristics of SWB and physical health. Previous research studies show that there is a significant link between SWB and health (Diener et al., 2009; Stuart & Ware, 1998; Okun et al.1984). However, the results differ depending on whether this concerns a subjective or objective evaluation of health and tend to be in favour of the subjective evaluation of health.

Our results are in accordance with those previously mentioned in terms of the values obtained for the correlation between the indicators of SWB and health ($r = .339$), but this finding does not apply in general (De Neve, & Cooper, 1998; Friedman, & Kern, 2014). There are more latent structures on which a direct linear connection between certain psychological characteristics and physical health/illness was not determined. Our research isolated only one configuration which showed a significant link with bad physical health. Namely, this refers to persons who barely realise their own psychological well-being since they are overwhelmed by discontent with the self, others and the world in which they live.

The results of our research at the same time support and challenge both epiphenomenalist and holistic interactionist assumptions about the link between the mental and the physical, pointing out the complexity of researching the links between psychological and physical processes. Even though the results of the presented research partially confirm the initial hypothesis, they also shed new light on the problematic nature of the relations between the mental and the physical. An analysis of the content of the claims of the identified latent psychological structures contributes to a better understanding of the individual differences in the significance of the subjective well-being. Different views of the self, other people and the world represent important determinants in understanding the general strategies of approaches to life challenges.

Some controversies of the adaptive mechanisms at work

Three latent structures which we named Adaptability, Destructive Orientation and Ambitiousness are not linked with physical health, but the configuration which we named General Discontent with the Self and Others has a significant negative correlation with physical health. These findings could be connected with the often neglected fact that a few different patterns of traits offer a different solution for adaptation (well-being). In this case, Adaptability, Destructive Orientation and Ambitiousness saturate those characteristics which psychologically represent predispositions for active coping strategies, while General Discontent with the Self and Others is linked to giving up activity, i.e. a passive response to events. A review of the correlation matrix of isolated individual connections in the case of our results shows that only depression and disintegration

provide a negative correlation with physical health.

The traits of depression and disintegration, by their very nature, point out a deficit of psychological functionality, and a loss of meaning in carrying out various activities, i.e. disharmony with the world in which a person lives. Since general discontent with the self, others and the world has a significantly positive linear connection with poor physical health, it could be assumed, from the evolutionist point of view, that withdrawal and passivity are not evolutionary supported strategies. This finding is in accordance with the basic evolutionary principle of survival (Gutiérrez, et al., 2013; Penke, Denissen, & Miller, 2007). Even though this information could be interpreted as poor physical health contributing to a pessimistic perception of the self and others, in both cases it is in harmony with the general theory of adaptation. Mechanisms of adaption and pro-activity are evolutionarily tenable, but withdrawal and passivity are not. It seems to us that we could interpret the finding of DeNeve and Cooper (1998) in that direction. In comparison with another 136 traits of personality, repressive defensiveness has the strongest negative correlation with the subjective well-being. Repressive defensiveness is a passive strategy for coping with stress and deals with the extent to which a person denies the existence of threatening information (Eberhart, Auerbach, Bigda-Peyton, & Abela 2011).

The second important finding in this study concerns the absence of any correlation between certain negative personal characteristics such as destructivity, irrational beliefs, intolerance and narcissism, the perception of others as rivals/enemies, dominance, and ethical deficit with poor physical health, i.e. illness. The obtained results interpreted in accordance with the evolutionary logic of survival could be understood in the following way: an individual's proactivity and adaptability is a more superior survival strategy than passivity and withdrawal. According to our results, a proactive approach to challenges at work, even in the case of ethical deficit (Ambitiousness configuration) is superior to the configuration of General Discontent with the Self and Others in terms of the physical well-being and health.

As our findings suggest, the persons prone to unethical activity and destructivity, which can be the case with the configurations of Ambitiousness and Destructive Orientation, are not of poorer physical health than those who are not so inclined, but the persons discontent with the self, others and the world are. Therefore, if physical health is supported by adaptive mechanisms which essentially do not have to be socially desirable, we then encounter the controversial aspect of the subjective well-being.

An elaboration of the intrapersonal and interpersonal significance of the obtained results brings into question the implicit assumption of positive psychology. These principles and assumptions of positive psychology made a significant contribution to the creation of the concept of human resource management in organisational psychology and management (Greenberg, & Baron, 1998). For instance, in organisational psychology and the field of human resource management, the well-being of employees is set as an important goal, with the assumption being that the well-being of the individual directly and rectilinearly contributes to the well-being of the working group, and in turn to that of the whole organisation and social community. In the light of our data, the well-being of the individual could also have a counter effect on a wider group or organisation, for example white collar crime. An example of that could be the latent set called Destructivity which is represented by intolerance and destructivity, and Ambitiousness which saturates narcissism, the perception of others as rivals/enemies, dominance, ethical deficit, and an aspiration to realize an exceptional success in life.

Research Limitations

This study has two basic limitations. The first limitation stems from the sample which is apposite and relatively homogeneous and therefore does not allow the generalisation of conclusions.

Secondly, the correlation matrix does not allow explicit conclusions about causal links. The limitation relates to the inability of a causal explanation in the case of correlations between the mental and the physical. Nevertheless, the obtained results are valuable for understanding the complex relations of the psychological correlates of the physical health.

Theoretical and practical implications

The gained results have significant theoretical and practical implications. In the theoretical sense, our results are in harmony with the holistic interactionist and evolutionary approaches. Namely, there is a correlation between psychological characteristics and physical health in some cases, but in others this correlation is neither direct nor significant. However, since the correlation matrix does not allow conclusions related to the causal connections and determined directions of the researched variables, the epiphenomenalist

interpretation would also be possible: poor physical health contributes to a general discontent with the self, others and the world. The analysis of the contents of the claims which saturate the factor of General Discontent with the Self and Others indicates the general position of resignation, discontent and lack of readiness for a more active attitude in the realisation of personal goals. Therefore, a correlation between active/passive strategies of adaptation and the subjective well-being can be assumed.

Further, in the conceptual sense, the obtained data suggest the need to differentiate between the intrapersonal, interpersonal, group and social well-being. The results also suggest that it makes sense to include physical health into a research on the subjective well-being as the critical criterion for understanding and differences between the intrapersonal and interpersonal significance of well-being. What remains particularly interesting is the question as to whether different kinds of social support and social response to desirable and undesirable strategies of adaptation could moderate evolutionary selection criteria (Buss et al, 1998).

In the methodological sense, the data indicate the need for the introduction of qualitative methods for further research into the negative relations between factors such as General Discontent with the Self and Others and poor physical health, i.e. illness. That would serve to further verify the evolutionary biologist assumption about the sustainability of active strategies in encounters with different life challenges. It would also be useful to test the obtained latent structure on samples of deprived social groups and thus verify the contribution of contextual and socioeconomic variables of the psychophysical well-being. Even though our findings, in the theoretical sense, question certain assumptions of positive psychology, from the practical point of view, this study indicates a wider social significance of developing strategies and principles promoted by positive psychology (Seligman et al, 2007).

The results initiate further research in two directions. Firstly, through implicit assumptions about the self, other people and the world, several latent psychological structures may be set aside. It would be of importance to verify the hypothesis about the different strategies of adaptation and the relative significance of SWB for the individual and the groups to which this individual belongs.

Conclusion

The significance and prediction of the subjective well-being is possible as a relative category determined by the interrelations between the aforementioned dimensions and criteria at work. The individual subjective well-being does not, in every case, have to be in harmony with that of wider social groups (Funder, 2007). Also, the relativity of the criteria of well-being is linked to the different interactions between certain psychological configurations and life and social challenges (Friedman, & Kern, 2014). If physical health is considered to be an important element of the subjective well-being and an index of an individual's successful adaptation to life and work challenges, our results indicate that engagement and finding meaning in such engagement seem to be of the greatest importance. Therefore, this general conclusion is in accordance with the principles of positive psychology (Seligman, & Csikszentmihalyi, 2000; Roepke, & Seligman, 2015). However, if we estimate the adaptive value of behaviour through the criteria of physical health then, from the evolutionary perspective, it comes as no surprise that even if the cost is the violation of social and ethical norms, active strategies have a greater adaptive value for individuals than withdrawal and resignation. Some future research should provide answers to the following questions: To what extent is physical health supported by psychological mechanisms of adaptation? How can we resolve the controversy between what is socially desirable and what is evolutionarily supported? How can general discontent with the self and others set in motion an individual's desire to replace strategies of withdrawal with those of activation at work? Can human inventiveness and creativity, in spite of the evolution cultural controversy, be an alternative? How can creativity at work be induced in spite of aforementioned controversy? Those are just some of the questions which need addressing.

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Rezime

Psihološki pokazatelji subjektivnog blagostanja odnose se na nivo zadovoljstva sobom, drugima i svetom. Utvrđeno je da pozitivniji stav prema sebi i drugima i aktivan pristup rešavanju ličnih i profesionalnih izazova doprinose uspešnijem prilagodavanju pojedinca, što se opet reflektuje na bolje fizičko zdravlje. Mi smo pretpostavili da zahtevi za prilagodavanjem koji dolaze kao pritisak iz sredine koja se menja, menjaju značenje koncepta blagostanja u radnom okruženju. Preispitali smo ovu pretpostavku u svetlu podataka dostupnih u literaturi i rezultata sopstvenih istraživanja u kojima su ispitivane mere ličnosti, stresa i zdravlja. Naši rezultati ukazuju na to da treba razlikovati dimenzije i kriterijume koji se koriste u razmatranju fenomena subjektivne dobrobiti, kao što su: psihološke, kulturalne, evolucione, individualne i društvene dimenzije i kriterijumi. Subjektivno blagostanje pojedinca ne mora uvek da bude u skladu sa blagostanjem širih društvenih u radnih grupa. Prema našim nalazima, izgleda da najveći značaj ima radno angažovanje i nalaženje smisla u takvom angažovanju. Međutim, ako adaptivnu vrednost ponašanja procenjujemo na osnovu kriterijuma fizičkog zdravlja, tada iz ugla evolucionističke perspektive ne iznenađuje da, čak i po cenu kršenja

društvenih i moralnih normi, aktivne strategije za pojedinca imaju veću adaptivnu vrednost od povlačenja i rezignacije. U konceptualnom smislu, prikupljeni podaci sugerišu potrebu razlikovanja intrapersonalnog, interpersonalnog, grupnog i društveog blagostanja. Rezultati takođe sugerišu da ima smisla u istraživanja subjektivnog blagostanja uključiti fizičko zdravlje kao ključni kriterijum za razumevanje i razlikovanje intrapersonalnog i interpersonalnog značaja blagostanja. Takođe smo preispitali i neke ideje u vezi sa zaštitom i unapređivanjem subjektivnog blagostanja u radnom okruženju. Kompleksnost i izazovi socijalnog i profesionalnog takmičenja / saradnje zahteva više pažnje. U kojoj meri je fizičko zdravlje podržano psihološkim adaptivnim mehanizmima? Kako je moguće razrešiti kontroverzu između onoga što je društveno poželjno i onoga što je evoluciono podržano? Kako opšte nezadovoljstvo sobom i drugima može pokrenuti želju pojedinca da strategije povlačenja zameni aktivnim strategijama? Može li ljudska inventivnost i kreativnost, uprkos evoluciono-kulturalnoj kontroverzi, biti alternativa? To su samo neka od pitanja kojima treba posvetiti pažnju.

Ključne reči: *blagostanje u radnom okruženju, intrapersonalne i interpersonalne dimenzije subjektivnog blagostanja, fizičko zdravlje.*

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STEREOSCOPE A VIEWING DEVICE BETWEEN EMPIRICISM AND NATIVISM

Abstract

One of the most important nineteenth-century psychological controversies focused on the concept of stereoscopy, from the Greek στερεός (stereós), “solid”, and σκοπέω (skopein), “to see”, that is, a technique for creating the illusion of depth in an image by means of stereopsis for binocular vision. The controversies referred to the issue whether the origin of the phenomenon was to be considered as innate or gained through experience. The present paper aimed at reconstructing the history of stereoscopy through its devices. Starting from Wheatstone’s stereometer, Hering and Helmholtz’s stereoscopes were carefully analysed thanks to their importance for the nativism/empiricism debate. Both instruments were then the basis for Galifret, Michotte, and Bonaventura’s stereometers, built in the 1920s. Unfortunately, historiographical psychology has forgotten these last devices, although they might bring further insight into the laboratory research carried out in the first period of the institutionalized scientific psychology.

Keywords: *stereoscopy, nativism, empiricism*

The beginnings of...

One of the most important nineteenth-century psychological controversies focused on the concept of stereoscopy, from the Greek στερεός (stereós), “solid”, and σκοπέω (skopein) “to see”, and referred to the issue whether the origin of the phenomenon was to be considered as innate or gained through experience.

The stereoscope, i.e., the apparatus that gives the illusion of a three-dimensional image from two slightly different flat pictures, works when the flat pictures are of identical subjects drawn from viewpoints approximately equal in separation to the distance between the human eyes.

Binocular vision, the means by which the slightly different images seen by the two eyes separately are fused in the brain into one solid image, has a *long* history. The differences in the image seen by the two eyes were described by Euclid about 280 B.C. In his treatise on *Optics* he stated that “to see in relief is to receive by means of each eye the simultaneous impression of two dissimilar images of the same object”. Similar observations were also made by Galen in the second century A.C. In the sixteenth century binocular vision was investigated by several philosophers and scientists, including Leonardo da Vinci and Giambattista della Porta. For Kepler and Descartes, the muscular sensations arising from the convergence of the eyes in binocular vision might have played a role in measuring the proximity of objects.

The principle of stereoscopic vision was established by the English physicist Charles Wheatstone, who had two types of stereoscope constructed by the London opticians Murray and Heath toward the end of 1832 (Wade, 2012). The earliest published mention of Wheatstone’s work on stereoscopic vision – as Wheatstone himself remembered in 1852 (Wheatstone, 1852, p. 1) – appeared in the third edition of Herbert Mayo’s *Outlines of Human Physiology* (1833). In 1838 Wheatstone published the account of his work in a long paper, *Contributions to the Physiology of Vision* (Wheatstone, 1838) to the Royal Society that included details of a reflecting stereoscope. “It being thus established – Wheatstone wondered – that the mind perceives an object of three dimensions by means of the two dissimilar pictures projected by it on the two retinae, the following question occurs: What would be the visual effect of simultaneously presenting to each eye, instead of the object itself, its projection on a plane surface as it appears to that eye?” (Wheatstone, 1838, p. 373). The “Stereoscope to indicate its property of representing solid figures” (Wheatstone, 1838, p. 374), as Wheatstone called it, served to solve this test. Two images were fixed at opposite ends of a horizontal bar so that they faced a pair of central mirrors sited midway between them at right angles to each

other. An observer facing the mirrors would have seen the two reflected images simultaneously as one solid image.

Wheatstone showed only limited interest in exploiting the reflecting stereoscope commercially, but a development of another of his earlier instruments, a refracting stereoscope, was described by David Brewster in 1849. Brewster's stereoscope, a more compact apparatus, used prisms or lenses in a binocular eyepiece to view two small images side by side (Brewster, 1856). An adaptation of Brewster's instrument made by the Parisian optician Jules Duboscq was shown at London's Great Exhibition of 1851 and aroused the admiration of Queen Victoria. A mass market for stereoscopic devices was soon established. The stereoscope, often in ornate forms, became a common feature in the nineteenth century homes and also one of the most popular scientific toys of the age (Turner, 1983), such as the kaleidoscope and the zoetrope.

In 1852 Wheatstone introduced another instrument, the pseudoscope, to study the relationship between binocular and monocular cues, as well as the role of experience and tactile information in space perception. In the pseudoscope, as he outlined opening the research on the mental aspect of depth perception, "convey to the mind false perceptions of all external objects [...] external objects and our internal perceptions have no longer their habitual relation with each other" (Wheatstone, 1852, p. 12).

Empiricism vs. nativism: At the origin of the controversy

In 1857 Hermann von Helmholtz devised an instrument, the telestereoscope for observing natural subjects and noticed that stereoscopic pictures with artificially enhanced depth gave "a much clearer representation of the form of a landscape than the view of the landscape itself" (Helmholtz, 1857; 1910, pp. 647-648). A system of mirrors was employed to present images from two widely separated points to the eyes. Helmholtz observed that the resulting impressions "assume the same bodily appearance as in the stereoscope, and retain at the same time the whole richness of the natural colours, so that images of surprising beauty and elegance are obtained".

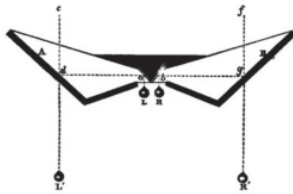


Figure 1: Helmholtz's Telestereoscope

This was the beginning of the so-called Hering-Helmholtz controversy, shaped on the different perspectives followed by the two scientists in interpreting the origins of human capacity to perceive space, the retinal mechanisms that mediate colour sensations, and the role of mind, experience, and inference in vision (Turner, 1993; Turner, 1994).

Influenced by the empirical philosophers, such as Hume, Helmholtz was convinced that "the sensations of the senses are tokens for consciousness, it being left to our intelligence to learn how to comprehend their meaning [...]. The only psychic activity required for this purpose is the regularly recurrent association between two ideas which have often been connected before" (Helmholtz, 1910, pp. 533-535). He was clearly inclined therefore to empiricism, as "in any event, even if this anatomical mechanism exists, it is merely conducive, and not obligatory". On the contrary, Hering insisted that basic sensory and perceptual mechanisms were innate and a product of evolution.

More precisely, in the debate about the visual direction, Helmholtz agreed with Hering's analysis in which the direction of an object is perceived with reference to a cyclopean point midway between the eyes. Helmholtz claimed that the fact that people with restored sight could not recognise simple objects proved that spatial vision had to be learned. As for Hering, each point in each retina had a local sign composed of three space values: its elevation, azimuth, and depth. Consequently, he developed a theory of depth values, according to which points on the nasal retina had positive depth values, whereas those on the temporal retina had negative values. Images with a positive depth value appear beyond the convergence plane, even when only one eye is open. Images with a negative depth value appear nearer than the convergence plane. The depth values of images falling on corresponding points in the two retinas are equal and opposite and the object that creates them lies in the horopter, that is, the locus of all points in space that give nondisparate images, i.e., zero binocular disparity, at a given degree of convergence (Hering, 1861, 1879).

Various theories about the explanation of the horopter were worked out by physicians and physiologists (Wheatstone, Brewster, Müller, Brücke, Prévost, Dove, Aubert, Donders, August, etc.). The ample existing literature on this debate induces marginal considerations of this issue.

However, as for Helmholtz's concept of the horopter, it is based upon the assumptions that: 1) as there are ocular movements, the horizontal retinal meridians are coincident with the visual plane when the eyes are in the primary position, and 2) the apparently vertical retinal meridians are inclined so that, if one retina is placed over the other with their horizontal meridians coincident, the apparently vertical meridians will cross each other.

On the contrary, Hering argued that the ability to experience objects as a single, spatially ordered image was a disposition inborn in human children, and not acquired, being ocular movements automatic and involuntary. His starting point was that when individual points of the retina were stimulated, both feelings of direction and of depth were aroused in addition to sensations of colour. The feeling of depth is supposed to have equal and opposite values for each pair of corresponding points, but for any pair of retinal points which are symmetrically situated, these values are equal and of the same sign. Moreover, when two impressions on corresponding points are fused, the total impression has the mean value of both feelings of direction and of depth. More precisely, when the lines of sight are symmetrically parallel, the horopter includes practically the entire field of vision beyond a short distance from the eyes. Hering called this a horizontal horopter. When the eyes are converged upon some nearer point, there is a longitudinal horopter which is a cylindrical surface composed of a straight line perpendicular to the visual plane which falls upon the corresponding longitudinal sections of the two eyes. Objects on the longitudinal horopter should appear as if they were in a plane perpendicular to the line of fixation. He called this plane the *Kernfläche*.

The Heringian theory was supported by experimental proofs carried out by the use of a particular device, the *stereometer*. It measured binocular vision in the perception of depth. Looking through holes in a box, the observer had to lay out the two rectangular figures to the vertical central bar.

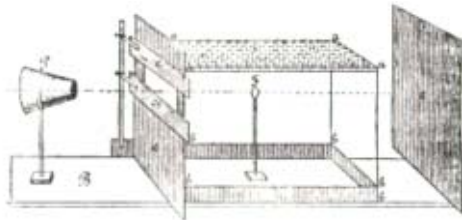


Figure 2: Hering's Stereometer

The controversy continues...

New models of the instrument were constructed in 1901 by Pulfrich with his *stereo-comparator* (Pulfrich, 1902), in 1902 by Bourdon (1902), in 1908 by James Brooksbank with his *distance stereoscope* (1908), in 1919 by Horvard (1919), in 1923 by Andersen and Weymouth (1923), in 1926 by Langlands (1926).

As for the stereo-comparator, Carl Pulfrich communicated his idea to a Heidelberg astronomer, Max Wolf in May 1900 (Pulfrich, 1902, p. 229), who used it in his research, and the following year he demonstrated a prototype showing a three-dimensional image of the moons of Saturn at the meeting of the international Astronomische Gesellschaft in September 1901. Some of the experimentations were carried out at the Zoological Station "A. Dohrn" in Naples (Italy) (Pulfrich, 1902, p. 179).

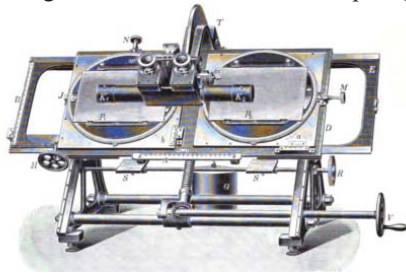


Figure 3: Pulfrich's Stereocomparator

Using a pair of perforated discs, Benjamin Bourdon demonstrated that the stereoscopic effect could occur even though the stimuli received by the two eyes were not strictly simultaneous (1902, p. 269). As for the epistemological perspective, he preferred to remain neutral on the assumption that “experimental psychology is neither materialistic nor empiricist or rationalist; it is mere a scientific discipline, i.e., it is connected to the observation of psychological phenomena, it experiments when possible and makes use of instruments similar to those utilized by physics and physiology in order to observe and to experiment” (Bourdon, 1896, p. 227).

In 1919, Havey J. Howard made up a model according to specifications set by the army and navy air services to test the size of the retinal image and the binocular parallax (Howard, 1919). The starting point was the criticism to the old test for stereoscopic vision, carried out with a hand stereoscope, a device that did not allow a satisfactory measurement of flyers’ stereoscopic vision. As the 1919 Manual of Medical Research Laboratory reported, “Speaking of error of judgement in flying as a cause of aeroplane accidents, Anderson states that this accident may occur in getting off the ground, in the air, or when landing” (Howard, 1919, p. 196).

The apparatus was a slight modification of that devised by Brooksbank. It consisted of a three-sided box, the open side being placed uppermost. In the front of the box, there was an opening which could be closed by means of a shutter. A board passing from the front to the back attached to the floor carried a scale, the lines of which were 0.5 cm. apart. The markings of the scale were crossed at right angles by two parallel lines placed 6 mm. apart. Holes were bored at the points of crossing, and into the holes could be fitted rods with pointed ends, the length of each rod being 26 mm. and the diameter being 1 cm. The interior of the apparatus was black, with the exception of the back wall which was of dead white cardboard. A strong light was fitted in the interior in such a way that it illumined the white wall, and was out of the direct line of vision of the observer. The apparatus stood on a table placed at a distance of 6 m. from the observer, who sat at another table, his head being kept steady by means of a forehead rest, which was clamped to the table. The room was completely darkened except for the light within the box.

The operator stood beside the box and raised the shutter suddenly and the observer had practically an instantaneous view of the rods, which were thrown into strong relief against the white background. He was asked to state whether the right or the left rod was nearer to him, and was told that at no time the rods were equidistant from his eyes. Every effort was made to deceive him in regard to the position of the rods, in order to test his judgement severely. A pack of 20 blank playing cards, 10 of which were labelled right and 10 left, were shuffled before the test, and used to determine the position given to the rods. Twenty judgements were taken at each of the five stations. The difference in distance between the near and the far object was termed *depth difference*, and the angle subtended by the depth distance was the *binocular parallax angle*.

Twenty-one years later, Albert Michotte perfected the instrument. Michotte was well-known for his research on the perception of causality, which he, starting from a gestalt point of view, considered as a primitive phenomenal datum which could not be reduced to an interpretation based on experience and acquired knowledge. As he recognized, “three dimensionality and reality are different properties of our perceptions and must be considered as independent dimensions of our visual experience” (Michotte, 1960, p. 181). It was not by chance that Michotte called his perspective “experimental phenomenology”, following the teachings of his teacher, Oskar Külpe. Consequently, the data gained from the stereometer added more value to the innatist conception of depth perception (Thinès, Costall, & Butterworth, 1991).

The device was built by the French firm Pierre Dufour in the 1930s. Made of metal alloy, plastic material, and string, the stereometer consisted of a rectangular metallic tray on which a fixed rod and a mobile trolley were assembled: both of them were equipped with needles of different thickness. Two small strings were linked to the mobile trolley. As for the tray, it had got its lower side graded, the anterior one was provided by a tiny window, whereas the rear by a lighting system. While the test was carried out, the subject with a standard sight, seated in front of the window at a distance of 4-5 m., had to manipulate the mobile needles by pulling two strings in order to place both of them at the same level. The proof was repeated 20 times with different measurements. The examiner reported each time the difference existing between the position in which the movable rods were stopped and the position of the fixed ones. The latter were placed on the zero point of a centimetre scale. 20 trials were taken for monocular vision and 20 trials for binocular vision. The examiner had to work out the algebraic mean of the differences by calculating the systematic error in each situation (i.e. in binocular and monocular vision), and verify the significance of these errors. Finally he had to compare the algebraic means and the variances of the two series of the obtained measures.

In 1940, Yves Galifret tried out Michotte's experimentations with the same device built this time by the French firm Etablissements d'Applications Psychotechniques (Galifret, 1940, pp. 169-170) with some changes. In order to facilitate the understanding of the delivery of the task, the strings were three. The middle one was mobile (Galifret, 1940, p. 188). After applying the classic psychophysical methods, that is, the method of limits, the method of constant stimuli, and the method of average error, he confirmed Michotte's perspective (Galifret, 1940).

However, the empiristic perspective had not been forgotten. Following the research on depth perception carried out by Bourdon (1902), in 1931, the Italian psychologist Enzo Bonaventura began his experimentations in order to prove the action of binocular parallax on depth perception not only on a quantitative level, but also from a qualitative point of view (Bonaventura, 1931). To this end he modified the traditional experiment by first putting the stereometer in a dark room, and then by lighting the surfaces exposed to the comparative observation. As in the numerous proofs the stereoscopic acuity was cancelled, Bonaventura postulated that the theory of space had to be considered as a genetic one (Bonaventura, 1949).

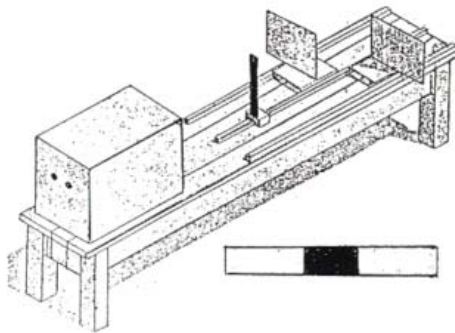


Figure 4: Galifret's Stereometer

The controversy on depth perception became therefore an important laboratory proof which scientists are still working on. This is one of the so many reasons why the study of the issue ought to be continued.

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Rezime

Jedna od najvažnih psiholoških kontroverzi u devetnaestom veku zasnovana je na pojmu stereoskopije, reči nastale od grčkih imenica "stereos", što znači "čvrst" i "skopein", što znači "videti". Radi se o tehnici kojom se stvara iluzija dubine na slici posredstvom binokularnog vida. Kontroverze su bile bazirane na pitanju da li poreklo fenomena smatrati urođenim ili stečenim kroz iskustvo. Ovaj rad ima za cilj da rekonstruiše istoriju stereoskopije kroz njene uređaje. Pažljivo se analiziraju Vitstonov stereometar, potom Heringov i Helmholtzov stereoskopski uređaj, zbog njihove važnosti u raspravi nativizam/empirizam. Ta dva uređaja postala su uzor za Galifretov, Mičotov i Bonaventurin stereometar, koji je konstruisan 1920. godine. Nažalost, istoriografija psihologije nije uzela u obzir ove poslednje uređaje, iako su oni mogli da pruže dalji doprinos laboratorijskim istraživanjima sprovedenim u prvom periodu institucionalne naučne psihologije.

Ključne reči: *stereoskopija, nativizam, empirizam*

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THE PRODUCTION OF SUBJECTIVITIES IN A NETWORK: FOLLOWING THE CLUES OF AN APPLIED PSYCHOLOGY DIVISION³

Abstract

This paper aims at shedding some light on the different ways of producing subjectivities engendered by psychological practices. This research is based on the concepts from Political Epistemology and the Actor's Network Theory. To these authors, scientific knowledge is produced as articulation between researchers, techniques of inscription, allies and investigated entities. To investigate these modes of articulation produced by psychological practices, some networks produced by therapeutic practices were observed. Specifically these techniques coming from different directions (psychoanalysis, cognitive behavioural therapy, gestalt therapy and institutional analysis) are currently being followed in the DPA (Division of Applied Psychology) at UFRJ (Brazil). To achieve this target, in addition to the description of the artefacts present in therapeutic practices, patients and trainees were interviewed. In all these conversations, it is possible to highlight the nonlinear modes of negotiation that exist between the DPA teams considering the practices, time of the therapy and the possibility of referral.

Key words: *subjectivation process; actor's network theory; political epistemology; clinical psychology; recalcitrance*

Conceptual discussion

The vast majority of therapeutic practices in psychology seek to differentiate themselves from other practices placed in the margin and outside the scientific threshold through the use of several mechanisms. Traditionally, these are objectifying methods such as templates, concepts and the so-called scientific methods. However, such *psi* therapeutic approaches also possess two characteristic features: 1) the rejection of suggestion and influence, which could justify the success of other practices that were created "at the margin of science", 2) secrecy as a dual mode of creation, both of professional competence and of patient demand (Despret, 2011).

The key assumption on the part of most supposedly scientific therapeutic practices is simply that influence and suggestion ensure the success of other extra-scientific practices. In this case, influence and suggestion become counter-explanations, which make them true placebo effects if they are compared with the "solid" results obtained by the so-called scientific therapies. These supposedly produce stable results based on a true representation of the truth that the subject (or an organism) bears, with no production of artifice. In this sense the distinction was made, for instance, by Freud (and borrowed from Leonardo da Vinci) between psychoanalysis and suggestive therapies. Leonardo da Vinci made a distinction between two modes of artistic production, *per via di porre* (painting) and *per via di levare* (sculpture): the first functioned by adding colours onto the canvas while the second revealed a work of art that was hidden in the rough stone. To Freud (1969), the path of psychoanalysis is similar to that of sculpture (*levare*), while suggestive therapies are akin to painting (*porre*). This distinction was supposedly present in a series of historical narratives in which psychological therapies had their origins or prehistory in the practices of witchcraft or

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Authors submitted their paper text in English to be published in this thematic proceedia.

shamanism (based on influence), which were continued or surpassed. However, these practices were improved inside a scientific framework (see, for instance, Ellenberger, 1976).

Authors such as Vinciane Despret, Isabelle Stengers, Thobie Nathan and Bruno Latour, however, propose another perspective to evaluate this passage. For them, influence only poses a problem from an epistemological perspective, which assumes that scientific knowledge is obtained through the purification of data in which the researcher's task is only to represent the objects with properly constructed statements. On the other hand, for these authors knowledge is always produced with the articulation and co-affectation between entities, in the production of unexpected effects, and not in any representational leap.

For Despret, scientific knowledge operates on the margins of the "misunderstanding of realization", such as "that, in which events can be actualized simply because the promise they contain can come true" (Despret, 2002, p. 92). In this sense, a misunderstanding is not regarded as a parasitic influence that needs to be purified, but rather as an effective promise in the relationship between researchers and researched subjects involved in the production of knowledge. This is similar to what James (1996) named "the will to believe."

As an articulation, scientific knowledge is no longer differentiated between bad and good representations of a state of affairs, but rather between bad and good articulations. In the former case, we have a situation in which the articulation is extorted or subject to a timely response, leading the researched subjects into the position of "docility." In the latter, we have an articulation where the answer goes beyond the mere response, creating a risk of invalidating the questions and propositions of the researcher and also creating the possibility of the proposal of new perspectives by the researched subjects. This constitutes a recalcitrant relationship.

Contrary to what some thinkers like Herbert Marcuse presume, for whom the possibility of denial or resistance is a characteristic mark of human beings, these authors oppose the recalcitrance of non-human beings with the docility and obedience of human beings regarding scientific authorities:

"Contrary to non-humans, humans have a strong tendency, when placed in the presence of a scientific authority, to abandon any recalcitrance and behave like obedient objects to investigators by only offering redundant statements, then comforting these researchers in the belief that they produce robust 'scientific' facts..." (Latour, 2004, p. 217).

For Latour (1997, p.301), the human sciences would only really become a science if they did not imitate the objectivity of natural sciences but its possibility of recalcitrance. Thus, for example, Stengers states that if psychoanalysis can invent a device that enables the subjects to use free discourse (Stengers, 1989), or even a laboratory for the production of controlled transference (Stengers, 1992), it prevents the risk through a transcendental reasoning on the concept of the unconscious (Stengers, 1989) and on the asymmetric placement of the problem of influence beyond its boundaries (Stengers, 1992). For this author, psychoanalysis is only subject to risk and recalcitrance when hypnosis and influence (which were cast away in the definition of its boundaries) are taken again into account.

In short, how does this concept of knowledge beyond epistemology situate the effects of subjectivity provided by psychology?

- 1) By stating that the production of a subjectivity goes beyond being an accident or an undesired effect of the process of "the unveiling of our true subjectivity," and rather marks this co-articulation itself among the agents involved in the process of the creation of knowledge.
- 2) When it examines the topic of influence not only through the criticism of its exclusion from the clinical domain (Stengers, 1989 & 1992), but in a more positive way through Nathan's approach (1996). Here the meaning of therapy is related to that which Latour (1998) calls the production of "artificial egos".
- 3) In accepting that the production of a subjectivity is a crucial part of the scientific and the clinical process, and that these can no longer be evaluated in terms of objectivity or detachment from the practices of everyday life, but in terms of recalcitrance or docility. How can we apply this distinction in our field?

Despret (2004) asserts that the possibility of recalcitrance in psychological testimonies, which is quite rare, is even more difficult to achieve due to devices that place participants in a "naive" position, not knowing what the aim of the research is. Subjects without the excellence of expertise do not pose a risk of taking up a position in investigations (p. 97). Current psychological laboratories are based on this arrangement. And we could also add many clinical devices that have been made impregnable by the position

of scientific authority of the researcher and by certain concepts such as resistance, where the statement of truth is a task reserved only for the analyst, even when the individual that is being analyzed disagrees. In this case, the patient's refusal only points to a stronger confirmation of the interpretation of the therapist, with no possibility of jeopardizing the clinical device.

This mechanism of docility in the clinical field (created due to the authority of the therapist) is reinforced in the dual policy of secrecy as highlighted by Despret (2011). First, in transforming everything that might generate a symptom in the patient into a private secret. And second, the therapist's intervention is executed in the same confidential manner, turning this into the mark of his or her professional competence. Here it is worth investigating what this dual segregating mechanism produces. For this, the author makes use of the etymological origin of the word "secret" as the past participle (*secretus*) of the Latin verb *scenere* (to separate). Thus, these practices of secrecy are equally "secreting" and "segregating", separating the private domain from the public through a subjective construct. It is in the private domain where one produces the intimate truth of the disease that can be treated only through secrecy by the therapists.

One consequence of this secreting - segregating policy of intimate truths is the "the unnamed effect" that transforms the patients' discourse into an anonymous authorship when reporting their cases. This anonymity is initially justified as a way of protecting patients, safeguarding (and certainly producing) their intimate sphere. But one might as well understand this protection as being not only for the patients but also for the therapists, safeguarding them from the public domain that is open to criticism. However, this anonymity contrasts with the authorship of the therapists and indicates a clear asymmetry in the field of the production of knowledge, in a similar way as the "naive subject" device in the laboratory. The investigated subject in the laboratory and the patient undergoing therapy at the clinic are assigned predetermined spaces: for the first, that of exact responses and for the second, that of symptoms and intimate secrets. Both are anonymous in a production of knowledge starved (and almost monopolized) by the psi professional, whether he or she is a researcher or a therapist.

What could be a possible alternative to the interaction of these "micro-powers"? Despret (2004, p. 102) indicates a possibility for psychological devices: these can be "the place of exploration and creation that humans can be capable of when one deals with them with the confidence that one reserves for experts." In other words, it involves a psychology that no longer seeks the monochord testimony of a universal law in a secret or in the reactions of the subjects to predetermined conditions, but that seeks ever newer versions of the ways that we can create ourselves as subjects through the performance of the researched subjects. This approach does not contain any previous naturalizing principle to evaluate the daily affairs and transcendental foundations of our existence, for any principle can only be defined in the different and multiple articulations of our versions (including those of our everyday lives).

Empirical methodology

This research is being developed at the Division of Applied Psychology (DAP) of the Institute of Psychology of UFRJ (The Federal University of Rio de Janeiro), in order to follow the diverse ways in which some psychological guidelines provide distinct types of production of subjectivity. For this, research is being done through field observations of the transformations of the participants (patients, interns and coordinators) when those come into contact with different psychological services, following the many ways in which these subjects are formed through the articulations with very specific devices. Such follow-ups will make use of some parameters of the Actor-Network Theory and Political Epistemology:

- A) The participants will be taken as experts on the topic, without any division between common and scientific knowledge.
- B) Being experts, they will be asked for definitions of psychology and of psychologists, but also about what brings them to a certain service, their expectations and interpretations that they make of their demand.

In the difficulties of being able to monitor the therapeutic activities or even attending the training meetings (due to the importance of secrecy), the method par excellence is that of open interviews. However, there will be a notebook for field observations. This notebook will have the role of providing access to the very process in which the reports of the several actors involved in the research are provided, as it is defined by the cartographic (Kastrup, Passos, and Escóssia, 2010) and ethnographic (Caiafa, 2007) methods. In both, not only the procedures and power plays present in the act of research are taken into account, but also the co-production and co-engendering processes between investigators and researched subjects.

The base questionnaire will work as a general script, allowing an open space for the hints and indications of the participants. In order to prevent the questions from being seen as a test of knowledge, they

will often ask the participant to explain the subject as if they were talking to a non-specialist. In this way we expect that the participants can assume a position of expertise that is more recalcitrant than the one present in traditional psychological research. In the same way we will ask them to expose issues that they understand as being crucial to research.

With the aim of keeping the plurality of different versions in psychology, we approached five distinct stages of the guidelines offered in the Division of Applied Psychology at UFRJ:

- a) Psychoanalysis;
- b) Humanistic Psychology;
- c) Cognitive Behavioural Therapy;
- d) Gestalt Therapy;
- e) Institutional Analysis.

In each intern service we interviewed:

- 1) Patients newly entered into therapy;
- 2) Interns responsible for the cases;
- 3) Interns responsible for screening at DPA/UFRJ.

Besides these people referenced in each of the five stages, we will interview some of the students that are responsible for the screening of the patients at DPA/UFRJ.

For this we prepared three distinct interview scripts:

- 1) Patients newly entered into the services of DPA/UFRJ;
- 2) For interns of the stages at DPA/UFRJ;
- 3) For interns responsible for screening at DPA/UFRJ;

Here are the specific scripts:

1) For patients newly entered into the services of DPA/UFRJ;

- a) What is psychology in your point of view?
- b) What is psychological therapy in your point of view?
- c) In what ways do you think that psychology can help anyone, including you?
- d) What change do you expect from this treatment?
- e) Do you think that this psychological treatment is best suited for the reason that brought you here?
- f) Do you know what approach (current, theory, trend) of treatment you will do?
- g) What do you know or have heard of the approach (line/school/guidance) in which you will be treated? Do you know other approaches?
- h) Suppose you were in our place as researchers on the presence of psychology in people's lives, what would you find interesting to ask?
- i) How would you answer this question?

2) For trainees of DPA/UFRJ services:

- a) What is psychology in your point of view?
- b) What is psychological therapy in your point of view?
- c) Do you find it difficult to integrate theory and clinical practice?
- d) What is your vision of healing in the psychological treatment?
- e) How would you describe the moment of the first meeting with the patient? Is it necessary to explain to them what will happen during the sessions?
- f) What act, gesture or therapy procedure do you consider the most important in treatment?
- g) What do you think changes in patients' lives after the intervention of their training group?
- h) Do you think the line you train in is the most appropriate for most of the demands present in the DPA?
- i) How do you see the relationship of your line of intervention with the other lines of psychological treatment?
- j) Would you forward a client of yours to another treatment line?
- k) In your opinion, in which cases would this referral be appropriate?
- l) How do treated people think and understand psychology and therapy?
- m) How does this influence or interfere with the therapy?

n) h) Suppose you were in our place as researchers on the presence of psychology in people's lives, what would you find interesting to ask?

o) How would you answer this question?

3) Script for training screening personnel at DPA/UFRJ:

a) Do you see that certain cases are referred to certain treatments during screening?

b) What is your mode of referring the patients when they come for screening?

c) Would you propose another way to refer them?

d) How would you describe the moment of the first meeting with the patient? Is it necessary to clarify something about the treatment?

e) h) Suppose you were in our place as researchers on the presence of psychology in people's lives, what would you find interesting to ask?

f) How would you answer this question?

The participants of this research are recruited differently. The interns are contacted in a meeting with the training staff. The patients who entered into the intern treatment are contacted by the teams themselves. Considering the participants as experts on the topic of the research, all data obtained by interviews is being considered, except for those in which participants refuse to have their data used by the research (according to an informed consent agreement that will be provided).

Field description

The issue of time pervaded our field many times. The concern with this question appears to be a point of intersection between different interviewed teams. In the very first moment of contact with the teams, more than one raised the question of when a possible second interview with their patients could be (considering the possibility of a more expert interview). How long would be enough for us to observe a significant change of discourse regarding the therapy? After the first contact with the teams, we are mindful of the need to negotiate with each team. In the CBT, for example, the end of the therapy date was already given beforehand, our study would only follow their schedule, and we made sure that the first interviews were conducted without delay so that the interval between the two interviews would not be too short. The end of the therapy was defined in approximately two months.

The precise definition on the part of the CBT team, on the other hand, almost made it impossible to establish a time for the second interview with the Psychoanalysis team. It seemed so absurd to them to have to delimit beforehand an interval for therapy stabilization that an interminable dialogue followed, in which we asked a question only to be asked back: "what are your research time needs?" Finally one of our interns summed it up: "You do not want to take responsibility for choosing a random time, do you?" This was confirmed by the team supervisor. We suggested the random period of eight months and they agreed.

With other teams, such as Gestalt Therapy and Institutional Analysis, the supervisors place themselves in the position of an expert that we sought for the researched subjects in our research. For instance, the Institutional Analysis supervisor used the Deleuzian distinction between Chronos and Aion to think that the time present in a therapy situation is that of Aion. The notion of the "stabilization of therapy", which was the term we used, was called into question as something that did not belong to the order of linearity, and at the same time the issue of research required some degree of linearity. In other words, the question was similar to the one raised by the psychoanalysis team. The solution they suggested was that contact should be maintained between the two teams and that the period should be singularly decided in each case.

Another moment where the issue of time came up was during the interviews with the screening interns. For the other teams (psychoanalysis and institutional analysis) the question of respecting the singularity of time was placed clearly as an ethical question. And even if, as we know, this issue is theorized within the conceptual field of these approaches, surprisingly it was from an intern of the CBT team that we heard the most passionate speech about ethics and the duration of therapy. At the final moment of the interview we asked a question that Despret (2011) suggests to us as being a possible opening for the interviewee to place questions about the research. We asked what the person would ask if she were conducting the same research. This is how the intern expressed it:

"The problem is time. So, what interested me, what caught my attention at the CBT was exactly the time.... It is a very practical question; people do not have time and money to spend 20 years in therapy. Right? So, well, this caught my attention at the CBT: I will stay 20 years with the patient. Because he does not have time and money

for that and I do not think it's fair, I do not think it is therapeutic for him to depend on me to live. I do not want him to rely on me to live... Perhaps what you might ask is a little about this thought: ... Do you think that people need... this same time, right? ... How is it that you deal with this? How is it that you deal with knowing that... suddenly your theoretical approach persists for one year, the other for twenty... What do you think is fair? For you and for the patient, you know? ... As for me, this is my opinion. I would not be able to work with a patient, stay with him for years on end. Again, it's not that he cannot get better... But to me, it makes no sense... This idea of staying a long time with a patient never appealed to me."

One of the objectives we were pursuing with this research at the DPA was to understand how the negotiation of meanings between such different lines of thought with different parameters can happen in this common space. Bruno Latour (2001), when speaking about the creation of scientific concepts, coined the concept of "immutable mobiles", they would allow new translations and articulations, while keeping some forms of relationships intact. In psychology, Ferreira (2005) points out that, unlike other sciences, there would be several "mutable immobiles"; they are immobile because they are restricted to a certain project or version, and mutable thanks to their potency for producing subjectivity in connection with their witnesses and public consumers.

At various moments in which the relationship between different teams was taken into account, the question was posed in terms of the differences between psychoanalysis and CBT, perhaps because they are the most hegemonic approaches, both in psychology and in the DPA itself. These are also the two approaches in which one can observe a greater rivalry, both in the theoretical field and in the field of practice. We brought up the issue of the possibility of referring a patient during the screening to a different team than that of the intern. We wanted to know also if there would be certain demands that were seen as preferential to a certain team. In all the interviews we did not perceive any kind of negotiation involving the perception that a given therapy was best suited for a particular problem.

Equally, what came up massively in the speeches was the question that the referral was possibly directed at the team that had a vacancy at the time. At the same time, until that moment we had not heard any concrete account of referral in this regard. The embarrassment generated by this apparent contradiction, perceived in the speeches as a willingness of the trainees to confirm our hypothesis in the possibility of referral even when it could not be sustained, has placed a new issue for us. Would we not be generating docility, producing a diplomatic response, with this question about the referral? Posing the question as if it were possible to have a dialogue in a space of equivalence between approaches?

In our view, which intends to assign an important role to the type of relationship that exists between researchers and researched subjects, being mindful of the production of docility or recalcitrance in this relationship is a crucial issue in the construction of the research and is seen as a mapping of these processes. What we can conclude in this research phase is the importance of following the issues raised by the researched subjects: abandoning what seemed to us like an imposition of questions on our part and following the issues that were pointed out in the field. In this sense we suppose to increase the recalcitrance and the possibility of new versions of the therapeutic processes.

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Rezime

Cilj ovog rada je da osvetli različite načine na koje psihološke prakse doprinose stvaranju subjektivnosti. Istraživanje se oslanja na ideje iz političke epistemologije i teorije mreže aktera. Autori polaze od pretpostavke da se naučno znanje artikuliše u odnosu između istraživača, tehnika pisanja i entiteta koje se istražuju. Kako bismo istražili oblike ove artikulacije specifične za psihološku praksu, posmatrali smo mreže koje su nastale kao posledica terapijskih praksi. Terapijske tehnike poreklom iz različitih škola (psihoanalize, kognitivno-bihevioralne terapije, geštalta i institucionalnog staranja) su trenutno predmet istraživanja Odseka za primenjenu psihologiju na Federalnom univerzitetu Rio de Žaneira (UFRJ, Brazil). Kao deo ovog projekta, pored opisa artefakata prisutnih u terapijskoj praksi, obavljani su intervjui sa pacijentima i terapeutima. Analiza razgovora omogućila je da se osvetle nelinearni modeli pregovaranja kada je reč o praksama, dužini trajanja terapije i kriterijumima za upućivanje na psihoterapiju.

Ključne reči: proces subjektivacije; teorija mreže aktera; politička epistemologija; klinička psihologija; neposlušnost

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A STUDY OF PSYCHOGALVANIC REACTION USING NEUROPHOTONICS AND KIRILIAN PHOTOGRAPHY

Abstract

This article has two parts: the first part deals with a study of psychogalvanic reaction (PGR) using contemporary technics of brain research (PET and fMRI). The second part deals with a much less researched idea of Russian scientists that Kirlian photography can be used to research an alternative, an energetic nature of PGR. There are not many studies of functional recording of activities that use PGR and control it via central autonomous mechanisms. Some neurophotographic studies used PGR as an objective indicator of the autonomous emotional reaction, such as conditioning by fear, or for researching the importance of specific areas of the brain, e.g. amygdala. To be able to interpret these and similar studies, it is extremely important to understand the relationship between the sympathetic stimulus of the human body (for which PGR is the most frequently used parameter) and the regional brain activities. The actual place and intensity of these activities are dependent on the cause and stimulus of PGR and are registered in the following: ventromedial and prefrontal cortex and amygdala (when PGR is following the motivational behaviour), anterior cingulum, (when PGR is manifested in the context of response to emotional stimuli), the right parietal cortex (the lesion of which reduces PGR at visual attention), etc. The interpretation of the image of a hand made using Kirlian technique gives a very different meaning to PGR in comparison to the generally accepted evolutionary meaning: it suggests that this psycho-physiological phenomenon could be an indicator of an energy exchange between the body and the environment, mainly based on known experiments in the context of cognitive activities.

Key words: *psychogalvanic reaction, brain areas PET and fMRI imaging technique, Kirlian photography, energy exchange.*

Introduction

So far, there has been little research into of psychogalvanic activities and their control via central nervous system. Some neuroimaging studies used PGR as an objective indicator of automatic emotional reactions, such as conditioning by fear, or the role of specific brain regions e.g. the amygdala (Morris et al. 1998). To interpret some neuroimaging experiments, it is very important to understand the relation between the sympathetic arousal (most often demonstrated by PGR and cardiovascular parameters) and the regional brain activity.

Emotional, cognitive and motor behaviours can cause different degrees of the sympathetic arousal, depending on specific tasks. Many neuroimaging experiments compared brain activity during hard tasks (either cognitive or motor ones) with those during performing an easier "control" conditional activity, in the same way, for instance, as comparing two different emotional states. These comparisons show that these two reactions are probably linked to different states of the autonomous arousal. It follows that some differential activities may reflect autonomic rather than cognitive, motor or emotional processes. For instance, the activation of the frontal cingulum and the insula is often monitored and analysed during a brain scanning (Paus et al, 1998).

In order to compare peripheral autonomic responses with a regional brain activity, some subjects were scanned during performing certain tasks which normally cause arousals such as an increased heart rate or a high blood pressure. These tasks are standard tests for autonomous functions in clinical studies and included Valsalva maneuver (forced exhaling with a closed airway), isometric exercises with a handgrip, deep inspirations and mental stress, e.g. arithmetic tasks, which modulated

PGRs and cardiovascular arousals. In one of the experiments conducted with MRI, King et al. (1999) found an increased activity of the anterior and the posterior insula, the medial prefrontal cortex, as well as the ventroposterior thalamus during the respiratory test, the Valsalva maneuver and the exercises. Similarly, further MRI studies (Harper et al. 2000) discovered an increased activity in the ventral and medial prefrontal cortex, the anterior cingulum, the insula, the medial temporal lobe, the medial thalamus, the cerebellum and the pons during the Valsalva manoeuvre. Critchley et al. (2000a) used the PET (Positron Emission Tomography) technique to study similarities in activities caused by mental and physical exertions, in comparison with lower-priority control tasks. An increased activity was found in the right anterior cingulum, the dorsal pons and the middle cerebellum during heavy mental and physical tasks (being in direct correlation to the sympathetic cardiovascular arousal) in comparison to control tasks. The activity in the right anterior cingulum, the right insula and the pons co-varied with an increased blood pressure and increased heart frequency, irrespective of the type of tasks. This study demonstrated that regions, such as the anterior cingulum cortex, are important for the integration of cognitive and voluntary behaviours with the sympathetic arousal, and supported the hypothesis of lateralisation of sympathetic activities in the right brain hemisphere (Oppenheimer et al, 1992).

Even though these two studies examined brain activity during sympathetic arousal, they did not compare it to the PGR activity. The first ever brain study to examine a direct relation between the PGR and brain activity was conducted by Fredrikson et al. (1998); they used PET to continuously monitor PGR in order to identify any changes in the brain activity that were followed by the PGR arousal. Subjects were scanned during emotional stimuli, including skin shocks and images of snakes. The activity identified in the motor cortex, the anterior and posterior cingulum, the right insula, the right parietal lobe, as well as the extrastriate visual cortex, changed in correlation with the presence of strong PGRs.

Critchley et al. (2000b) used MRI to examine brain activities related to fluctuations of PGRs, aroused in a natural situation of carrying out cognitive tasks in gambling, after Damasio's hypothesis of somatic markers (Damasio, 1994). Subjects were scanned during performing gambling tasks and their PGRs were continuously monitored. With each test, the subject would sight one pair of cards and had to press one of the two available buttons, which would decide whether they would win or lose money. After each task, they would get a visual feedback of total wins and whether they had made correct decisions. These tasks caused a specific PGR fluctuation in the subject and were analysed in two different sets. In the first set, the results of the PGR during the experiment were used to study brain activities which co-varied with the change in the peripheral arousal. In the second set, the peaks of the PGR curve were used to identify activities related to the feedback for discrete PGRs.

Fluctuations of the PGR during the experiment were linked to an increase in activities in ventromedial prefrontal cortex, right inferior parietal cortex and extrastriate visual cortex, as shown in Figure 1.

- A. Right orbitofrontal activity (BA47) extending into the anterior insula.
- B. Medial prefrontal activity (BA10).
- C. Right parietal activity (and activity in right fusiform gyrus)

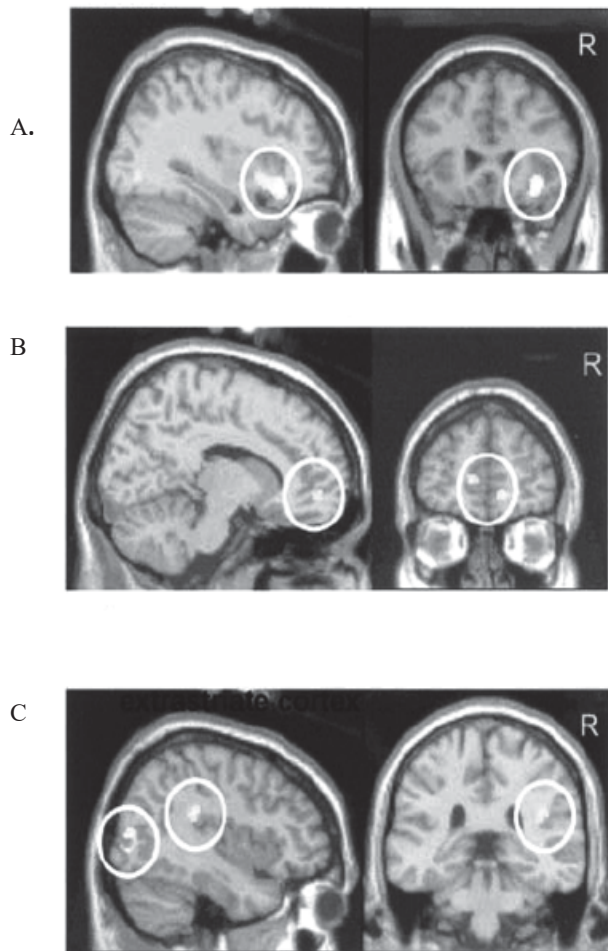


Figure 1: Activities in (A,B,C) during the fluctuation of PGR in cognitive tasks (after: Critchley et al. 2000b)

Figure 1. Areas of PGR-related activity were evident in right orbitofrontal area - Brodmann's area (BA 47) extending into the anterior insula (Fig. 1A), bilateral medial prefrontal lobe (BA 10) (Fig. 1B) and right inferior parietal lobule (and right fusiform gyrus) (Fig. 1C)

Increased activities of the left ventromedial prefrontal cortex, extrastriate cortex and cerebellum were also noted before discrete PGRs, suggesting that these regions are mostly responsible for PGRs.

At the same time, there was an increase in activity in the right medial prefrontal cortex after PGRs, suggesting that this region has an important role in representing the peripheral PGR arousal. These observations suggest that there is a regional division – even within the ventromedial prefrontal cortex – of regional brain activities, explaining the origination and occurrence of PGR.

This study confirmed the role of ventral and medial prefrontal regions in forming PGRs during gambling tasks. It is also in agreement with earlier findings of the impact of prefrontal lesions on the PGR (Tranel & Damasio, 1994; Bechara et al. 1996; Zahn et al. 1999), as well as the assumed modulation of these regions during the motivational decision-making influenced by the PGR arousal. This study showed that activities of the regions, such as inferior parietal lobe and extrastriate visual cortex, also reflected the PGR arousal. As these regions are crucial for visual attention, these findings suggest that it is possible that the arousal and attention may share the same brain substrate. However, the mechanism linking cognitive and emotional responses to the PGR arousal was only partially explained (this will be discussed later on a more molar level); neither was the link between the PGR

and the activities of anterior cingulum mentioned, not even indirectly, unlike in some other studies (Tranel & Damasio, 1994; Fredrikson et al. 1998)

In their next MRI study, Critchley et al (2001a) examined how the arousal, measured via the PGR, could have an impact on brain activities during periods of anticipation, depending on the resulting punishment or reward. Subjects were being scanned during gambling tasks, in which they, after sighting one card, were to guess whether the next card trumped or was trumped by it. A correct answer was a win, incorrect meant a loss. A decision like this bore a different, though predictable risk, depending on the value of the next card. Subjects would answer as soon as they saw the first card, but the second card was revealed only after a certain period of anticipation. The main question here was how sympathetic the arousal - monitored via the PGR - and the risk that each decision carried influenced the brain activities during the period of anticipation of what the next card was going to be. During the anticipation period the frontal cingulum and dorsolateral prefrontal cortex showed different activities, which varied depending on how early the PGR response was. Activities of the frontal cingulum and insular cortex were impacted by the degree of risk; related analyses confirmed that only cortex of the frontal cingulum was impacted by both risk and arousal; activities in that region varied accordingly.

This confirmed the findings of both Critchley's earlier study and those of Fredrikson's et al. (1998), implicating the response of the anterior cingulum. To be more precise, these findings firmly demonstrated that the cortex of the frontal cingulum is linked to the integration of cognitive processes (e.g. processing risk and anticipation), with the PGR and other states of the physical arousal. The role of activating the dorsolateral prefrontal cortex appeared to be even more selective.

Damage of both the dorsolateral prefrontal and the anterior cingulate cortex would result in a reduced PGR response (Zahn et al. 1999; Tranel 2000). However, it is possible that the observed link between the dorsolateral prefrontal activity and the early, anticipatory, the PGR response corresponds to a contextual control of the physical arousal during cognitive processing of information of anticipation, selecting a response and experience.

A more recent neuro-imaging study looked at how the functional neuroanatomy of directed cognitive processes, when intentional, may impact the PGR (Critchley et al. 2001b). Although autonomous processes, such as PGR, generally are not conscious, certain techniques of biofeedback relaxation can be used to enable the subject to gain control over involuntary autonomic responses.

The PGR was recorded during all experiments, regardless of whether it was followed by visual feedback or not. The key effect of a subject's relaxation and lowering of the PGR was directly linked to an increased activity of the anterior cingulum, the inferior parietal cortex and the globus pallidus. The intention of the subject to relax, together with the feedback of the level of the PGR, was linked to an increased activity of the ventromedial prefrontal cortex, the anterior cingulum and the cerebellum. And finally, the medial temporal region, right in front of the amygdala, showed the lowering of the PGR arousal during experimental tasks. Altogether, this finding offers yet another proof that certain brain regions, such as the ventromedial prefrontal cortex and the anterior cingulum, play a role in the integrating bodily arousal with cognitive processes (e.g. the intention of the subject to relax). Interestingly, contrary to the studies of the sympathetic arousal (Critchley et al. 2000a and 2000b), the activity was of a greater intensity in the left than the right hemisphere during the relaxation tasks. Also, the finding that the activity of the medial temporal lobe is linked to the sympathetic relaxation suggests a mechanism that may enable strategic relaxations to have a therapeutic impact on brain regions via responses to negative and intense stress and fear situations which originated in neighbouring amygdala.

Psychogalvanic Reflex as an Indicator for the Exchange of Energies between the Body and the Environment

Let us take a look at an interesting idea that came from Russian scientists about the role and the meaning of the PGR phenomenon, which differs to an extent from the evolutionary one dominant in the West. Its premise is that the skin, via its sensory and protection role, assumes a psychoenergetic function as well. This happens because the skin is considered to be a dynamic system which is directly involved in the exchange of energy between a person and their environment; the intensity of the exchange depends on the nature of the energy. Kirlian photography (Towne, 2012), created by using a high voltage, was used in the experiment. In the experiment conducted by Pushkin (1972),

fingers of forty subjects had been photographed before and during a cognitive task (multiplication of two digit numbers). The results showed that in 70% of subjects the aura was smaller at the time of moving from stillness to starting the task, as shown in Figure 2.

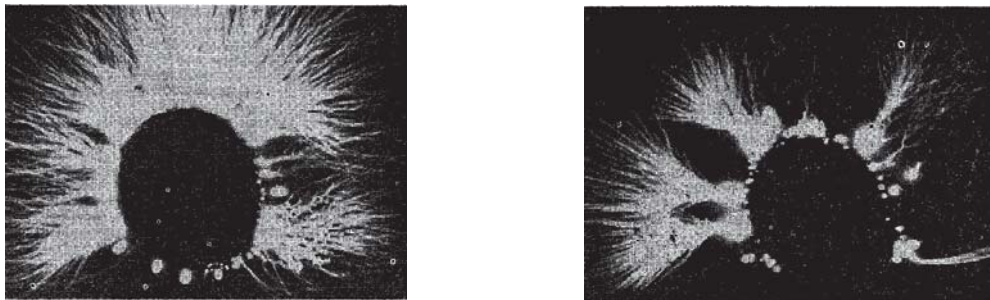


Figure 2. High voltage auras during a) stillness and b) starting the tasks (after: Puškin, 1972)

The authors refer to this as reactions of the High Voltage Discharge (HVD). If the Kirlian black and white photo was replaced by colour photos, purple hues would be replaced by the red aura during the cognitive task!

A series of control experiments showed that when subjects were not exposed to an intellectual effort (only to something like an orientational activity) there was no connection between the PGR and HVD; also, both were of low intensity, which means that the discharge was only present when a person was making a certain level of psychological effort. It can be concluded then that the PGR is not only manifested on the skin, but it also reflects energy interactions between the person and their surroundings. Further studies using rheoencephalography (REG) showed that during cognitive tasks, the tone of blood vessels muscles increases and HVD decreases. It appears as if the skin functions as a channel which brings in the energy into the person via the PGR, the energy that is necessary or their psychological activities (Puškin, 1981). Of course, this interesting hypothesis would need to be experimentally verified.

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Rezime

U ovom preglednom radu govori se, u prvom delu, o ispitivanjima psihogalvanske reakcije (PGR) savremenim tehnikama istraživanja mozga (PET i FMRI), dok je u drugom prikazana, nedovoljno istražena, ideja ruskih autora da se, uz pomoć Kirilijanove fotografije, može istraživati jedna alternativna, energetska priroda PGR-a. Relativno je malo studija funkcionalnog snimanja PGR-om posredovanih aktivnosti i njegove kontrole preko centralnih autonomnih mehanizama. Pojedina ispitivanja neuroslikanjem koristila su PGR kao objektivni indikator automatske emocionalne obrade, kao na primer, kod uslovljavanja strahom ali i u istraživanjima značaja specifičnih moždanih oblasti, kao što su amigdale. Za interpretaciju ovakvih, i sličnih studija, jako je važno razumevanje u kakvoj su vezi simpatičko pobuđivanje organizma (za šta je PGR jedan od najčešće korišćenih PARAMETARA) i regionalnih moždanih aktivnosti. Mesto i intenzitet tih aktivnosti zavise od uzroka i vrste pobuđenosti PGR-a i registruje se u: ventromedijalnom prefrontalnom korteksu i amigdalama (kada PGR prati motivaciono ponašanje), anteriornom cingulumu (kada se PGR javlja u kontekstu odgovora na emocionalne stimulse), desnom parijetelnom korteksu (čijom lezijom se smanjuje PGR pri vizuelnoj pažnji) itd. Interpretacija snimaka šake Kirilijanovom tehnikom dala je jedan drugi opšti smisao PGR-u, pored opšteprihvaćenog evolutivnog, a on se sastoji u tome da bi ovaj psiho-fiziološki fenomen mogao da predstavlja indikator energetske razmene između organizma i sredine, i to najpre, na osnovu do sada izvedenih eksperimenata, u kontekstu kognitivnih aktivnosti.

Ključne reči: psihogalvanska reakcija, moždane zone, PET i FMRI tehnike snimanja, Kirilijanova fotografija, energetska razmena

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NOTES IN PINK

Abstract

Color was the object of a large psychological debate of the eighteenth century that focused upon the dilemma whether its origin was to be regarded as an inborn trait or as something acquired through experience. This initiated a great number of studies which mainly focused on the symbolic meaning which color had within a community and which could be modified in time depending on its cultural function and in relation to the concept of imaginary. The choice of a color for an inner environment, for urban spaces, for a piece of fabric or for accessories conforms to the principles of classification which have to facilitate the harmonious processes of integration, starting from the house objects in either urban or rural communities to the trinkets and ornaments matching the furniture, i.e. to the defense of the individual's wellbeing in their surrounding where the ergonomic principles have to be applied.

Keywords: *Color, Pink, Wellbeing*

The colors that Rimbaud associated with the vowels in his famous sonnet *Voyelles*, the interpretation of which has been an issue largely discussed by the literary criticism, are fundamental within the European culture where the classical physical distinction between primary and secondary colors is laid aside: black, white, red, green, blue (according to the order of the associations with the vowels of the sonnet) and yellow. The last color, i.e. yellow, is actually missing from the sonnet as there are five vowels and Rimbaud never mentioned it. On the contrary, he dedicated a blazon *L'étoile a pleuré rose* (The star has cried pink) to pink whose both fame and charm are probably to be found at its beginning, that is, the crying star with pink tears is a portrait hard to be forgotten. Obviously, when translated, for example into Italian, the sweet character of the / s / fortunately remains, while the liquid redundancy of the / r / does not exist anymore, unlike the French language where it persists throughout the first verse ("*L'étoile a pleuré rose au coeur de tes Oreilles*") (The star has cried pink to the heart of your ears), strengthening therefore the combination of the sounds of the verse with the "*rosée*" (the dew) through the association of the crying of the star with an atmospheric phenomenon. It has been said that, on an esoteric level, the two colors, rose and pink, were symbols of regeneration and the first degree of initiation into the mysteries thanks to the Latin semantic relationship between *rosa* (rose) and *ros* (dew), whose symbolism is related to renovation and rebirth in various cultures (Chevalier & Gheerbrant, 1974, p. 114). Incidentally, the myth of Aurora, the often cited goddess with rosy fingers, as she was described by Homer, has to be emphasized: the tears she shed for the loss of her son Memnon killed by Achilles during the Trojan War, fell on earth in the form of dew.

As the verses dedicated to the crying star are kept together with the *Voyelles* in the copy of Rimbaud's works held by Verlaine, the analogy between the two poems, based on the chromaticism, has always been highlighted. Their structure is the one of the blazon, a verse poem in rhyming couplets that widespread in the fifteenth and sixteenth centuries, having as its object the laudatory or satirical representation (it could be defined as "*contre blason*") of people or things, usually of the female body and its parts. This is one of the few poems by Rimbaud that has not been considered an offense against the female figure (Rimbaud, 1964, p. 389): could it be because pink was associated with the delicacy of the fairer sex and to the promise of a future good? These are the qualities imaginatively and literarily related to youth; therefore, like the flower that affects their fates, pink discreetly but firmly acquires the same aura. No one has described it better than Shakespeare in a

sonnet no. 54, in which the color and the fragrance of the flower are transmuted – “distils”, as he says alluding to one of the key steps in the preparation of perfumes – by the poetic word, the one and only being able to ensure immortality to the object of love.

If then pink individualizes the image of the woman, it does it from a figure of lightness, of suspension. Pink cry of the Rimbaudian star enfolds the female body with this atmosphere and fixes the desire softening roughness.

Physics can help to understand the relationship between matter, energy, and color, but not the symbolic values that colors convey within a community and change over the years due to the cultural components: they actually work on the imaginary level conceptualizing the world. Centuries ago, healers associated color with something symbolic and magic. Even today, every culture has taboos about certain colors, whereas others are favored. Consequently, the debate about the possibility of predicting and measuring physiological responses to color has increased more than ever bearing witness to the power of color and its ability to arouse emotion. As stated in the 1980s by the director of The American Institute for Biological Research, “The electromagnetic energy of color interacts in some still unknown way with the pituitary and pineal glands in the hypothalamus. These organs regulate the endocrine system, which controls many basic body functions and emotional responses, such as aggression”. As a further proof, the president of the German Academy of Color Science, Harold Wohlfarth, whose studies on the effects of the full-spectrum lighting on a group of blind and sighted children are well-known, has asserted that “minute amounts of electromagnetic energy that compose light affect one or more of the brain’s neurotransmitters, chemicals that carry messages from nerve to nerve and from nerve to muscle” (Alter, 2014).

The controversy, for the most part, deals with what portion of the electromagnetic spectrum has an effect on health. Some doubt that the visible spectrum elicits anything more than an emotional response based on past experience, cultural conditioning, or association with trends or ways of saying: “la vie en rose”, to think pink, or the diffusion of pink after the great success that the “Pink panther” had. In addition to that, some investigations of the last decades have empirically demonstrated gender differences in various tasks of the color perception (Greene & Gynther, 1995; Bimler, Kirkland, & Jameson, 2004), whereas there is still no conclusive evidence for the existence of gender differences in color preferences (Ellis & Ficek, 2001). This result is surprising, given the prevalence of the notion that little girls differ from boys in preferring pink (Alexander, 2003). According to Del Guidice of the University of Turin: “People stopped studying whether there was a biological basis for the gender-color associations because it seemed obvious that there couldn’t be one”. Thus, the biological gender-color correlation seems unlikely and yet to be established.

This is the reason why it is not still possible to exactly define when pink and light blue become elements of male and female distinction. Dressing up newborn girls and boys according to this differentiation has been a practice that still has proselytes, whose roots, according to Pastoureau (1999, pp. 27-28), lie in the mediaeval association of males with blue and females with red. The light blue and pink colors could then be considered the variations of red and blue, nearer to white and, therefore, more hygienic. As a matter of fact, the tissues, which cover and protect babies’ delicate skin, are light blue and pink.

A possible explanation has been recently found in a research carried out at Newcastle University. According to the authors, our female ancestors preferred reddish or pinkish colors, a preference that was linked to the color of the ripe fruit ready to be picked, whereas males’ preference for blue was linked to an open, cloudless sky, an auspice of the days suitable for hunting (Hurlbert & Ling, 2007).

However, the correlation between color and emotion has been further demonstrated by the Rorschach inkblot test, which has been used for years to measure the emotional state of neurotics and schizophrenics who are assumed to suffer from a color shock when presented with the chromatic tables.

As a result, the ancient and once discredited field of chromotherapy has been rejuvenated and recalled photobiology or color therapy to distinguish it from the once-popular work of Victorian quacks. Assertions about physiological effects have not, at least until recently, been based on a strict and scientifically designed research. Faber Birren, one of the most important researchers on colors’ effects, has also stated that the training of 20th-century doctors makes them favor “pills and surgery” and “shots and prescriptions” over such cures as color therapy.

As for pink, being psychologically a powerful color, pink is primarily recognized as a feminine color, giving physical tranquility, nurture, warmth, femininity, love, sexuality, survival of the species. That is why it is used as a universal symbol of hope and awareness, for example, in the fight against breast cancer. For example, since pink is the second favorite color of children aged between three and six, the researchers of the Saint Bernardino County Probation Department in California have demonstrated that, when children under detention became violent, they were put in an 8-foot by 4-foot cell painted "bubble gum pink": they tended to relax immediately, stopped yelling and banging, and often fell asleep within ten minutes. The director of clinical services for the department, Paul E. Boccumini, a clinical psychologist, stated that instead of being hard on the children, "now we put them in the pink room. It works".

Based on these results, many reformers in America adopted the "passive pink" in at least one room, though in the debate that ensued not all psychologists were unanimous on this extreme simplification of complex behavioral problems. It was found, in fact, that often addiction to the beneficial effects of color erased the effectiveness of intervention in a short time (Malkin, 1992, p. 56).

As a matter of fact, being a tint of red, pink also has a soothing, rather than stimulating, effect on people. On the contrary, too much pink is draining and can be somewhat emasculating, as its negative aspects show: inhibition, emotional claustrophobia, physical weakness, and the above mentioned emasculation. Furthermore, this strong pink, almost red, being an exciting and eye-catching color, among those ones which the eye perceives faster, is genetically linked to blood and therefore perceived as a danger signal; in the list of associations of colors with different diseases, it is considered the equivalent of blood disorders and anemia (Gerber, 1988) and, in therapeutic use on depressed patients, its positive effect is not surprising.

As for the calming effect of pink, it should be noted that researchers of color psychology have found that this effect only occurs during the initial exposure to pink. When used in prisons, inmates often become even more agitated once they become accustomed to the color. Anyhow, depending on the shade of pink used, generally speaking, every variation of pink – coral pink, salmon pink, shocking pink, etc. – can be either stimulating or calming. Instead, as for the benefit effect, pinkish or peach lights are recommended in hospital bathrooms, especially if they are fluorescent and when they surround a mirror, because they mitigate the pale color of a patient.

Pink has undergone a rather difficult past, so that its future is yet to be presented in many ways.

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Rezime

Boja je bila predmet velikih rasprava u okvirima psihologije u devetnaestom veku, a raspravljalo se o tome da li je smatrati urođenom ili stečenom kroz iskustvo. Sve to je izazvalo puno studija, pre svega o simboličkom smislu koji boja ima u jednoj zajednici i koji može da se promeni vremenom u funkciji kulture i u odnosu na imaginarno. Izbor određene boje za unutrašnje i urbane prostore, odeću ili aksesoare u skladu je sa principima klasifikacije koji treba da olakšaju harmoničan proces integracije, počev od kućnih objekata u urbanom ili ruralnom pejzažu, pa sve do sitnica u skladu sa nameštajem, odnosno do odbrane individualnog blagostanja u ambijentu u kojem se živi, gde ergonomski principi moraju biti primenjeni.

Ključne reči: *boja, roze, blagostanje*

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THE AESTHETIC EXPERIENCE OF ARTISTIC PHOTOGRAPHS OF DEAD AND LIVE ANIMALS: A RELATIONSHIP BETWEEN CONTENT AND FORM

Abstract

The aim of this study is to investigate the aesthetic experience of artistic photographs and emotions that they provoke. The study included 32 participants, students of Higher School of Professional Business Studies from Novi Sad. A set of six photographs, which included 3 images of dead animals and 3 images of live animals, was used as the stimuli in this study. The images were shown to the participants through a video beam. A unipolar seven-point scale was used to measure the aesthetic experience of different photographs and feelings they cause. The participants' task was to rate each of the six photographs on the seven-point scales containing descriptors of aesthetic experience (fascinating, extraordinary, and irresistible) and six emotions: happiness, anger, fear, sadness, disgust and surprise. All participants were asked to rate 6 photos on all 9 scales. The results obtained show that there are statistically significant differences in the aesthetic and emotional experiences of the photographs. The results also demonstrate that the photographs of the dead animals in relation to the photographs of the live animals were evaluated as significantly scarier, sadder, causing a significantly higher level of anger and disgust. The differences in the aesthetic experience of the photographs of dead and live animals are not statistically significant. The results of the study are discussed in the context of the components of aesthetic experience and in the context of the analysis of aesthetic and emotional responses in terms of the relationship between form and content.

Key words: *photographs, aesthetic experience, emotions*

In the psychology of art, aesthetic experience can, on one hand, be connected to aesthetic preferences, which means that a certain object, event or scene can be experienced as more or less beautiful, pleasant or attractive. On the other hand, aesthetic experience can be connected to the extraordinary state of mind which is induced by specific scenes, objects or events (Marković, 2007, 2010, 2012; Vukadinović & Marković, 2012). In the factorial, analytic study which studies the relationship between aesthetic experience and other emotional qualities judged in paintings, Marković (2010) shows that aesthetic experience, understood as an exceptional state of mind, cannot be reduced to the pleasure and affective attraction and can be induced by both pleasant and unpleasant objects. He shows that affective descriptors can be grouped into one bipolar factor – affective tone, where the basic hedonic dimension of emotion, pleasure – aversion, makes a distinction between the positive (cheerful, lovely, charming, and appealing) and negative poles (scary, disgusting, hateful, tragic). Furthermore, he suggests that aesthetic experience, as another factor obtained in the study (Marković, 2010), is specified as a special kind of emotion, independent of other emotions and feelings.

Even though aesthetic experience is more often connected to pleasant feelings (Leder, Belke, Oeberst, & Augustin, 2004), some earlier research (Rawlings, 2003; Cooper & Silvi, 2009; Silvia, 2009; Silvia & Brown, 2007) has shown that people all over the world experience different unpleasant emotions such as anger, disgust or shame in response to art. In his understanding of the special aesthetic category *ugly*, Eko (2007) emphasizes that ugliness should not be considered to be the opposite of the beautiful, but that the special autonomy which the category of ugly has should be taken into consideration. He also states that different kinds of ugliness, like deformation, grotesque,

morbid, bizarre, gruesome, monstrous, cause a reaction of disgust, repulsion, horror or fear. Within the category of ugly, Eko (2007) differentiates between three instances: a) ugly by itself (excrement, rot, a slimy reptile, etc.), b) formally ugly, which means the imbalance of organic connections between the parts of a whole, and c) an artistic representation of both instances. The understanding of the artistic depiction of ugly is important for this study. When considering the artistically ugly, Eko (2007) explains that in the artistic depictions of ugly, ugly remains as it is, but the skill of the artist reflects some beauty in it, and it is this that gives it the ability to achieve beauty, or in other words, allows any type of ugliness to be redeemed through its loyal and effective artistic representation. By approximating an aesthetic reaction to the notion of catharsis, Vigotski (1975) similarly analyzes the affective contradictions in works of art, claiming that on the emotional plan, the aesthetic reaction is stronger if the contradicted effects in the work of art are stronger. According to this author, the moment when contradictory effects clash represents the essential building ingredient of the aesthetic reaction, where one of these two effects is carried by the content of the work, while the other is carried by the form. For example, the longer and more the artist points his stone cathedral further and higher, while stone, in its nature, is drawn down, the impression will be stronger and there is a possibility of a stronger aesthetic reaction. Furthermore, a large head in a portrait “speaks easier,” or in tragedies such as Shakespeare’s Hamlet, the intense combination of the moral, or in other words the principle of life with the other plain, death, leads to the contradictory effects, and with them, a stronger aesthetic reaction (Panić, 1997). So, the artist conquers their content through their form and builds the dialectic contradiction of content and form from which comes out the “building ingredient” of the aesthetic reaction. Vigotski (1975, 295) states that it is difficult to find an example more fitting to show the ideas about the workings of a conflict between content and form than the aesthetics of ugly. For example, the horror shown in a picture is overcome with the form of the picture (Eko, 2007).

Based on everything said so far, this study starts from the assumption that aesthetic experience is, first and foremost, understood as an exceptional state of mind followed by a strong aesthetic feeling, and can be induced by both pleasant and unpleasant objects. It can be specified as a special kind of emotion which is independent of other emotions and feelings, so it is characterized by a person’s fascination and profound relationship with an artistic object (Marković, 2010). Secondly, this study deals with the examination of artistic photographs whose content provokes mostly unpleasant emotions, and also examines which unpleasant emotions follow the aesthetic experience of photographs with unpleasant contents.

Method

The aim of the research was to investigate whether there are significant differences in the participants' ratings of the aesthetic and emotional experience of artistic photographs when they observe artistic photographs of dead and live animals.

Participants

There were 32 participants, students of the Higher School of Professional Business Studies from Novi Sad, 12 male students and 20 female students, aged around 21 ($M = 21.62$; $SD = 1.86$) years. The participants were naive viewers, in other words, their education was not directed towards the arts. Students participated voluntarily and they did not receive either course credits or any fee.

Stimuli

A set of six photographs was used as the stimuli in this study. The photographs were cropped, in color, their dimensions were (1693 x 1693) and they were numbered. The set of six photographs included 3 pictures of dead animals and 3 pictures of live animals (see Appendix A). The original photographs were taken by a professional photographer, Saša Gelić. The set of stimuli, the artistic photographs, was created with the intention of causing unpleasant feelings and representing the slimy, dead, dangerous, rotten and sad.

Considering that it has been proven that a title, as a verbal piece of information, affects the subjective experience of paintings, especially the emotional tone (Stojilović, 2011), the photographs in this study were not shown with their artistic title. Also, since it was proven that when photographs are in question, the amount of time one is exposed to them affects the aesthetic assessment (Stojilović,

Jovanović, & Stankov Stojilović, 2013), this study did not limit the time during which the participants were exposed to the photographs.

Instruments

To measure the aesthetic experience of different photographs and feelings they cause, a unipolar seven-point scale was used. There were 3 scales containing descriptors of aesthetic experience: fascinating, extraordinary, and irresistible (Polovina & Marković, 2006) and 6 scales containing basic emotions (Ekman, 1999): happiness, anger, fear, sadness, disgust and surprise.

It is important to mention that in the analysis and the interpretation of results much attention was paid to make a difference between everyday emotions and aesthetic emotions (Marković, 2012), which is contained in the fact that everyday emotions have clear adaptive functions, whereas aesthetic emotions are produced by the quality of the aesthetic object itself.

Procedure

Six photographs were presented to the participants by a LCD projector on a screen, in a randomized order. The stimuli were observed from a distance of around 4m and the dimensions of their screen projections were 1,5 x 1,5 m.

The participants observed the visual presentation in groups, and having finished watching each photograph, they immediately rated them. The task for participants was to rate each of the six photographs on seven-point scales containing descriptors of aesthetic experience (fascinating, extraordinary, and irresistible) and six basic emotions: happiness, anger, fear, sadness, disgust and surprise. All participants were asked to rate all 6 photos on all 9 scales by marking the grade, based on their impressions of the extent of the particular descriptor or emotion that a certain photograph provokes in them. They were told that grade 1 indicated the least, and 7 the largest intensity of a descriptor or emotion provoked in them. The participants observed the visual presentation in groups, and having finished watching each photograph, they immediately rated them. The time given to them for rating the photographs after seeing each one was not limited. When all participants rated the photographs on all 9 scales, the slide with the next photograph was presented.

Design

The first independent variable is Content and has two levels (photographs of dead and live animals). The second independent variable is Photography and it has 6 levels (3 photographs of dead animals and 3 photographs of live animals). There were six photographs in total. The dependent variables were the participants' ratings based on the descriptors of the aesthetic experience, as well as the evaluation of the 6 basic feelings which the photograph evoked in them.

The analysis of variance was used for data processing. The statistical significance of the content effect was checked, as well as the statistical significance of the photography effect on the ratings based on the descriptors of the aesthetic experience, as well as the evaluation of the 6 basic feelings which the photograph evoked in them.

Results

Generally speaking, the results show that there are statistically significant differences both in the emotional and the aesthetic experience of the participants who viewed the artistic photographs. However, when the photographs were rated based on whether they showed live or dead animals, the aesthetic experiences of the participants did not differ significantly.

The significant main effect of the Photography indicates that the participants' ratings of emotions and aesthetic experience are different when they observe different photographs $F(5,25) = 74.782a, p < .000$. Univariate tests of analysis of variance (see Table 1) show that the participants' ratings of artistic photographs differ significantly concerning each basic emotion and aesthetic experience rated, see Appendix B – Table 1B.

Table 1. Aesthetic experience and every emotion separately, according to the participants' ratings of all six photographs.

Photographs	<i>df</i>	<i>F</i>	<i>p</i>
Fear	5, 155	21.960	.000
Sadness	5, 155	18.979	.000
Happiness	5, 155	16.663	.000
Anger	5, 155	11.280	.000
Disgust	5, 155	27.581	.000
Surprise	5, 155	2.568	.029
Aesthetic Experience	5, 155	16.092	.000

Fear. The application of LSD analysis shows that the second, third and sixth photograph induce significantly more fear ($p < .05$) than the first, fourth and fifth photograph. The photographs of the snake, spider and the cow head were significantly scarier to the participants than the photographs of the snail, goat and butterfly.

Sadness. The LSD analysis shows that the sixth photograph (the photograph of the cow head) was assessed as the saddest ($p < .05$) in comparison to the rest of the photographs. Somewhat sadder are the second and fifth photographs (the photographs of the snake and the butterfly), while the least sad are the first, third and fourth photographs (the photographs of the snail, spider and goat).

Happiness. The application of LSD analysis shows that the first, fourth and fifth photograph show significantly more happiness ($p < .05$) in comparison to the second, third and sixth photograph. So, the photographs of the snail, goat and butterfly show significantly more happiness than the photographs of the snake, spider and cow head.

Anger. The application of LSD analysis shows that the first, fourth and fifth photographs induce significantly more anger ($p < .05$) compared to the second, third and sixth photographs. The photographs of the snake, spider and cow head provoke significantly more anger than the photographs of the snail, goat and butterfly.

Disgust. The application of LSD analysis shows that the second and sixth photographs (the photographs of the snake and the cow head) induce statistically significantly ($p < .00$) the highest level of disgust in comparison to all other photographs. The lowest level of disgust in comparison to the other photographs is induced by the fourth photograph (the goat).

Surprise. The differences obtained in the assessment ($p < .05$) of how much surprise the photographs induce in the participants may point to the importance of the order in which the photographs were shown. The first photograph does not significantly differ from the other photographs. The second photograph (of the snake) differs only from the third photograph (of the spider) and the third photograph differs only from the sixth photograph (of the cow head). The third photograph (of the spider) and the fifth photograph (of the goat) do not significantly differ, while the sixth photograph (of the cow head) does not differ from the second and fourth photographs (of the snake and of the goat).

Aesthetic experience. The application of LSD shows that the fourth and fifth photographs (of the butterfly and the goat) induce a statistically significantly ($p < .05$) higher aesthetic experience in comparison to all other photographs. The sixth photograph (of the cow head) induces significantly the lowest ($p < .05$) aesthetic experience compared to other photographs.

The significant main effect of the Content indicates that the participants' ratings of emotions and aesthetic experience are different when they observe photographs of dead and live animals $F(1, 25) = 74.782a$, $p < .000$. The univariate tests of analysis of variance (see Table 2) show that the participants' ratings of artistic photographs differ significantly compared to the content of the photograph, concerning each basic emotion rated, but there is no significant difference in ratings concerning the aesthetic experience.

Table 2 Aesthetic experience and each emotion separately, according to the participants' ratings of content (dead and live animals) of photographs

Content of photographs: dead and live animals	<i>df</i>	<i>F</i>	<i>P</i>
Fear	1, 31	24.448	.000
Sadness	1, 31	15.269	.000
Happiness	1, 31	59.730	.000
Anger	1, 31	17.318	.000
Disgust	1, 31	50.694	.000
Surprise	1, 31	3.945	.050
Aesthetic Experience	1, 31	2.220	n.s.

The results show that the photographs of dead animals compared to the photographs of live animals are rated as significantly scarier, sadder, and evoke a higher degree of anger and disgust (see Appendix B – Table 2B). The differences in the aesthetic experience of the photographs of dead and live animals are not statistically significant (see Appendix B – Table 2B).

Discussion and conclusion

This study analyzed the aesthetic experience of artistic photographs the content of which induces mostly unpleasant emotions. The most important result of this research is related to the fact that the aesthetic experience of artistic photographs does not significantly differ based on whether the content of the photographs evokes pleasant or unpleasant emotions. This finding testifies to the various previously mentioned statements. The first is that aesthetic experience can be induced by both pleasant and unpleasant objects, which was shown in earlier research (Eko, 2007; Marković, 2010, 2012; Rawlings, 2003; Cooper & Silvia, 2009; Silvia, 2009; Silvia & Brown, 2007). The second is that aesthetic experience is specified as a special kind of emotion, independent of other emotions and feelings (Marković, 2010, 2012). This study shows that aesthetic experience of artistic photographs can be followed by various hostile feelings (Silvia, 2009), such as anger and disgust, as well as the feeling of fear, especially when artistic photographs of dead animals are being rated. For example, it was shown that an artistic depiction of ugly (Eko, 2007) which includes a portrayal of the dead, decaying and rotting, was often followed by a feeling of disgust. So, in this research, the photographs of the decaying snake and cow head induced a higher level of the feelings of disgust, anger and fear with the participants, compared to the other photographs.

An especially interesting aspect of this research refers to the basic ingredient of the aesthetic emotional reaction, the instance of the clash of contradictory effects. According to Vigotski (1975), one of these two effects is carried by the content, while the other is carried by the form of the work of art. Only some of the artistic photographs used in this research can present this moment when the contradictory effects clash, which Vigotski (1975) speaks about. For example, these are the photographs of the dead snake and the dead butterfly. In the case of the photograph of the dead snake, the form – the red color of the spilling insides on the road which emphasizes death, clashes with the content – the snake as a symbol of danger which is often connected with sin, or in other words, a symbol which embodies the inferior psyche and that which is rare, secretive and incomprehensible (cf. Chevalier & Greerbrant, 2003, p. 796). Or, on the contrary, in the case of the photograph of the dead butterfly, the form – the intense yellow color of the wings which are pointing upwards and indicating life, and the butterfly in general, as a symbol of loveliness and lively spirit (cf. Chevalier & Greerbrant, 2003, p. 347) clashes with the content – a dead butterfly lying on the road.

When speaking about an artistic representation of ugly which induces an aesthetic reaction followed by mostly unpleasant emotions, it has been suggested that if a certain work only brought out a single emotion, for example only disgusting or sad or scary, that which is artistic in it would become disputable. In other words, according to Panić (1997, p. 252), “the artistic is not present there where there is just one feeling, no matter how striking or strong that feeling is”. So, this author sees the meaning of an aesthetic reaction in the constructive arrangement of the different and disharmonious – from which the impression of unity and harmony comes. In this sense, what comes as an open question for future empirical analyses is related to the questions which deal with aesthetic experience in cases where content and form do not clash, and where there are no contradictions.

This research shows only that the photograph of the dead snake induced a higher level of fear, disgust and anger with the participants, when compared to the other photographs. Also, it shows that the photograph of the dead butterfly is connected to significantly higher rates of aesthetic experience in comparison to other photographs, and that it is followed by the same feeling of sadness as the photograph of the dead snake. So, in order for any conclusion to be made about the effect of the clash of contradictory effects on the participants' ratings of artistic photographs, an empirical check would be necessary, which was not done in this research. Considering this, the empirical check of the thesis of the workings of the conflict of contradictory effects, as well as the effect and the skillfulness that is required of the artist to master certain unpleasant contents of an art work, remain as open questions for future research.

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Rezime

Istraživanje je imalo za cilj da se ispita estetski doživljaj fotografija i osećanja koja one izazivaju. Učesnici istraživanja bili su studenti Visoke poslovne škole strukovnih studija u Novom Sadu. Set stimulusa sastojao se od šest fotografija, među kojima su bile tri fotografije mrtvih životinja i tri fotografije živih životinja. Fotografije su bile prikazivane preko video bima. Za merenje estetskog doživljaja različitih fotografija i osećanja koje one izazivaju, bile su korišćene unipolarne sedmočlane skale. Zadatak učesnika se sastojao u tome da svaku od šest fotografija, procene na sedmostepenim skalama koje sadrže deskriptore estetskog doživljaja

(općinjavajuće, izuzetno, neodoljivo) i šest osećanja: sreća, bes, strah, tuga, gađenje i iznenađenje. Svi ispitanici su procenjivali svih šest fotografija na svih devet skala. Rezultati pokazuju da postoje statistički značajne razlike i u estetskom i u emocionalnom doživljaju fotografija kod učesnika. Takođe, rezultati pokazuju da se fotografije mrtvih životinja u odnosu na fotografije živih životinja procenjuju značajno strašnijim, tužnijim, izazivaju značajno viši stepen besa i gađenja. Razlike u estetskom doživljaju fotografija mrtvih i živih životinja nisu statistički značajne. Rezultati istraživanja su diskutovani u kontekstu komponenti estetskog doživljaja i u kontekstu analize estetske i emocionalne reakcije s aspekta odnosa forme i sadržine.

Ključne reči: *fotografije, estetsko iskustvo, emocije*

PERSONALITY – MEASUREMENT AND RESEARCHES

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PSYCHOMETRIC CHARACTERISTICS OF THE TRANSLATED HSQ AND HSQ-C QUESTIONNAIRE

Abstract

Humor is an important social skill, defense mechanism, an indicator of a stable personality, etc. In our region, there is a low availability of translated and adapted instruments for measuring styles of humor in persons of younger ages. As for the humor styles, Martin splits them into affiliative, aggressive, self-enhancing and self-defeating. Consequently, he constructed a questionnaire the HSQ – Humor Styles Questionnaire (Martin et al., 2003). Soon, the construction of the questionnaire HSQ-C applicable to the children's age followed (Fox et al., 2013). In Republika Srpska, there is no translated and adapted questionnaire for children to measure humor styles. This study was aimed to verify the psychometric properties of the translated forms of the mentioned tests, with a tendency towards the official status of these tests. It was also checked whether the HSQ questionnaire, designed for adults, can be applied to a sample of adolescents. The HSQ-C was given to a sample of elementary school students, 11-12 years old (276 respondents), and the HSQ was given to a sample of high school students, 16-17 years old (303 respondents). The respondents were regular students of elementary and high schools in the territory of Republika Srpska. The characteristics of the individual items, internal consistency and factor structure of the mentioned tests were analyzed. Also, the internal structure of tests and relations of test measurements and the external variable "sex" were analyzed. The results show that, based on this research, the forms of tests cannot be declared official but they provide a good basis for the continuation of the research process. The factor analysis confirmed four-factor structures in both tests, but the coefficients of the internal consistency were reduced (coefficients are mostly slightly below the conventional criteria for low reliability). There are also qualitative differences in the internal structure and the relationship with external variables between ages.

Key words: *HSQ, HSQ-C, humor styles, validation*

Introduction

A daily portion of humor in people's lives suggests that this area of psychology should be thoroughly investigated. The first description and theory of humor emerged in the time of Freud, who considered humor as the healthiest defense mechanism because it is the way of people resolving undesired aggressive and sexual impulses (as cited in Martin, Puhlik- Doris, Larsen, Gray, & Weir, 2003). The popularization of this topic in scientific research started 30 years ago and since then it has been mostly focused on the positive impact of humor on physical, psychosocial health and satisfaction with life (Fox, Dean, & Lyford, 2013).

Anthropological studies have shown that there is no culture or group of people who do not practice humor and that even the most isolated tribes have a sense of humor, which suggests that humor was not created with the development of civilization and modern society, and that humor has existed for thousands of years (Polimeni, 2006). McGee states that humor develops very early in the life of an individual, as well, at the age of six months (as cited in Guo, Zhang, Wang, & Xeromeritou, 2011). If we take into account these temporal reference points, we can say that humor is quite prevalent, both in the life of an individual, and in the long history of humankind.

Andrews (one of the first humor researchers) did researches that were based on giving a list of jokes to respondents who had to evaluate which jokes were the funniest (as cited in Svebak, 2010). Based on the obtained data, Andrews singled out six kinds of humor styles that people prefer to use:

derision-superiority, reaction to debauchery, subtlety, play on words and ideas, sex, ridiculous-wise-cracks. Cattell and Luborsky (1947) took over part of the jokes that Andrews used and added new jokes, which they administered to the respondents. Unlike Andrews, Cattell and Luborsky found 13 clusters, but they managed to reduce it down to five factors: good-natured assurance, rebellious dominance, sexual repression, passive derision and sophistication. From these initial studies to these days, a number of questionnaires have been designed for self-report humor styles, which, among other things, have been used to examine the correlation between humor style and various aspects of mental health, such as psychophysical health and life satisfaction (Abel, 2002, Hughes, 2008, Kuiper, Rod, & Olinger, 1993). In this study, the results suggest that certain humor styles are positively correlated with various aspects of mental health.

However, several researchers have posed a question concerning the extent to which these questionnaires assess health-relevant dimensions of humor. Kuiper and Martin therefore conducted a survey in which they checked the relations between several widely used self-report humor scales and measures related to mental health and psychological well-being, self-esteem, moods and dispositional optimism (as cited in Martin et al., 2003). The results indicated that the humor measures were weakly related to the previously mentioned mental health constructs, and are in contrast with the dispositional optimism. Martin et al. (2003) suggest that the reason for these results might be the fact that the self-report sense of humor questionnaires do not determine exactly which styles of humor can be adaptive to the mental health of an individual, and which can be less adaptive, or, in some cases, even harmful. It is also believed that the correlation coefficients were too low, compared to the logical assumption of how strong these relationships should be. It will now be described which theoretical foundations were used during the construction of HSQ questionnaire, which helped to overcome these mentioned obstacles.

Vaillant (1993) states that a healthy adult personality is characterized by a style of humor that is not hostile or self-deprecating but rather self-accepting. He notices that the healthy types of humor are rare in everyday jokes. He also notes that for a healthy psychological life the absence of maladaptive styles of humor is more important than the presence of the adaptive ones. Besides him, other theorists (Freud, Allport and Maslow), to whom Martin leaned in the theoretical concepts of HSQ questionnaires, agreed that a healthy mental functioning is associated with the uses of styles of humor, such as affiliative, self-deprecating, or perspective taking humor, and that other forms of humor, such as sarcastic, disparaging, or avoidant humor may be harmful for one's well-being (as cited in Martin et al., 2003). Apart from these potential humor styles, Martin also thought it necessary to examine in which way people used humor, interpersonally and intrapersonally.

Martin et al. (2003) have constructed the HSQ questionnaire, which consists of four dimensions that reflect the individual styles of humor which people use in everyday life. These dimensions are two adaptive uses of humor, one to enhance the Self (Self-enhancing) and the other to enhance one's relationships with others (Affiliative), and two maladaptive uses of humor, one to enhance the Self at the expense of others (Aggressive), and the other to enhance relationships at the expense of the self (Self-defeating). As we can see from the questionnaire dimension description, Martin, based on studies and observations, included some improvements with regard to previous self-report humor questionnaires. The improvements are primarily related to a better distinction between adaptive and harmful styles of humor. In the following research, the assumption that certain types of humor are correlated with various aspects of mental health was confirmed (Liu, 2012; Martin, & Edwards, 2010; Martin et al., 2003; Ozyesil, 2012). Compared with the previous sense of humor questionnaires, HSQ more strongly correlated with various aspects of mental health. A factor analysis confirmed a four-factor structure of the questionnaire, i.e. the existence of four humor styles. Cronbach's alpha coefficients showed a low or medium reliability of the scales.

Claire Fox et al. (2013) made the adaptation of the HSQ questionnaire for children called the HSQ-C. The original HSQ is shortened to 24 items and the item language is adapted to children's age. The factor analysis confirmed a four-factor structure of humor for the HSQ-C questionnaire. In addition, Cronbach alpha coefficients showed a low or medium reliability of the scales.

More research has shown that there are differences between the sexes regarding the preferences of a particular style of humor, or that men score higher scores for all four styles of humor. For example, in the Australian sample, these differences are most obvious when it comes to maladaptive humor styles since men tend to use aggressive humor more than women, and immediately after that,

they use a self-defeating humor style more than women (Baugh, 2012; Kazarian et al., 2010). A research done on a sample from Lebanon shows that men use more aggressive humor, followed by a self-defeating humor, in comparison to women (Kazarian & Martin, 2006). The results obtained from the respondents from Canada and Belgium showed that men used a self-defeating, aggressive and self-enhancing humor style more than women; however, statistically, the most significant difference between the sexes was in the use of the aggressive humor style, where men tend to use more aggressive humor styles (Saroglou & Scariot, 2002). A survey in Hong Kong showed that men used aggressive humor more than women did, while statistically significant differences were not found regarding other styles (Liu, 2012). During the construction and validation of the HSQ questionnaire, Martin (2003) got the same results, i.e. that men used more maladaptive humor styles when compared to women.

Similar differences were found in Fuhr's research on boys and girls aged between eleven and fourteen (as cited in Cameron et al., 2010). It was shown that girls used more positive humor, unlike the boys of this age who used more aggressive styles of humor. Also, the research done on a sample of children from 8 to 13 years of age showed that boys used a more aggressive and self-defeating humor than girls did (Av-Gay, 2008).

The Research Review shows the popularity of the HSQ questionnaire. This research is an attempt to encourage further research on humor styles in the territory of Republika Srpska, and to shift towards a formalization of the status of the HSQ.

Method

Sample

The sample for this study was convenient. It was composed of the students attending elementary schools: "Dositej Obradović" and "Ivo Andrić" in Banja Luka; "Sveti Sava" in Novi Grad, "Vaso Pelagić" in Pelagićevo and the students attending high schools: School of Medicine in Prijedor, Grammar school "Vuk Karadžić", Lopare; Grammar school "Filip Višnjić" in Bijeljina; High school "Petar Kočić" and High School Centre "Đuro Radmanović" in Novi Grad. The total sample consisted of 579 students (314 girls and 265 boys). The respondents were from two age groups: elementary school students from 11 to 12 years of age (276 subjects) and high school students aged from 16 to 17 years (303 respondents).

The process of adaptation and data collecting

The original version of the questionnaires in the English language was downloaded from the Internet and adapted to the Serbian language by the author's permission. The back translation was used. Subjects were asked to report to what extent they agreed with the statements offered in the questionnaire by circling one of the answers on a four-point Likert scale for the HSQ-C questionnaire, and five-point Likert scale for the HSQ questionnaire. Tests were administrated in primary and secondary school classrooms. Seven questionnaire administrators, deployed by the cities and schools, were engaged for collecting data.

Instruments

Two questionnaires were used in this study. The respondents aged 11-12 years were tested with the HSQ-C questionnaire, which measures humor styles of children, and the respondents aged 16-17 years were tested with the HSQ questionnaire for adults. In addition, both groups answered basic demographics questions.

The HSQ – Questionnaire for the adult humor style measuring was constructed by Martin et al. (2003). It consists of 32 items which participants can answer by circling one of the answers on a five-point Likert scale.

The HSQ-C – Adaptation of the HSQ questionnaire for children 9 to 15 years old. Fox et al. (2013) adapted this questionnaire. It consists of 24 items which they can answer by circling one of the answers on a four-point Likert scale.

The previously described two questionnaires include the same four dimensions of humor:

a) Affiliative humor style – a person's inclination towards developing good interpersonal relationships, which can be achieved with telling jokes. It also implies the use of humor for reducing

tension while interacting with other people, generally not taking seriously different life situations and observing them from a humorous point of view, the tendency to say funny things about themselves, but simultaneously keeping a positive opinion about themselves (Martin et al., 2003).

b) Self-enhancing humor style – a person’s positive image of the world, being amused by the strangeness of the world, having a vary humorous view of the world, as well as a tendency to consider absurdities of life as fun, using humor to cope with stress, focusing on themselves and not on the people around them when it comes to humor content (Martin et al., 2003).

c) Aggressive humor style - person’s tendency to use humor for achieving personal satisfaction regardless of the negative consequences for others; reflected in the teasing, mocking, belittling and ridiculing others, etc. (Martin et al., 2003).

d) Self-defeating humor style – person’s tendency to mock, belittle him/herself through humor, amuse others while making fun of him/herself; even though such persons are considered as amusing and funny by others, they usually hide low self-esteem underneath the humorous behavior (Martin et al., 2003).

Statistics

Statistical analyses were conducted using IBM SPSS statistic 20 software. The explorative factor analysis, Pearson’s correlations, Cronbach alpha, and Mann-Whitney test were used.

Results

Results for the HSQ-c questionnaire

As said before, the HSQ-c is a questionnaire designed for children, aged around 12 years. This information is very useful in explaining the results that we have obtained from the research on the sample from Republika Srpska.

A Principal Components analysis with a Varimax rotation was conducted. Kaiser-Mayer-Olkin examination suggested that the sample is adequate ($KMO_{HSQ-C} = 0.768$). The four-factor solution explained 41.23% of the initial variance, which is slightly lower than in other studies. Since this study had an explorative character, these results were expected. The rotated component matrix showed some anomalies within the structure (Table 1). Three items that should measure self-defeating humor got highest loadings on self-enhancing humor style. A later item revision showed that, in the process of translation, some items differed from the original items. We believe that the reason for this is that in our language, some words have different connotations than in English, and that this needs to be reviewed in the future studies. However, a scree plot showed a clear “break” after the fourth factor, which suggests that a four-factor structure really exists, and that a satisfactory structure is attainable.

Table 1. Factor Loadings for HSQ – C items

	SE	AFF	SD	AGG
2) If I am feeling sad I can cheer myself up by thinking of funny things.	.554			
6) If I have a problem I try to think of something funny about the problem to make me feel better about it.	.666			
10) If I am feeling scared I find that it helps to laugh .	.555			
19) If I feel a bit uncertain in a situation it helps if I can say something funny.	.690			
22) I find that laughing and joking are good ways to cope with problems.	.449			
24) I usually try to think of something funny when I am in a difficult situation.	.654			
4) I find it easy to make other people laugh.		.645		
8) I often make other people laugh by telling jokes and funny stories.		.463		

12) I find it hard to think of funny things to say when I'm with other people.*		.359
14) I don't have to try very hard to make people laugh – I seem to be a naturally funny person.	.702	
17) My jokes and funny stories make other people laugh.	.731	
20) I can make other people laugh.	.660	
3) I let people laugh at me and make fun of me more than I should.	-.362	.325
7) I often put myself down when I am making jokes or trying to be funny.	.487	
11) When I am with friends or family I seem to be the one that other people make fun of.		.598
13) Letting others laugh at me is my way of keeping my friends and family happy.	.352	.499
16) I often try to get other people to like me more by saying something funny about things that are wrong with me or mistakes that I make.	.498	
23) I often get carried away in putting myself down if it makes my friends or family laugh.	.567	
1) If someone makes a mistake I will often tease them about it.		.704
5) Even if something is really funny, I will not laugh or joke about it if it will upset someone.*		.689
9) When I tell jokes I'm not worried if it will upset other people.		-.419
15) I never laugh at others even if all my friends are laughing at them.*		.673
18) Sometimes I think of something that is so funny about someone that I can't stop myself from saying it, even if it might get me into trouble.		.635
21) I don't like it when people laugh at someone else to make them look silly.*		.691

SE – Self-enhanced; AFF – Affiliative; SD – Self-defeating; AGG – Aggressive; * - rotated items.
 Note: factor loadings below .300 were not displayed.

The results of the reliability analysis were not promising. The aggressive humor style scale had a very low Cronbach coefficient, which was .381 (Table 2). Also, all items that measure aggressive humor style had a corrected item-total coefficient below .300. Again, this problem could derive from a mistranslation, which alters the connotation of some words used in items. The Cronbach coefficient for self-defeating humor style was .628 which is slightly higher than Fox (Fox et al., 2013) got from the Italian sample. Overall, three more items had a corrected item-total coefficient lower than .300, which we consider as plausible results. Since this questionnaire was administered mostly to 12-year-old children, there is also a possibility that the children did not pay enough attention to the items.

Table 2. Cronbach's α and intercorrelations of the HSQ – C four scales for males and females separately.

	Affiliative	Self-enhanced	Aggressive	Self-defeating
Affiliative	.670	.209*	.143	.071
Self-enhanced	.254**	.712	.053	.471**
Aggressive	-.021	-.026	.381	-.037
Self-defeating	.021	.398**	.122	.628

* - $p < .05$; ** - $p < .01$.

Note. Cronbach α -coefficients are on the diagonal. Correlations for males are above the diagonal, for females below the diagonal.

The analysis of the scales of inter-correlations showed that the self-enhancing humor style positively and statistically significantly correlates with the affiliative and self-defeating humor style (Table 2). A correlation between the affiliative and self-enhancing humor style was expected, but the problem is a strong correlation between the self-enhancing and self-defeating humor style. The already described factor analysis showed that the factor structure of the translated questionnaire has some anomalies. Examining the content of the self-defeating humor style items led to a conclusion that three items from this humor style scale that loaded on the self-enhancing humor style factor do not distinctively point out what humor style they contribute to. Therefore, the expected correlation between the aggressive and self-defeating humor style did not occur. The results like these are arguable and difficult to explain.

We found no differences in humor style dimensions between male and female participants, although we expected that males would get higher scores in the aggressive humor style (Table 3).

Table 3. Differences between male and female participants on the HSQ – C scales.

	Sex	N	Mean rank	Mann Whitney	P
AFF	boys	140	135.58	9111.50	.536
	girls	136	141.50		
SE	boys	140	136.67	9263.50	.698
	girls	136	140.39		
AGG	boys	140	142.44	8954.00	.390
	girls	136	134.44		
SD	boys	140	144.66	8657.50	.191
	girls	136	132.16		

AFF – Affiliative; SE – Self-enhanced; AGG – Aggressive; SD – Self-defeating.

Results for the HSQ questionnaire

Two things need to be pointed out before displaying the results for the HSQ questionnaire. First, the HSQ questionnaire is designed for adults, so our idea was to examine whether it could be used on senior juveniles. Second, this study will serve as a foundation for later studies that will follow. Knowing this, we conducted a factor analysis. As Martin et al. (2003) suggest, we used a principal component analysis with the promax rotation. The four-factor structure emerged explaining 34.3% of variance. Although this represents a slightly low percentage of the explained variance, it can be considered as good since it was obtained on a sample that was a little different from the one intended. Seven out of 32 items had their expected factor loadings below the conventional boundary of .300, which can easily be explained by an inadequate translation (Table 4). For instance, item 7. (“people are never offended or hurt by my sense of humor”) should have the highest factor loading on a factor that represents the aggressive humor style. In this study it got -.458 loading on the factor that represented the affiliative humor style, and .222 loading on the factor that represented the aggressive humor style. Since the back-translation showed no big differences between two language forms of this item, we were free to conclude that the reason for these results could easily be ascribed to the context of the item and use of negation, which is very useful information for next studies. This also applies to other items that got a lower or unexpected factor loading.

Table 4. Factor Loadings for HSQ items

	SE	AFF	SD	AGG
2) If I am feeling depressed, I can usually cheer myself up with humor.	.603			
6) Even when I'm by myself, I'm often amused by the absurdities of life.		.425		
10) If I am feeling upset or unhappy I usually try to think of something funny about the situation to make myself feel better.	.681			
14) My humorous outlook on life keeps me from getting overly upset or depressed about things.	.537			
18) If I'm by myself and I'm feeling unhappy, I make an effort to think of something funny to cheer myself up.	.728			
22) If I am feeling sad or upset, I usually lose my sense of humor.				-.394
26) It is my experience that thinking about some amusing aspect of a situation is often a very effective way of coping with problems.	.582			
30) I don't need to be with other people to feel amused – I can usually find things to laugh about even when I'm by myself.	.411			
4) I let people laugh at me or make fun at my expense more than I should.		.573		
8) I will often get carried away in putting myself down if it makes my family or friends laugh.		.684		
12) I often try to make people like or accept me more by saying something funny about my own weaknesses, blunders, or faults.		.622		
16) I don't often say funny things to put myself down.				
20) I often go overboard in putting myself down when I am making jokes or trying to be funny.		.758		
24) When I am with friends or family, I often seem to be the one that other people make fun of or joke about.		.553		
28) If I am having problems or feeling unhappy, I often cover it up by joking around, so that even my closest friends don't know how I really feel.	.371			
32) Letting others laugh at me is my way of keeping my friends and family in good spirits.		.683		
1) I usually don't laugh or joke around much with other people.			.556	
5) I don't have to work very hard at making other people laugh - I seem to be a naturally humorous person.	.380		-.344	.470
9) I rarely make other people laugh by telling funny stories about myself.				
13) I laugh and joke a lot with my closest friends.	.492			
17) I usually don't like to tell jokes or amuse people.			.631	
21) I enjoy making people laugh.	.487		-.333	
25) I don't often joke around with my friends.			.741	
29) I usually can't think of witty things to say when I'm with other people.			.642	-.329
3) If someone makes a mistake, I will often tease them about it.				.510
7) People are never offended or hurt by my sense of humor.			-.458	
11) When telling jokes or saying funny things, I am usually not very concerned about how other people are taking it.				.386
15) I do not like it when people use humor as a way of criticizing or putting someone down.				-.542
19) Sometimes I think of something that is so funny that I can't stop myself from saying it, even if it is not appropriate for the situation.	.344	.406		.358
23) I never participate in laughing at others even if all my friends are doing it.				-.357

27) If I don't like someone, I often use humor or teasing to put them down.	.309
31) Even if something is really funny to me, I will not laugh or joke about it if someone will be offended.	-.519

SE – Self-enhanced; AFF – Affiliative; SD – Self-defeating; AGG – Aggressive; * - rotated items.
 Note: factor loadings below .300 were not displayed.

The reliability analysis showed similar results to those obtained by the HSQ-c questionnaire. The aggressive humor style scale had a very low alpha coefficient (.454), and within this scale no item had a corrected item-total coefficient above .300 (Table 5). The items on this scale are long and some of them have recoded values, which could result in a lower reliability. Since the administration was done during regular classes, there is also a possibility that the concentration of participants was low. Considering the results of the factor analysis, this specific scale is valid but not reliable. Cronbach's coefficients for other scales were slightly below .700. In total, 16 out of 32 items got a corrected item-total coefficient below .300. However, the results of the factor analysis suggest that the translation of the HSQ test can be improved.

The problems with the inter-correlations of the HSQ scales are similar to those in the HSQ-c scales inter-correlations. Given results are arguable. The correlation between the self-enhancing and self-defeating humor style is positive and statistically significant (Table 5). The correlation between the aggressive and self-enhancing humor style was found only in males, while the correlation between the affiliative and self-defeating humor style was found only in females. We will return to these results in the general results overview.

Table 5. Cronbach's α and intercorrelations of the HSQ four scales for males and females separately.

	Affiliative	Self-enhanced	Aggressive	Self-defeating
Affiliative	.639	.280**	.156	.093
Self-enhanced	.258**	.684	.178*	.323**
Aggressive	-.122	.055	.454	.114
Self-defeating	.173*	.255**	.170*	.673

* - $p < .05$; ** - $p < .01$.

Note: Cronbach's α coefficients are on the diagonal. Correlations for males are above the diagonal, for females below the diagonal.

Mann-Whitney test suggest that males tend to use the aggressive humor style more than females (Table 6), which corresponds to Marten's results (2003). We found no other differences between males and females in this sample.

Table 6. Differences between male and female participants on HSQ scales.

	Sex	N	Mean rank	Mann Whitney	p
AFF	boys	125	150.28	10910.00	.774
	girls	178	153.21		
SE	boys	125	142.08	9885.00	.098
	girls	178	158.97		
AGG	boys	125	172.74	8532.50	.001
	girls	178	137.44		
SD	boys	125	155.06	10742.000	.609
	girls	178	149.85		

AFF – Affiliative; SE – Self-enhanced; AGG – Aggressive; SD – Self-defeating.

The general results overview shows that both samples are sensitive to the content of the items to the extent that small deviations of the original items led to severe results. Since both questionnaires have a similar structure and the same theory background, the results like those that we obtained indicate that the key problem is an inadequate translation.

Discussion

One of the goals of this study was to initiate the exploration of the humor styles in Republika Srpska by using the popular humor styles questionnaires. Pilot studies like this one are a baseline for the forthcoming studies in a specific field of humor styles. This study shows that more effort in terms of translation is needed in order to achieve good psychometric characteristics of the HSQ and HSQ-c questionnaires. For every displayed aberration, the answer can be found in an inadequate translation of mainly key words in several items. Correcting these mistakes could lead to better psychometric characteristics.

As shown in the factor analysis of a HSQ-C questionnaire, the structure of factor loadings indicates that humor can be used as a stress relief, which is one of the main uses of humor (Item 19. If I feel a bit uncertain in a situation, it helps if I can say something funny). Considering this, we can assume that the protective or self-enhancing function of humor is present at the age of participants, which is around 11 and 12 years. This age is specific because of the onset of puberty. One implication of this result is that children can develop humor as a coping strategy that helps them face problems related to puberty. The situation is similar with the affiliative humor style. That factor is mostly defined with item 17. "My jokes and funny stories make other people laugh". This indicates a social function of humor and we can again imply that humor is present at the mentioned age. There is no doubt that children use humor at various ages, so the data of the factor analysis for the affiliative and self-enhancing humor speaks in favor of the validity of these two dimensions. Previously, we mentioned the cultural context as one of the reasons of lower psychometric characteristics. By that we meant that there could be differences in usual social activities between children in countries like Italy and USA. Before improving the item content, it would be useful to explore and compare the usual social habits of children in the mentioned countries so that it could be easier to alter problematic items in the item revision. We point out this because of the low construct validity of the aggressive and self-defeating humor style scales. As for the self-defeating humor style scale, only two items had the highest loadings on this factor (Item 11. When I am with friends or family I seem to be the one that other people make fun of; Item 13. Letting others laugh at me is my way of keeping my friends and family happy). It is obvious that the content of these items indicates self-defeat. We believe that the problem occurred with the translating phrase "put (myself) down" in other items. Also, the phrases "laugh at me" and "make fun of me" lose a specific humiliating connotation in a direct translation. We believe that a better phrase could be "humiliate me by making jokes" and similar. We also found that the aggressive humor style scale lacks a specific connotation. Children were tested in their classrooms. That could affect socially acceptable responses to occur, because items that had the highest loadings put focus on the acceptable behavior (Item 21. I don't like it when people laugh at someone else to make them look silly; Item 5. Even if something is really funny, I will not laugh or joke about it if it will upset someone; Item 15. I never laugh at others even if all my friends are laughing at them). We believe that the aggressive aspect of humor should be tested more directly, with a focus on particular situations and behaviors like "I enjoy humiliating others making fun of them" and similar.

The HSQ questionnaire factor structure is more promising. Again, we point out that one goal of this study was to determine whether the HSQ questionnaire (designed for adults) can be used for adolescents. The results show that it can, but with minor edits. The aggressive humor style scale had a low reliability coefficient, which we explain with the items that measure socially acceptable behavior. The highest loading for the aggressive humor factor had item 15: "I do not like it when people use humor as a way of criticizing or putting someone down". This item also has "put down" phrase that we discussed previously. We suggest a more direct item like "I like to humiliate others making fun of them". Our argument is that the items that were used could be described as euphemisms of the actual behavior which is presented in difference between "put down" and "humiliate", or "make fun of" and "mock". A significant difference between boys and girls occurred in the aggressive humor style which

was expected, but we believe that we cannot infer that boys are more aggressive than girls because of the arguable validity and reliability of the aggressive humor style scale. The self-defeating humor style scale had a higher reliability than the aggressive humor style scale, but what is interesting is that item 25 (I don't often joke around with my friends) had the highest loading on the self-defeating factor. Furthermore, item 13 (I laugh and joke a lot with my closest friends) had the highest loading on the self-enhancing factor. It is not clear how this item measures "self-defeating" because it lacks a self-defeating connotation.

In both samples, the data showed that a correlation between the self-enhancing and self-defeating humor style was positive and significant. We can say that in Republika Srpska it is common to make fun of yourself in both positive and negative way. Both humor styles, based on free observation, represent a socially desirable behavior even if it implies dark humor. This could mean that both humor styles can be used as coping mechanisms as well as a usual collective behavior. The problem with this assumption is a questionable factor structure. To determine differences between these two humor styles in population of Republika Srpska, we first must insure a clear structure within questionnaires.

As regards sex differences, the results of Mann-Whitney test for an older group showed that boys tended to use more the aggressive humor style. Despite a statistical significance, we cannot infer that boys are aggressive in humor because of the low reliability of that scale.

Conclusion

Both questionnaires had issues regarding the factor structure and reliability. We can conclude that their psychometric characteristics are not satisfactory and in this form, questionnaires cannot be used as psychological instruments. We believe that, for understanding humor styles in Republika Srpska, a cultural context needs to be included, but for including a cultural context, more stable results need to be established. For the item revision, we already proposed a more direct way of the item formulation, with a focus on particular situations and behaviors.

This study is also a call for various researchers from former Yugoslav republics to become involved in the adaptation of described questionnaires due to their popularity and applicability in Western countries.

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Rezime

Humor je važna socijalna veština, odbrambeni mehanizam, pokazatelj stabilnosti ličnosti itd. U našem regionu su retki prevedeni i adaptirani instrumenti za merenje stilova humora kod mladih osoba. Kada je reč o stilovima humora, Martin ih deli na afilijativni, agresivni, samo-veličajući i samo-poražavajući. U skladu sa tim je konstruisao Upitnik stilova humora HSQ (Martin et al., 2003). Ubrzo potom je usledila i konstrukcija upitnika HSQ-C primenljiva kod dece (Fox et al., 2013). U Republici Srpskoj ne postoji prevedeni i adaptirani upitnik koji meri stilove humora kod dece. Cilj ovog istraživanja je provera psihometrijskih karakteristika prevedenih formi pomenutih upitnika, sa namerom da se ovim testovima obezbedi zvaničan status. Takođe je proveravano da li upitnik HSQ, osmišljen za odrasle, može biti korišćen i na uzorku adolescenata. HSQ-C je zadat na uzorku učenika osnovne škole uzrasta 11-12 godina (276 ispitanika), a HSQ je zadat na uzorku srednjoškolaca uzrasta 16-17 godina (303 ispitanika). Ispitanici su bili redovni učenici osnovnih i srednjih škola sa teritorije Republike Srpske. Izvršena je analiza karakteristika pojedinačnih ajtema, ispitana je interna konzistentnost i faktorska struktura pomenutih testova. Takođe, ispitana je unutrašnja struktura testova i povezanost mera dobijenih ovim testovima sa polom ispitanika. Rezultati pokazuju da se ispitivane verzije testova ne mogu smatrati zvaničnim, ali predstavljaju dobru osnovu za dalja istraživanja. Faktorska analiza potvrđuje četvorofaktorsku strukturu oba testa, ali koeficijeti interne konzistentnosti su niski (koeficijenti su uglavnom malo ispod konvencionalnog kriterijuma niske pouzdanosti). Takođe postoje kvalitativne razlike u internoj strukturi i povezanosti sa eksternim varijablama između uzrasta.

Ključne reči: *HSQ, HSQ-C, stilovi humora, validacija*

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INDIVIDUAL DIFFERENCES IN IDENTITY STYLES

Abstract

Following Berzonsky's socio-cognitive model of identity styles, a line of research has emerged in the literature on the individual differences related to identity formation. It regards the analysis of the psychosocial correlates of identity styles in late adolescence and youth in terms of wellbeing, cognitive processes, decision styles, coping strategies, socio-political attitudes, and parent relationships. This paper examines the individual differences in identity styles, taking into account the role of cognitive and decisional processes within this relation. The sample was composed of 405 (M = 69, F = 366, $M_{age} = 19.82$) school and university students. The questionnaire included: socio-demographic section, Identity Style Inventory 5, Rational-Experiential Multimodal Inventory, and General Decision Making Style Inventory. The data set was subjected to descriptive and causal analyses. Findings showed age effects on identity styles and experiential reasoning and gender effects on reasoning processes and decisional styles. Mediation analyses were used to examine the relationship among the variables of interest. Fit indexes were acceptable, SRMR = .06, CFI = .92, RMSEA = .05, GFI = .90, NFI = .90, $\chi^2 = 549.85$ gdl = 281, $p < .05$. This model confirmed the mediator role of two identity styles (except the normative one) in the relationship between reasoning process and decision styles.

Keywords: *individual differences, identity styles, reasoning processes, decision-making styles*

Introduction

In adapting Erikson's concept of identity for empirical research, Marcia developed the identity status paradigm to explain ways in which adolescents engage in the task of the identity formation (Marcia, 1966, 1980). The model foresaw two basic dimensions, exploration and commitment, for defining the individual's status with respect to achieving an identity. Exploration, which corresponded to the Eriksonian crisis, referred to the adolescent's period of engagement in choosing among meaningful alternatives, whereas commitment referred to the degree of personal investment the individual exhibits. By simultaneously considering an individual's levels of exploration and commitment, Marcia was able to derive four statuses for characterizing an individual's development toward a mature identity. These statuses were Achievement, Moratorium, Foreclosure, and Diffusion (Marcia, 1980, 1993).

Subsequent work has advanced the understanding of the process of identity by examining the respective roles that abilities and orientations play in the process. Berzonsky (1989a), for example, proposed a further approach to the identity formation, which was based on a solid cultural background unifying the Kuhnian, Lakatosian, and Popperian reflexions on the constructive nature of knowing with the Eriksonian psychosocial identity theory. Berzonsky's model includes efforts to operationalize components of the exploration process and focused on the social-cognitive processes adopted by individuals to construct, maintain, and/or reconstruct their sense of identity. According to this perspective (Berzonsky, 1990), each individual adopts a characteristic information-processing style when forming an identity, and more precisely, one of three styles as his/her characteristic orientation to making identity-relevant decisions during the process of identity formation. The Informational style is characterized by active exploration of alternatives, information seeking, and flexible commitments. Alternatively, the Normative style displays little exploration of alternatives and is characterized by attitudes such as subservience, deference to authority and dogmatic, inflexible commitments. This style represents conformity to social and familial expectations. Lastly, the Diffuse/Avoidant style is

characterized by the avoidance of exploration and is characterized by procrastination, avoidance and the unwillingness to confront the decision-making process.

Since the early 1990s and following Berzonsky's paradigm, scientific literature on the identity formation has been focused on two main areas: the first one has dealt with the analysis of the various psychosocial correlates of identity styles in late adolescence and youth, among them, cognitive processes, decision styles, and the second one of the psychometric properties and validation process of the Inventory (Identity Style Inventory, ISI) within a cross cultural validation. Our study aimed to explore individual differences by analyzing some of the above mentioned constructs such as cognitive processes and decision styles in their linkage to identity styles.

With regard to the first line of research, some studies showed that informational style was negatively correlated to the need for a cognitive closure (Soenens et al., 2005) and problematic and hyperactive behaviours (Adams et al., 2001), and positively to the academic autonomy and educational contexts (Berzonsky & Kuk, 2000); the normative style was positively correlated to cognitive closure, authoritarianism (Soenens et al., 2005) and negatively to problematic behaviours (Adams, et al., 2001). The diffuse avoidant style was positively related to the antisocial behavior and hyperactivity (Adams et al., 2001), low scores of autonomy and academic engagement in educational contexts (Berzonsky & Kuk, 2000). In addition, Berzonsky and Ferrari (1996) reported relationships between identity styles and decision process styles, i.e. individuals with informational styles issues relied on a cognitive, vigilant decisional strategy, those with diffuse avoidant styles use the automatic strategy in problem solving and, finally, the diffuse/avoidant orientation was accompanied by a pre-decisional panic, low cognitive confidence, procrastination, and maladaptive decisional strategies such as avoidance, excuse making, and rationalization. Recently, Berzonsky et al. (2013) have investigated the association of the identity formation with individual differences in the cognitive processes as conceived on Epstein's dual model, i.e., intuitive and rational reasoning processes. Particularly, the informational style was positively associated with both rational and intuitive reasoning; the normative style was positively correlated with intuitive reasoning processes; and the diffuse-avoidant style was associated positively with a rational reasoning. Following these results, the main goal of the present study was to assess the role of cognitive processes and decision making style on the identity construction by testing a mediational model in which identity styles play the mediating role within the relationship between cognitive processes and decision making styles. To this purpose, the following hypotheses were formulated: the analytical and rational reasoning predicted the informational style, which in turn predicted the rational and intuition decision styles; the diffuse avoidant style was negatively predicted by the analytical process and positively by the intuition one. This style predicted also the avoidant, spontaneous and dependent decision making styles. Finally, the rational and intuition cognitive processes predicted positively the normative style, which in turn influenced dependence and spontaneous decision making styles.

Method

Participants

The total sample was composed by 405 Italian students ($F = 366$ females): 237 were from Universities and 151 from high schools ($M_{age} = 19.82$, $SD = .89$).

Procedure

Permission was required from heads and deans to conduct the research study at the school/institution. A written informed consent was taken from students over 18 years of age and from parents or legal guardians for students under 18 years of age. Respondents were asked to voluntarily complete a questionnaire anonymously during an ordinary 50-minute lesson. The data collection period lasted from March to May 2014. Potential order effects were controlled by presenting the scales in a randomized order.

Instruments

The questionnaire included:

1. A socio-demographic section (gender, age, school/university);

2. The Identity Style Inventory 5 (ISI-5; Berzonsky et al., 2013). It measures three identity styles (Informational, Normative, and Diffuse-avoidant) and Commitment. The scale is composed by 36 items scored on a Likert scale ranging from 1 = *not at all like me* to 5 = *very much like me*. The coefficients of internal consistency (Cronbach's alpha) were: .721 for Informational style, .604 for Normative style, .711 for Diffuse-avoidant style, and .784 for Commitment scale. This scale was not included in the hypothesized model, because it is not conceived as an identity style. The ISI-5 was translated into Italian using a double back-translation process;
3. The Rational/Experiential Multimodal Inventory (REIm; Norris & Epstein, 2011). It is composed by 42 items, 12 in the Rational scale ($\alpha = .760$) and 30 in the Experiential one ($\alpha = .770$), which includes 10 items in each of its three subscales (Intuition, $\alpha = .57$, Emotionality, $\alpha = .617$, Imagination, $\alpha = .742$). All items are rated on a 5-point Likert scale (1 = *completely false*, 5 = *completely true*). The REIm was translated into Italian using a double back-translation process;
4. The General Decision Making Style – Italian version (GDMS; Scott & Bruce, 1995; Gambetti et al., 2008). It is composed by 25 items, five for each style dimension, that is, Rational style ($\alpha = .665$), Intuition style ($\alpha = .636$), Dependence style ($\alpha = .804$), Avoidance style ($\alpha = .747$), and Spontaneous style ($\alpha = .768$). All items are rated on a 5-point Likert scale (1 = *completely agree*, 5 = *completely disagree*).

Strategies of analyses

Preliminary analyses were applied to data to verify the normal distribution of the scores of each scale. To this purpose, the indices of the central tendency (mean, mode, and median) and the variability of the distribution (standard deviation, skewness, and kurtosis) were calculated. In addition, an independent sample t-test was used to analyze age and gender effects. Bivariate correlations among the variables of interest were examined. Confirmatory analyses were applied for each scale to confirm the factorial structures. The hypothesized model was tested by Structural Equation Modeling. Analyses were conducted using SPSS 20 and Amos 20.

Results

Preliminary analyses

Table 1 shows descriptive analyses of the scores obtained from each dimension of the three scales. The values of the central tendency (mean, mode, and median) are identical except for the mode in the Normative scale of ISI-5, where differences emerged. The degree of this discrepancy allows for the interpretation of this distribution as positively asymmetrical or “skewed”. The data of kurtosis of Informational style go beyond the threshold value; therefore, they are not normally distributed. The independent sample t-test was used to assess gender and age effects on the scores of each scale. Findings show gender and age effects.

As for gender, differences between males and females emerged in:

1. rational reasoning process, $t(403) = 2,303, p < .05$, i.e., males obtained higher scores ($M = 41,33$; $SD = 7,43$) than females ($M = 39,23$; $SD = 6,80$);
2. experiential reasoning process, $t(403) = -4,12, p < .05$, i.e., females obtained higher scores ($M = 35,61$, $SD = 4,06$) than males ($M = 33,42$, $SD = 3,8$);
3. rational decision making style, $t(403) = 2,35, p < .05$, i.e., males obtained higher scores ($M = 19,25$, $SD = 2,54$) than females ($M = 18,42$, $SD = 3,18$);
4. in intuition decision making style, $t(403) = -1,97, p < .05$, i.e., females obtained higher scores ($M = 17,54$, $SD = 2,89$) than males ($M = 16,68$, $SD = 3,38$).

With regard to age effects, differences between youngsters and adolescents were found in informational style, $t(403) = -2,40, p < .05$, experiential reasoning process, $t(403) = -3,34, p < .05$, and intuition decision making style, $t(403) = -2,44, p < .05$. More specifically, youngsters obtained higher scores ($M = 35,46$, $SD = 4,56$; $M = 36$, $SD = 4,40$; $M = 17,81$, $SD = 2,98$) than adolescents ($M = 34,24$, $SD = 5,41$; $M = 34,65$, $SD = 4,05$; $M = 17,08$, $SD = 2,967$) respectively.

Bivariate correlations among the variables of interest are shown in Table 1.

Table 1: Bivariate correlation matrix

	1	2	3	4	5	6	7	8	9
1. Normative style	-								
2 Informational style	,048	-							
3. Diff. avoidant style	,360**	,131*	-						
4. Rational process	-,086	,295**	,324**	-					
5. Experiential process	-,038	,216**	,015	,086	-				
6. Rational decision making style	-,006	,456**	,187**	,343**	,019	-			
7. Intuitive decision making style	,183**	,070	,110*	,050	,368**	,076	-		
8. Dependent decision making style	,221*	,144**	,228**	,173**	,049	,117*	,041	-	
9. Avoidant decision making style	,184**	,138**	,605**	,319**	,021	,153**	,006	,313**	-
10. Spontaneous decision making style	,164**	,174**	,312**	,127	,194**	,342**	,347**	,024	,292**

* $p < .05$; ** $p < .001$

As for the correlations between ISI and REIm, Informational style positively correlates with Experiential and Rational reasoning processes; Diffuse-avoidant style negatively correlates with Rational reasoning process. As for the correlations between ISI and GDMS, Informational style positively correlates with Rational and Dependent decision making styles and negatively with Avoidant and Spontaneous decision making styles. Diffuse-avoidant style negatively correlates with Rational decision making style and positively with Intuitive, Spontaneous, and Avoidant decision making styles. Normative style negatively correlates with Rational decision making style and positively with Intuitive, Dependent, Spontaneous, and Avoidant decision making styles.

Psychometric properties of instruments

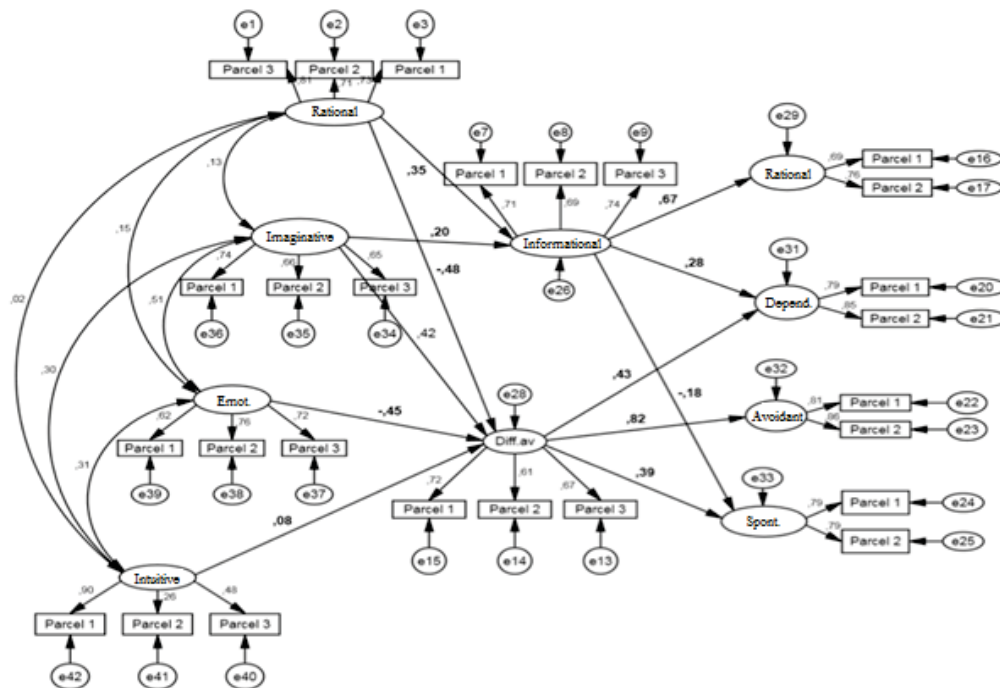
All scales were subjected to exploratory and confirmatory factor analysis. With regard to exploratory factor analysis of REIm, items 1, 11, 31, 32, 38, 39, 41 did not load on any factor (factor loading $< .30$). Thus, these items were deleted. The CFA was carried out by using items parceling. The fit indices confirmed the model and showed good values: CFI = .95; RMSEA = .056; SRMR = .05; $\chi^2 = 108.704$, $df = 48$, $p < .000$. Results from exploratory factor analysis on GDMS reported acceptable values. No item parceling was conducted in this scale due to the limited number of items for each factor. The fit indices of CFA showed good values: CFI = .97; RMSA = .60; SRMR = .0378; $\chi^2 = 61.243$, $df = 25$, $p < .000$. Findings of the CFA of ISI-5 reported high reliability of the instrument. The fit indices showed good values: CFI = .98; RMSEA = .041; SRMR = .04; $\chi^2 = 40.620$, $df = 24$, $p < .05$.

Structural analyses

The structural equation modeling was applied to the hypothesized model, in which identity styles mediated the relationship between reasoning processes (Rationality, Intuition, Emotionality, Imagination) and decision-making styles. The goodness of fit of the model was tested

by the following indices: the Chi-square (χ^2), the Normed Fit Index (NFI), the Comparative Index (CFI), the Standardized Root Mean Square Residual Index (SRMR), the Root Mean Square Error of Approximation (RMSEA). The first model showed no good fit indices (SRMR = .09; CFI = .81; RMSEA = .08; $\chi^2 = 850.07$, $df = 253$, $p < .000$) and some paths among latent variables were not significant. Therefore, a second model was tested, in which the normative style and the intuitive decision making style were eliminated because they received no paths and had no influence. The fit indices of the final model were acceptable: SRMS = .06; CFI = .92; RMSEA = .050; $\chi^2 = 549.85$, $df = 281$, $p < .05$. Figure 1 shows the regression coefficients (β) and levels of significance (p). All β -values are significant for $p < 0.05$ except for Intuitive reasoning process on Diffuse-avoidant style. In details, in reference to the relationship between reasoning processes and identity styles, Rational reasoning process positively predicts Informational style ($\beta = .349$, $p < .05$), and negatively Diffuse-avoidant style ($\beta = -.483$, $p < .05$); Imagination reasoning process positively predicts both Informational ($\beta = .203$, $p < .05$) and Diffuse-avoidant identity styles ($\beta = .419$, $p < .05$); Emotional reasoning process negatively predicts Diffuse-avoidant identity style ($\beta = -.447$, $p < .05$). With regard to the relationship between identity styles and decision-making styles, Informational style positively predicts both Rational ($\beta = .669$, $p < .05$) and Dependent decision styles ($\beta = .277$, $p < .05$) and negatively Spontaneous decision style ($\beta = -.180$, $p < .05$). Finally, Diffuse avoidant style positively predicts Dependent ($\beta = .427$, $p < .05$), Avoidant ($\beta = .822$, $p < .05$) and Spontaneous decision styles ($\beta = .385$, $p < .05$).

Figure 1. Mediation model



Discussion and conclusion

The aim of the present study was to evaluate the role of cognitive and decisional processes in the formation of identity styles by testing a mediational model in which identity styles play the mediating role within the relationship between cognitive processes and decision making styles.

As for gender differences, the higher scores obtained by males in both rational reasoning process and decision making style, and the higher scores obtained by females in experiential reasoning process and in intuitive decision making style are consistent with gender stereotype,

according to which males tend to use less emotional strategies, whereas females are more intuitively and emotionally-inclined.

As for age differences, the informational identity style adopted by youngsters shows their tendency to actively seek out and evaluate self-relevant information, and to be reflective, open to experience, and vigilant decision-makers (Berzonsky, 2004, p. 213). Moreover, their use of an experiential reasoning process reflects the preference for intuitive decision making style and for past experiences. Such an adoption could be justified by the growing up of life experiences and by an increasing maturity.

With regard to the correlations, informational style resulted associated with both reasoning processes and with rational decision making style. Consistent with the view that both reasoning processes play an important role in the self-regulation and the self-construction (Berzonsky, 2004, Epstein et al., 1996), and in line with other data reported in literature (Berzonsky, 2004; Berzonsky, 1990, 2008; Berzonsky & Ferrari, 1996; Berzonsky & Sullivan, 1992), these findings suggest that individuals with an informational approach are inclined to process information relevant to their identity in a consciously willful, rational fashion, as well as in an automatic, experientially based processing. Consequently, these individuals behave as "scientific self-theorists" (Berzonsky, 1988, 1989b), i.e., they are skeptical self-explorers, rational agents and actively able to use problem focused-coping strategies and vigilant decisional strategies.

The negative correlation between diffuse-avoidant style and rational reasoning process and the positive correlation between diffuse-avoidant style and intuitive, spontaneous, and avoidant decision making styles are in line with the assumption that diffuse-avoidant-oriented individuals prefer not to engage in effortful and complex thoughts like self-reflect, acquiring and decision making (Krettenauer, 2005; Njus & Johnson, 2008). Consequently, some of them tend to adopt intuitive and spontaneous decision making style and others tend to prefer an avoidant decision making style, that is, they prefer that others decide for them or let chance decide.

With regard to the mediational model, the results provide evidence for its validity in line with Berzonsky's research (2008), in which the reasoning processes play a predictive role in the regulation, construction and reconstruction of sense of identity, and with other studies concerning the relationships between decision-making styles and identity formation (Waterman & Waterman, 1974; Blustein & Philips, 1990; Berzonsky & Ferrari, 1996). More precisely, the informational style plays the role of a positive mediator between rational and imaginative reasoning processes and rational, dependent and spontaneous decision-making styles. Hence, individual differences in identity construction appeared in our study can be explained by embracing Berzonsky's social-cognitive perspective: Individuals with an informational processing orientation deliberately seek out identity-relevant information and consequently may rely on rational reasoning processes. Similarly, informational-oriented individuals with imaginative reasoning processes tend to reduce their feel of immediacy and the time of the decision making process, as well as to follow others to face with their own identity conflicts and issues.

Finally, the positive relationship among imagination, diffuse-avoidant style, and avoidant, spontaneous, and dependent decision making styles supports the idea that the preference for an effortless implicit knowledge positively predicts a diffuse-avoidant identity processing orientation, which leads individuals to adopt a situation-specific approach to self-theorizing and to be unwilling to deal with conflicts. Consequently, firstly, as they procrastinate choices and actions and assume a self-serving prospective, they tend to be avoidant decision-makers; secondly, as they operate in a hedonistic, situation-specific fashion, they use a spontaneous decision making strategy; thirdly, as they follow suggestions and impressions tailored by others, they tend to be advise seekers, i.e., to be dependent.

Some limitations of the study need to be shortly pointed out. A stronger validity of the model can be obtained by using a broader sample, which would allow to assess the role of the normative style within this model. Another limitation concerns the use of self-report questionnaires which are subject to faking, and therefore, to social desirability bias.

In conclusion, the findings of our investigation may represent a starting point for further insights into the understanding of individual differences in the research of personality as well as possible guidelines for educational and counseling interventions.

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Rezime

Na osnovu Berzonskijevog socio-kognitivnog modela teorije o stilovima identiteta, razvijen je metod istraživanja u literaturi o individualnim razlikama vezanim za formiranje identiteta. Taj se metod tiče analize elemenata korelacije stilova identiteta u kasnoj adolescenciji i mladosti, uzimajući u obzir blagostanje, kognitivne procese i stilove odlučivanja. Ovaj rad ima za cilj da razmotri individualne razlike u stilovima preuzimanja identiteta, uzimajući u obzir ulogu kognitivnih postupaka i procesa odlučivanja u toj vezi. Uzorak se sastojao od 405 učenika i studenata ($M = 69$, $\bar{Z} = 366$, $P_{starost} = 19,82$). Upitnik je obuhvatao deo o socio-demografskim varijablama, Inventar stilova identiteta 5, Racionalno – iskustveni višemodalni inventar, Inventar opštih stilova odlučivanja. Skup podataka je podvrgnut deskriptivnim i uzročnim analizama. Rezultati su pokazali da postoji efekat uzrasta na stilove identiteta i eksperimentalno rezonovanje, a da pol ostvaruje efekat na procese rezonovanja i stilove odlučivanja. Medijacione analize su bile iskorišćene da se ispita odnos među varijablama. Fit indeksi su bili prihvatljivi, SRMR = .06, CFI = .92, RMSEA = .05, GFI = .90, NFI = .90, $\chi^2 = 549,85$ gdl = 281, $p < .05$. Model je potvrdio medijatorsku ulogu dva stila identiteta (sa izuzetkom normativnog) u vezi između procesa rezonovanja i stilova odlučivanja.

Ključne reči: *individualne razlike, stilovi identiteta, procesi rezonovanja, stilovi odlučivanja*

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TEMPERAMENT AS A PREDICTOR OF THE PROSOCIAL BEHAVIOR IN THE FIRST GRADE PRIMARY SCHOOL CHILDREN

Abstract

In order for the child to be accepted by the new peer system, it is necessary for him or her to express certain competencies that are desirable in a peer group. The prosocial behavior is, as socially adaptive behavior, considered to be one of the preferred forms of a group behavior. This study examines the role of temperament as a predictor of a manifestation of the prosocial behavior. The sample consisted of 98 children, the primary school first graders in Novi Sad (53.1% girls). The following instruments were applied: Prosocial Behavior Assessment Scale – the form for teachers, and Temperament Assessment Scale – the short form for teachers. The results of the univariate analysis of the covariance show that the dimensions of temperament and gender as a set of predictors represent a good predictive model that explains 28.5% of the variance of the prosocial behavior ($F(11)=7.00, p<.00$). Of six dimensions of temperament (activity, distractibility, persistence, initial reaction, intensity, adaptability), only the dimension adaptability ($\beta = 0.36, p < 0.01$) and gender ($\beta = .73, p < .05$) proved to be statistically significant in predicting the manifestation of the prosocial behavior when it comes to the children of the first grade of primary school. The child that has a higher level of adaptability as an individual characteristic and girls will be more willingly and ready to express prosocial behaviors due to social learning, personal traits to adequately adapt to different situations and interactions, and willingness to accept change.

Key words: *prosocial behavior, temperament, children, adaptability, first grade.*

Prosocial behavior

Starting first grade represents a new adaptive task whose successful fulfillment leads to the functional development of an individual, their mental health and a positive attitude toward school (Eisenberg, Fabes, & Spinrad, 2007). A new environment and more closely defined social rules demand that the child adapt and show modes of behavior that are considered socially acceptable. One of those socially adaptive modes of behavior are prosocial behaviors that are considered to be one of the preferred forms of the group behavior, both in adulthood and in childhood.

The prosocial behavior is well valued in a society; therefore it plays an important role in one's life and interpersonal relationships. The prosocial behavior represents a deliberate and willful behavior that results in exerting positive effects on others (Eisenberg & Miller, 1987). A wide range of behaviors such as cooperation, helping others in need, sharing with others, donations etc. (Brebić, 2008) are regarded as the prosocial ones. These behaviors have significant influence on a child's interpersonal interactions. Children who exhibit a large number of prosocial behaviors tend to be more popular and accepted by their peers, have fewer mental problems, better grades at school, a healthy attitude towards school and life (Krnjajić, 2002; Trbojević & Petrović, 2014; Vaughn et al., 2000). The factors that influence the development of prosocial behaviors by social learning are family, school, peer, social media (Eisenberg & Miller, 1987) where children adopt behaviors they see in others (Bandura, 1986, according to O'Donnell, 2006). On the other hand, individual factors such as gender and temperament influence the development of prosocial behaviors in a more subtle way (Eisenberg & Miller, 1987), triggering internal mechanisms that act as a driving force for some types of behaviors.

Children temperament

Temperament as an individual factor of developing antisocial behaviors is seen as fundamental for understanding the (mal)adaptive functioning of the child (Trbojević, Perišić, & Petrović, 2014). Temperament can be seen as a biological basis on which a personality is based on, within which there are differences in the emotional and the motor readiness for self-regulation, attention and reaction (Graziano et al., 1998). These individual differences have an influence on the way children interact with environment during development and the way they adapt to it (Fu & Pérez-Edgar, 2013).

As regards children temperament, one of the first divisions has been offered by the authors Thomas and Chess (1977). Their categorization of temperamental dimensions was based on a longitudinal study of the observed behavior of a person from three months of age until adulthood. Nine temperamental dimensions that they found are: activity level, the intensity of response, adaptability, persistence, rhythmicity, initial reaction, mood, distractibility, and sensory threshold.

Besides categorizations by Tomas and Chess, there are a few different approaches to temperament, but one thing they all agree on is that temperament is a motivator of behaviors (Fu & Pérez-Edgar, in press; Rothbart & Bates, 2006). Temperament is also associated with adjustment outcomes (Lengua & Wachs, 2012, according to Fu & Pérez-Edgar, in press). For example, studies have shown that high negative emotionality and activity contribute to the development of externalizing problems (Yoleri & Gürsimsek, 2012) and social withdrawal; intense reactions to stimuli, low adaptability, irritability, and poor attention are often associated with behavioral problems such as aggression and delinquency (Kingston & Prior, 1995). Besides aggressive behaviors, temperament contributes to social behaviors (Billman & McDevitt, 1980; Calkins, Gill, Johnson, & Smith, 1999; Rubin, Burgess, & Hastings, 2002; Russell, Hart, Robinson, & Olsen, 2003). Children with temperamental dimensions, such as high activity, tend to get more involved in conflicts, but are also more sociable than children with low activity (Bilman & McDevitt, 1980). On the other hand, children whose initial reaction to new situations is to withdraw show fewer interpersonal competences (Bilman & McDevitt, 1980). Authors Calkins, Gill, Johnson and Smith (1999) indicated the importance of emotional regulation and reactivity on social behaviors in children. Children with high emotional regulation are less engaged in peer conflicts and exhibit a large number of social behaviors directed to peers. As to predicting social behaviors in later childhood based on temperamental dimensions in early childhood, the study shows that a child's ability to inhibit behaviors that are not socially adaptive represents a good predictor of social behaviors in late childhood (Rubin et al., 2002).

One of social behaviors that has a relevant influence on one's social interactions and adaptation in life is the prosocial behavior. A cross-cultural study, in which temperament of the child was assessed by teachers and parents, showed that temperamental dimensions activity, shyness, and sociability were correlated with social and prosocial behaviors (Russell et al., 2003). Even though the amount of explained variance was relatively small, the result shows that temperament represents a significant predictor of prosocial behaviors (Russell et al., 2003). In adolescence, emotional reactivity and self-regulation were consistent predictors of prosocial behaviors (Carlo et al., 2012; Eisenberg et al., 2007). Self-regulation plays the role of inhibition and emotional regulation in social situations and improves one's perception of their abilities which gives them motivation to help. As for how is emotional reactivity a good predictor of prosocial behavior, an adolescent has to have an optimal level of emotional reactivity, because a high or low level may result in a focus on the self (empathic distress) or insufficient emotional sensitivity to others' distress (Eisenberg & Fabes, 1992).

High levels of temperamental fear (which can be observed as a combination of temperamental dimensions initial reaction, negative mood, low activity) are associated with less helping behaviors (Eisenberg et al., 1996; Spinrad & Stiffer, 2006, according to McGinley, 2008). On the other hand, the emotion regulation represents a good predictor of prosocial behaviors in childhood (Eisenberg, et al., 1996; Rydell et al., 2003, according to McGinley, 2008) where a higher level of the emotion regulation is associated with a large number of prosocial behaviors. These results confirm the role of the empathic paradox on the prosocial behavior, where a person's ability to empathize with other people's negative emotions can be so intense for the individual to handle that they simply ignore the situation where their help is needed. Besides negative emotionality, researches show that shyness and frustration, which are the aspects of vulnerable temperament, inhibit a child's and an adolescent's prosocial behaviors (Eisenberg et al., 1996; McGinley, 2008; Russell et al., 2003).

Prosocial behaviors play an important role in social adjustment and interpersonal relationships (Trbojević & Petrović, 2014). But they can also be seen as a protective factor. Helping and other forms of prosocial behaviors contribute to a better mental health, academic success, engagement in extracurricular activities, and to the peer acceptance (Caprara, Barbaranelli, Pastorelli, Bandura & Zimbardo, 2000; Chen et al., 2002; Crick, 1996; McGinley & Carlo, 2007; Uggen, & Janikula, 1999, according to: McGinley, 2008).

Gender and prosocial behaviors

In line with social stereotypes and moral orientations, such as ethic of care and ethic of justice (Miočinović, 1998), and the theory of social role in helping behaviors (Widjaja, 2010), where girls are taught to be more oriented towards the others, and boys are taught to be more independent and oriented to the achievement, the answer to the question of gender differences in the prosocial behavior seems obvious. A cross-cultural study of older children within six cultures showed that girls tend to help and give support more than boys (Whiting and Edwards, 1973). Other cross-cultural studies in the 21st century show the same result that girls are more prosocial than boys are (Carlo, Reoesch, Knight, & Koller, 2001; Russell et al., 2003). Boys are more prosocial when a public expression of helping is involved, and girls are more helpful when emotional prosocial behaviors are involved (Carlo et al, 2003). However, gender differences should be taken with caution, because studies showed that parents and teachers tend to perceive girls as more prosocial in general, due to social stereotypes (Eisenberg et al., 2007).

Problem of the study

Considering the importance of the prosocial behavior on interpersonal relationships which further on have an important role in the overall development of the individual, this study examines the role of temperament in exhibiting prosocial behaviors in childhood. The aim of the study is to establish a predictive role of temperament and gender for prosocial behavior.

Methodology

Sample and procedure

The sample consisted of 98 children of the first grade of elementary school in Novi Sad, of an average age of 7.4 years, out of which 53.1% were girls. The information about children's temperament and prosocial behaviors was gathered from teachers at school. Teachers assessed each child individually completing the questionnaires about their temperament and behaviors.

Instruments

The following instruments were applied in the study: Prosocial Behavior Assessment Scale – the form for teachers and Temperament Assessment Scale – the short form for teachers.

Prosocial Behavior Assessment Scale – the form for teachers. In order to get the information about a child's prosocial behaviors, we designed a scale, the Prosocial Behavior Assessment Scale – the form for teachers. For the evaluation of prosocial behaviors in children, we formulated three items ("helps other students," "often does nice things for others", and "cheers up those who are sad or upset"). A three-item scale is common when specific behavioral patterns are analyzed (e.g., Eisenberg et al., 1996; Crick & Grotpeter, 1995; Grotpeter & Crick, 1996; Kupersmidt & Coie, 1990; Crick et al., 1999). The selected items are those that have shown as the best in a large number of other studies, i.e. the most discriminating ones when it comes to prosocial behavior (e.g., Asher, Williams, 1987; Crick & Dodge, 1989; Crick & Grotpeter, 1995). The scale of response was graded on a four-point Likert scale (0 = never, 1 = rarely, 2 = often, 3 = almost every day). For our sample, the internal consistency of the scale is .78. The teachers were offered a list of all students in the class, and then they were asked to estimate the frequency of the behaviors described for each child.

Temperament Assessment Scale – the short form for teachers (Thomas & Chess, 1999). In this study, we used a shortened version for the evaluation of temperament created by the authors Thomas and Chess (1999). This scale consists of six dimensions: activity, intensity, initial reaction, adaptability, distractibility and persistence. The task for teachers was to assess for each child the

extent to which it had a particular trait. Each trait was defined and offered extremes at each end. Teachers had to grade the presence of the trait on scale from 1 to 10.

For **persistence** extremes were: lenient (easily gives up, especially when confronted with parental restrictions or when it encounters difficulties) and persistent (does not give up the initiated activity easily regardless of the obstacles and difficulties), the **intensity** extremes were: mild (generally quiet, it looks so calm that it is occasionally hard to imagine how the child really feels, calms down a very easily and quickly after the excitement) and dramatical (strong emotions, dramatic reactions to many things, all people around the child know how it feels; it is hard to soothe after the excitement), **initial reaction** extremes were: circumspect (often stands by and watches, carefully considers new situations, needs time to behave warmly and intimately with new people) and curiosity (easily establishes contacts, a kind of a magnet for new people, loves new places and new things, likes to try everything new), for **adaptability** extremes were: low (hard to adapt to change, even when they are with family, has resistance to changes in family schedule (e.g., bed time, meals ...)) and high (easily and quickly adapts to many changes and innovations), for **activity** extremes were: low (has little energy, more often walks than runs, often sits) and high (it has a lot of energy and is constantly in motion) and **distractibility** extremes were: weak (an activity can be easily interrupted by the approach of the factors that are more attractive than what the child is doing) and solid (high resistance to factors that disturb a current activity).

Even though Tomas and Chess define nine temperamental dimensions, studies showed that using all nine of them is redundant (Martin, Wiesnbaker, & Huttunen, 1994, according to Zentner & Bates, 2008), so newer studies use shortened scales of temperamental dimensions. For our sample, the internal consistency of the scale is .75.

Results

Descriptive and correlation analysis

Descriptive analyses show that the prosocial behavior is highly perceived by the teachers within this sample.

Table 1. Descriptive statistics

	N	Missing values	Min	Max	Mean	SD
Prosocial behavior	97	1	4	12	7.70	1.67

Table 2. Correlations within variables

	1	2	3	4	5	6	7	8
1	-							
2	.23*	-						
3	-.04	.03	-					
4	.28**	.26**	.52***	-				
5	.47***	.45**	.18	.59***	-			
6	.22*	.13	.48***	.84***	.48***	-		
7	.27**	.70***	-.09	.09	.47***	-.03	-	
8	.28**	.16	-.22*	-.07	.12	-.13	.20*	-

*p<.05 ** p<.01 ***p<.001

1. Prosocial behavior; 2. Distractibility; 3. Intensity; 4. Initial reaction; 5. Adaptability; 6. Activity; 7. Persistence; 8. Gender

The correlation analysis shows that the prosocial behavior is positively and significantly related to temperamental dimensions: distractibility, initial reaction, adaptability, activity, persistence, and gender. Examining correlations of temperament and prosocial behavior, it seems that children who have a good attention span are active but emotionally stable and that they are perceived as more prosocial ones.

Predicting prosocial behavior

The initial analysis determined that assumptions about homogeneity of variance were not disrupted (Levene's test of equality, $F=.13$, $p=.72$).

In order to examine a predictive role of temperament and gender for prosocial behaviors, univariate analysis of covariance was applied, where all six temperamental dimensions were considered as continuum predictors, gender was considered as a categorical predictor and prosocial behavior as a criterion.

Testing the significant of a predictive model showed that temperamental dimensions combined with gender represent a good predictive model which explains 28.5% of variance ($F(11)=7.00$, $p<.00$). Statistically significant contributions have a temperamental dimension adaptability ($F=7.46$, $p<.01$) and gender ($F=5.34$, $p<.05$).

Table 3. Significants of regression parameters

	Prosocial behavior	
	β	t
Intercept	5.64	7.65***
distractibility	-.04	-.37
intensity	-.12	-1.16
initial reaction	.09	.64
adaptability	.36	2.73**
activity	.30	.22
persistence	.06	.51
gender	.73	-2.31*

* $p<.05$ ** $p<.01$ *** $p<.001$

Children with a high temperamental dimension adaptability and girls tend to be perceived as more prosocially oriented.

Discussion

Men are social beings and as such they live in society that requires social and emotional competences. Those competences enable a person to interact with other members of a society; therefore, it is necessary to exhibit the behavior that is rewarded by others in order to better understand the need of others and to have better relationships with them. One of those types of behavior is a prosocial behavior. Considering the importance of the prosocial behavior for an individual's life (Caprara, et al., 2000; Chen et al., 2002; Crick, 1996; McGinley & Carlo, 2007; Uggen, & Janikula, 1999, according to: McGinley, 2008; Eisenberg et al., 2000; Krnjajić, 2002; Trbojević & Petrović, 2014; Vaughn et al., 2000), this research tried to determine a predictor of the prosocial behavior with children in early childhood.

Our results show that individual characteristics, such as temperament and gender, play a significant predictive role in the prosocial behavior, and that these individual characteristics explain 28,5% of the prosocial behavior, which is consistent with earlier studies (Russell et al., 2003). However, a temperamental dimension adaptability and gender have singled out of the predictive variables, which indicates that children that have an ability to quickly adapt and engage in new situations and interactions tend to be more prosocial, which is not a result that other studies gathered. It is possible that at this early stage of life adaptability plays an important role in one's behavior, where a child confronted with a new set of rules and new classmates understands that it needs to adapt in order to succeed and be liked. One way to do that is to be helpful. It is also possible that this result shows teachers' preference and beliefs that children who are well adapted to the school environment are more prosocial ones. Considering that prosocial behavior and temperament were determined by a teacher, it is possible that those visible modes of behavior, such as sharing, helping, comforting, were more associated with a child's ability to adapt. The prosocial behavior is considered as a socially adaptive behavior (Trbojević & Petrović, 2014), so the relationship between pro-sociality and adaptability exists. It is adaptive to be caring and helpful toward others in order to establish

interpersonal relationships and be liked by others, and also in order to maintain those positive peer relationships.

In our research, we found that girls tend to be more prosocial than boys, which is in line with other researches (Carlo et al., 2001; Eisenberg, et al., 2000; Russell et al., 2003). Social roles and social norms from an early age determine the types of behavior required from girls and boys respectively. Girls are thought to be oriented to the needs of others and to be nurturers, while boys are thought to be brave, strong and oriented to power and achievement. This result can also be the consequence of a teacher's gender stereotypes that girls are in general more prosocial than boys. Some studies have shown that teachers' and parents' stereotypes have a significant contribution to gender differences (Eisenberg et al., 2000). Gender differences in this early age also show that social stereotypes and social roles are really strong in our society.

These results open a new door to understanding the prosocial behavior in early childhood and teachers' preferences and the internal system of beliefs. Practical implications could be creating programs that would stimulate prosocial behaviors having in mind that children with a different kind of a temperamental dimension have different tendencies toward prosocial behaviors. Also, considering the strong influence of social roles and social stereotypes in order to gain gender equality programs could be more focused on developing prosocial behaviors of boys and girls, having in mind that both genders should have the same treatment and lessons about expressing emotions and helping behaviors.

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Rezime

Da bi dete bilo prihvaćeno od strane novog vršnjačkog sistema, neophodno je da poseduje određene kompetencije koje su poželjne u vršnjačkoj grupi. Prosocijalno ponašanje kao adaptivno ponašanje se smatra jednim od poželjnih oblika ponašanja u vršnjačkoj grupi. Ovaj rad ispituje prediktorsku ulogu temperamenta u ispoljavanju prosocijalnog ponašanja. Uzorak je činilo 98 dece, prvog razreda osnovne škole u Novom Sadu (53.1% devojčica). Korišćeni instrumenti su: Skala procene prosocijalnog ponašanja i skraćena Skala procene temperamenta – forme za učiteljice. Rezultati jednosmerne analize kovarijanse pokazuju da dimenzije temperamenta i pol predstavljaju dobar prediktivni model koji objašnjava 28,5% varijanse prosocijalnog ponašanja ($F(11)=7.00$, $p<.00$). Od šest dimenzija temperamenta (novi aktivnosti, distraktibilnost, pažnja, inicijalna reakcija, intenzitet reagovanja, adaptibilnost) samo dimenzija adaptibilnosti ($Beta=0.36$, $p<0,01$) i pol ($Beta= .73$, $p<.05$) su se izdvojili kao statistički značajni u predviđanje prosocijalnog ponašanja. Deca koja imaju viši stepen adaptibilnosti i devojčice će biti voljniji i spremniji da ispolje prosocijalno ponašanje zbog socijalnog učenja i temperamentalne karakteristike da se adekvatno prilagode različitim situacijama i socijalnim interakcijama, i spremnije prihvate promenu.

Ključne reči: *prosocijalno ponašanje, temperament, deca, adaptibilnost, prvi razred osnovne škole*

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PERSONALITY TRAITS AS A PREDICTOR OF HUMOR STYLES: A DEVELOPMENTAL APPROACH

Abstract

Studies in the field of humor have become more and more popular in this region. The best known humor styles classification was made by Martin, who differentiates affiliative, aggressive, self-enhancing and self-defeating humor styles (Martin et al., 2003). Regarding the personality traits, our research was based on the five factor model that includes five dimensions: neuroticism, extraversion, openness to experience, agreeableness and conscientiousness (John & Srivastava, 1999). The aim of the present study was to investigate humor styles and their connection with personality traits. The sample was appropriate, consisting of the pupils from the primary schools: "Dositej Obradović" and "Ivo Andrić" in Banja Luka; "Sveti Sava" in Novi Grad; "Vaso Pelagić" in Pelagićevo and the pupils from the following high schools: Medical school in Prijedor; high schools "Vuk Karadžić" in Lopare, "Filip Višnjić" in Bijeljina and "Petar Kočić" in Novi Grad and High school center "Đuro Radmanović" in Novi Grad. The total sample consisted of 579 pupils (314 females and 265 males). The participants were divided in two age groups: primary school pupils from 11 to 12 years old (276 participants) and high school pupils from 16 to 17 years old. The instruments used in this study were HSQ – C (Humor Styles Questionnaire for Children), HSQ (Humor Styles Questionnaire), BFQ (Big Five Questionnaire for Children) and BFI (Big Five Inventory). The statistical analysis was based on the Pearson correlation coefficient, Mann Whitney – U test and simple regression. The results confirmed the hypothesis that personality traits predict humor styles. Additionally, qualitative differences between age groups were found regarding the relationship between personality traits and humor styles.

Key words: *humor styles, personality traits, humor development, age*

Modeled on the large number of foreign research conducted in the field of humor, in adults and children (Dewite & Verguts, 2001; Lefcourt, 2001; Kazarian & Martin, 2004; Galloway, 2008; Hughes, 2009; Cameron et al., 2010; Semrud – Clikeman & Glass, 2010; Moss, 2010; Fox et al., 2013; Preuss & Sweeny, 2013), domestic authors have recognized the importance of this topic and started to engage in it (Krizmanić et al., 1982; Brajković, 2010; Bošković, 2011; Kolenović – Đapo & Đapo, 2009; Vukobrat, 2013). In contrast to the studies of foreign authors, this topic is not well explored, and existing studies are mostly focused on the research of humor in adults (Krizmanić et al., 1982; Brajković 2010; Bošković, 2011; Kolenović – Đapo & Đapo, 2009; Vukobrat, 2013). Consequently, authors of this study believe that research of humor in children are neglected and it is time to open this topic. How much the subject of humor in child's age is unexplored says the fact that only few scientific research has been found, and not only one test that measures humor styles at child's age, adapted to our area of speech. The importance of this study is multiple; exploring this subject, other research are complemented and other authors are encouraged to engage in it.

Krizmanić and associates provide a definition of a sense of humor as a characteristic of an individual to understands jokes, laughter, joy and react to them, and occasionally to contribute to their emerging (Krizmanić et al., 1982; Brajković, 2010). The word humor derives from the Latin language in which it indicated fluid, spinal fluid, moisture or vapor, but it also had the meaning of fantasy, whim or power. Later comes the process of linking the concept of humor with comic effects (Bošković, 2011). Sense of humor is usually associated with a happy, jolly, and mentally healthy person. Throughout history humor had a negative connotation due to the fact that Plato, Aristotle and Hobbes laughter viewed as unattractive and aggressive trait (Brajković, 2010). Unlike the ancient

Greek thinker, Freud examines humor in the context of defense mechanisms. Based on his settings of humor today we have what is now called – humor styles (Kolenović – Đapo & Đapo, 2009).

Due to the fact that it is assumed that humor plays an important role in initiating and maintaining interpersonal relationships, many authors have focused their research towards determining the function of humor in interpersonal relationships and responding to individual's humorous content (Kolenović – Đapo & Đapo, 2009). Humor has been studied in the context of temperament as an important factor in coping strategies and predictors of hope and optimism, and a positive correlation between the above constructs were found.

Examining humor in children, McGhee (1979), came to results that indicate that a sense of humor indicates normal mental development. Developmentally speaking, laughter, immediately after crying, is one of the first social vocalizations produced by infants (McGhee, 1979). Modeled on Piaget's theory of stageability McGhee (1984) described the development of children humor. At the first stage (from birth to the second, third year), with children from birth to six months exists laughter. Children from six months to a year show an increase in awareness of interpersonal relationships and participate in humor with a parent or other attachment figure through various games. With children from one to three years we can see treating the object as another object, for example, children start producing jokes nonverbally performing inappropriate actions, such as placing a bowl on his head like a hat. The second stage takes place in a period of two, three or five years, when children's vocabulary reaches a critical point, children begin to give opposing names to objects or actions (eg. they call phone a fork, boy is a girl) and they enjoy it. Besides that, when they reach the age of three to five years, children like to play word-games. The next stage, the third stage, is a transitional period that occurs between the ages of five and six, seven years. With these children most characteristics of the previous phases are still present, but they are starting to use riddles without understanding them. In the fourth stage, children from seven to ten, eleven years are beginning to use jokes and riddles. During that period, they begin to understand the double meaning of jokes. As children develop they realize that humor has meaning and they often remember riddles and jokes using them as a means of initiating social interactions with peers and adults (McGhee, 1984; 2002). Children's humor has two functions, social - emotional and cognitive – linguistic (Cameron et al., 2008; 2010). When it comes to verbal humor, understanding of jokes and irony, occurs after the age of four years. With children, verbal humor develops with ten, eleven years (Semrud - Clikeman & Glass, 2010). The importance of humor shows us the research that suggests that understanding the puzzles is an important indicator of speech in children at the age of eleven years. Consequently, children with speech disorders cannot understand jokes (Shannon, 1999; Semrud - Clikeman & Glass, 2010). Good communication skills are positively associated with a good sense of humor (Carson et al., 1986; Shannon, 1999; Klein & Kuiper, 2006). The study of humor found a connection between humor and divergent thinking, as well as between the humor and quality of social skills in a child's age (Demorest et al., 1983; Waters & Sroufe, 1983; Masten, 1986; according to Semrud - Clikeman & Glass, 2010). Furthermore, the humor is associated with intelligence, motivation, as well as interaction with peers (Waters & Sroufe, 1983; Masten, 1986; according to Semrud - Clikeman & Glass, 2010). Exploring the relationship between humor and social environment, it was found that the "popularity" and a sense of humor are firmly connected. That's because, when it comes to humor in adolescence, it is seen in the context of peers (Demorest et al., 1984; Quatman et al., 2000). Also, there are differences between boys and girls between the ages of eleven and fourteen years (Führ, 2001; according to Cameron et al., 2010). Girls use more positive humor, unlike boys in this age group who use more aggressive styles of humor (Fuhr, 2002, according to Cameron et al., 2010). Erickson and Feldstein (2007) separated the two forms of humor in adolescents - benign and damaging. Benign humor is associated with coping strategies, and may represent a protective factor for children who grow up under risk factors, i.e. factors that increase the risk of developing behavioral problems. It is associated with higher levels of self-esteem and rare manifestations of depression. Unlike benign humor, harmful or maladaptive humor was associated with higher tendencies toward aggression, depression and anxiety, with bad strategies in problem solving and so on. (Erickson & Feldstein, 2007). What is found as an essential characteristic of humor is that adolescents in difficult situations use humor as a strategy for overcoming stress (Führ, 2002, according to Cameron et al., 2010).

Therefore, the development of humor is associated with social, emotional and cognitive components, as well as language skills (Goel & Dolan, 2001; Cameron et al., 2008; Semrud - Clikeman & Glass, 2010).

Canadian author Martin and his colleagues (Martin et al., 2003; according to Vukobrat, 2013) in order to assess humor styles constructed HSQ (The Humor Styles Questionnaire) scale. These authors on the basis of a series of surveys suggest that the population can be divided into four dominant humor styles: affiliative, self-enhancing, aggressive and self-defeating. As there was a need for examining of humor styles in children, version of the HSQ scale was adapted on the child's age HSQ - C (Child Humor Styles Questionnaire) (Clair et al., 2012). Many researchers (Saraglou & Scariot, 2002; Kuiper et al., 1993; Johnson & McCord, 2010) have reduced the four humor styles on "two basic" humor styles, adaptive (affiliative and self-enhancing) and maladaptive (aggressive and self-defeating). Research carried out in this field indicate that the adaptive styles of humor most often occur in conjunction with higher self-esteem, rare depression and anxiety states, positive affectivity and developed social skills. On the other hand, self-defeating humor style has been associated with increased anxiety and depressive tendencies, while aggressive style achieves a negative correlation with well-being (Saraglou & Scariot, 2002; Kuiper et al., 2004; Johnson & McCord, 2010). Based on a series of studies conducted in the field of adult humor (Lefcourt, 2001; Saraglou & Scariot, 2002; Martin et al., 2003; Kazarian & Martin, 2004; Kuiper et al., 2004; Bilge & Saltuk, 2007; Johnson & McCord, 2010; Vukobrat, 2013), but also with children (McGhee, 1979; 1984; 2002; Demorest et al., 1984; Waters & Sroufe, 1983; Shannon, 1999; Quatman et al., 2000; Goel & Dolan, 2001; Führ, 2001, according to Cameron et al., 2010; Klein & Kuiper, 2006; Erickson & Feldstein, 2007; Cameron et al. 2008; 2010; Masten 1986, according to Semrud - Clikeman & Glass, 2010) it is reasonably assumed that there is a relationship between personality traits and humor styles. This work used the popular five-factor personality model as a theoretical basis. Personality is allocated to the five dimensions of extraversion versus introversion, neuroticism versus stability, openness to experience versus closeness, conscientiousness versus disorganization and agreeableness versus unpleasantness (John & Srivastava, 1999). In psychological circles, this model is well known and applied. As in our region humor is poorly researched field, appeared the opportunity that the personality, using this model is crossed with humor styles because it is easy to interpret. At younger ages, the personality traits apply the same settings but there are differences in the indicators which measure the expression of personality traits in children. At a younger age children esteem personality traits based on multiple behaviors displayed, while adults esteem it more on the basis of internal states and experiencing yourself. This can be seen by examining the content of the questionnaire items that measure personality traits (John & Srivastava, 1999; Gaio, 2012).

The research problem

As mentioned, both foreign and domestic authors (Krizmanić, 1982; Dewite & Verguts, 2001; Lefcourt, 2001; Kazarian & Martin, 2004; Gallowey, 2008; Hughes, 2009; Brajković 2010; Cameron et al., 2010; Semrud-Clikeman & Glass, 2010; Moss, 2010; Bošković, 2011; Kolenović – Đapo & Đapo, 2009; Fox et al., 2013; Preuss & Sweeny, 2013; Vukobrat, 2013), have been doing a lot of research in the field of humor, which sought to highlight the significance and function of humor in adults and children.

The key to this study are two things; the first one relates to the results of previous studies which indicate that there is a correlation between humor and personality traits in adults (Lefcourt, 2001; Saraglou & Scariot, 2002; Martin et al., 2003; Kazarian & Martin, 2004; Kuiper et al., 2004; Bilge & Saltuk, 2007; Johnson & McCord, 2010; Vukobrat, 2013), and that there are similar tendencies in children (McGhee, 1979; 1984; 2002; Masten 1986, according to Semrud - Clikeman & Glass, 2010). However, it is evident that these constructs are unexplored in children. This conclusion is indicated by a small number of studies realized in this area. As already stated, on the basis of previous research it is reasonable to assume that the above two constructs (humor and personality traits) are related at the earliest age (McGhee, 1979; 1984; 2002).

The second one is closely related to the first one and refers to the development of humor depending on the age, where it was shown that children at different ages perceive and express humor in different ways (McGhee, 1984; 2002).

Since the topic is not sufficiently explored in our area, as well as the incomplete agreement among researchers regarding this topic, we came up with the idea that in this study we examine whether there are differences between age regarding the relationship between personality traits and humor styles, and whether the current measurement instruments of the mentioned constructs can be applied to younger ages in our speaking area.

The aim of the research

The aim of this study is, primarily, complementing previous research, and extending the theoretical knowledge in the field of humor. More precisely, testing of humor styles and their relationship with personality traits. Practical goal is to encourage other authors to deal with this issue and to extend the knowledge of the same.

The hypotheses

The researches indicate that there is a relationship between personality traits and humor styles in children (McGhee, 1979; 1984; 2002; Demorest et al., 1984; Waters & Sroufe, 1983; Shannon, 1999; Quatman et al., 2000; Goel & Dolan, 2001; Führ, 2001, according to Cameron et al. 2010; Klein & Kuiper, 2006; Erickson & Feldstein, 2007; Cameron et al. 2008; Masten 1986, according to Semrud – Clikeman & Glass, 2010). Adaptive traits are predictors of adaptive humor styles, and maladaptive personality traits are predictors of maladaptive humor styles (Saraglou & Scariot, 2002; Kuiper et al., 2004; Johnson & McCord, 2010). There are also differences in terms of humor styles according to gender; girls use more adaptive (positive) humor styles, unlike boys who used more maladaptive (aggressive) humor styles (Führ, 2002, according to Cameron et al., 2010). Exploring this field McGhee (1984; 2002) has described four stages in the development of humor in children using Piaget as a role model. According to McGhee the development of humor ends around the age of eleven. It is expected, based on these settings, that there should be developmental⁴ differences between age groups over the age of eleven.

Based on the above mentioned works the following hypotheses are set: Adaptive traits are predictors of adaptive humor styles in both age groups, while maladaptive personality traits are predictors of maladaptive humor styles in both age groups. It is assumed that there will be no qualitative differences between the age groups of subjects in the context of relations between personality traits and humor styles. As already mentioned, there are qualitative differences in terms of humor styles according to gender.

Research type

This research is transversal. It was used correlational design.

Variables

Humor styles – Are dependent variable in this research. Martin differentiates four humor styles, two adaptive – affiliative and self-enhancing, and two maladaptive – self-defeating and aggressive humor style (Reff, 2006).

Personality traits – Independent variable that, according to Big Five theory includes five basic personality dimensions. Regarding the questionnaires used in this research, BFI and BFQ-C, these five dimensions are: Neuroticism, Extraversion, Agreeableness, Openness to experience and Conscientiousness (John and Srivastava, 1999).

Age – Independent variable with two categories: children from 11 to 12 years old and adolescents from 16 to 17 years old.

Sex – Recorded independent variable - males and females (boys and girls).

Sample

Sample was convenient, consisting of students from primary schools: 'Dositej Obradović' and 'Ivo Andrić' in Banja Luka, 'Sveti Sava' in Novi Grad, 'Vaso Pelagić' in Pelagićevo and students from these high schools: Medical school in Prijedor, Gymnasiums 'Vuk Karadžić' in Lopare, 'Filip

⁴ Under the developmental differences are assumed qualitative differences in the relationship of humor with other psychological constructs at different ages.

Višnjić` in Bijeljina and `Petar Kočić` in Novi Grad and High school center ` Đuro Radmanović` in Novi Grad. Total sample was consisted of 579 students (314 females and 265 males) (Table 1).

Table 1. Sample size distributed by sex in age groups

Sex - younger		Sex - older	
Male	140	Male	125
Female	136	Female	178
Total	276	Total	303

Participants were divided in two age groups: primary school students from 11 to 12 years old (276 participants) and high school students from 16 to 17 years old (303 participants) (Table 2).

Table 2. Sample size by age

Age	Number of participants
10 years	1
11 years	92
12 years	178
13 years	4
14 years	1
16 years	182
17 years	121
Total:	579

Instruments

Four questionnaires were used in this research. Younger subject group was questioned with Humor Style Questionnaire for Children (HSQ-C) and Big Five Questionnaire for Children (BFQ-C). Older age group was questioned with the Humor Style Questionnaire (HSQ) and Big Five Inventory (BFI). Both subject groups also filled in demographic information, sex and year of birth.

HSQ – Humor Style Questionnaire for adults was constructed by Rod Martin and Puhlik-Doris in 2003, and it was translated and adapted in Serbian language by Sonja Vukobrat in 2013 (Vukobrat, 2013). HSQ consists from 32 items that are answered by choosing one number on a five point Likert scale. Unfortunately, Vukobrat's HSQ was not available to us, so we translated and adapted the English version to Serbian language.

HSQ – C – is an adapted version of HSQ, for children from 9 to 15 years old. It was adapted by Claire L. Fox et al. (2013). It consists of 24 items that are answered by choosing one number on a four point Likert scale. For this research, HSQ – C was translated and adapted into Serbian language.

These two, above described, questionnaires have the same constructs, except the content is much simpler for children:

- a) Affiliative humor style – It's a tendency to make fun of self, while keeping a positive image of self. This implies using humor to make the best of the bad situation. Affiliative humor style relieves tension in other people when one is interacting and is generally a good coping strategy (Reff, 2006).
- b) Self-enhancing humor style – Is used to help the self and is not harming other people. Individuals using this humor style in general have a positive image about the world, and a tendency to experience life's absurd as fun. This style is a good coping strategy (Reff, 2006).
- c) Aggressive humor style – Individuals using this style have a tendency to use humor to gain personal satisfaction without caring for other people's emotions. It is characterized by teasing, mocking and humiliating others (Reff, 2006).
- d) Self-defeating humor style – Involves self demeaning through humor to amuse others. This involves damaging oneself by allowing others do make fun about one's failures (Reff, 2006).

BFI – Big Five Questionnaire of personality traits was constructed by John et al. in 1991 (John and Srivastava, 1999). It consists of 44 items. The questionnaire gained official status in our area after

detailed confirmation of psychometrical characteristics by Lakić (Lakić, 2012). BFI has a five point Likert scale.

BFQ – C – Is an adapted version of the BFI for questioning the personality traits in children at age of 9 to 13 years. It was constructed by Barbanelli et al. in 2003 (according to Gaio, 2012). For necessity of this research, BFQ – C was translated in Serbian language with two direction translation and was shortened from the original 65 to 44 items for practical reasons. Items are answered by choosing a number on a five point Likert scale.

Constructs for both tests are:

- a) Extraversion – An energetic approach in social relationships, implies traits like sociability, activity, assertiveness and mostly positive emotions.
- b) Agreeableness – Prosocial attitude towards other people in general, includes traits such as altruism, soft temper, trust and modesty.
- c) Conscientiousness – Socially established impulse control in a person that manages behaviors that lead him to achievement of goals and tasks, e.g. reflection before performing, postponing the satisfaction, accepting norms and rules, planning, organizing and arranging tasks by priorities.
- d) Neuroticism – Emotional stability and vigorosity with the constant presence of negative emotions like anxiety, sadness and tension.
- e) Openness to experience – Implies wideness, originality and complexity of one's life on a mental and practical plan, large number of different interests and curiosities (John & Srivastava, 1999).

Looking at the content of items, it was concluded that there was some differences in the operationalisation of these personality traits in the BFI and the BFQ – C. BFQ – C items are adapted to the context of children's everyday situations. E.g. conscientiousness is interpreted through responsibility towards school, agreeableness is interpreted as an relationship with classmates, etc. Also, BFQ-C items are more focused on children's behavior, and BFI items mostly describe self-assessment of internal states and self-experience (Gaio, 2012).

Research procedure

Research has been conducted in elementary and high schools that are cited in the sample section. One school hour per class was given to the researchers for questioning the subjects by the schools managements. Seven researches were divided across cities and schools for data collection.

Results

Descriptive statistical characteristics of scales.

Regardless of the arbitrary criterion, the scale of the aggressive humor style has the lowest reliability coefficients at both ages ($AGH_{younger}, \alpha = .375$; $AGH_{older}, \alpha = .454$) and extraversion scale at a younger age ($\alpha = .587$).

KMO coefficient which are obtained, fall into the category of good ($KMOHSQ-C = .768$; $KMOBFQ-C = .799$; $KMOHSQ = .728$; $KMOBFI = .795$), which suggests that the results obtained by factor analysis are adequate, although it would be desirable that the coefficients are higher. Bartlett's test showed the expected statistical significance in all four tests.

The results of the factor analysis of the four questionnaires may point to the additional revision of items.

Intercorrelations of the tests scales

In this analysis we used the Pearson's correlation. The aim of this analysis was to determine whether the results match the theoretical assumptions, in order to do the validation of the tests across the internal structure. The results are not unambiguous. The obtained finding was that in both age self-defeating humor was positively and significantly correlated with self-enhancing humor ($r_{younger} = .436$, $p < .01$; $r_{older} = .282$, $p < .05$), which is an unexpected result since it is not in accordance with other research results (Führ, 2002, according to Cameron et al., 2010). Also, at the younger age there was not found any correlation between the aggressive humor style and self-defeating humor style. This link was found in the older age group and is statistically significant ($r = .145$, $p < .05$) (Table 3).

Table 3. Intercorrelations of the scales HSQ-C and HSQ

HSQ-C				HSQ				
	AH	SeH	AGH	SdH	AH	SeH	AGH	SdH
AH		.229**	.052	.045	AH	.268**	-.005	.138*
SeH	.229**		.011	.436**	SeH	.268**	.082	.282**
AGH	.052	.011		.057	AGH	-.005	.082	.145*
SdH	.045	.436**	.057		SdH	.138*	.282**	.145*

AH- affiliative humor style; SeH – self-enhancing humor style; AGH – aggressive humor style; SdH – self-defeating humor style

*statistically significant at the level $p < 0.05$

** statistically significant at the level $p < 0.01$

A similar thing is with the younger age group when it comes to personality traits (Table 4). The trait of neuroticism is not significantly correlated with any of the other personality traits. But on the other hand, extraversion was positively and significantly correlated with openness to experience ($r = .485, p < .01$), agreeableness ($r = .433, p < .01$) and conscientiousness ($r = .404, p < .01$). Also, there is a chance that personality traits at the younger age group are not sufficiently differentiated, but since the results of the factor analysis are not exactly ideal, this conclusion should be interpreted with caution. At older ages BFI scores on the test are much more stable, as expected, after satisfactory reliability and factor structure.

Table 4. Intercorrelations of the scales BFQ-C and BFI

BFQ-C					BFI					
	N	E	O	A	C	N	E	O	A	C
N		.043	.022	-.066	-.118	N	.360**	-.077	-.204**	-.146*
E	.043		.485**	.433**	.404**	E	-.360**	.201**	.018	.121*
O	.022	.485**		.471**	.526**	O	-.077	.201**	.028	.141*
A	-.066	.433**	.471**		.651**	A	-.204**	.018	.028	.247**
C	-.118	.404**	.526**	.651**		C	-.146*	.121*	.141*	.247**

N- neuroticism; E – extraversion; O – openness to experience; A – agreeableness; C - conscientiousness

*statistically significant at the level $p < 0.05$

** statistically significant at the level $p < 0.01$

The results of analysis for testing hypotheses

The correlation between the tests.

This analysis was performed via Pearson's coefficient. In younger respondents the connection between extraversion, openness to experience, and the agreeableness with the affiliative humor style and self-defeating humor style was perceived, as well as correlation between neuroticism and self-enhancing humor style (Table 5). Also, negative correlation between conscientiousness with the aggressive humor style and self-enhancing humor style can be seen.

The results obtained in older subjects (Table 5) shows that there is a negative correlation between neuroticism with affiliative and self-defeating humor style, as well as a negative correlation between agreeableness and conscientiousness with an aggressive humor style. The positive correlation was seen between extraversion and openness to experience with the affiliative humor style, but also with self-defeating humor style, as well as correlation between the agreeableness and the aggressive style.

Although there will be more discussion about the relationships in the results of the regression analysis, these results are useful to check whether the correlation structure in one sample corresponds to the correlation structure in the second sample. The result shows that the correlation structure between the two samples do not match. This finding may suggest the different differentiation of traits of the age, which would conditionally be the direct indicator of developmental change.

Table 5. Pearson's correlation coefficients among the scales of BFQ-C and HSQ-C and among the scales of BFI and HSQ

	Younger				Older				
	AH	SeH	AGH	SdH	AH	SeH	AGH	SdH	
N	-.048	.054	.047	.177**	N	-.171**	-.287**	-.056	.024
E	.311**	.197**	-.042	.086	E	.332**	.386**	.058	.088
O	.232**	.199**	-.087	.012	O	.256**	.221**	-.065	.063
A	.182**	.200**	-.092	.005	A	.131*	.158**	-.327**	.057
C	.066	.103	-.134*	-.071	C	-.028	.054	-.233**	-.169**

AH- affiliative humor style; SeH – self-enhancing humor style; AGH – aggressive humor style; SdH – self-defeating humor style

N- neuroticism; E – extraversion; O – openness to experience; A – agreeableness; C - conscientiousness

*statistically significant at the level $p < 0.05$

** statistically significant at the level $p < 0.01$

Testing the differences for the gender variable.

For testing the gender differences Mann Whitney U test was used. The results obtained for younger age, show that there are no statistically significant differences in humor styles, while at the personality dimensions statistically significant differences were noticed at the neuroticism scale ($U = 7282.0$, $p = .001$), the agreeableness scale ($U = 6605.50$, $p < .001$) and conscientiousness scale ($U = 8043.0$, $p < .05$) in favor of females (Table 6).

Table 6. Mann Whitney Test of differences between sexes in humour styles and personality traits in the younger age group

	Sex	N	Mean rank	Mann Whitney	p
AH	Male	140	135.58	9111.50	.536
	Female	136	141.50		
SeH	Male	140	136.67	9263.50	.698
	Female	136	140.39		
AGH	Male	140	142.44	8968.00	.401
	Female	136	134.44		
SdH	Male	140	144.66	8657.50	.191
	Female	136	132.16		
N	Male	140	122.51	7282.00	.001**
	Female	136	154.96		
E	Male	140	138.46	9514.50	.993
	Female	136	138.54		
O	Male	140	128.55	8266.50	.058
	Female	136	147.72		
A	Male	140	117.68	6605.50	.000**
	Female	136	159.93		
C	Male	140	127.95	8043.00	.025*
	Female	136	149.36		

AH- affiliative humor style; SeH – self-enhancing humor style; AGH – aggressive humor style; SdH – self-defeating humor style

N- neuroticism; E – extraversion; O – openness to experience; A – agreeableness; C – conscientiousness

*statistically significant at the level $p < 0.05$

** statistically significant at the level $p < 0.01$

As for the older age, men have significantly more pronounced scores on the variable “aggressive humor style” ($U = 8532.5$, $p = .001$), and women have more prominent scores on the variables of “extraversion” ($U = 9418.5$, $p < .05$), “agreeableness” ($U = 9143.5$, $p < .01$) and “conscientiousness” ($U = 9517.0$, $p < .05$) (Table 7).

Table 7. Mann Whitney Test of differences between sexes in humour styles and personality traits in the older age group

	Sex	N	Mean rank	Mann Whitney	p
AH	Male	125	150.28	10910.00	.774
	Female	178	153.21		
SeH	Male	125	142.08	9885.00	.098
	Female	178	158.97		
AGH	Male	125	172.74	8532.50	.001**
	Female	178	137.44		
SdH	Male	125	155.06	10742.00	.609
	Female	178	149.48		
N	Male	125	141.35	9794.00	.076
	Female	178	159.48		
E	Male	125	138.35	9418.50	.023
	Female	178	161.59		
O	Male	125	143.34	10042.00	.148
	Female	178	158.08		
A	Male	125	136.15	9143.50	.008**
	Female	178	163.13		
C	Male	125	139.14	9517.00	.032*
	Female	178	161.03		

AH- affiliative humor style; SeH – self-enhancing humor style; AGH – aggressive humor style; SdH – self-defeating humor style

N- neuroticism; E – extraversion; O – openness to experience; A – agreeableness; C – conscientiousness

*statistically significant at the level $p < 0.05$

** statistically significant at the level $p < 0.01$

Simple linear regression.

The results which were obtained in the study, which was done by Kolenović Đapo (Kolenović-Đapo, Đapo, 2009) using standard regression analysis, showed that all five personality dimensions are significant predictor in explaining individual differences in the willingness of people to respond with humor. In this study, regression analysis was used to check whether there is a pattern related to age and, will any and which one of personality traits would be the best predictor of humor style. Accordingly, the results will be shown in parallel for the same styles of humor for both age groups.

Affiliative humor style. The results which were obtained show that with both younger and older respondents the best predictor of affiliative humor style is extraversion ($B_{\text{younger}} = .280, p < .001$; $B_{\text{older}} = .267, p < .001$).

In younger respondents, openness to experience ($B = .144, p < .05$) and conscientiousness with a negative sign ($B = -.198, p < .01$), can be noticed as the statistically significant predictors. In older respondents in addition to extraversion as the predictors of affiliative humor style, openness to experience ($B = .246, p < .001$), agreeableness ($B = .166, p < .01$) and conscientiousness with a negative sign ($B = -.137, p < .05$), have been shown. The most important finding was certainly that extraversion is the best predictor of affiliative humor style, and that the certain and clear parallels between age can be pulled (Table 8).

Table 8. Simple linear regression of personality traits for affiliative humor style in younger and older groups

Younger				Older			
AH	B	Std.Error	p	AH	B	Std.Error	p
N	-.065	.046	.161	N	-.041	.058	.479
E	.280**	.069	.000**	E	.267**	.054	.000**
O	.144*	.066	.030*	O	.246**	.060	.000**
A	.123	.075	.103	A	.166**	.063	.009**
C	-.198**	.072	.007**	C	-.137*	.156	.014*
			R=.366				R=.428
			R²=.188				R²=.183
			F(5.270)=				F(5.297)=
			8.327				13.316
			P=.000				P=.000

AH- affiliative humor style

N- neuroticism; E – extraversion; O – openness to experience; A – agreeableness; C - conscientiousness

*statistically significant at the level $p < 0.05$

** statistically significant at the level $p < 0.01$

The aggressive humor style. For the younger age, none statistically significant predictor of aggressive humor style, has been identified (Table 9). Conscientiousness with a negative sign ($B = -.104$, $p = .169$) has the highest beta. Although conscientiousness was not a statistically significant predictor, this information is useful for comparisons between age and can be an indicator of a developmental change. In older respondents the best predictor of an aggressive humor style is agreeableness with a negative sign ($B = -.324$, $p < .001$). In addition to agreeableness, neuroticism ($B = -.121$, $p < .05$) and conscientiousness ($B = -.161$, $p < .01$) can be taken as significant predictors (Table 9). Thus, conscientiousness with a negative sign draws a parallel between the ages. However, these results should be interpreted with caution due to low Cronbach's coefficients and the results of the factor analysis. The obtained incongruities were expected.

Table 9. Simple linear regression of personality traits for aggressive humor style in younger and older groups

Younger				Older			
AGH	B	Std.Error	p	AGH	B	Std.Error	p
N	.026	.048	.593	N	-.121*	.054	.026*
E	.024	.072	.740	E	.041	.050	.413
O	-.030	.069	.663	O	-.052	.056	.0351
A	-.008	.078	.920	A	-.324**	.059	.000**
C	-.104	.075	.169	C	-.161**	.052	.002**

AGH – aggressive humor style

N- neuroticism; E – extraversion; O – openness to experience; A – agreeableness; C - conscientiousness

*statistically significant at the level $p < 0.05$

** statistically significant at the level $p < 0.01$

The self-enhancing humor style. Agreeableness as a dimension of personality in younger respondents is the best predictor for self-enhancing humor style ($B = .209$, $p < .05$). The higher score of agreeableness suggests a bolder line of self-enhancing humor style. In older respondents the best predictor for self-enhancing humor style is extraversion ($B = .287$, $p < .001$), but next to it is neuroticism with a negative sign ($B = -.148$, $p < .05$), agreeableness ($B = .152$, $p < .05$) and openness to experience ($B = .171$, $p < .01$) that were also statistically significant predictors (Table 10).

Table 10. Simple linear regression of personality traits for self-enhancing humor style in younger and older groups

Younger				Older			
SeH	B	Std.Error	p	SeH	B	Std.Error	p
N	.045	.061	.456	N	-.148**	.057	.010**
E	.137	.091	.133	E	.287**	.053	.000**
O	.147	.087	.093	O	.171**	.059	.004**
A	.209*	.098	.034*	A	.152*	.062	.015*
C	-.129	.095	.177	C	-.059	.055	.280

SeH – self-enhancing humor style

N- neuroticism; E – extraversion; O – openness to experience; A – agreeableness; C - conscientiousness

*statistically significant at the level $p < 0.05$

** statistically significant at the level $p < 0.01$

The self-defeating humor style. For self-defeating humor style in younger respondents the best predictor is the personality dimension of neuroticism (Table 11) with a positive sign ($B = .139$, $p < .01$). Thus, a high score on the neuroticism scale suggests a tendency toward the use of self-defeating humor style, which is to be expected. At older age the best predictor is conscientiousness with a

negative sign ($B = -.219$, $p < .001$). In addition, statistically significant predictors are extraversion ($B = .116$, $p < .05$) and agreeableness with a positive sign ($B = .138$, $p < .05$).

Table 11. Simple linear regression of personality traits for self-defeating humor style in younger and older groups

Younger				Older			
SdH	B	Std.Error	p	SdH	B	Std.Error	p
N	.139**	.052	.008**	N	.069	.064	.280
E	.121	.079	.123	E	.116*	.058	.049*
O	.000	.075	.995	O	.081	.066	.223
A	.056	.085	.510	A	.138*	.069	.045*
C	-.128	.082	.118	C	-.219**	.061	.000**

SdH – self-defeating humor style

N- neuroticism; E – extraversion; O – openness to experience; A – agreeableness; C - conscientiousness

*statistically significant at the level $p < 0.05$

** statistically significant at the level $p < 0.01$

Results of simple linear regressions confirm that is justified to study the relationship between personality traits and humor styles, that is: personality traits can be predictors of humor style. There are certain differences between age groups. The most stable finding is related to affiliative humor style, where the best predictor is a high score on extraversion scale, regardless of age. Also, smaller number of predictors by the humor style then at older age are noticeable, which can easily point to a developmental change. All used analyzes suggest that it is necessary to revise the tests, but there are positive indications regarding the improvement of psychometric characteristics of the tests used.

Discussion

Present study tested the relation between personality traits and humor styles in two age groups – primary school students (ages eleven and twelve) and high school students (ages sixteen and seventeen).

The primary aim of this study was to explore the relation between these constructs, since there is a very few studies dealing with this issue when it comes to Slavic languages. The results indicate that it is justified to explore the humor styles depending on personality traits. In addition, it was found that there are age and gender differences, as well as in studies conducted in other cultures (McGhee, 1979; 1984; Demorest et al., 1984; Waters & Sroufe, 1983; Shannon, 1999; Quatman et al., 2000; Goel & Dolan, 2001; Saraglou & Scariot, 2002; Klein & Kuiper, 2006; Erickson & Feldstein, 2007; Cameron et al., 2008; 2010; Führ, 2001, according to Cameron et al., 2010; Johnson & McCord, 2010; Masten 1986, according to Semrud – Clikeman & Glass, 2010). At the younger age results indicate that emotional instability is associated only with the use of the self-defeating humor style, while at an older age emotional stability is important in the use of adaptive humor styles. At an older age it could indicate a more mature personality that adequately uses humor styles in order to maintain personal integrity, while at the younger age that is not the case due to insufficient differentiation of personality traits.

Furthermore, it is very important to focus on understanding the humor in children of different ages, whether children, ages eleven and seventeen understand in the same way the particular situation and whether the same situation will cause the same reaction (e.g. laughter) in both age groups. If we consider this in the context of cognitive, social development and experience acquired by each day, month, or year in their lives, we realize that it is impossible to equate these two age groups. By reviewing these results in the context of Piaget's stages of cognitive development or McGhee's theory of humor development, it is clear that the children of both age groups are on the fourth, the last stage (McGhee, 1984; 2002). However, even that cannot be taken as a constant given that there is a six years difference between eleven and seventeen year olds and a significant contribution should be also given to the factor of experience as one of the dominant determinants of child development. A very important information is that some are at the beginning of the fourth stage, at the transition between the third and fourth, while some - the older age group, are at the end of the fourth stage, when

according to theory, abstract, logical thinking, trial and reasoning are mastered (Piaget, 1953, according to Brković, 2011).

For younger age group qualitative difference between the humor styles used by boys and girls, was not found. Although, for older age group, boys had a higher level scores on a scale that measures the aggressive humor style which partially confirms the assumption from which we started, but it was not found that girls use more adaptive humor style unlike boys who are more prone to maladaptive humor styles. Since the hypothesis is set in accordance with the results of research from other cultures (Shannon, 1999; Quatman et al., 2000; Goel & Dolan, 2001; Saraglou & Scariot, 2002; Klein & Kuiper, 2006; Erickson & Feldstein, 2007; Cameron et al. 2008; 2010) this finding may suggest the peculiarity of our culture, but also the problem of used instruments, hence it is necessary to further investigate this assumption. Although gender roles are early starting to adopt, at a younger age, on the basis of these results one can observe that they are not yet manifested in the use of humor styles.

Younger children experiment using different humor styles, while at the older age is noticeable which styles are more common at which gender. Potential cause of compression of humor styles (as seen in the context of the results) at a younger age is that children start to play early with certain toys - characteristic of a specific gender, wear clothes of certain colors, look different cartoons (for "boys" or "girls"), they imitate their parents, fit the frames that others impose them, because they have not yet mastered and internalized certain behavior patterns. Unlike younger ages, seventeen year olds take different roles, imitating parents or other dominant figures in their environment they search for personal identity; they form character traits, but also learn and internalize gender roles (Erikson 1963, according to Brković 2011). They consciously, unlike younger children, choose how they want to behave and modeled on whom, and try to be consistent in such behavior. Since in our culture masculinity is still represented, it is not an unusual finding that boys even before entering adolescence behave aggressively and accordingly use aggressive humor styles.

When we're talking about the process of socialization, it is inevitable putting each behavior in the context of the environment, culture and learning. Environment surrounding the child and child's history of development are very important for its overall development, but also for the development of its thought. For children's cognitive development language is the most important factor. Understanding the meaning of the word is being developed (Goel & Dolan, 2001; Cameron et al., 2008; Semrud-Clikeman & Glass, 2010). This is followed by the development of higher mental functions that are also responsible for understanding humorous content (jokes and riddles). Accordingly, humor is the result of socialization, interaction with other people, environment, family and peers (Quatman et al., 2000).

Conclusions and limitations

Based on the obtained results it can be concluded that personality traits may be a predictors of humor styles. Also, the relations between the personality dimensions and humor styles are changing with age. As can be seen from the results, stable personality traits and humor styles are specific to older age (seventeen), while for younger age, deviations from the theoretical framework are noticeable. The authors, based on data analysis, came to the conclusion that it is a developmental change. Humor occurs at an early age, but with growing up and acquiring different experiences it takes on different forms and only in older age we can speak of stable personality traits and humor styles. At a younger age children test various forms of humor. As time goes on, specific humor styles are becoming an essential and defining part of the personality.

These results should be taken in with caution, considering that the main limitation of this research relates to low reliability of used tests that were adapted to Slavic language. Furthermore, the authors did not find research, regarding this subject investigated on our culture. Hence, these research results are compared to the results of the foreign research. Due to above mentioned reasons, it is recommended additional testing of psychometrical characteristics of adapted tests (BFQ – C, HSQ, HSQ – C).

The proposal relating to some future research is testing connectivity of humor styles with coping strategies in more detail. Also, it would be good to examine the hypotheses of this study in another age, for example, in adult respondents, when personality traits and humor styles are stable. In this way it would be possible to compare the results of this research, to examine the role of humor styles at that age, but also to determine whether there are differences by gender in terms of use of

certain humor styles. This would provide a more complete insight into the relation between personality traits and humor styles.

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Rezime

Istraživanja u oblasti humora postaju sve popularnija na ovim prostorima. Najpoznatiju klasifikaciju stilova humora sačinio je Martin. On razlikuje afilijativni, agresivni, samo-veličajući i samo-poražavajući stil (Martin et al., 2003). U pogledu osobina ličnosti, naše istraživanje se zasniva na petofaktorskom modelu koji uključuje pet dimenzija: neuroticizam, ekstraverziju, otvorenost za iskustvo, prijatnost i savesnost (John & Srivastava, 1999). Cilj ovog istraživanja je bio da ispita stilove humora i njihovu povezanost sa osobinama ličnosti. Uzorak je bio prigodan i činili su ga učenici osnovnih škola "Dositej Obradović" i "Ivo Andrić" iz Banja Luke; "Sveti Sava" iz Novog Grada; "Vaso Pelagić" iz Pelagićeve i učenici sledećih srednjih škola: Medicinske škole iz Prijedora; srednjih škola "Vuk Karadžić" iz Lopara, "Filip Višnjić" iz Bijeljine i "Petar Kočić" iz Novog Grada i Srednjoškolskog centra "Đuro Radmanović" iz Novog Grada. U uzorku je bilo ukupno 579 učenika (314 ženskih i 265 muških). Učenici su bili podeljeni u dve uzrasne grupe: učenici osnovne škole uzrasta 11 do 12 godina (276 ispitanika) i srednjoškolci uzrasta 16 do 17 godina. U istraživanju su korišćeni sledeći instrumenti: HSQ – C (Upitnik stilova humora za decu), HSQ (Upitnik stilova humora), BFQ (Upitnik Velikih pet za decu) i BFI (Inventar Velikih pet). Statistička analiza uključuje izračunavanje Pirsonovog koeficijenta korelacije, Mann Whitney – U test i prostu regresiju. Rezultati potvrđuju pretpostavke da osobine ličnosti predviđaju stilove humora. Takođe, utvrđene su kvalitativne razlike između uzrasnih grupa u pogledu povezanosti osobina ličnosti i stilova humora.

Ključne reči: stilovi humora, osobine ličnosti, razvoj humora, uzrast

INDIVIDUAL AND SOCIAL ENVIRONMENT

CURRENT MOOD AND ALTRUISM

Abstract

The factors that have been most studied and that have proved the most important for altruistic behaviour are: 1) an altruistic or empathic personality trait, 2) gender, 3) individualist - collectivist culture, 4) rural - urban environment, 5) the number of observers present, 6) the current mood and some others. In this study, the impact of the current mood in providing a *small service* to an unknown person has been estimated. In the studies of the last few decades, *small services* have been considered to be helping with picking up fallen paper, changing of banknotes, crossing the street, finding the contact lenses and the like, while, on the other hand, to *improve mood* has been seen as accidental finding of a banknote, pleasant smells, and some others. Interesting and surprising findings of the research on a mutual link between mood and altruism are almost of the same effect of both good and bad moods on altruism (the weakest effect being a neutral mood – a U-curve of relationship). The effect of a mood is called *you are feeling well - doing well*, and the effect of a bad mood is called *a tendency of getting rid of a negative mood*, both of which lead towards an altruistic behaviour (in comparison with a mood variable altruism acts as a *category*, not a *variable*!). In this paper, the mood is a dichotomous variable (pleased–displeased with a just obtained score on the exam), also altruism (borrowed – did not borrow a phone to a stranger so that he/she could send a message). The sample: 50 students after the exam. Procedure: Associate researcher *awaits* students after the exam, asks them to borrow the phone for a moment and then raises the question about a recently obtained mark and satisfaction with it. Results: $\Phi = 0.31$; $\chi^2 (1) = 4.84$; $p < 0.05$. The resultant is therefore a low positive correlation between mood and altruism, significant at the 0.05 level. The bad mood, as far as the provision of little services is concerned, differs to a very small extent from the good mood, suggesting the strength of the hypothesis about the release of negative mood, almost the same as the hypothesis *you feel good, you do good*.

Key words: *altruism, current mood, small services*

Introduction

Altruism - or, in the simplest, but also the roughest translation – implies helping others. Regardless of the fact that it has always attracted the attention of ordinary people and philosophers, it has been empirically studied in psychology only since the sixties of the twentieth century (Latane & Darley, 1970).

As in other areas of psychology, the beginning of interest in this phenomenon arises from its negative or unnatural cases (for example, a sudden inspiration for the development of perception arises from the perception of illusions - unnatural, false perceptions), in this case a non-altruistic behaviour - disregard for the plight of people finding themselves in difficulties, even in mortal danger:

- Kitty Genovese was murdered three hours after midnight in 1964, by a maniac in the massacre lasting over half an hour, while her screams and calls for help were heard, but none of the 38 neighbours – eye witnesses at the windows - either came to her help, or called the police (Arronson, Wilson and Akert, 2002).
- In the metro, a gang attacks and kills a man in the presence of a large number of people and no one intervenes, not even after the escape of criminals: the man remains helplessly lying on the sidewalk and a bunch of people step around him (Latane and Darley, 1970, according to Rot, 1983, 260).
- In Ljubljana, March 1976, a 21-year-old Jozica Tansek is hit by a car that throws her onto the roof, and after a 60-meter drive, she falls off on the asphalt. A stream of cars runs over the girl and pushes her for another 12 meters down the street, running on without stopping (Delo, March 9, 1976, according to Rot, 1983).

- In Leskovac, 1982, a man in a bakery faints. None of those present do anything. Only the postman that happens to be there takes the unconscious man out into the street, now with the help of some of those present. The postman keeps trying to stop some cars, but the first cars do not stop, only the fifth or the sixth one stops (*Politika*, May 30, 1982, according to Rot, 1983).

In these examples, in addition to *negative* – no helping, we also have a **positive** - altruistic (*the fifth or sixth car stops nevertheless, finally*), which demonstrates the true subject of our work: **helping and no helping** people in need.

The basic hypothesis for explaining non-helping (Rot, 1983):

- Alienation and depersonalization of people in big cities and, generally speaking, the specific lifestyle in the modern world.
- Meeting the unconscious sadistic impulses when looking at someone else's suffering.
- Mixing fantasy and reality, as a result of a large part of the time spent watching television and film.
- Acceptance of violence and an accident as something normal - also a consequence of watching television and film.
- *Negligence because of the crowd*: underestimating the seriousness of the situation based on the perception of passivity of others.
- *Diffusion of responsibility*: underestimating their own responsibility based on the perception of passivity of others.

After this brief dealing with the *negative* side of altruism, we pass on to the *positive one* – defining the term of altruism and actors (factors) that influence such behaviour.

Definition and division of the concept of altruism

As is the case with many of the concepts in psychology, altruism has more definitions, but one *rationale* pervades them all, and that is that there is no expectation of reward in return:

- *Altruism is a behaviour that seeks to help others at the same time not counting on the benefit for oneself* (Rot, 1983, p. 260).
- *Altruistic behaviour is any act committed with the aim of benefiting another person* (Arronson, Wilson and Akert, 2005, p. 382).
- *Prosocial behaviour that is motivated by altruism or a desire to help the other person, even if it means losses for the person who helps* (Arronson, Wilson and Akert, 2002, p. 382).
- *Altruistic behaviour is not only objectively helping someone, but also a behaviour intended by making an effort and sacrifice, be helpful to some other person* (Latane and Darley, 1970).
- *Altruism is a behaviour that is based on empathy with another person, and that allows us to know what others are experiencing and that we assume that our action will cause pleasure in another person, and also be pleasant to us* (Aronfreed, 1970).
- *Altruistic behaviour is the reactions or acts of a certain individual with the anticipation of support (reinforcement, confirmation) for another individual and with no anticipation of support for oneself* (the author's definition).

In the last definition, two important components are pointed out, we can almost say two problems:

1. The existence of *small*, immediate assistance (*reactions*) or *larger* and longer-lasting (*acts*).
2. The existence of behaviour without the anticipation of one's own support (confirmation, satisfaction).

Regarding the first issue, it should be noted that this paper examines only *little* services or *reactions*. (In other words, the variable *the size of help* or the *type of the degree of required engagement* is controlled and kept constant).

As for the second problem (2), the paper accepts the hypothesis of the existence of a conduct without the anticipation of one's own reward (benefit, support), regardless of the philosophical and psychological dubiousness whether such a thing is possible in a pure form, or that at doing the most unselfish acts we deal with some sort of the secondary support or an indirect personal gain (Aronfreed, 1970).

From some narrower and more fruitful perspective, the basic problem in the study of altruism in psychology emerges into the question:

1. Why are **some people** more willing to help than others?

2. Why one and the same individual rather helps in **some definite situations** than in others?

These two issues also determine two big groups of factors that influence the altruistic behaviour:

I-individual factors or personality factors, and

II - situational factors or factors of the situation at the time of altruistic - non-altruistic behaviour.

If *the individual* (I) and *situational* (II) factors are divided into the *current* and *ongoing*, we can derive a cross and fairly complete division of factors of altruism, and this can in a satisfactory manner serve us as a landmark and guide in research studies of altruistic behaviour in humans:

I a) Individual long-term factors:

- Altruistic or empathic personality traits
- Gender
- Age
- Education
- An individualist - collectivist culture as a source of socialization
- Rural - urban environment as a source of socialization
- The class and socio-economic affiliation of the person who helps
- Knowledge and skills (e.g., knowledge of *first aid*, *attending classes of social psychology*)

b) Individual current factors:

- Mood
- The degree of urgency
- Personal assessment or interpretation of the situation (with a frequent phenomenon of *negligence due to the crowd of people*)
- Personal responsibility or *calling upon (picking out) a person* (with a frequent phenomenon of *diffusion of responsibility*)

IIa) Long-term situational factors:

- Standards of conduct
- Individualist - collectivist culture scene
- Rural - urban area of the scene
- Population density of the scene
- Gender of a victim (a person in need of help)
- Socio-economic background of the victim
- Class background of the victim
- Acquaintance, friendship or relationship with the victim
- Acquaintance, friendship or kinship with other persons present

b) Situational current factors:

- The number of observers
- Actions of other persons
- The type and degree of trouble
- The type and degree of engagement required
- The behaviour of the victim (a way of *seeking* help - or *not seeking* - for example, a potential suicide on top of the building can *plead and curse* without anyone helping him).

Basic results of previous studies

In a variety of studies on this issue, only a small number of interesting findings have been presented, i.e. those associated with the problem and the aim of this work:

- Almost a *cult factor* in the science of psychology - **personality traits**, or here a concrete and specific **altruistic personality trait** - has proved to be insufficiently reliable and valid (Eisenberg at al. 1999), starting from the instability of the measurements of such a trait, to the instability of correlations with altruistic behaviour (Piliavin and Charng, 1990). However, relatively more stable following connections have been set aside (Krebs, 1970, according to Rot, 1983): the positive correlation with the social adaptation, emotional stability, extraversion, conservatism,

authoritativeness; a negative correlation with aggressiveness, competitiveness, an achievement motive, neurosis.

- Gender as a factor of altruism gives quite reliable results, so that women are accordingly more prone to *long-lasting* and *milder* types of assistance (*women-marathon runners*), while men are more inclined to providing *more explosive and riskier* ones (*male sprinters*), i.e. actions that are harder, but shorter as regards duration (Arronson, Wilson and Akert, 2002; Eagly and Crowley, 1986).

- The variable of **individualist - collectivist culture**, that is, a personality trait of *independent experience of oneself* with Westerners and *interdependent experience of oneself* with the Easterners, did not *celebrate* the Eastern culture, as expected: research in China and Japan has shown that there people are prone to help more frequently, but only assist members of their own group (Brewer and Brown, 1998; Triandis, 1994).

- The factor **urban - rural area as a source of socialization** presents itself in the form of a little stronger trait of altruism in people who have grown up in a small town and even stronger correlations between the **rurality scene** and an effort to offer help: if the situation of an accident happens in a small town, people are more inclined to help than in a large one (Arronson, Wilson and Akert, 2002).

- The number of observers negatively correlates with actions to help (more people - less chance of altruistic behaviour – *bystander apathy*), as we mentioned in the beginning under the definition of *negative examples* and literature is full of such research (Latane and Darley, 1970; Latane, 1981).

- In research studies of correlation of mood and altruism almost the same effects of good and bad mood swings towards altruism were obtained, though with somewhat stronger effect of good mood, but often statistically insignificant in relation to the mood. (The weakest effect relates to the neutral, middle mood; therefore, it is a U - curve of relationship with a somewhat higher right side). The effect of good mood and the explanation hypothesis are called *you are feeling well - doing well* (Berkowitz, 1987), and the effect of bad mood and the hypothesis - the tendency of getting rid of the negative mood (Baumeister, Stillwell and Heatherton, 1994). Thus, either of them - the good mood and the bad mood – leads to the altruistic behaviour, so that consequently it may be wrongly concluded that there is no correlation between mood and altruism, when, in fact, there emerges a non-linear U - connection. (If we consider the extreme values of a mood variable, we can say that altruism in relation to mood behaves as a *category*, not a *variable*). Explanations of this connection usually move in the direction of *attributing aspirations* to a person in a bad mood of *dispelling bad luck*, that is, warding off the feelings of guilt (because a bad mood is closely related to the feeling of guilt of *doing something or not doing it*). In studies of the last few decades (Carlson, Charlin and Miller, 1988; George and Brief, 1992), small services were considered to be helping to pick up dropped paper, to change money, cross the street, find contact lenses, etc., while some studies presented as the good mood a manipulative variable (a real experimental), i.e. the mood was deliberately being varied, which is a special quality of research: *to improve the mood* finding of notes by chance was applied (Isen and Levin, 1972), pleasant smells (Baron, 1997) and the like.

The empirical part

This study deals with the problem of the absence or presence of small differences in offering assistance to others by people in a good and bad mood. Another point is whether such a thing is possible. Does a current mood not affect whether we shall be kind and to what extent we shall be kind to another person?

The aim of the research is to determine whether there are statistically significant differences in the frequency of altruistic behaviour between students in a good and bad mood. The starting point is the hypothesis that those students who have passed the exam are in a better mood than those who have failed.

The sample: 50 students of the Faculty of Philosophy in Niš, after the exam.

Variables:

- **An independent variable:** current mood. (Categorical, dichotomous: in a bad mood (1) - in a good mood (2))

- **A dependent variable:** altruistic behaviour. (Categorical, dichotomous: did not offer help (1) – offered help (2))

- **Control variables:**

- Age (a control technique: homogenization: all researched students from 20-plus years of age)
- Gender (homogenization: a female associate researcher addresses only females for help; male associate – addresses only male persons. This control eliminates a variable confutation of a *possible courtship*, but does not eliminate, nor take into account the possible gender differences in altruistic behaviour).

The following variables are naturally homogenized:

- Urbanity scene (the big city of Niš)
- Education, class or socio-economic affiliation (all researched students)
- Personal responsibility or *calling for help* (*the victim* directly addresses each researched student for help, i.e. there is no *diffusion of responsibility*)
 - The degree of urgency (low: after the exams, students usually do not rush anywhere, because shortly after the exam there is no definite schedule of other activities, since it is unknown how long the exam will take)
 - Acquaintance with the victim and the present persons (the victim or associate researcher is not a student, therefore there is no acquaintance)
 - The number of observers (about 10 students in the hall of the Faculty)
 - The type and degree of distress (little trouble)
 - The type and degree of engagement required (little involvement required)
 - The behaviour of the victim (the associate in all 50 cases in a courteous and in the same way asks for the required service).

Procedure: The associate researcher *waits for* the students after the exam, then asks them to lend him the phone for a moment, explaining that he has run out of phone credit and just needs to send a short message. Consequently, the question is addressed to the student about an already obtained grade and their assessment of it. If the student does not want to answer whether he/she passed the exam or not, the information is obtained in some other way (from professors, other students).

Results: $\Phi = 0.31$; $\chi^2(1) = 4.84$; $p < 0.05$.

Table 1. Case processing summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Current mood *	50	96.2%	2	3.8%	52	100.0%
Altruism						

Table 2. Current mood and altruism cross tabulation

		Altruism		
		1.00	2.00	Total
Current mood	1.00	13	10	23
	2.00	7	20	27
	Total	20	30	50

Table 3: Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.844 ^a	1	.028		
Continuity Correction ^b	3.653	1	.056		
Likelihood Ratio	4.906	1	.027		
Fisher's Exact Test				.043	.028
Linear-by-Linear Association	4.747	1	.029		

N of Valid Cases 50

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.20.

b. Computed only for a 2x2 table

Table 4: Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Phi	.311	.028
Cramer's V	.311	.028
N of Valid Cases	50	

The obtained results point to a low positive correlation (0.31) between a good mood and altruism, significant at the 0.05 level. A good mood, as far as the provision of a small service is concerned, differs little from a bad mood, suggesting the strength of the hypothesis of *release of negative mood*, almost the same as the hypothesis *feeling good, doing good*, which is admittedly, stronger to some extent.

Discussion and conclusion

As we can see from the first table (Case Processing Summary), there were 52 respondents (interviewed students), but the two are not entered into the processing because there was no information on whether they passed or failed their exam, and, in fact, their exam was postponed (and they nevertheless lent their phones). From another table (Table 2), we see that the pattern is rather balanced (27 in a good mood or those who have passed and 23 students who failed), as well as the dominance of consistent categories for a positive correlation of a good mood and altruism (13 and 20), as opposed to the frequencies for a negative correlation (10 and 7).

The third table (Chi-Square Tests) shows the amount of chi-squares of 4.84 and its significance at the level of 0.05 (0.028). In the fourth table (Symmetric Measures), the Phi coefficient and Cramer's coefficient of 0.31 are finally observed (a mild positive correlation between a current good mood and altruistic behaviour) with a statistical significance at the 0.05 level (0.028).

Thus, the dominance of the frequencies of the correlation in favour of a good mood - altruism, and thus the superiority of the hypothesis *feeling well - doing well*, although small, still exists, regardless of supporters and advocates of the hypothesis about the *release of negative mood*.

In this study, there are no data on persons *in a medium good mood*, and who, according to the thesis of a nonlinear U-connection, are supposed to have the poorest score on the test of altruism, while, according to the hypothesis of a linear relationship, they should occupy an intermediate result between those in a good and others in a bad mood. Some future studies should take into account that third category of mood variable, i.e. the best case would be to have numerical data for the current mood or a continuous variable (for what a design (construction) of a current mood test would be needed).

Finally, for a high quality research of this topic, it is necessary to control a large number of variables (all listed except independent), out of which we see a significant number (25-30). It is very difficult, if not impossible (although in this paper a considerable number are controlled) and a research is mainly performed to control just a few of the many that affect the altruistic behaviour. In such a situation, it remains to us that in this research, step by step, we follow sporadically, in the way that it has been presented to us, and perhaps in the future assess a set of results by a meta-analysis, as, for now, the best *surrogate method* for controlling a large variety of factors.

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Rezime

Faktori koji su najviše istraživani i pokazali se značajnim za altruističko ponašanje su: 1) altruistička ili empatijska crta ličnosti, 2) pol, 3) individualistička – kolektivistička kultura, 4) ruralna – urbana sredina, 5) broj prisutnih posmatrača, 6) trenutno raspoloženje i još neki. U ovom radu istraživani su uticaji trenutnog raspoloženja na pružanje *sitne usluge* nepoznatoj osobi. U istraživanjima poslednjih nekoliko decenija kao *sitne usluge* korišćeni su pomoć u podizanju ispuštenih papira, usitnjavanje novca, pomoć pri prelasku ulice, pomoć u pronalazenju kontaktnog sočiva itd, dok je za *poboljšanje raspoloženja* korišćeno slučajno pronalazenje novčanice, prijatni mirisi i slično. Interesantni i iznenađujući nalazi u istraživanjima povezanosti raspoloženja i altruizma su u gotovo istom efektu i neraspoloženja i raspoloženja na altruizam (sa najslabijim efektom neutralnog raspoloženja – U-krivulja povezanosti). Efekat raspoloženja nazvan je *osećaj se dobro – činiš dobro*, a efekat neraspoloženja *težnja oslobađanja od negativnog raspoloženja*, pri čemu oba vode altruističkom ponašanju (altruizam se u odnosu sa varijablom raspoloženja ponaša kao *kategorija*, a ne *varijabla*!). U ovom radu raspoloženje je bilo dihotomna varijabla (zadovoljan – nezadovoljan upravo dobijenom ocenom na ispitu), altruizam takođe (pozajmio – nije pozajmio telefon nepoznatoj osobi da pošalje poruku). Uzorak: 50 studenata posle ispita. Postupak: saradnik istraživača *sačekuje* studenta posle ispita, zamoli za pozajmicu telefona na

trenutak i nakon toga postavlja pitanje o upravo dobijenoj oceni i zadovoljstvu ocenom. Rezultati: $\Phi = 0,31$; $\chi^2(1) = 4,84$; $p < 0,05$. Dobijena je dakle niska pozitivna korelacija između raspoloženja i altruizma, značajna na nivou 0,05. Raspoloženje se, što se tiče pružanja sitne usluge, malo razlikuje od nerasploženja, što upućuje na snagu hipoteze *oslobađanja od negativnog raspoloženja*, gotovo istu kao hipoteze *osećaš se dobro, činiš dobro*.
Ključne reči: *altruizam, trenutno raspoloženje, sitne usluge*

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DRAMA FRAMEWORK OF A TRAVELLING LIFESTYLE

Abstract

Serbia in times of war and the disintegration of the social system in all fields. The survival under extraordinary circumstances adjusts to new conditions: the main activities still take place, qualitatively significantly altered and marked by the decline in standards. This paper deals with the field research⁵, conducted on the main railway lines of Serbia (excluding Kosovo) during the tumultuous political events from 1997 to 2000 on the territory of the former state union of Serbia and Montenegro. The time frame is determined by three crucial events: the victory of Milo Djukanovic, the NATO bombing, and the overthrow of Slobodan Milosevic. The main theme is the daily lifestyle of the inhabitants, embodied in verbal and non-verbal communication while traveling by train, in which the mentality of a region is reflected. In the situation in which the so-called small people feel existentially threatened, creative self-defence mechanisms through play are developed, which they use to fight against the senselessness of everyday lifestyle. Located in a specific framework, commuting turns ordinary people into artists and creators that play the drama of their own lives, so that the events in the wider and immediate environment are designed as a theatre performance. The methods applied are the full participant observation and mostly spontaneous conversation. As the objective is the analysis of the social character that can be seen "in the long term", the results are compared to the picture of that mentality in two historical moments: the early and mid-20th century. The angle of the analysis is philosophical, scientific, and artistic.

Key words: *lifestyle, travel, drama*

The content of this paper is an excerpt from the not so distant historical reality of the space in which I live. In a dramatic reality that lasted for nearly two and a half decades, the period of three crucial years has been selected, during which one stage reached its peak and reversal through a deep social change. Beginning in 1990, the former Yugoslavia, and especially the Republic of Serbia, was passing through perhaps the deepest social crisis in its recent history, marked by a series of wars from 1991 to 1999. The disintegration of the society was multiple and simultaneous: the war led to a political collapse, accompanied by the destruction of the economy, demographic disarray, or destruction of morality, all of which affected the daily lives of citizens (Lazic: 1994). Formally, daily life followed its course according to the established order: going to work or school, returning home, the rhythm of meals and rest periods, and the like. However, its content, and occasionally rhythm, was substantially modified. Since the system and the structure were destroyed, the period that followed was marked by civilizational backwardness, social stagnation, and psychological apathy. Therefore, the nature of the subject determined the significance and context of the problem. These are the longer historical periods and deeper social and psychological events that deserve to be explored (Golubovic i dr: 1995).

The starting topic is everyday life of the inhabitants, viewed through communication while travelling by train, for the purpose of analysing the social character of the studied area (Golubovic: 1995, Jovanovic: 2002). Packed with drama elements, developments in the wider, social, and the narrow, immediate environment (the rail) are designed as a theatre play (Surio: 1982). The basis of dramatic action is found in the reaction of the politically powerless, ordinary people to global events that directly affect their daily lives and survival (Bastide: 1981). With no possibility of choice, they

⁵ The research was part of the master thesis "Everyday life as a 'travelling theatre'", defended on 21st December 2001 at the Interdisciplinary Department of Anthropology, University of Belgrade, in front of the board including: Zagorka Golubovic, mentor, Sreten Petrovic and Sreten Vujovic, members.

were involved in what was happening on the public social scene, so that the private, under such circumstances, became the transparent and part of the public. Seemingly, in the background of global political developments, the life of the so-called small people was actually interwoven with them (Arto: 1971). However, the cultural response that they gave to the situation in which they found themselves was specific and largely “seasoned” with specific features of mentality. National acting through a less often tragic, more often comic expression tries to transcend the transient world of phenomena, which includes dreary everyday existence, with the aim of restoring the order in the planetary spiritual chaos. The national spirit, under extraordinary circumstances, returns to life as a key vital principle (Berdjajev: 1996), by changing the spatial and temporal conditionality: it appears as an archaic element of culture (Antonijevic: 1997) that survives time and current world trends.

The collected material was used for the analysis and testing of assumptions about long-term changes in the collective personality. Thus, an attempt was made to investigate possible changes in the social character within the frame of a century, which was the ultimate goal of the research (Jovanovic: 2002). Therefore, three nearly identical historical situations have been selected, identical both in their content, and by the form of their presentation. These are the journeys of average Serbian citizens, described in dramas: the journey of the hero of Branislav Nusic’s comedy “The Trip Around the World”, situated at the beginning of the 20th century (Nusic: 1964); the journey of a group of passengers to Belgrade the day before the bombing on 6 April 1941, described in the movie “Who’s Singin’ Over There?” (Sijan: 1980); and the journey by train of contemporary Serbian citizens, which ends the 20th century and the third millennium, which has the pronounced dramatic character and is an example of folklore theatre on wheels (Petkovic: 2003).

The sample was determined by the spatial, temporal, and thematic framework. The paper focuses on a field study conducted on the main railway lines of Serbia (without Kosovo) during the three-year tumultuous political events from 1997 to 2000 on the ground of the former state union of Serbia and Montenegro. The spatial framework applies to passenger lines: Subotica-Belgrade-Nis, Belgrade-Prijepolje, and Pozarevac-Belgrade-Sid, in both directions. The time frame is determined by three crucial events: the victory of Milo Djukanovic, the NATO bombing, and the overthrow of Slobodan Milosevic. The subject of the research is the everyday life (Heler: 1978), travelling by train (Andric: 1988) and folklore theatre (Sekner: 1992).

During the period of three years, from 1997 until the autumn of 2000, I travelled by fast passenger trains through Serbia, along the main travel routes from north to southeast and southwest, and from east to west, in both directions. On the first trips, I noticed that human behaviour was shaped as highly dramatic, resembling more a theatre performance than the shorter or longer, daily or periodical, repeated or one-time commuting to work, market, school, travelling for the purpose of completing administrative duties, going to the relatives and friends, to the celebration or requiem, holidays or annual leave, for example. On these journeys, live dialogues evolved, accompanied by stage effects: music, sound and visual signalisation, animal onomatopoeia, and the like.

The passengers themselves represented a specific dramatic phenomenon. Their appearance and behaviour did not resemble any classical actors or the ordinary, inconspicuous people. They could be most closely characterised as non-professionals, who played their own lives quite unconventionally. That was what immediately caught the eye, and what might be called a dramatic text. However, the subtext of this dramatic action and the situation were a personal, individual response to events in the wider context: the war, the disintegration of the state and the political system, the destruction of economic life, the destruction of morality – all of which immediately struck both the individual and his or her privacy. Finally, the broader dramatic context was the global socio-historical framework, whereas the narrow, concrete context was found on the train. It is precisely this atypical pattern of behaviour that made the journey reminiscent of long journeys by trains through the exotic landscapes of Euro(Asia), Africa, and South America (Šekner: 1992). In these circumstances, I soon ceased to feel like a passenger who only followed the destination of her journey. I began to sympathise with the passengers (Goleman: 1997), to engage in a dialogue, so that my journey, in itself, became a central preoccupation. As I am the social researcher by profession, this gave birth to the idea of an interesting research to be put into a permanent text.

In connection with this stands the question of methods. In the classical anthropological methodology, during the field work (known as *field study*), two basic methods are applied: observation (without the participation or with the participation of different degree and type), and

conversation. That was the case here. Basic research methods were participant observation and conversation (Milić: 1978). However, since this was a specific situation – dynamic, micro-framework, train – this required a further adjustment. Since the pilot study involved unsuccessful attempts to collect questions by disclosing identity, I opted for the application of Erving Goffman's ethnomethodology (Spasic: 1991) – the method of observation with a full participation and concealing the researcher's role (Spasic: 1996). This created an ideal experimental situation, ethnelaboratory in the field, in which, mainly through spontaneous conversation, the public attitudes about the social situation in the country and the world that significantly affected the private life were examined. Since the participants shaped the action by themselves, the researcher's task consisted of "reading" the messages with rarely explicit more often implicit meanings – hence, most of the questions appeared during the research process, in an experimental situation. Given the fact that the passengers expressed their views more symbolically than literally, and that the language of expression was both non-verbal and verbal, a wealth of material was collected (Frojd: 1996, Moris: 1979, Trojanovic: 1986).

Due to the use of qualitative methods, the study was primarily anthropological and psychological, as it adapted to the rules of a small group, micro-framework, and grew into a sociological and historical study when the results were generalised at the level of macro-framework. Therefore, the studied situation and its protagonists obviously imposed research methods and explanations. Being a part of the studied situation, the researcher put them in the position of the actors and interpreted facts from their perspective. The researcher also did their work and analysed the collected material objectively and from a distance. In such a situation, an application of the classical methodology was difficult, if not impossible, so the reverse logical order, in which the time and manner of research were shaped on the spot, represented a common phenomenon. The researcher entered the investigated process practically without intentions and ideas; they were born later. That is what is called inspiration in art, or scientifically, the sudden discovery, which Robert Merton called *serendipity* (Merton: 1979).

In the phase of interpretation and explanation, the applied methods can be divided into two types, depending on the level at which the initial assumptions were set. The working hypothesis was related to the analysis of behaviour in the present time and the immediate environment, regardless of its scope: global society, a specific state or train at the time of the study. The main method in its review was the analysis of the inner meaning of messages. Therefore, hermeneutic method (Milić: 1978), phenomenological method (Fink: 1984), content analysis (Milić: 1978), and contextual analysis (Hajmz: 1980) were primarily applied. On the other hand, the review of the final assumption about changes in the social character through time required the use of comparative method (Milić: 1978). Thus, the angle of analysis became/remained interdisciplinary, as well as the subject. The key perspectives were: phenomenology of the game (Fink: 1984), anthropology and sociology of theatre (Divinjo: 1978, Sekner: 1992), ethnopsychology (Jovanovic: 2002), linguistics and semiotics (Hajmz: 1980), dramatic literature (Nusic: 1964), theatre (Arto: 1971), and film (Sijan, 1980).

With regard to the specific subject and the framework, I think that, in this case, the most important methodological information was the researcher's personal experience (Milic: 1978). Therefore, I will, in the end, look at my own role that was neither precisely determined nor always pleasant. Due to these circumstances, the researcher was part of the situation far more than in the usual research. As a full participant, the researcher did not reveal their identity (Milic: 1978, Spasic: 1996). I was a traveller who lived life on wheels, just like the passengers, and I did everything they did. I had in mind the classic research tools for collecting data in the field only at the moments when I consciously played the role of the researcher. However, there were many situations in which I was, like any ordinary person, caught off guard by the nice or unfortunate circumstances. In those times of crisis, the communication on the so-called grey economy ran on the trains, and among the passengers and staff petty offences of moral and legal norms occurred: smuggling, misrepresentation, insistent courtship, and others. At such moments I remembered Erving Goffman (Spasic: 1996) and other researchers who were in more difficult situations, such as insane asylums, prisons, warlike native tribes, corrupt local authorities, and who used all their diplomatic talents to get the task successfully done – collect data and preserve good interpersonal relationships. In the end, when I think of that time, I wish to get on the train again and cruise through the trans-Balkan railway, which would involve me in the play of everyday life with new, yet the same people and content.

The results of this venture could be briefly summarised as follows. The ancient theatre law on the unity of the space, time, and action was here satisfied in a specific way (Divinjo: 1978). The basic elements of drama, stage and creators-participants, were already there in this situation, appearing spontaneously. The wider stage was a global world society, then the state union of Serbia and Montenegro (which no longer exists), and the Republic of Serbia. The narrow stage was the railway station, train, and compartment. On each of these stages, parallel actions played out, which, like the train tracks, alternately mingled and parted. In respect of the participants, in this case they played the roles of complete creators, including the producers, the directors, the screenwriters, the playwrights, the composers, the decorators, the costume designers, the make-up artists, and the actors. On the wider stage, the participants were the world and national power holders, and on the narrow stage – passengers and railway staff. Between these two groups of participants the indirect dialogue occurred, in which one group started the action, and the other responded. Within these scenes, the dialogue was straightforward because they faced each other. In respect of the character of dramatic action, it was the same because both groups played their authentic life roles. The difference was that the roles of one group were fully public, and of the other more private, which affected the character of acting: one group was conventional and hypocritical, the other was informal and honest.

However, as the events on a wider stage were only the introduction and the reason for what was happening on the narrower stage, the greater part of the work focused on everyday life of traveling by train. The story was divided into three acts, bordered by important political events that significantly changed the pace and content of everyday human behaviour. The first act begins with a change of government in Montenegro and Milo Djukanovic's victory in the elections of 1997, and ends at the beginning of NATO bombing in March 1999. The second act covers the war in Kosovo between March and June 1999, from the first air strikes until the signing of the armistice that marked the capitulation of Serbia and Montenegro. The third act starts with the occupation of Serbia and ends with the political overthrow of Slobodan Milosevic in the fall of 2000. A varying duration and speed of action determined the style of acting. While the war was brief and stormy, everyday life is long, slow, and monotonous. Therefore, the first and the third act directly contradict the second act, to which they are related as a plot and denouement towards the climax. The protagonists from the private, everyday, and public, political scene alternately separated and connected: at the beginning of the action, they are implicitly linked (elections in Montenegro), while in the second and at the end of the third act, they are explicitly linked (bombing and elections in Serbia), and these moments are short and dramatic. Between them, there are long periods of separation and the apparent peace flow, when everyone lives their own life. However, in the everyday survival, the protagonists develop their own dramatic reactions to a situation, which are full of intensity. The shortest and most dramatic is the second act, which includes the events during the bombing, while the first and the third act are considerably longer and more extensive. Everyday life does not essentially change its course and character before and after the main, war act. From the psychological point of view, the behaviour of the passengers in the first act is characterised by a mixture of apathy, helplessness, and mild irony. The second act is characterised by the dynamics and drama in the fight for the preservation of bare life, while the third act offers the mixture of resignation and disappointment because of the capitulation, on the one hand, and the expectation of a positive outcome due to the implied changes, on the other hand, finishing with a pronounced optimism about the future at the end of the journey-performance.

The backbone of all the dialogues on which the dramatic material rests consisted of political discussions that were often very heated. The plot was built out of the confrontation of immediate or distant political opponents, according to the "round table" principle. These were: the international community, Slobodan Milosevic, the leaders of former Yugoslav republics, and representatives of the opposition parties. Based on its dramatic and psychological nature, it could be defined as tragicomic. Its counterpoint is reflected in the episodes from private life, especially those related to the sad events, disease, or death, which had an extremely tragic character. Other adverse events, such as unemployment, poverty, regulatory pressures, natural disasters, and others, were reflected upon in the manner of condemnation and sarcasm. In both cases, dialogues and way of thinking were intensely coloured by exotic elements, such as curses, swear words, and magical practices (Sekner: 1992).

Numerous studies have shown that becoming familiar with the principles of the organisation of micro-groups helps to understand and explain the mechanisms of the psychological functioning of

larger social units (Goleman: 1997, Stajin-Erlih: 1969). Regardless of their current and local specifics, they possess a certain anthropological constant, due to which it is possible to make generalisations. This points to a conclusion that, in this particular case, the behaviour of passengers has certain stereotypical traits that are already rooted and represent the characteristics of mentality, not just of a particular area, but also of the pre-industrial society in general. A daily journey or a trip of an individual and their behaviour symbolically represent the journey of a collective personality of people through time, and their reactions to major historical events. In this sense, the comparison with the same events at the beginning and in the middle of the 20th century confirms the initial assumption that almost nothing has changed in people's reactions to the wider social, especially political and war events. The only novelty is the content of the text that is made up of the current issues and persons from a global and immediate environment of everyday life and survival. The humorous reaction to the reality is emphasised, which, given its extremely unfavourable coloration, becomes satirical (Bergson: 1958). Life and game are so intertwined that it is difficult to distinguish between them, especially in tragic situations of war.

This may, to a significant degree, explain the Serbian characterology, over extended periods of time. "Toughness" of certain traits, such as patriotism, militancy, humanism, patience, perseverance, distrust of change and power, imagination, ingenuity, inclination towards the irrational, retrograde life ethos, inclination towards anarchism, negligence, lack of discipline, and others, both at the public and at the private level, occurs as a result of the socio-historical constellation of the space where Serbs have lived from their civilizational origins, and that is the Western Balkans, which is highly politically variable and often exposed to war conflicts and accompanying turbulences that they bring with them (Golubovic: 1995, Jovanovic: 2002). In these situations, the exit is looked for in the revival of the deeper hidden archaic cultural layers that become the response to the current situation of pressure and crisis. And since it does not only apply to a direct, physical survival of the individual, but also to the cultural survival of the nation, retraditionalisation manifests itself as a defence mechanism. In this sense, the dramatic response to the everyday journey of an ordinary citizen can be considered a type of national creativity of one exotic culture in the time that runs significantly faster and in a world that is far more developed in terms of civilisation, especially technologically. In a society of a highly developed technology that permeates all areas of life, especially communication, authenticity and durability of this type of social communication becomes a condition for the survival of a local culture. The global world is going through its deepest existential crisis, the period of nihilistic spirit, in which relativism is brought to the limit and makes life extremely complex and the personality fragmented and spiritually impoverished. A contemporary developed and seemingly ordered world, which imposes the global trends in all areas, has all the qualities of the necrophile, while everyday devastated and impoverished society, marked by a constant struggle for survival, no matter how bleak and arduous, affirms life as a renewing principle (Lefebvre: 1988). Therefore, this is an example of how micro-phenomena can have a positive feedback effect on the macro-phenomena.

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Rezime

Srbija u doba rata i raspada društvenog sistema na svim poljima. Opstanak se u vanrednim prilikama prilagođava novonastalom stanju: osnovne aktivnosti se odvijaju bitno kvalitativno izmenjene i obeležene padom standarda. Rad govori o terenskom istraživanju obavljenom na glavnim železničkim linijama Srbije (bez Kosova) tokom burnih političkih dešavanja 1997-2000. na tlu tadašnje zajedničke države Srbije i Crne Gore. Vremenski okvir određuju: pobjeda Mila Đukanovića, NATO bombardovanje i pad Slobodana Miloševića. Osnovna tema je svakodnevni život stanovnika, oličen u verbalnoj i neverbalnoj komunikaciji tokom putovanja vozom, kroz koji se odslikava mentalitet jednog podneblja. U situaciji u kojoj se tzv. mali ljudi osećaju egzistencijalno ugroženima, razvijaju mehanizme stvaralačke samoodbrane kroz igru kojima se bore protiv obesmišljavanja svakodnevice. U specifičnom okviru svakodnevno putovanje pretvara obične ljude u umetnike, stvaraoce koji igraju dramu sopstvenog života, pa su i zbivanja u širem i neposrednom okruženju oblikovana kao pozorišna predstava. Primenjeni su metodi potpunog učesničkog posmatranja i pretežno spontani razgovor. Kako je cilj analiza društvenog karaktera „dužeg trajanja“, rezultati se upoređuju sa slikom mentaliteta u dva istorijska trenutka: početkom i sredinom 20. veka. Ugao analize je filozofski, naučni i umetnički.

Ključne reči: *svakodnevica, putovanje, drama*

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LIFE SATISFACTION, SOCIAL AND EMOTIONAL LONELINESS AMONG SERBIAN YOUTH ABROAD AND IN SERBIA

Abstract

Migrations are a widespread social phenomenon and studies in this field in our country are very rare. This paper considers the assumption that living abroad provides more opportunities for the individual development, which influences greater life satisfaction, whereas the separation from the primary social environment creates a higher level of social and emotional loneliness. Moreover, the comparison of the youth abroad and those in the homeland can pinpoint the reasons for the youth's emigration, which represents a big problem related to the brain drain. The Scale for General Life Satisfaction was used for measuring life satisfaction (Penezić, 1996), and the Scale for Social and Emotional Loneliness was used for measuring loneliness (Čubela & Nekić, 2002). There were 200 respondents in this study, aged between 18 and 35, 100 coming from abroad (mostly from Europe and the USA) and 100 from Serbia. Two thirds in both groups were students. In the additional analysis, we included 40 subjects older than 35 living abroad. The results showed that life satisfaction was significantly more present among the young people abroad than among the young people in Serbia ($p < 0.01$). Similarly, there was observed a negative correlation between life satisfaction and social and emotional loneliness ($p < 0.01$). The youth living abroad said that loneliness was more present in men than in women ($p < 0.05$), and life satisfaction was more present in those whose main motive for leaving the country was work ($p < 0.05$). When considering the results related to the young living in Serbia, they showed the following: the lower the education, the greater family loneliness ($p < 0.05$). 78% of the young from Serbia would leave the country, out of whom 73% have university education. The respondents said that their major motive to leave the country was finding work abroad. The results showed that after the age of 35, life satisfaction increases along with the increased length of staying abroad ($p < 0.05$), but family loneliness decreases.

Keywords: *Serbian youth, Serbia, life satisfaction, social and emotional loneliness*

Introduction

Life satisfaction

Life satisfaction, personal happiness and the quality of life are considered to be different components of the subjective well-being (Diener, 1984, acc. to Petrov et al., 2011). Within this framework, life satisfaction is a cognitive component, as opposed to happiness, which is an emotional aspect. Life satisfaction can be defined as a global evaluation of an individual about his/her life, in which people evaluate certain aspects of their life, compare good with evil, thus coming to the total estimation of life satisfaction (Pavot et al., 1991, acc. to Penezić, 2006). As subjective experience, the quality of life is defined by objective circumstances in which an individual lives, by personal characteristics that affect the experience of reality and by his/her specific life experience (Krizmanić and Kolesarić, 1989).

Many theories have tried to explain the essence of life satisfaction and what is necessary for it to be achieved. One such theory is the theory of self-determination which states that life satisfaction and subjective well-being are realized through self-actualization and satisfaction of three basic psychological needs (Ryan & Deci, 2000, acc. to Petrov et al., 2011). The first is *the need for autonomy*, and it refers to the need to conduct personal activities and behave independently and

willingly. Opposite to this need is the need for heteronomy, or excessive outer control, which usually leads to frustration and lower life satisfaction (Sheldon & Kasser, 1998, acc. to Petrov et al., 2011). The second is *the need for competition*, and it refers to the need to feel efficient, useful and to have control over the environment, which is a necessary prerequisite for gaining self-confidence. The third is *the need for coherence*, which is the need for a sense of connection with other people and social groups. The authors (Ryan & Deci, 2000, acc. to Petrov et al., 2011) suggested that individuals who are better integrated into society and achieve satisfactory relationships with other people tend to live longer, and to be mentally and physically healthier.

According to the theory of activity, a person's involvement in an interesting activity provokes the feelings of satisfaction and happiness, regardless of whether the ultimate goal is reached or not (Penezić, 2006). In addition, it is pointed out that the activity, in order not to provoke anxiety, i.e. boredom, should be at the appropriate level of difficulty.

As previously mentioned, the subjective well-being consists of many components from among which life satisfaction includes the thinking, cognitive component, whereas happiness includes the emotional component. Despite the fact that our emotions change constantly, long lasting well-being will, by its nature, be stable because emotions achieve their usual level defined by our temperament and general circumstances of life. On the other hand, a person's life satisfaction can change if life circumstances change dramatically (Larose, 1999). Even though various life circumstances are consistent through life and lead to certain stability in life satisfaction, a person's life satisfaction may be affected by life changes (for example, moving abroad) (Larose, 1999).

Studies conducted on emigrants indicate that, during the life satisfaction assessment, people who have moved to another country use the so called comparative strategy, i.e. they compare their life situation with the life situation of the people who have not departed from their homeland, mostly relatives. If life conditions are better in a new environment, it is most likely that the evaluation of life satisfaction will be positive (Diener & Diener, 1995, acc. to Larose, 1999). Differences in life satisfaction among people who have emigrated mostly depend on the perception of what they have, what others have and what they had in the past (Michalos, 1991, acc. to Larose, 1999).

According to Penezić (2006), life satisfaction is not unaffected by changes in living conditions. The improvement or deterioration of living conditions are usually followed by the improvement, i.e. deterioration when assessing life.

Social and emotional loneliness

Loneliness is related to the dissatisfaction with interpersonal relations, which can arise either from the changes in current social relationships or from the changes in desires and needs for social relationships. Loneliness refers to the emotional state and it cannot be equated with solitude because the subject may feel lonely even when surrounded by a large number of people (Milivojević, 2001). Loneliness is a feeling of absence of a person or people an individual would like to mingle with socially. The modern way of life imposes on a person the need to be capable of tolerating solitude, i.e. loneliness. Ideally, an individual should be capable of being alone and being social. Solitude may be someone's personal choice; however, it may also be circumstantially imposed.

These circumstances may be diverse: relocation, a termination of a love relationship, a dispute with friends, being overwhelmed by work, etc. When people resettle, they find themselves far from their family, friends, colleagues, partners, etc., which is not easy. According to the author Rokeach (1989, acc. to Kozjak, 2005), the relocation factor belongs to the group of stressful events (alongside with the factor of loss and the factor of personal crisis) caused by the feeling of loneliness.

Weiss (1973, acc. to Lacković-Grgin et al., 2004) makes a distinction between *social loneliness*, which is a result of an individual's social disintegration, i.e. insufficient involvement in various social networks such as friends, neighbors, colleagues, relatives, etc., and *emotional loneliness*, which is a result of the lack of or loss of attachment in a relationship, i.e. the unmet need for emotional closeness and intimacy in relationships with other people. Therefore, social loneliness may result from the lack of a network of social relations in which an individual is a part of a group of people who share common interests and activities. *Loneliness in love* represents loneliness due to the loss of loved ones, characteristic of the people who have recently become widowers/widows, people who have recently got divorced or broken up a relationship, or because of the lack of intimate romantic relationship. *Family loneliness* is defined as a mutual lack of interest between family

members. It occurs when "self-sufficiency" or "inner-direction" are forced upon a family - if parents are dedicated only to themselves or driven by their career, if children feel they are not understood or are insufficiently loved, when they live alone or away from their family.

Adapting to the new environment represents a change in the pattern or structure of the behavior in accordance with social demands, and it is not a simple process. The process becomes more complex if an adolescent is in its focus, because loneliness is more present in this period of time. In this period, loneliness is attributed to the impact of a series of developmental changes which enhance the feeling of isolation and the need for friendship. In addition to social loneliness, during the process of resettlement, emotional loneliness is also very important and it appears due to the loss of a subject of affection. A person is under pressure not only because he/she has to find new friends, to belong to a group, to avoid stigmatization, but also because he/she has to start a relationship with a new life partner (Weiss, 1973, acc. to Lacković-Grgin et al., 2004).

A study (Green et al, 2001, acc. to Sawir et al., 2007) showed that social loneliness is connected with the scope of an individual's social network (a number of people a person meets or he/she interacts with) as equally as it is connected with the closeness with those people. Therefore, both the quality and the quantity of a social network matter. Stokes (1985, acc. to Kozjak, 2005) suggests that the density of the social network, i.e. the increased number of its members, affects primarily the increased sense of belonging, and therefore it reduces loneliness. It is possible to assume that, by moving to another state, the density of the social network decreases, while social loneliness increases.

In a research called "Social and emotional wellbeing of young people from culturally and linguistically diverse backgrounds", published in Australia in 2001, interviews were conducted with 123 immigrants aged between 16 and 24, among whom some of the participants came from the former Yugoslavia (26 of them), (Selvamanickam, Zgryza & Gorman, 2001). The authors came to a conclusion that the participants felt lonely, worried, sad, nervous and frightened during the process of resettlement; furthermore, that they had problems with stress, depression and anxiety. Based on the responses, the authors summed up the factors that had affected their social and emotional wellbeing as follows: reasons for departure from the country of origin, problems of coping with the new environment, unemployment, university difficulties, consequences of social isolation, cultural differences, responsibilities and the necessity to make decisions they were not prepared for. Using the strategy of socializing with people of the same nationality, the young people found a way to reduce the feeling of alienation in a new country.

While considering migration, Narchal (2007) stresses the significance of paying attention to the question of loneliness. It may occur because resettlement reduces the number of social relationships, or because of the separation from the family which used to secure the sense of belonging. It is an unpleasant experience with potentially serious consequences. A journey from a known to an unknown place implies emotional and social loneliness reflected in the feeling of marginalization, emptiness, boredom and longing. Young people have a choice to assimilate or alienate, learn to cope with the initial loss and build new social relationships.

Scanlon and Devine (2001) indicate that a successful adaptation during migration presupposes the following: the experience related to the previous resettlement, the time dedicated to the resettlement, motivation behind the resettlement and a distance of the new location. Individuals who have previously relocated, deal with the stress more easily. In addition, individuals who spend more time planning the resettlement, need a longer period of time to adjust to the idea of moving, and they adapt more easily. The motives the authors have identified as negative for a successful adaptation are: eviction for whatever reason, financial situation, relocation at work, etc. while the resettlement due to better work opportunities or better housing conditions helps the adaptation. The greater the distance of a new place of residence, the greater the sense of separation from the previous place of residence, which may provoke a greater sense of loneliness.

Thus, the analysis shows that people may feel vulnerable to influences of social environment. Therefore, it is essential for this study to be observed through various aspects. In this study, we have opted for life satisfaction as an assessment and evaluation of a person's life, as well as for the expression of social, emotional and family loneliness.

Method

The main goal of the research is to examine differences in life satisfaction and social and emotional loneliness among the youth living abroad, and among the youth living in Serbia.

Research variables

Independent variable:

Belonging to the host-country or to the country of origin

Dependent variable:

Life satisfaction represents a perception and evaluation of a person's life, and it is usually described as a cognitive component of the subjective well-being, measured on the Scale for life satisfaction by the author Zvezdan Penezić (2006).

Social and emotional loneliness refer to the interactionist perspective of loneliness whose author, Weiss (1973, acc. to Lacković-Grgin et al, 2004) points out that loneliness depends on a person's perception about the unsatisfied need in a relationship with other people. It consists of emotional, social and family loneliness.

Control variable:

Gender, age, education, the length of stay abroad, motives for departure, place of residence abroad, desire to live abroad, studies, student's finances.

Instruments

The Scale of General Life Satisfaction (Penezić, 1996). The Scale consists of 20 items and it measures life satisfaction as a cognitive assessment. On a five-degree scale of the Likert-type (1 – I firmly disagree; 5 – I completely agree) respondents were asked to assess the extent to which individual items related to them. The total result is a linear combination of answers. The results range from 20 to 100; the higher result means higher life satisfaction.

The Scale for Social and Emotional Loneliness (Čubela and Nekić, 2002, acc. to Lacković-Grgin, 2004) consists of three subscales:

- Subscale for social loneliness – it is made up of 13 items that examine loneliness in the domain of friendly relationships;
- Subscale for family loneliness – it is made up of 11 items that examine loneliness in the domain of relationships in the family;
- Subscale for loneliness in love – it is made up of 12 items that examine loneliness in the domain of love relationships.

Table 1. Coefficient of reliability of the instrument

Dimension	Cronbach α coefficient	Number of items
Life satisfaction	0.93	20
Social loneliness	0.91	13
Loneliness in love	0.93	12
Family loneliness	0.84	11

The Cronbach α coefficient of reliability has been used to determine the reliability of the instrument. The scale for life satisfaction is sufficiently reliable for the assessment of social and emotional loneliness, as are all the subscales of the questionnaire.

The main hypothesis of the research: There are significant differences in terms of life satisfaction and social and emotional loneliness between the young from abroad and the young in Serbia.

Specific hypotheses state that there is a significant correlation between the main research variables (life satisfaction, social and emotional loneliness) among the young from abroad and the young in Serbia, as well as the existence of significant differences with respect to the control variables (gender, age, education, the length of staying abroad, motivation behind departure, place of residence abroad, desire to live abroad, studies, student's finances).

The sample: The sample is composed of 100 respondents from abroad and 100 from Serbia, aged between 18 and 35. The average time of the respondents' living abroad was 5.6.

Table 2. Structure of the sample with respect to gender

	Male	Female	Total
Diaspora	42%	58%	100%
Serbia	29%	71%	100%
Total	35.50%	64.50%	100%

Table 3. Structure of the sample with respect to the study

	YES	NO	Total
Diaspora	62%	38%	100%
Serbia	62%	38%	100%
Total	62%	38%	100%

Table 4. Structure of the sample with respect to the desire to go abroad - to stay in Serbia

Would you like to study abroad			
	YES	NO	Total
Serbia	78%	22%	100%

Table 5. Structure of the sample with respect to the reason for leaving the country

	Reasons for leaving the country					
	Study	Work	Relatives	Partner	Tourism as a reason	Something else
Diaspora	43%	35%	8%	10%	2%	2%
Serbia	10.26%	74.36%	2.56%	2.56%	7.69%	2.56%

Table 6. Structure of the sample from Serbia and their place of residence

	Niš	Other cities in Serbia	Total
Serbia	56%	44%	100%

Table 7. Structure of the sample from abroad and their place of residence

	Europe	Countries outside Europe	Total
Diaspora	72%	28%	100%

Research results

The difference in life satisfaction among the youth from abroad and in Serbia

Table 8. T-test - differences in life satisfaction among the youth from abroad and in Serbia

Dimension		N	Mean	SD	t	p
Life satisfaction	Diaspora	100	79.18	12.94	3.13**	0.00
	Serbia	100	73.54	12.58		

**p<0.01 *p<0.05

There is a statistically significant difference in the dimension of life satisfaction between the respondents from the Serbian diaspora and the respondents from Serbia; from Table 8, we can see that the youth from abroad are more satisfied with their life compared to the youth in Serbia. The differences are significant at the 0.01 level.

Differences in social and emotional loneliness among the youth from abroad and in Serbia

Table 9. T-test, Differences in social and emotional loneliness among the youth from abroad and in Serbia

Dimension		N	Mean	SD	t	p
Social loneliness	Diaspora	100	28.78	13.46	1.67	0.10
	Serbia	100	26.05	9.29		
Loneliness in love	Diaspora	100	35.42	20.16	-0.88	0.38
	Serbia	100	37.97	20.62		
Family loneliness	Diaspora	100	17.27	8.53	-1.26	0.21
	Serbia	100	18.81	8.79		

From Table 9, it is clear that social loneliness is, to a certain extent, more present among the respondents from abroad, while loneliness in love and family loneliness are more present among the respondents from Serbia; however, these differences are not statistically significant.

Correlation between life satisfaction and social and emotional loneliness among the respondents from abroad and in Serbia

Table 10. The correlation between life satisfaction and social and emotional loneliness based on the subsample of the respondents from abroad

Dimension		Social loneliness	Loneliness in love	Family loneliness
Life satisfaction	Pearson Correlation	-0.58**	-0.30**	-0.31**
	Sig.	0.00	0.00	0.00

**p<0.01 *p<0.05

The results show that, based on the sub-sample of the respondents from abroad, there is a negative, statistically significant, correlation between the variable Life satisfaction and the variables: Social loneliness, Loneliness in love and Family loneliness. In all three cases, the correlation is at the 0.01 level of significance.

Table 11. Correlation between life satisfaction and social and emotional loneliness with respect to the sub-sample of the respondents from Serbia

Dimension		Social loneliness	Loneliness in love	Family loneliness
Life satisfaction	Pearson Correlation	-0.23*	-0.30**	-0.28**
	Sig.	0.02	0.00	0.01

**p<0.01 *p<0.05

Based on the sub-sample of the respondents from Serbia, there is also a negative correlation between life satisfaction and social, family loneliness and loneliness in love.

Gender differences in life satisfaction and social and emotional loneliness among the respondents from abroad

Table 12. Differences in life satisfaction and social and emotional loneliness with respect to gender in the subsample of the respondents from abroad

Dimension	Gender	N	Mean	SD	t	p
Life satisfaction	Male	42	78.81	14.10	-0.24	0.81
	Female	58	79.45	12.15		
Social	Male	42	29.05	13.44	0.17	0.87

loneliness	Female	58	28.59	13.59		
Loneliness inlove	Male	42	41.50	19.86	2.64**	0.01
	Female	58	31.02	19.38		
Family loneliness	Male	42	16.10	5.95	-1.17	0.24
	Female	58	18.12	9.96		

**p<0.01 *p<0.05

In the sub-sample, differences are found in the sub dimension Loneliness in love, which is more present in men living abroad.

Differences in life satisfaction and social and emotional loneliness among the respondents from abroad based on age

Table 13. Differences in life satisfaction and social and emotional loneliness among the respondents from abroad with respect to age

Dimension	Age	N	Mean	SD	t	p
Life satisfaction	from 18 to 27	47	79.79	9.52	0.45	0.65
	from 28 to 35	53	78.64	15.42		
Social loneliness	from 18 to 27	47	26.62	9.95	-1.56	0.12
	from 28 to 35	53	30.70	15.79		
Loneliness in love	from 18 to 27	47	39.74	21.11	2.05*	0.04
	from 28 to 35	53	31.58	18.65		
Family loneliness	from 18 to 27	47	17.09	7.98	-0.20	0.84
	from 28 to 35	53	17.43	9.07		

**p<0.01 *p<0.05

In the subsample of the respondents from abroad, the results in the table show statistically significant differences on the subscale Loneliness in love with respect to age. It is noticeable that the younger are lonelier.

Table 14. Differences in life satisfaction and social and emotional loneliness with respect to the desire to go abroad among the respondents from abroad

Dimension	Going abroad	N	Mean	SD	t	p
Life satisfaction	Want to go	78	71.68	12.67	-2.89**	0.00
	Don't want to go	22	80.14	9.94		
Social loneliness	Want to go	78	25.69	9.40	-0.72	0.47
	Don't want to go	22	27.32	8.99		
Loneliness in love	Want to go	78	39.81	20.98	1.83	0.07
	Don't want to go	22	31.45	18.27		
Family loneliness	Want to go	78	18.94	8.98	0.27	0.79

**p<0.01 *p<0.05

In the sample of the respondents from abroad, we may see that the results are similar. The respondents aged between 18 and 27 are, statistically speaking, significantly lonelier compared to those aged between 28 and 35.

Discussion

The hypothesis that states that the young from abroad are significantly more satisfied with their lives has been confirmed.

This result is in accordance with the findings of the authors Diener and Diener(1995, acc. to Larose, 1999), who claim that, during the evaluation of life satisfaction, immigrants use the comparative strategy. Therefore, if the conditions are better in the new environment, it is more likely that the evaluation of life satisfaction will be positive. This result may be understood accordingly if we take into account the fact that the young from abroad enjoy better living and working conditions.

Additionally, under the assumption that the young from abroad are more active and independent of their parents, compared to the young in Serbia, it is possible to say that they better satisfy their needs for autonomy and competence, and therefore they are more satisfied in life. The results of the study conducted by Sheldon and Elliot (1999) show that satisfying the need for autonomy and competence affects positive daily energy, vitality and psychological health. The accumulation of positive individual daily experiences, in which we perceive our behavior as competent and the relationships with other people as realized, produces a long lasting feeling of well-being. By working, an individual provides for a living, increases the level of activity and achieves identity; work may also be the source of self-respect and belief in one's own value. As specified by the theory of self-determination, all of this contributes to the satisfaction of the needs – work makes a person feel useful, it gives him/her a sense of control and power over his/her conduct, thus making him/her more satisfied with his/her lives.

This result may be interpreted in the spirit of the theory of activity, stating that a greater involvement in life activities may be the cause of higher life satisfaction of a person, which we assume to be the case with the young from abroad.

The hypothesis that there is a difference between the youth from abroad and the youth in Serbia in terms of social, emotional and family loneliness, has not been confirmed. It was assumed that moving to another country was largely attributable to the reduction of social relationships, either friendly, intimate or family, which was reflected in the increased sense of loneliness. Nonetheless, it has not been found that the respondents who live abroad suffer from an increased sense of loneliness. This finding may be interpreted in several ways.

First of all, some authors have come up with similar results. In their study, Braun and Othner (1990, acc. to Kellers, 2006) did not find significant changes in alienation, nor did they find them in depression and self-esteem of adolescents who moved away or those who stayed in the country of origin. They stressed out that a change of the place of residence may have had a positive or negative impact on the young, but that it mostly depended on their attitudes towards relocation and their personal characteristics.

The role of social support is also important because the support of the members of a social network provides a sense of belonging and community, and it therefore contributes to the decreasing of social loneliness (Stokes, 1985, acc. to Kozjak, 2005). Individuals with adequate social support, as well as those with developed social skills, strong relationships and relationships based on friendship, are less susceptible to the problem of adaptation in a new environment or they deal with it more easily.

The quality of social relationships is a stronger predictor of loneliness than is their quantity, and this refers to friends and family as well. (Pinquart & Sörensen, 2003, acc. to Hawkey & Cacioppo, 2010). It should be noted that the advancement in modern technology and the wide spreading of means of everyday communication (internet, Skype, Facebook, Viber, Web chat, Whatsup...) contribute to the fact that people who leave do not feel far away from their families. In any case, the results we have gained may be determined as optimistic.

The hypothesis on the connection between the fundamental variables of the research has been confirmed. A significant negative correlation has been found in both subsamples, i.e. the higher the social, family loneliness and loneliness in love, the lower the satisfaction in life, and vice versa.

The author of the two-dimensional model of loneliness, Weiss (1973, acc. to Lacković-Grgin, Nekić & Penezić, 2009), points out that social and emotional loneliness arise when the needs for attachment, social integration, confirmation of personal values, reliable support and guidance are not satisfied. The inability to attach leads to emotional loneliness, while the inability to integrate socially leads to social loneliness.

The empirical verification of the two-dimensional model of loneliness has confirmed emotional loneliness to be best predicted by a lack of attachment in relationships with significant people (a life partner, a friend or parents); on the other hand, social loneliness has been confirmed to be best predicted by a lack of confirmation of a personal value, involvement in a group and the quality of relationships with others (Russell, Cutrona, Rose & Jurko, 1984, acc. to Lacković-Grgin, Nekić & Penezić, 2009). As suggested by the theory of self-determination, it is precisely the need for attachment (along with the needs for autonomy and competence) that influences life satisfaction (Ryan & Deci, 2000, acc. to Petrov et al, 2011). Consequently, if that need is not satisfied, loneliness

is greater and satisfaction is lower; this being the case, the negative correlation variable of these two phenomena may be understood.

The hypothesis on the differences in social and emotional loneliness and life satisfaction with respect to gender has been found in the subdimension Loneliness in love, in the subsample of the respondents from abroad. It has been found that men are significantly lonelier in love than women.

It is often mentioned, in theory, that women better adapt to the new environment than men do: women are socially more sensitive, have developed social skills, have empathy, often express their emotions and are more cooperative (Segall et al, 1990, Harvey, 1997, Martin, Knopoff, & Beckman, 1998 acc. to Haslberger, 2007). Over time, these differences become smaller; however, as mentioned above (Haslberger, 2007), somewhat better social skills can help female respondents learn faster, be confident in their knowledge and adapt easily to the new environment. The author Deniz (2005, acc. to Marginson et al., 2007) talks about the "attachment skills", skills and abilities in achieving affective relationships, which are better expressed in women, and about the fact that they better form and keep a close social relationship with another person. These skills therefore can affect the lower expression of loneliness in love among women.

This finding may be interpreted in the following way: female respondents have acquired a less radical attitude towards other nations, while it is more probable that the respondents from Serbia have been educated in the spirit of the Serbian tradition and preservation of the national identity. In accordance with this finding, it is more acceptable for a woman to change religion than it is for a man, as he must continue the family line (Haneš, 2012).

Vernberg (1994 acc. to Wilcox, 2011) found that, compared with girls, boys who had changed their place of residence expressed a lower level of intimacy in relationships with other people. Even though this level grows over time, its progression is slower in boys than in girls.

With a view to the hypothesis of statistically important differences in life satisfaction and social and emotional loneliness among the young from abroad and in Serbia with respect to age, the results showed statistically significant differences in relation to Loneliness in love between the young aged between 18-27 and those aged between 28-35, in both groups of respondents. We believe that at the basis of the obtained results there lies emotional maturity or emotional intelligence which, according to research, develops with age.

The longitudinal American study (Carstensen et al, 2011), conducted with respondents aged between 18 and 94, observed the development of emotional experience at the age of 10. It was found that the emotional well-being grew as the age of respondents progressed, i.e. the emotional well-being grew from an early childhood to the old age. In the study of Elizabeth Wagner (2006) conducted in America with the sample of respondents aged between 12 and 79, it was found that life experience, gained over years, played an important role in establishing control over negative and positive emotions.

According to a study conducted in the USA (Bracket et al., 2005), on the sample of 86 heterosexual couples, which examined the connection between emotional intelligence and the quality of their relationships - the couples, in which both partners had low scores in emotional intelligence tests, thought that their relationships were insufficiently positive and strong, they thought that they did not have enough support, and they evaluated their relationships with partners as conflicting and ambivalent. Hence, the studies showed that the skill of coping with one's emotions, which grows through life, and for whose development certain experience is necessary, could be one of the important conditions regarding the development of a more mature and stronger emotional relationship with a partner. As we have found, in the subgroup of the young aged between 18 and 27, greater loneliness in love in comparison with the other two age groups, we assume that the reason for this may be the lower level of emotional maturity.

In terms of the hypothesis that there are differences in life satisfaction and social and emotional loneliness among respondents in Serbia, with respect to the desire to go abroad, the results have shown that respondents who did not wish to leave Serbia are, statistically speaking, significantly more satisfied with their life compared with respondents who wish to leave.

In another study, the authors (Graham and Markowitz, 2011) examined the differences in life satisfaction among respondents with a different attitude towards migration. The results showed that people who wanted to emigrate were generally less satisfied with their lives as opposed to those who did not want to leave. Interesting is the fact that they called the potential emigrants "frustrated

achievers''; they described them as people with a high level of objective well-being, i.e. material income, who were, however, dissatisfied and wanted a change in the form of migration.

Additional analyses

Due to the interest of the respondents from abroad aged above 35, about the participation in the research, we have included them in the data processing as a special age group in the additional analyses.

Table 15. Correlation between the length of leaving abroad and life satisfaction, social and emotional loneliness among the respondents from abroad and older than 35

Dimension	Statistic	Life satisfaction	Social loneliness	Loneliness in love	Family loneliness
Length of living abroad	Pearson	0.38*	-0.11	-0.20	-0.35*
	Correlation Sig.	0.02	0.51	0.21	0.03

In the group of respondents over 35, life satisfaction grows as the length of living abroad increases, whereas family loneliness significantly decreases. This finding was not found in the younger group.

In the beginning, life satisfaction of people in a new environment may be reduced due to language barriers, cultural differences, reduced social interactions (Hossen, 2012). However, the process of independence is faster abroad because individuals are more active at work, and with it, and parallel to the length of living abroad and age, they satisfy the needs for autonomy and competence greatly, which has a positive impact on life satisfaction independence, while all together reduce family loneliness.

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Rezime

U ovom istraživanju pošlo se od pretpostavke da život u dijaspori, sa većim mogućnostima za individualni razvoj utiče na veće zadovoljstvo životom a izdvojenost od primarne socijalne sredine na veću socijalnu i emocionalnu usamljenost. Takođe, poređenje grupe mladih u dijaspori i matici može doprineti i rasvetljavanju nekih od razloga zašto mladi napuštaju zemlju, što predstavlja veliki problem u odlivu kadrova. Za ispitivanje zadovoljstva životom korišćena je Skala opšteg zadovoljstva životom (Penezić, 1996), a za usamljenost Skala socijalne i emocionalne usamljenosti (Čubela i Nekić, 2002). U istraživanju je učestvovalo 200 ispitanika starosti od 18 do 35 godina, 100 iz dijaspore i 100 iz matice. U dodatku rada analizirali smo i ispitanike iz dijaspore starije od 35 godina (N=40). Rezultati su pokazali da je zadovoljstvo životom značajno izraženije kod mladih u dijaspori u odnosu na mlade u matici ($p<0.01$), kao i da u dijaspori postoji negativna povezanost zadovoljstva životom i usamljenosti ($p<0.01$). Kod ispitanika iz dijaspore usamljenost je izraženija kod muškaraca u odnosu na žene ($p<0.05$). Kod ispitanika iz matice, rezultati su pokazali da niže obrazovanje utiče na veću porodičnu usamljenost ($p<0.05$). 78% mladih iz matice bi otišlo van zemlje, od toga 73% ima visoko obrazovanje, dve trećine su ženski ispitanici, dok su muški i ženski ispitanici u najvećoj meri kao motiv odlaska u inostranstvo naveli rad u drugoj državi. Dobijeno je da posle 35.godine života sa povećanjem dužine boravka u inostranstvu raste zadovoljstvo životom ($p<0.05$) a porodična usamljenost se smanjuje ($p<0.05$).

Ključne reči: dijaspora, matica, zadovoljstvo životom, socijalna i emocionalna usamljenost

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GENERAL PUBLIC STIGMATIZING ATTITUDES TOWARDS PERSONS WITH CHRONIC PHYSICAL AND MENTAL ILLNESS

Abstract

This survey sought to determine the attitudes of people of general population towards mental illnesses and compare them to attitudes towards chronic physical illnesses known to be stigmatized. The sample encompassed 1205 participants of both sexes, over 16 years of age, of various levels of education and different places of residence. Attitudes towards Mental Illness Questionnaire were administered (AMIQ). The most stigmatizing were attitudes towards HIV/AIDS (AS=3.85), then towards substance use disorders (AS=3.65), towards other mental illnesses (AS=3.37) and other physical illnesses (AS=2.43). Mental illnesses (schizophrenia and depression) were more stigmatized than physical illnesses (cancer and diabetes). For substance use disorders, stigmatizing attitudes were more negative than for physical illnesses and other mental illnesses. All differences were statistically significant. A high level of stigma and intolerance towards people with HIV/AIDS probably stems from a lack of information about a disease, the ways in which it spreads and by the equation of HIV/AIDS with the previously stigmatized homosexual behavior, drug use, prostitution, and promiscuity. This study provides evidence that mental illnesses are more stigmatized than physical illnesses. Anti-stigma campaigns are important to reduce stigmatizing attitudes towards people with HIV/AIDS, mental and physical illnesses.

Key words: *stigma, discrimination, mental illness, chronic physical illness*

Introduction

Stigma is a social phenomenon, defined as a discrediting attribute that causes devaluation, marginalization and dehumanization of the persons who possess a distinguishing attribute (Goffman, 1963). Persons with stigmatizing characteristics may be exposed to prejudice and discrimination due to their condition. Prejudice and discrimination can be manifested as an avoidance by others (Snyder, Kleck & Mentzer, 1979), lack of sensitivity to the needs of people with disabilities, or social rejection (Crandall & Moriarty, 1995). A stigma can take different forms and be experienced in different domains such as diagnosis, treatment, disclosure and social situations. A stigma has a negative impact on the quality of life for a stigmatized individual. Negative consequences include a reduced self-esteem, low self-efficacy, depression, loss of family ties, friendships, employment, housing facilities, reduced access to medical care, non-compliance and poor retention to treatment (Link, 1987). Stigmatized persons can be excluded from necessary resources, be socially isolated or develop distrust towards non-stigmatized persons.

Many studies have shown that stigmatizing attitudes towards people with mental illnesses are widespread (Byrne, 1997; Link et al., 1997; Jorm et al., 1999). Also, research shows that people distinguish between a mental and physical illness stigma, stigmatizing mental illness more (Kendell, 2001). A stigma attached to a mental illness is not always the same, for example persons with schizophrenia are viewed more negatively when compared to people with panic attacks or eating disorders (Crisp, 2000; Milačić-Vidojević et al., 2013).

The powerful impact of a stigma is associated also with physical illnesses such as leprosy, tuberculosis, and more recently HIV/AIDS. The stigmatization of people with a chronic physical illness leads to the avoidance of health services, hiding the diagnosis and reduces the effectiveness of public health programs to control a disease transmission (Jarmil, 1998). The intensity of stigmatization is not very well understood, so comparing mental with physical illnesses enables the more reliable assessment of the relative strength of the stigma linked to mental illness, by putting the

results in some context. Unfortunately, studies comparing the experiences of persons with mental illness and persons with physical illnesses are relatively rare.

The study was aimed to examine the nature and extent of stigmatizing attitudes toward persons with mental and chronic physical illnesses in the sample of general population and to determine its socio-demographic correlates.

Methods

Participants

A sample encompassed 1205 participants of both sexes, over 16 years of age, of various levels of education and from different cities in Serbia (table 1).

Table 1. Distribution of respondents by gender, education level, self-report knowledge of mental and physical illnesses and place of residence

	Gender		Education					Self-report knowledge				Place of residence	
	F	M	PS	SS	D	PGS	VLK	LK	MK	HK	big city	small town	
No.	633	572	38	732	413	22	123	532	484	66	664	541	
%	52	47	3.1	60.3	34	1.7	10.1	43.8	39.8	5.4	55.1	44.9	

PS-primary school, SS-secondary school, D-Diploma, PGS-post/graduate studies, VLK-very low level of knowledge, LK- low level of knowledge, MK- moderate level of knowledge, HK- high level of knowledge.

Instruments

Attitude towards Mental Illness Questionnaire was administered (AMIQ). The questionnaire was adapted by Cunningham, Sobell, and Chow, (1993), and validated in the study of Luty, Fakuda and Umoh, (2006). The questionnaire consisted of five short vignettes describing hypothetical patients and of five questions based on each of the case vignettes. The vignettes described people with diagnoses of schizophrenia, depression, alcohol and substance addiction and diabetes. For the purpose of this study, we adapted the vignettes from the original questionnaire in order to achieve the study's aims. We added the vignettes with examples of persons suffering from HIV/AIDS and cancer. After reading the vignettes, participants respond to 5 questions on a 5-point Likert scale, with 1 indicating the minimal degree of accepting the attitude to 5 as maximal, and 3 as a neutral score. Higher scores indicate a more negative attitude. This instrument was chosen because of its brevity and ease of application. AMIQ has good psychometric properties. The instrument has demonstrated a satisfactory structural validity, compared to *Corrigan's Attribution Questionnaire* (Corrigan et al., 2003). Cronbach alpha for the original sample was high [0.933 (n = 879)]. Participants also completed socio-demographic, questionnaire regarding gender, age, place of residence, years of education, and self-estimated measure of knowledge about mental and physical illnesses.

Results

According to the results of this study, people with HIV / AIDS elicited the most negative attitudes, following people with addictions, people with other mental illnesses (schizophrenia and depression) and other chronic physical illnesses (cancer and diabetes) (table 2).

Table 2. Descriptive parameters for HIV/AIDS, addictions, mental illness and physical illness

Type of illness	M	SD
HIV/AIDS	3.85	.766
Addictions	3.65	.558
Mental illness	3.37	.554
Physical illness	2.44	.709

t-test for paired samples was used to test differences between different measures recorded on the same subjects. Mental illnesses (schizophrenia and depression) were more stigmatized than physical illnesses (cancer and diabetes). Drug addiction was more stigmatized when compared to

other physical (except HIV / AIDS) and mental illnesses. All differences were statistically significant (table 3).

Table 3. Statistical parameters for paired t-test

	t	df	p
Addiction-physical disease	41.76	1169	.000
Addiction-Mental illness	17.30	1166	.000
Addiction-HIV/AIDS	-10.29	1175	.000
Physical disease-Mental illness	-33.297	1169	.000
Physical illness-HIV/AIDS	-38.67	1175	.000
Mental illness-HIV/AIDS	-21.94	1172	.000

The impact of socio-demographic characteristics on stigma for the illnesses explored

To examine the impact of socio-demographic characteristics on a stigma towards persons who have a diagnosis of certain illnesses, one-factorial analysis of variance with four factors was applied: 2 (gender) x 3 (education) x 3 (place of residence) x 4 (self-estimated knowledge). The place of residence has an impact on the degree of a demonstrated stigma towards persons with a diagnosis of a mental illness ($F(2, 1102) = 3.411, p \leq .01$). Scheefe test shows that the respondents who lived in small towns were less likely to have negative attitudes ($p = .043$) than those living in larger cities. The significance of the interaction between sex and place of residence ($F(2, 1102) = 4.127, p \leq .01$) was obtained. The effects of other factors, as well as their interactions, were not significant.

The respondents from small towns hold less stigmatizing attitudes towards people with HIV/AIDS than those who live in larger cities ($F(3, 1102) = 2.545, p \leq .05$). The impact of other factors, as well as their interactions, were not significant.

Discussion

Apart from mental illnesses, the stigma concept has also been used for some physical conditions. People with HIV/AIDS have been most often described in recent years as suffering from the effects of stigmatization. This research suggests that the degree of visibility or concealment in social situations along with a personal responsibility (which is the base for blaming) for the condition predict social rejection (Crocker et al., 1998). HIV/AIDS is a chronic physical illness perceived to be highly controllable (i.e., for which reason the stigmatized individual can be held responsible) and has often received more devaluation than illnesses whose origins were uncontrollable (Weiner et al., 1988). In our research, the stigma attributed to people suffering from HIV/AIDS is the highest one and exceeds the levels of the stigma attached to mental and other physical illnesses. The results of other studies show that a stigma is not limited to negative feelings towards people with HIV/AIDS, but also includes physical violence, social rejection and loss of family support (Herek, 1999). Cline and Boyd (1993) point out that people with HIV/AIDS are multiply stigmatized, by the association of HIV/AIDS with death and by equating of HIV/AIDS with a previously stigmatized homosexual behavior, drug use, prostitution, and promiscuity. In a study by D'Angelo et al. (1998), higher levels of homophobia were related to negative attitudes toward people with AIDS, including blame and disrespect. Thus, people with preexisting negative attitudes may find ways of expressing their prejudice, specifically through stigmatizing people with HIV/AIDS.

Although a physical illness may be a cause of rejection, it is usually less pronounced than in the case of mental disorders (Corrigan et al, 2001). Our findings are consistent with the results of many previous studies that show stigmatizing opinions towards people with a mental illness, especially those with substances addiction (Byrne, 2000; Crisp, 2000; Milačić -Vidojević et al., 2013). The stigmatization of people with addictions is related to a social belief that these people are to be blamed for their behavior and the consequences to which it leads (Crisp, 2000). A public opinion survey shows that people with addictions were less perceived as mentally ill when compared to individuals with other psychiatric disorders, but are considered to be more responsible for their condition (Crisp et al., 2000).

The data indicate that the public makes a distinction between a mental and physical illness, stigmatizing people with mental illnesses to a greater extent. The stigma towards people with mental

illnesses is noted to be related to four cues. These include the psychiatric symptoms, social-skills deficits, physical appearance, and labels (Corrigan, 2004). This explains the research findings that mentally ill people are often stigmatized more severely than those with other health conditions. Roelof et al., (2003) show in their study that the stigmatization of people with depression is higher in comparison to physical illnesses, but it is lower than that towards people with HIV/AIDS. The reason for a stronger stigmatization of people with a mental illness could be an estimated level of threat. People with mental illnesses, particularly those with schizophrenia, are generally perceived as dangerous and unpredictable, and a mental illness is estimated as a disturbing factor in social interactions.

People with other chronic physical illnesses (diabetes and cancer) are less stigmatized when compared to mental illnesses despite the fact that both mental illnesses and diabetes and cancer are chronic and treatable diseases. It can be deduced that a stigma arise out of the psychiatric label and not the presence of a chronic illness. Although diabetes is typically rated among the most socially acceptable and least severe of the illnesses, in a study by Katz et al. (1987), the participants from a general population expressed a greater desire for social distance from an individual with diabetes than from a healthy individual, suggesting that individuals with diabetes may be subject to some degree of devaluation. The stigma associated with Type 1 diabetes has not received much empirical attention because of the characteristics of the disease itself. There are few visible signs to convey that an individual has the disease and diabetes type 1 is largely uncontrollable forasmuch of its genetic origin. Shestak (2014) points out that diabetes may be stigmatized for two reasons. First, an individual with diabetes must receive insulin to prevent possible complications which creates a possibility for stigmatization, as a reliance on the medical treatment for survival is a stigmatizing attribute (Goffman, 1963). Second, the treatment regimen required to manage diabetes includes actions that are often noticeable by others (e.g., administering insulin, eating at specified times). In addition, the symptoms of hypoglycemia, a short-term complication, are often highly visible. Such visibility creates an increased potential for stigmatization.

The diagnosis of cancer can be associated with fear and stigma. Cancer could be stigmatized because its risk and prevention is not always understood, (Romano, 1986) and it is often seen as a death sentence. Also, treatments often lead to hair loss, scars, or other bodily changes, which may add to the stigma. It is interesting to note that if the cancer patient is of the same age and gender, the perception of similarity can lead people to attribute the disease characteristics to the patient's personality and life style, in order to reduce the threat that they feel (e.g., Stahly, 1988). The cancer stigma does not conjure the attribution of blame that HIV/AIDS often carries, although different kinds of cancer are perceived differently (Greene, 2000). Stigmatizing attitudes shaped by the association between the disease and smoking are present in the experience of lung cancer patients, viewing the disease as a self-inflicted injury (Lehto, 2014).

Our findings show that the respondents who live in small towns exhibit less stigmatizing attitudes towards people with physical and mental illnesses. This finding is consistent with the assumption that the interpersonal relationships are more important to people in smaller towns, where people are prone to helping and supporting each other. People who live in small towns cherish traditional values more than those living in urban areas. The impact of other factors was not significant.

Conclusion

Comparing stigmatizing attitudes towards mental and chronic physical illnesses, we determine that a relative strength of the stigma is linked to mental and physical illnesses. Our results show that HIV/AIDS elicits the most stigmatizing response, followed by drug addiction, other mental illnesses (depression and schizophrenia) and other physical illnesses (diabetes type1 and cancer). Mental illnesses (schizophrenia and depression) were more stigmatized than physical illnesses (cancer and diabetes). For substance use disorders, stigmatizing attitudes were more negative than for physical illnesses and other mental illnesses.

Future studies should try to explore whether it is an incomplete or inaccurate knowledge that causes people to hold negative attitudes towards persons with mental and physical illnesses. Our results did not show that the self-estimated knowledge about illnesses is an important factor of stigmatizing attitudes. A further research should investigate the influence of that factor by precise

checking of knowledge. An anti-stigma campaign should be undertaken for persons with mental and physical illnesses.

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Rezime

Cilj istraživanja je da se utvrde i uporede stavovi osoba opšte populacije prema osobama sa mentalnim i hroničnim somatskim bolestima. Uzorak je obuhvatio 1205 učesnika oba pola, uzrasta preko 16 godina, različitog nivoa obrazovanja i mesta stanovanja. Primenjen je Upitnik o stavovima prema mentalnim bolestima (AMIQ). Rezultati istraživanja ukazuju da se najviše stigmatizuju osobe sa HIV/AIDS-om (AS=3.85), zatim osobe sa bolestima zavisnosti (AS=3.65), osobe sa ostalim mentalnim bolestima (AS=3.37), i ostalim somatskim bolestima (AS=2.43). Mentalne bolesti (shizofrenija i depresija) se stigmatizuju više nego ostale somatske bolesti (kancer i dijabetes). Stavovi prema bolestima zavisnosti su negativniji u poređenju sa stavovima prema ostalim somatskim i mentalnim bolestima. Sve razlike su statistički značajne. Visok nivo stigmatizujućih stavova prema osobama sa HIV/AIDS-om verovatno potiče od nedostatka informacija o bolesti, načinima na koji se bolest širi i povezivanjem AIDS-a sa prethodnim homoseksualnim ponašanjem, upotrebom droga, prostitucijom ili promiskuitetom. Ova studija potvrđuje nalaze istraživanja koja ukazuju da se mentalne bolesti stigmatizuju više u odnosu na hronične somatske bolesti. Anti-stigma kampanje mogu biti važne za smanjenje stigmatizujućih stavova prema osobama sa HIV/AIDS-om, osobama sa mentalnim i hroničnim somatskim bolestima.

Cljučne reči: stigma, diskriminacija, mentalne bolesti, hronične somatske bolesti

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DEVELOPMENTAL POTENTIAL OF PARTICIPATORY RESEARCH WITH CHILDREN AND YOUNG PEOPLE: FROM MARGINALISATION TO EMANCIPATION

Abstract

Two important benefits of participatory research are illustrated here with the example of the participatory action research, “*Reclaiming Adolescence Project: Roma Transitions to Adulthood in Serbia*”: (1) its *emancipatory character*, provided through visibility of different underrepresented groups (such as children and young people), and through the inclusion of their perspective in the research decision making process, and (2) its *developmental potential*, because it enables children/young people to develop new knowledge, skills and competencies. The above mentioned research involved twenty young Roma and non-Roma researchers, who actively participated in the whole research process, from designing the research instruments, through conducting the research with their peers, parents and representatives of the institutions, to the data analysis and elaboration of the recommendations for the policy makers. From the perspective of these young researchers, the main benefits from the research were: the developed competencies such as responsibility and autonomy, the increased empathy and respect for diversity, harmonization of different aspects of identity, profound understanding of the mechanisms that maintain inequality and discrimination, and the strong commitment to advocate for social justice and equity.

Key words: *participatory research, children and young people as (co)researchers, development of competencies, research ethics and principles*

Introduction

Participatory research belongs to a group of studies which are considered as emancipatory because their aim is to increase the visibility of the perspectives of various marginalized groups. Since children and youth belong to such marginalized groups, either because of their inherent vulnerability, due to their physical and psychological immaturity, or the lack of knowledge, or because of their structural vulnerability, due to the lack of social, political and economic power (Lensdaun, 2005, p. 187), participatory action research is a form that allows the inclusion of children’s perspective not only in the research process, but also in the process of making decisions that are in the best interest of children. Participatory research assumes the change of the research paradigm: children are no more passive objects of a study, but have the central role, either as the experts in their own lives (a child as a subject or social actor) or as the (co)researchers who conduct the research process (Alderson & Morrow, 2008; Christensen & Prout, 2002). Such change of the research paradigm was introduced by the critical analyses of theories, aims and methodologies in various social sciences (anthropology, sociology, developmental psychology etc.), or by the actions of the movements for liberalization of marginalized groups, as well as by new policies focusing on the promotion of child rights.

The feminist movement has criticized the dominant theoretical models, which neglect the perspective of minority/marginalized groups (women and children/youth, above all), and the methodologies, which conceive the members of a dominant group as the norm and the value (for the sake of objectivity), neglecting the fact that the role of the researcher, his personality, norms and values largely influence the process of research (Willig, 2013).

There are more and more research based on qualitative methodology, focused on content and quality of the participants' experience of the research and on the meanings various phenomena have for them. The research is more frequently done within the settings the participants experience as their own, which is a significant step beyond the strictly controlled laboratory experimentation. More and more frequently the ethnographic method is used as a way to study a social and cultural group „from

within“, which significantly increases the importance of the participatory research. A support to participatory research comes also from the constructivist and social-constructivist paradigms of the theories of developmental psychology. Within constructivist paradigm, child is perceived as the active and competent participant in the process of his/her own development (Piaget, 1971), while the social-constructivist paradigm stresses the meaning of the social context and conceives the development as cultural process (Valsiner, 1989), with child as the *guided participant* (Rogoff, 1990) who, through the process of cooperation and problem-solving with the adults, (co)construct common meanings (Vigotski, 1983). That is why it is important to use the methodology which helps us understand the ways children experience the world around them.

The sociologists of childhood also contribute significantly to the participatory research and to the change of the image of a child by advocating the idea that children and childhood should be studied *in their own rights*, independently of the perspective and the interests of the adults (Praut i Džejs, 2005).

The Convention on the Rights of the Child (1989), along with the protective rights (that protect children from various harassments) and provisional rights (that provide quality education, social and health protection, etc.), introduces a group of participatory rights, that enable children to express their opinions, to be respected and included in the decision making process related to their wellbeing. As such, the Convention supports significantly the paradigm of child as the active participant in the research process. The participation introduces an image of child as *the subject*, who actively participates in the process of his/her own development. A child is seen as the „*project here and now*“ or as someone able to offer a lot in this present moment, rather than as the *becoming person* (defined as immature, incomplete, incompetent). Along with *needs* that are mostly universal (need for protection, security, development and the like), participation introduces the concept of *competences*, which allow a child to be the active participant in its own development.

There are various ways of participation of children and youth in research. The ladder of participation used by Roger Hart (Hart, 1992), represents an employable model for the assessment of the degree of participation, and also for differentiation between genuine and false participation (the forms of involvement of children in a research that represent implicit or explicit misuse of their participation). The first level that divides the genuine and the false participation is the level of *being informed*. Since the participatory research is based on the voluntary participation, it is necessary to give children all information about the research so that they could decide if they are going to be involved or not. The next level is of *being consulted*, which assumes the children's expertise for their own experience that can reveal to the adults some precious knowledge about the ways children perceive the world around them and the relationships within that world. The next three levels represent participation with the division of power between the adults and children (children as co-researchers). Regardless of who initiates the research – the adults who involve children in all stages of the research, or children who “invite” adults to join them in the research process – the basic characteristic of these three levels is that the adults and children decide together and share responsibility for the process and the outcomes of the research. Instead of a hierarchical model of power, at these levels the cooperative model dominates in a sense that the adults negotiate with children and jointly make decisions. The distribution of power is slightly different in the level of participation known as child to child “approach” or “self-advocacy”, because this level is based on the assumption that children are empowered enough to conduct a research by themselves (as researchers). On this participation level children are initiators of a research and conduct it independently by themselves, while the adults are there to facilitate the process rather than to control it.

The basic principles of participatory research: How to make the difference between participation and tokenism?

Although one of the most important advantages of the participatory research is the empowerment and emancipation of children through the development of competences for active participation in the community life, many authors warn against the necessity of critical assessment of the used methodology where instead of the genuine participation children are involved as pure decoration or in some other manipulative way. That's why it is important to address the criteria for differentiation the genuine and the false participation.

In this paper, the basic principles, as well as benefits of the participatory research and its emancipatory/developmental potential will be illustrated with one example of such research, “*Reclaiming Adolescence Project: Roma Transitions to Adulthood in Serbia*” (conducted in cooperation with FXB Centre for Health and Human Rights, Harvard University; Save the Children; Open Society Fund, Serbia and CIP Centre, Belgrade – from January 2013 to June 2014). The goal of that research was to generate participatory, youth-centred knowledge of the drives of success and the obstacles to education, employment and the school-to-work transition for Roma adolescents and the adolescents from non-Roma population (majority group). The research aimed at gaining knowledge of how Roma and non-Roma adolescents perceive: (a) human, youth, and minority rights, including opportunities to access their rights in practice; (b) the main factors of adolescent exclusion in different settings (school, work, etc.); (c) the main drives of success in different settings (e.g., those related to policy, practice and individual factors) and (d) possible solutions for overcoming the gap between schooling and employment and between the official policies and actual implementation, practices and realities.

The project directly engaged 10 Roma and 10 non-Roma adolescents as researchers to explore the most critical issues affecting Roma youth, and to identify social and political mechanisms for change. Adolescent participants were trained to develop and use a research questionnaire, conduct interviews, draft case studies, and engage in advocacy for promoting rights of the underrepresented groups (children/young people and Roma adolescents), thus having a chance to practice leadership skills and increase knowledge and self-confidence. During the data collection phase (from June 2013 to January 2014) 20 young researchers conducted 400 interviews, out of which 300 interviews with Roma peers and peers from non-Roma population, and 100 interviews with the adults (parents and representatives of the institutions in charge of education, employment, child care and protection of child/youth rights). Researchers were involved in discussing the research data, identifying the main problems/issues the Roma young persons are facing, and in planning actions that would address those issues (through some community meetings, performances, street actions, etc.). The expected outcome of the project was to foster personal development and capacity building of the Roma/minority adolescents by enhancing their skills in the fields of community interventions and advocacy, with the purpose of empowering them to become promoters of an overall inclusion of Roma population.

The assessment of the level of genuine participation in the research process was based on criteria related to three areas: *research/project* in which children are involved, *methodology* used in the research and *values/attitudes* of the adults involved in the project (Lansdown, 2001).

Research/project

- a) *The theme has to be relevant for children.* The area should relate to the direct interests of children and their everyday experience, such as education, gaining independence, finding job, or coping with options and obstacles in these processes. These are important and relevant issues for the youth involved in this project, and they are related to their direct experience. All the participants had direct experience in education, and many had experience with looking for a job or becoming independent.
- b) It was important to *secure adequate resources for conducting the research, and adequate time for participation.* The project was designed so to secure necessary resources (trainings; contacts with the community representatives/gate keepers and with the professionals; logistic support for preparatory phase and for conducting the research, supervision/mentorship during the process of research; creation of promotion materials, and so on). Due attention was paid to secure free hours for all the phases of the project. Some phases lasted even longer than planned in order to meet the needs and adapt to the situation during the field work.
- c) *Being informed* – research should have clear aims so that children are aware of them, understand them and can agree upon them. Special attention (and time) in this research was reserved for informing young researchers about the aims of the research and the phases of the research process. The local community in which the research was conducted, the children, their parents and the professionals from these communities were also properly informed about the research in order to get prepared for that. The researchers and the participants in the research were informed about all the phases of the research process, and about eventual risks and the benefits of the

research. Also, they were informed about the protection of privacy and about the way in which the collected data would be used.

- d) *The informed consent* – in this research, the consent of the researcher and the participants was based on the extensive and precise information about all relevant aspects of the research. They had enough time to decide if they are going to participate or not, without any fear of consequences if they refuse to participate. With the minors (younger than 18), the consent of their parents/legal guardians was demanded.
- e) *The project/research action should be in the best interest of children* – the research should contribute to the improvement of their social position and promote their rights. According to the ethics of participatory research and the policy of the organization Save the Children, which supported this research, the risk analysis was compiled in order to avoid any damage to the young researchers or the young persons who took part in the study. As for the benefits from the research, the very structure of the project and the research aims (related to the use of research data so to improve some aspects of life of the young Roma and non-Roma population), indicate that the best interest of children is the core of this project.

Values/attitudes of the adults

- a) The *frankness of the adults* related to the research and the process of implementation, was expressed by the fact that from the very beginning, the young researchers were informed about the organization structure and the distribution of power in all the phases of the research.
- b) *Inclusiveness and non-discrimination* – the inclusiveness relates to the equal chances given to all the interested groups of children to participate in the research. The announcement about the research was public (facebook, printed newspapers, information delivered to the youth NGOs, leaflets distributed in the communities, etc.). The young persons who, after the registration and the interview, were invited to participate in the research, were of different age, level of education, ethnic origin, socio-economic status, activists' experience, research experience and alike. Non-discrimination was related to the equal treatment and the respect of all the children regardless of their age, gender, cultural, or ethnic characteristics, which was the basic principle of the work with youth in this research.
- c) *Cooperative vs. hierarchical model of power* – in all situations where the young researchers participated in decision making, the decisions were made jointly after the process of negotiation and discussion.

Methodology

- a) The participation of children should have *clear objectives, rules and responsibility distribution*. In this research the rules were established through the dialogue in which the young and the adult researchers had a chance to form joint opinions. Even if there were some rules established by the adults beforehand (related to security and protection of the young), these rules were explained and discussed with children.
- b) Children should be *involved as early as possible*, the best from the very beginning of the project. Although the young have not been involved in the initial design of this project, they took an active part in the next phases related to the conception of the areas of research, design of the instruments, and their introduction to the representatives of the local communities. They have actively participated in data collection and interpretation, as well as in creation of the community actions based on the research findings.
- c) If for a particular area children do not have relevant knowledge and skills, it is necessary to *organize adequate training*. In this project, various kinds of training were organized to enable the young researcher acquire knowledge and skills necessary for conducting a qualitative participatory research. The topics of the instruction related to the basic concepts of social justice (human/children rights, stereotypes/prejudices, discrimination, affirmative actions, etc.), and to the methodology of qualitative research and the research skills. During the data collection phase the young researchers were additionally instructed for data analysis, presentation of the findings to the community and promotion of the research findings through local actions.
- d) *The ways the children are involved is changed and improved through cooperation with them*. Flexibility was one of the main characteristics of work in this project. The adults have tried to

monitor the whole process, “to listen” to the needs of the young researchers, to modify some of previously planned activities, and to offer help whenever it was needed.

- e) To *develop sustainability strategies* that will empower children to take over independent initiatives. One of the main objectives of the whole project (the research was just a part of it) was to empower the young from the Roma and non-Roma population for leadership roles in creation of their future, to develop their capacities for advocacy for and in the name of their group, and for creation of community actions that would contribute to the improvement of the social status of the young.

The researchers’ reflections: How the young researchers perceive the benefits of participatory research?

Reflection is very important for participatory research because the process of data collection and analysis could not be separated from the personality of the researcher. Reflection could be *epistemological*, i.e. the reflection on the degrees our assumptions about knowledge, the object of the research, and the ways we look for the answers influence the research and its outcomes, and *personal*, i.e. reflection on the amount of the influence our values, attitudes and perspective have on the process of research and the way our research influence and change ourselves. In this research, at regular meetings during the research, the young researchers had a chance to critically reflect upon and discuss the research methodology (*Are the questions articulated so to prescribe the reality? Could we get the same data with different questions?*). All the researchers were keeping a diary with personal reflections: *What did I discover about myself during the research process? What did I learn? What did I learn from the other researchers or from my research pair? Which of my doings were good? What would I do differently?* The focus-groups and individual interviews were organized, where the researchers could talk about the ways the research process influenced them, and about the process of transformation they experienced during the project.

When discussing the changes they experienced during the research process, the young researchers noted changes in several domains:

- a) *The development of competencies (responsibility, autonomy, self-control, listening skills and team work)*

Majority of young researchers said that the research process taught them to reflect in advance, before saying something to be patient, to observe the whole process instead of focussing only on the effects and results (*To be patient. I was much more explosive before and wanted to get everything done very quickly*, Roma girl), to listen to the others even if they disagree with other’s opinion – to let the other talk without interrupting and expressing own opinion (*Often, during the beginning of the interview process I had an inclination to voice my own opinions if they were different than those of my respondents... I realized later on that I was only there for work: to ask my questions and to listen, nothing else*, non-Roma girl).

Other researchers mention that they have learned to work in pairs and in a team (*I learned how to work with a partner, how to coordinate our work. The weekly meetings with our mentors (tutors), meant a great deal to me, because they are more experienced than me. First Saturday sessions helped too because we were able to share our initial experiences with the team*, non-Roma boy), and to take on responsibility in the research process. For some, responsibility relates to the work in pairs: responsibility for the experience, knowledge and competences of their pair-mate (*This was the first time that I served as a leader for somebody else, how to set an example for my partner*, Roma boy). For some others, responsibility was related to the participants in the research according to do-no-harm principle (*I learned about how to hold a conversation – to be careful not to hurt anyone with my questions and not to create any problem for them*, Roma boy). One Roma researcher mentioned responsibility for the topic of the research; as a member of that marginalized group he tried to act as a positive model for other young Roma persons he contacted during the research (*I want to show the others that something can be done. Another positive example would be my older sister, who finished high school and enrolled in a college – she is a young Roma too. She is a role model for others*). The younger researchers note that at the beginning of the project they have restrained to express own opinion, assuming that because they were the youngest, nobody would listen to them carefully, but during the research process they have become more self-confident and less restrained to talk (*In the*

very beginning, I was hesitant to speak out because I was the youngest. Now I'm much more talkative, Roma girl).

b) *Development of empathy and the respect for diversity*

Many researchers (Roma and non-Roma) mentioned that the research helped them to understand better the conditions in which the majority of Roma population live, and that Roma behaviour, which they disapproved before, they understand better now keeping in mind the context in which the majority of the young Roma grow up (*I also understand more about them, their culture, and tradition. I understand why they are the way that they are. I have a deeper understanding of what is at play here*, non-Roma girl). The young researchers note that they have learned not to jump to conclusions but rather to reflect upon the reasons for what they see (*I am more willing to talk to others, to not be judgemental*, Roma girl). Some of Roma researchers noted that they have become aware of own prejudices about the other marginalized groups. They mention how surprised they have been discovering that regardless of the fact that they belong to a marginalized group exposed to numerous prejudices, they themselves could have prejudices towards some other groups (*I was reluctant to learn about the violence against the LGBT population, until I met a man and heard his story. He wasn't aggressive and didn't press me to change my opinions, but listening to his story, I recognized that he was a really amazing person and this encounter changed my belief*, Roma boy). The researchers from majority population have also become aware of their prejudices (*This project helped me realize all of the prejudices that I held, of my fear of them*, non-Roma girl). Some young researchers have noted their new awareness about differences and their readiness to respect these differences: to respect the fact that people are different and react differently in similar situations, and that they have right to different opinion (*I learned to look at the people around me differently, to respect that everyone has their own opinion, and that not everybody is the same*, Roma girl). Also, they have started to adapt own intervention to each particular individuals, to reflect upon the perspective of another side (*You need empathy for a conversation to work*, non-Roma girl; *I learned to appreciate the differences between people. I learned to adapt to the situation and to approach everyone in a unique way*, non-Roma girl).

c) *Harmonization of different aspects of identity*

Few Roma researchers noted that the project helped them accept those aspects of the identity, which are related to their ethnic background. Considering the dominant negative image of the Roma, these young Roma researchers either had a need to voice their Roma origin and wait for the others' reactions (*I always had trouble with my identity. The project provided me with a starting point for thinking about this. If I am with somebody I have known since primary school, then I still feel the need to declare my nationality. People tell me that they know, but I still feel the need to say it*, Roma girl), or completely denied that aspect of their identity. During the research they had a chance to meet either those young who denied Roma identity and accepted all the prejudices of the dominant group toward the Roma, or the young who asserted own identity being proud of what they achieved in their life in spite of significantly lower starting positions. That made them reconsider their own relationship toward various aspects of their own identity (*This project really allowed me to accept myself – I am a Roma woman. I left my home town as a child and was forced to build my personality in a different region where I didn't have any of my own people. I adapted and I became Roma, Serbian, Muslim, Buddhist, and everything! (laughs). But this helped me come back in contact with my people. This project really helped me become more aware of this part of me and to help others*).

d) *Profound understanding of the mechanisms that maintain inequality and discrimination*

During the initial training and field work, the young researchers had a chance to learn how to recognize various mechanisms of reflection of the existing stereotypes/prejudices and of social inequality/discrimination. Some mention jumping to conclusions as a way of sustaining the prejudices. They said that they had learned to pay attention to the wholeness of information and to the context before they make a judgement (*I learned not to make judgment calls until I know all of the facts*, Roma boy). They also noted the mechanism of "blaming the victim" (Ryan, 1974), which serves to preserve the existing prejudices and discrimination by blaming the underrepresented groups for their marginalized position (*They say that Roma do not respect education, that Roma parents do not care for education of their children, but neglect the fact that there is discrimination at school, that Roma children are undesirable there, that they have to work in order to feed the family /.../What we are doing is important, but how do you explain the significance of education to somebody that doesn't*

have any food to eat? For them, education is an abstract concept, non-Roma girl; Yes, before I was a lot more judgmental. Now I try to look at the situation differently. Before, when I was on the bus and would see beggars, I would become frustrated and think "Why can't they find a job?" Now I understand that life, Roma girl).

Some young researchers mention the problem of normalization of violence, discrimination, or poverty as the reason for withdrawal from an effort to change something (*They no longer see their problems as problems but as normal parts of their lives. This was shocking for me, non-Roma girl*). The researchers have become aware of the importance of language used to justify the existing inequalities in the society (*I also became more aware of the words that I use in communication, especially with the vulnerable groups, because – even if used unintentionally – the way we use the words has impact on people, non-Roma girl*).

e) *Strong commitment to advocate for social justice and equity*

Considering the fact that the research aim was to identify the key problems young persons are facing during the transition from adolescence to adulthood, in order to develop the local action that would target those problems, it is not surprising that the majority of young researchers mentioned their readiness for social action and advocacy for social equality. Some of them noted that even during the research they had a chance to help the interviewees giving them information about schools, job options etc. (*There was one boy that we interviewed who was thrown out of school twice because he fought. He couldn't enrol in school full-time because of this anymore. I told him about „Branko Pešić“ school. He said he would think about it and maybe contact me. I gave him my phone number and I went with him to the school and enrolled him in school, Roma boy*). The Roma researchers mention their wish to influence the others with their own example, to empower Roma parents and children pointing to them the importance of education (*I wanted to see if other families, like mine, existed where the children were growing up in an unsupportive environment. I want to use my experience to help others. And I wanted to tell every child, even if their parents were there, that they have rights, Roma boy*).

The researchers from majority population mention the interviews they conducted with the representatives of the institutions as important for establishing the contacts with them and eventually make them the allies (*The most important things I learned came from the conversations that I had with the representatives from the institutions we had interviewed. I was able to meet with people that had responsibility, that are capable of inflicting change. Before, I didn't have access to this. I couldn't approach these institutions and ask them for their opinions on these subjects, non-Roma girl*). They consider the research important for the collected data, which could be used as a basis for the advocacy for the rights of the marginalized groups. Keeping in mind the fact that they belong to the privileged group in the society, it is significant that non-Roma researchers also mention as important the possibility to become valuable allies to the age-mates from the marginalized groups in advocating for their rights and social justice (*At first it was to gain work experience, but later I realized that it wasn't about me. I wanted to change something, to help the others, non-Roma boy*).

Conclusion

Young people developed this project! For me, this was... Wow... Because we were allowed to fantasize about where the project would go!

Maybe these words of a young researcher express most properly the very essence of the participatory research, and the benefits the participating children could have from it. Active participation in all stages of the research project significantly influence both the *quality of research process* (avoiding manipulation and tokenism – research topic is in line with experience, interests and evolving capacities of the children), and the *quality of the research outcomes* (conclusions that reflect the perspective of children and their experience of the problem and local actions that are in the best interest of research participants). From the developmental point of view, the participation of children in the research projects significantly influences *the development of competences* important for growing up in democratic society. Some studies show that their participation in research enhances critical thinking, independence, responsibility and proactive attitude towards their environment (Hart, 1997; Lansdown, 2005). The young researchers frequently become the active advocates of children (Haines, 1998; Hart, 1997), and such experience influences their self-respect and positive image of themselves, especially with children from the marginalized and vulnerable groups (Grover, 2005).

The young researchers from our research have approved that. Lastly, the participatory research has emancipatory potential because it makes the perspective of children visible and promotes the image of children as competent social actors who, depending of their evolving capacities, can participate in determination of their best interests.

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Rezime

Dve važne dobiti od participativnih istraživanja su u ovom radu ilustrovane na primeru participativnog akcionog istraživanja *Podrška mladim Romima na putu od obrazovanja do osamostaljivanja*: (1) emancipatorni karakter participativnih istraživanja, koja omogućavaju vidljivost različitih marginalizovanih grupa (dece i mladih) i uključivanje njihove perspektive u istraživački proces i (2) njihov razvojni potencijal, budući da ona podstiču razvoj novih znanja, veština i kompetencija kod dece/mladih. Istraživanje o kojem je reč uključuje dvadeset mladih istraživača iz romske populacije i iz većinske populacije, koji su bili aktivno uključeni u sve faze istraživačkog procesa: od osmišljavanja instrumenata korišćenih u istraživanju i sprovođenja istraživanja (intervjui sa vršnjacima, njihovim roditeljima i predstavnicima institucija), do analize dobijenih rezultata i pisanja preporuka za donosiocje odluka. Po mišljenju samih mladih istraživača, glavne dobiti od istraživanja su: razvoj kompetencija poput odgovornosti i autonomije, empatija i uvažavanje različitosti, harmonizacija različitih

aspekata identiteta, razumevanje mehanizama koji održavaju sistem nejednakosti i diskriminacije, kao i snažno opredeljenje za zagovaranje društvene pravde i jednakosti u društvu.

Ključne reči: *participativna istraživanja, deca i mladi kao (ko)istraživači, razvoj kompetencija, istraživačka etika i principi*

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CYBERBULLYING AMONG ADOLESCENTS: ITS SPECIFIC ROLE DISTRIBUTION, MOST FREQUENT FORMS, AND PARTICIPANTS' ATTACHMENT

Abstract

The research was conducted with the aim of determining the roles in cyberbullying, isolating the most common forms of cyberbullying, testing differences in the frequency of certain forms of bullying in relation to gender and age of respondents, and testing the differences in the dimension of attachment in individuals playing particular roles in bullying. The sample comprised 545 adolescents aged 13 to 19, and RCBI and ASQ scales were employed. The results show that approximately 22% of the sample participates in cyberbullying, as bullies (5.9%), victims (8.5%) or bully-victims (7.5%). The most common form of bullying, typical for all three roles, is insulting/denigration in online forums, sharing private conversations, and sending threatening/hurtful messages. In general, there are more boys involved in cyberbullying, and they are more numerous in the groups of bullies and bully-victims. Girls are more numerous in the group of victims, as well as among those who are not involved in bullying. Regarding the attachment dimensions, there is only one difference: the categories of victim and bully-victim have higher scores in the Relationship as Secondary dimension than respondents who are not involved in bullying.

Keywords: *cyberbullying; roles in cyberbullying, attachment, adolescents*

Introduction

The last ten years have brought a great increase in the degree of communication and distribution of information through electronic devices, above all mobile phones and computers. The space in which this interaction takes place is termed cyberspace. The possibility of interaction or just being present in cyberspace has led to great changes in a person's social interactions, ways of studying, and kinds of entertainment. Particularly important is the rapid growth in social networking on the internet, which is a consequence of the nearly unlimited access to the tools of electronic communication, such as e-mail, websites, instant messaging, web cameras and social network websites (Hinduja & Patchin, 2009; Palfrey & Gasser, 2008; Schrock & Boyd, 2008; according to Mishna et al., 2009). Various researchers claim that the majority of adolescents recognize these electronic communication tools as extremely important in their social life (Kowalski, Limber, & Agatston, 2008; according to Mishna et al., 2009). The internet offers numerous possibilities for the development of adolescents, possibilities for gaining social support, exploring one's identity, and developing interpersonal and critical thinking skills; this is followed by various educational possibilities related to accessing recent findings, through academic support and cross-cultural communication (Gross, 2004; Jackson et al., 2006; Valkenburg & Peter, 2007). Even though most online interactions are considered affirmative or neutral, in the last several years researchers in this area have focused on understanding the risks and abuses of cyberspace, since adolescents have been spending more time online than ever before (Mitchell, Finkelhor, & Wolak, 2003; Shariff, 2009; according to Mishna et al., 2009).

One of the significant risks that adolescents are exposed to in the mass usage of electronic technologies is cyberbullying. This phenomenon is defined as repeated, aggressive, and deliberate

action performed by an individual or a group by means of electronic communication methods, directed at victims who cannot easily defend themselves (Hinduja & Patchin, 2009).

Cyberbullying roles

Researchers have shown that a person can assume different roles in a bullying situation (Salmovalli et al., 1996). In some recent studies, only three groups of participants are mentioned: bullies, victims, and bystanders (e.g. Baker & Tanrikulu, 2010; Law, Shapka, Hymel, Olson, Waterhouse, 2012; İçellioglu. & Özden, 2014), although the group of bully-victims is also mentioned. Other authors list all four participant groups in bullying (e.g. Haynie et al., 2001; Mishna et al, 2009; Wang, Nansel& Iannotti, 2011; Mishna, Khoury-Kassabri, Gadalla& Daciuk, 2012). Studies have proved that the number of bullying bystanders can be a source of power for the bully (Twemlow, Fonagy, Sacco, & Hess, 2001; according to Law et al., 2012). For instance, in schoolyard fights, bullies frequently point out that they felt stirred by the crowd that had gathered to watch the fight (Burns, Maycock, Cross & Brown, 2008). We can assume that this transfer of power takes place in the online environment as well; the number of bystanders in this case is unknown, and can vary from a couple of persons to thousands of them. The borderlines existing between different roles in cyberbullying are not always clearly determined. For instance, if one decides to forward aggressive contents initiated by someone else, are they shifting from a bystander to a bully at that very moment?

The results of cyberbullying research have indicated that there are a large number of bully-victims, i.e. persons who are at the same time the source and the target of bullying (Kowalski & Limber, 2007; Werner & Bumpus, 2010). This category is proportionally small in traditional bullying (Kaukiainen et al., 2002; Pelligrini, 2001; according to Law et al., 2012). According to the acquired data, bully-victims have a share of 4%, bullies slightly above 7%, and victims around 30% (Haynie et al., 2001). When it comes to cyberbullying, Law and associates (2012) claim that it is more difficult to distinguish between victims and bullies in cyberspace, as the online environment gives victims a better opportunity to respond to an aggressive action, and get involved in bullying, becoming bullies themselves. Goffman's stage metaphors can provide a better understanding of cyberbullying (Goffman, 1959; according to Burns et al., 2008). The bully and the victim are the "actors" on the main stage (*front stage*), but bystanders that are not on the main stage (they are on the *back stage*) are equally important, as their behaviour can have an impact on what is happening on the stage. The bully and the victim can be labelled as active participants, whereas bystanders can (conditionally speaking) be labelled as passive participants. Since performing one (any) role can easily be swapped with performing another, the main idea of different programmes directed at suppressing traditional bullying and cyberbullying is to lead bystanders towards the (unambiguous) disapproval of violence (Burns et al., 2008; Van Ouytsel, Walrave & Vanderbosch, 2014).

The frequency of cyberbullying

The majority of cyberbullying research has been performed using samples of adolescents in the early and middle period of adolescence. Raskauskas and Stoltz (2007) point out that as many as 49% of students aged between 13 and 18 have been victims of cyberbullying, whereas 21% of them have been bullies. In their study on under-18 adolescents, Patchin and Hinduja (2006) found that 11% of these adolescents had bullied their peers, 29% had been victims of cyberbullying, whereas 47% of them had witnessed cyberbullying. In her study, Li (2007) discovered that one in three adolescents had been a victim of cyberbullying, and that one in five adolescents had been a cyberbully, while Wolak and associates (2007) concluded that 9% of adolescents in their sample had been exposed to cyber-harassment. These diverse results are probably a consequence of using different instruments, but we can notice that, generally speaking, there is a greater number of those who claim to be victims (ranging from 9% to 30%), and that the number of those who are identified as bullies is smaller (from 3% to 20%). In a more recent study, Mishna and associates included another category – bully-victims. They conducted their study on 2186 adolescents in early and middle adolescence (6th, 7th, 10th, and 11th grade in Canadian schools). The results of their study indicated that almost ¼ of their respondents (23.8%) had declared themselves victims, 8% had been identified as bullies, whereas 25.7% had participated in cyberbullying at both ends during the previous three months; on the other hand, 42.5% of the adolescents had not participated in cyberbullying at all. The authors believe that two characteristics, specific to cyberbullying, led to this overlapping of categories (of bullies and victims):

a sharp increase in the use of electronic technologies, and a lack of face-to-face interaction. One should also mention the fact that a vast majority of the bullies (84%) knew their victims in person, while only 31% of the victims knew or could identify their bully (Hinduja & Patchin, 2008).

A study on frequency of cyberbullying/victimization among adolescents in Serbia (Popović Čitić, Đurić & Cvetković, 2011) produced similar results: approximately 10% of the respondents indicated that they had bullied their peers, and around 20% of respondents thought of themselves as victims of cyberbullying. Both bullying and victimization were more frequent among boys, and the most common form of bullying was denigration, followed by insults, revealing one's secrets or information related to the facts one was ashamed of.

Since cyberbullying is a phenomenon that exists in relation to others, the current study of cyberbullying also involves affective attachment dimensions. There have been studies of traditional bullying which also included affective attachment. Therefore, one can raise the question of whether examining cyberbullying and affective attachment dimensions could produce similar results; i.e. the possibility of cyberbullies having a specific profile of affective attachment dimensions should be examined.

Attachment

According to attachment theory, in order to increase the chances of survival, humans possess a developed socio-biological need to form strong emotional bonds (Karantzas et al., 2010). The attachment behavioral system consists of behaviors which are aimed at maintaining proximity to a primary caregiver in times of threat or distress. Maintaining this closeness generates a sense of security for the distressed individual. Over a lifespan, the attachment system is shaped by interactions with attachment figures, resulting in a certain mental representation of attachment relationships, i.e. a particular attachment style (Gillath et al., 2005; according to Karantzas et al., 2010).

There are some differences in the opinions on which dimensions should be measured to encompass the attachment phenomenon in its entirety (Feenley et al., 1994). For the purpose of this research, ASQ by Feenley et al. was selected, since it was developed to present a comprehensive measure of attachment (and not a specific domain, such as attachment to parents or partners); it is also convenient for adolescents, as well as for those who have little or no experience in close romantic relationships. Previous research has connected attachment to the roles in traditional bullying (mostly in young adolescents) and the obtained results are fully expected: insecure attachment is connected to the risk of victimization in a series of studies which have employed various methodological approaches (e.g. Ladd & Ladd, 1998; Bowers et al., 1994; Finnegan et al., 1998; Olweus, 1991; according to Nickerson et al., 2008). Since intense emotional relationships and overprotection are mentioned in relation to victims, one can conclude that it is, above all, the case of the preoccupied attachment pattern. The majority of child-bullies are also insecurely attached, but they most often express the avoidant pattern (Monks, Smith, & Swettenham, 2005; Troy & Sroufe, 1987; according to Nickerson et al., 2008). The question remains open as to whether these results can also be valid in the cyberbullying domain, which takes place in a different space, where somewhat older adolescents are involved, and which possesses the specific characteristics and roles already mentioned.

Present Study

The main goal of this research is to determine the frequency of roles in cyberbullying on a sample of adolescents and to examine differences in the attachment dimensions in relation to those roles in cyberbullying. This goal can be broken down into the following research questions: 1) what is the distribution of the roles in the total sample of adolescents? 2) Which forms of cyberbullying are the most frequent? 3) Are there any differences in the frequency of the roles in relation to gender and age of respondents? 4) Are there any differences in the attachment dimensions in relation to the roles in cyberbullying?

Method

Respondents

The survey included 545 adolescents, aged 13 to 19, who attend school in two smaller towns in Serbia. The sample comprised 213 males and 332 females. Respondents were divided into three age

cohorts: Group 1 (13-14 years of age, N=130), the end of early adolescence; Group 2 (15-17 years of age, N=195), the first half of the period of middle adolescence, and Group 3 (18-19 years of age, N=220), the second half of the period of middle adolescence. Individuals from the middle period of adolescence were split into two groups because of the age span; whether there are differences in the frequency of the roles in cyberbullying between the first and the second part of this period should be examined.

Instruments

To assess cyberbullying/victimization the researchers used the RCBI questionnaire – Revised Cyberbullying Inventory (Topcu & Erdur-Baker, 2010). The questionnaire included 14 statements on cyberbullying to which all respondents answered twice, first under the instruction *I did this* (never, once, twice-three times, more than three times), and then under the instruction *This happened to me* (with the same possible answers). Each respondent circled the appropriate number on a scale from 1 (never) to 4 (more than three times). By adding answers of a respondent, separate scores were obtained for cyberbullying and cyber-victimization. The questionnaire was translated from English into Serbian; a back-translation was also done. Pilot-research (N=100) was carried out to determine that the respondents had no problems with understanding the statements, and the reliability of both subscales, expressed in Cronbach’s Alpha, was over .80.

To assess attachment the researchers employed the ASQ – Attachment Style Questionnaire (Feney, Nolan, Hanrahan, 1994). The questionnaire comprises 40 statements to which answers are provided by choosing from a six-grade scale, from *I disagree completely* to *I agree completely*. Scores are obtained for five dimensions: Confidence, Discomfort with Closeness, Relationships as Secondary, Need for Approval, and Preoccupation with Relationships. The scale was translated earlier into Serbian and it was used in research (Stefanović-Stanojević, 2011).

Data analysis

Techniques of descriptive statistics were used for the first and the second research questions; and adequate inferential statistical techniques were used for obtaining answers to the third and the fourth question – Chi-square and analysis of variance.

Results

Table 1 shows the descriptive data for the RCBI scale and the reliability of the sample of this research.

Table 1. Descriptive data for the RCBI subscales and the reliability of the subscales

RCBI sub scales	N of items	Expected min	Expected max	Observed min	Observed max	M	SD	Cronbach’s Alpha
CB	14	14	70	14	55	20.51	6.55	.81
CV	14	14	70	14	51	20.16	6.54	.83

*CB=cyberbullying; CV=cyber-victimization

As shown, neither scores on bullying nor on victimization reach their theoretical maximum, which is expected – the questionnaire includes different forms of bullying and repeated experiences in all forms are unlikely. Both scales have satisfying reliability.

Table 2 shows the descriptive data for the ASQ scale and the reliability of the research sample.

Table 2. Descriptive data for the ASQ subscales and the reliability of the subscales

ASQ dimensions	N of items	Expected min	Expected max	Observed min	Observed max	M	SD	Cronbach’s Alpha
Confidence	8	8	48	14	48	34.54	5.92	.77

Discomfort with closeness	10	10	60	19	57	38.28	6.86	.74
Relationships as secondary	6	6	36	7	36	20.59	5.57	.70
Need for approval	7	7	42	7	42	23.11	5.88	.73
Preoccupation with relationships	8	8	48	8	48	28.53	7.18	.77

Although the reliability of the ASQ subscales obtained on the sample was slightly lower, it is still acceptable.

The most interesting things here are the number and characteristics of the respondents with high levels of cyberbullying and/or cyber-victimization. The subgroup of respondents with cyberbullying encompasses those with a total score above $M + 1$ SD on that subscale (i.e. $20.51+6.55$); the subsample of respondents with cyber-victimization was formed in the same manner: more than $M + 1$ SD on the subscale of cyber-victimization (i.e. $20.16+6.54$). Respondents with high scores in both cyberbullying and cyber-victimization were categorized under the bully-victim subgroup. For all of the other respondents, it was assumed that they were not involved in cyberbullying. The structure of the sample according to the roles in cyberbullying is shown in Table 3.

Table 3. Structure of the sample by the roles in cyberbullying and arithmetic means of the RCBI subscales

Roles in cyberbullying	Freq	%	M Cyber bullying	M Cyber victimization
Bully	32	5.9	33.47	21.94
Victim	46	8.4	22.39	32.02
Bully-victim	41	7.5	33.44	32.36
Not involved	426	78.2	18.08	17.57
Total	545	100		

We believe that the subsamples created in this manner genuinely represent the groups which are the subject of the research. These are not respondents who just happen to have some experience of cyberbullying or who have been bullies/victims once or twice, but these are persons who have frequent, i.e. repeated experiences with cyber violence.

It is interesting to observe for which items of the RCBI scale people playing particular roles have the highest scores. Items for which the respondents had *scores above the arithmetic mean of the scores of their category* were isolated; i.e. for the bully category, items with scores higher than M of cyberbullying for that subsample; for the victim category, items with scores above M of cyber-victimization; and for the bully-victim category, items with scores higher than M of bullying for that subsample and scores higher than M for victimization. Since almost the same items are repeated for all three samples, the results are given in a single table (Table 4).

Table 4. Items from the bullying/victimization subscales with the highest scores across bully, victim, and bully-victim groups

Items of the bullying and victimization subscales	Bullies (N=32)	Victims (N=46)	Bully-Victims (N=41)
3. Threatening in online forums (like chat rooms, Facebook, or Twitter)	0	x	xx
4. Insulting in online forums.	x	x	xx
5. Excluding in online forums by blocking others' comments or removing them.	x	x	xx

7.Sharing private internet conversations without the other's knowledge (such as chatting with a friend on Skype with other(s) in room).	x	x	xx
8.Making fun of comments in online forums (such as Facebook).	x	x	xx
10.Stealing email access (usernames and passwords) and blocking true owner's access.	x	0	00
12.Sending threatening and/or hurtful text messages.	x	x	xx

*0 = the item is not characteristic for the subsample; x = the item is characteristic for the subsample on the corresponding subscale; xx = the item is characteristic for the subsample on both subscales.

It can be seen that a large share of violence is committed in online forums, and also that experience with threatening/hurtful messages is typical for all three groups of respondents. One-on-one bullying also exists, but less is known about it. That a bully does not always make his/her intentions known is seen in Item 10, stealing email access – bullies have experience with this form of bullying, but it appears that the groups of victims and bully-victims are not familiar with it.

The distribution of boys and girls in particular roles in cyberbullying is shown in Table 5, while the testing of the distribution differences is shown in Table 6.

Table 5. Frequency of males and females in particular roles in cyberbullying

		Roles					
			Bully	Victim	Bully-victim	Not involved	Total
Gender	Male	Count	22	14	28	149	213
		% within gender	10.3%	6.6%	13.1%	70.0%	100%
	Female	Count	10	32	13	277	332
		% within gender	3.0%	9.6%	3.9%	83.4%	100%

Table 6. Testing of the differences in frequency of particular roles in cyberbullying by gender of respondents

	Value	df	Asymp. Sigma (2-sided)
Pearson Chi-square	30.985	3	.000

As it can be seen from the previous table, there is a difference in the distribution of males and females in particular roles in cyberbullying. A larger proportion of males are bullies and bully-victims; while a larger proportion of girls are victims, but they are also more frequently present in the category of respondents who are not involved in cyberbullying.

Table 7. Distribution of roles in cyberbullying by age of respondents

		Roles in cyberbullying					
			Bully	Victim	Bully-victim	Not involved	Total
Age groups	13-14	Count	11	11	9	99	130
		% within age g.	8.5	8.5	6.9	76.2	100%
		%within roles	34.4	23.9	22.0	23.2	
	15-17	Count	11	12	20	152	195
		% within age g.	5.6	6.2	10.3	77.9	100%
		%within roles	34.4	26.1	48.8	35.7	
18-19	Count	10	23	12	175	220	
	% within age g.	4.5	10.5	5.5	79.5	100%	
	%within roles	31.3	50.0	29.3	41.1		
Total	Count	32	46	41	426	545	
	%within sample	5.9	8.4	7.5	78.2	100%	

Table 8. Testing of differencing in distribution of roles in cyberbullying by age groups of respondents

	Value	df	Asymp. Sigma (2-sided)
Pearson Chi-square	7.799	6	.253

Based on the results from Tables 7 and 8, it can be said that, for the studied sample, no significant changes in the frequency of particular roles in cyberbullying during the early and middle period of adolescence were found.

Table 9 shows basic descriptive data for the dimensions of the ASQ scale, while Table 10 shows testing of those dimension differences in different groups of participants in cyberbullying.

Table 9. Descriptive data for the ASQ dimensions by roles/involvement in cyberbullying

ASQ dimensions	Roles	N	Mean	SD	St. Error
Confidence	Bully	32	35.78	4.791	.847
	Victim	46	33.59	6.615	.975
	Bully-victim	41	33.73	6.462	1.009
	Not involved	426	34.62	5.860	.284
Discomfort with closeness	Bully	32	37.34	7.245	1.281
	Victim	46	38.54	7.819	1.153
	Bully-victim	41	39.07	7.421	1.159
	Not involved	426	38.24	6.682	.324
Relationships as secondary	Bully	32	22.56	5.217	.922
	Victim	46	20.63	6.227	.918
	Bully-victim	41	22.17	5.024	.785
	Not involved	426	20.29	5.536	.268
Need for approval	Bully	32	22.88	5.885	1.040
	Victim	46	22.57	5.973	.881
	Bully-victim	41	23.95	4.685	.732
	Not involved	426	23.11	5.977	.290
Preoccupation with relationships	Bully	32	30.53	8.865	1.567
	Victim	46	29.39	7.404	1.092
	Bully-victim	41	27.51	6.108	.954
	Not involved	426	28.39	7.101	.344

Table 10. Testing of differencing in attachment dimensions by roles/involvement in cyberbullying (bully, victim, bully-victim, not involved)

ASQ dimensions		Sum of squares	df	Mean square	F	Sig.
Confidence	Between gr.	1.886	3	.629	1.149	.329
	Within gr.	296.013	541	.574		
	Total	297.899	544			
Discomfort with closeness	Between gr.	.577	3	.192	.407	.478
	Within gr.	255.595	541	.472		
	Total	256.172	544			
Relationships as secondary	Between gr.	5.435	3	1.812	2.888	.035
	Within gr.	339.295	541	.627		
	Total	344.730	544			
Need for approval	Between gr.	.907	3	.302	.428	.733
	Within gr.	382.419	541	.707		
	Total	383.325	544			

Preoccupation with relationships	Between gr.	3.330	3	1.110	1.381	.248
	Within gr.	434.758	541	.804		
	Total	438.088	544			

Since significant differences exist only for the Relationships as a Secondary dimension, Table 11 shows only that part of the post-hoc analysis.

Table 11. Part of the post hoc test for Relationships as a Secondary dimension

	(I)	(J)	Mean difference (I - J)	Std. Error	Sig.	95% confidence interval	
						Lower bound	Upper bound
Relationship as Secondary	Bully	Victim	.27601	.18230	.131	-.0821	.6341
		Bully-victim	.05598	.18680	.765	-.3110	.4229
		Not involved	.32516*	.14516	.025	.0400	.6103
	Victim	Bully	-.27601	.18230	.131	-.6341	.0821
		Bully-victim	-.22004	.17009	.196	-.5542	.1141
		Not involved	.04915	.12291	.689	-.1923	.2906
	Bully-victim	Bully	-.05597	.18680	.765	-.4429	.3110
		Victim	.22004	.17009	.196	-.1141	.5542
		Not involved	.26919*	.12949	.038	.0148	.5236
	Not involved	Bully	-.32516*	.14516	.025	-.6103	-.0400
		Victim	-.04915	.12291	.689	-.2906	.1923
		Bully-victim	-.26919*	.12949	.038	-.5236	-.0148

The arithmetic means in Table 9 may appear to indicate that bullies and bully-victims have almost the same high scores for Relationships as the Secondary dimension in contrast to the categories of victims and those not involved in bullying. However, the test shows that statistically significant differences exist only in bullies and bully-victims in relation to those respondents who do not take part in bullying.

Discussion

With this research, we wanted to obtain the best possible approximation of the extent to which adolescents are involved in cyberbullying and of what roles they actually take. The sample encompassed 545 adolescents for the very purpose of isolating respondents who can truly be considered representatives of a particular role. If respondents had been simply divided into those above and below the arithmetic mean, the high score group would have contained those with actually average scores. For that reason, only scores above $M + SD$ were considered high scores, as explained in Table 3. What is the distribution of the subgroups thus obtained?

Approximately 78% of the respondents stay outside of cyberbullying; and around 22% of the respondents are involved in cyberbullying. These results, with variations possibly due to the use of different instruments, were also obtained in other studies on cyberbullying. When classified into different categories, it was found that 5.9% can be regarded exclusively as bullies; 7.5% as bully-victims, and 8.5% exclusively as victims. At the beginning of this paper, when the frequency of cyberbullying was presented, it was said that findings indicate that victims were the most numerous; however, it should be kept in mind that those studies did not include the category of bully-victims. When included, this category appears to be very frequent, for instance in a study by Mishna et al. (2012). The frequency of this category is typical for cyberbullying, which was also confirmed in our sample. An explanation offered by Law et al. (2012) appears to be plausible – a person perceives bullying and experiences him or herself as a victim, but the medium where the bullying occurs allows the victim to retaliate with an insult, which actually makes this person a bully, too. A lack of face-to-face interaction, and often the anonymity of participants, reduces the feeling of responsibility for the content of an interaction, so it can be assumed that a person expresses online what he/she would not

say directly. The forms of the most common violence that victims and bully-victims experience are the same (Table 4): insults, making fun in online forums, deleting comments and sharing private conversations without the knowledge of a participant. These two groups experience more online threats as well, but it is interesting that bullies do not think that they threaten frequently, i.e. they do not see their online reactions as too threatening. As stated in Cassidy et al. (2013), it is possible that, in some situations, bullies cannot see that they have crossed the line and that they are hurting another person, because they do not see the victim's emotional reaction. What victims and bully-victims are unaware of, but bullies are, is stealing email access in order to read the messages of a victim, or in order that a victim cannot access his/her account. This form of bullying, which victims are not aware of, shows that cyber bullies can keep their actions secret.

There are significant differences in the frequency of particular roles in relation to gender: there are more males in the bully category, and more females in the victim category, the bully-victim category is again dominated by males (Table 5). In general, males are more involved in cyberbullying, while females remain uninvolved. These differences can be explained, to a certain extent, by different expectations related to gender: there is more pressure on boys to be able to defend themselves, i.e. react actively to an attack; the unwillingness to argue would be observed more as weakness in boys (and a virtue in girls). Furthermore, it is possible that refraining from responding is precisely the reason behind girls being a fraction higher in the victim group; yet it is also possible that adolescent women are more often the target of bullies than adolescent men. It appears that boys predominantly attack both boys and girls, bearing in mind that boy-victims respond more often and transfer to the bully-victim category.

Across the age cohorts in this research, there were no significant differences found in the frequency of particular roles (Table 7, Table 8), i.e. it can be said that there are no significant changes on this issue at the transition from early to middle adolescence. Furthermore, this means that the results related to the specific age of early and middle adolescence are valid for this entire period.

Differences in certain dimensions of cyberbullying can be expected between persons playing different roles within it. Those differences have been recognized in roles in traditional bullying and whether they exist in cyberspace should be examined. Moreover, it can be rightly assumed that persons who are faced with undesirable social relationships have negative attachment styles. It is to be expected that, for example, victims may have an increased Need for Approval and Preoccupation with Others, that is, they belong to the preoccupied pattern and expose themselves to the risk of becoming victims of bullying in their search for a contact. On the other hand, bullies may have an increased Discomfort with Closeness and/or increased scores in Relationships as a Secondary dimension, i.e. they can be expected to be highly dismissive, which is reflected in these two dimensions, thus falling under the avoidant or fearful (disorganized) pattern. However, between the group of respondents who were involved in cyberbullying and the group of those who were not involved, significant differences were obtained only in one dimension: Relationships as Secondary (Table 10, Table 11). A post hoc test showed that scores were substantially higher in the bully group and the bully-victim group in relation to the group of those who were not involved in bullying. The perception of (emotional) relationships as secondary is, in fact, the indication of avoidance, i.e. the inability to establish closeness; this characteristic is found in avoidant and disorganized attachment. This is partly in agreement with the findings within traditional bullying, where child-bullies have been found to belong primarily to the avoidant pattern, yet the question remains why none of the characteristics separated the victims from other groups. This emphasizes once more ignorance concerning the characteristics of victims of cyberbullying. While in traditional bullying, victims are mostly those who cannot retaliate, it is possible that in cyberspace, the targets are those who are popular in their social circles (and who would hardly be bullied in a traditional manner). That is, a victim here does not become a victim due to their unfavorable personality characteristics, such as preoccupation, emotional immaturity, or need for approval, but because the victim stands out for their positive characteristics, i.e. those considered desirable by a bully.

Limitations

The most significant limitation of this research is the exclusion of the category of *audience*; this may also serve as a recommendation for further research in which an effort should be made to also identify these participants in cyberbullying. This could be achieved by adding another subscale to the

RCBI questionnaire; the items would stay the same, but the respondents would answer with *I have witnessed this*.

Directions for future research

During the analysis of the results, the issue of the selection/characteristics of victims emerged as a great unknown to be examined. Since it is possible that cyberbullying victims, at least partly, become targets because of their popularity in their peer group and/or positive characteristics, questions and instruments that could determine this should also be researched.

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Rezime

Istraživanje je sprovedeno sa ciljem da se odrede uloge u sajber-nasilju, da se izdvoje najčešći oblici sajber-nasilja, ispituju razlike u učestalosti različitih vrsta nasilja s obzirom na pol i uzrast ispitanika, kao i da se ispituju razlike u dimenzijama atačmenta kod pojedinaca koji igraju određene uloge u nasilju. Uzorak obuhvata 545 adolescenata uzrasta od 13 do 19 godina, kojima su zadate skale RCBI I ASQ. Rezultati pokazuju da približno 22% ispitanika iz uzorka učestvuje na neki način u sajber-nasilju, kao nasilnici (5.9%), žrtve (8.5%) ili u obe uloge (7.5%). Najčešći oblik nasilja, tipičan za sve tri kategorije, je vređanje / klevetanje na onlajn forumima, prenošenje privatnih razgovora i upućivanje pretnji i zastrašujućih poruka. Generalno, više je mladića uključeno u sajber-nasilje i oni su brojniji u grupi onih koji vrše nasilje i onih koji i vrše i trpe nasilje. Devojke su brojnije u grupi žrtava, kao i među onima koji nisu uključeni u nasilje. U pogledu dimenzija atačmenta, postoji samo jedna razlika: u kategoriji žrtava i u kategoriji nasilnika-žrtava viši su skorovi na Povezanosti kao Drugoj dimenziji u poređenju sa onima koji nisu uključeni u nasilje.

Ključne reči: *sajber-nasilje; uloge u sajber-nasilju, atačment, adolescenti*

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GROUP PSYCHODYNAMICS INDIVIDUAL AND *POLIS* IN SOPHOCLES' ANTIGONE

Abstract

In this text I will analyse (within the context of contemporary psychoanalysis) the relation between the individual and the group (*polis*). The analysis of this well-known classical story will demonstrate the key structural determinants essential for understanding the tension between the individual and the group (*polis*). A psychodynamic attempt to understand the conflict between different orders of law represented by Creon and Antigone (civil law and matriarchal law) will be of central concern for this text. Creon represents *new order*, the order of symbolic regulation of the *polis*. In this context, (something that could be named as) the *sound mind* is the *mind completely devoted to civic safety and civic well-being*. Creon is (being absolutely in opposition to Antigone) insisting on replacement of blood ties by bonds of civic friendship and responsibility. Possible conflicts between *polis* and *family* (between the new and ancient gods) could be resolved if the city (*polis*) is treated as something that transcended anyone's symbolically accidental family. If our only family is the *polis*, Polynices (Antigone's death brother) is not Creon's kinsman, but his enemy.

Key words: *Law, polis, individual, Bion, psychoanalytic theory of group*

The famous choral verses of the Sophocles' *Antigone* say that man as a being is definable by the word- *deinon*. "Many things are formidable (terrible, *deina*), and none more formidable (terrible) than man."⁶ In the three opening strophes, man is portrayed as an active agent who masters nature. He skilfully navigates the sea, wears away Earth, the highest of the goddesses, subdues and tames animals. Man speaks, builds houses, and passes laws. Even though he has found a cure for some severe maladies, he remains powerless in the face of death.

The last antistrophe focuses on man's moral and political action. Man is situated, as well as Oedipus, at the crossroads between good and evil. The chorus sings that the contrivance of his art is skilful beyond hope and that man can aspire to evil or goodness. If he obeys the laws of the earth and the laws of the gods, man becomes *hypsipolis*. Those who disobey them become *apolis*.

It is not surprising, Oudemans and Lardinois (1987) tell us, that the classic interpretive tradition understood this song as an ode to man. Unlike Aeschylus' *Prometheus*, Sophocles' verses do not emphasize the divine origin of human skills. Also, the absence of *clearly formulated divine imperative* in Sophocles' verses (in contrast to Aeschylus' *Oresteia*) is apparent.

This is precisely why Creon and Antigone - each from their own mutually exclusive positions - can both pretend to be the one who knows and respects the divine and human laws. Creon appeals to the Olympian deities and Antigone to the chthonian ones. These two conflicting symbolic orders, which people perceive as ordained by gods, determine the psychodynamics of a group (*polis*) and the tragic fate of Antigone and Creon.

Creon's tragic problem is that he (respecting what he believes was given by the Olympian gods) severs his family ties. Polynices was a member of Creon's family. Creon therefore should have an obligation to bury his corpse. At the same time, Polynices was not only an enemy of the city (*polis*), but also a traitor. As the representative of the city, Creon should have to prohibit his funeral inside the territory of the *polis*. The audience would expect, as Martha Nussbaum (2011) points out,

⁶In this text I will be using Loyd Jones' translation of *Antigone*.

that Creon is torn between these two roles. However, what the audience can see is a total absence of conflict. For Creon, the supreme good is what is good for the *polis*:

*and him who rates a dear one higher than his native land, him I put nowhere. I will never be silent, may Zeus who sees all things for ever know it, when I saw ruin coming upon the citizens instead of safety, nor would I make a friend of the enemy of my country, knowing that this is the ship that preserves us, and that this is the ship on which we sail, and only while she prospers can we make our friends.
... That is my way of thinking, and never by my will shall bad men exceed good men in honour. No, whoever is loyal to the city in death and life alike shall from me have honour. (180 -190)*

In other words, Creon, as the representative of the symbolic regulation of the polis, replaces ties of blood by bonds of civic loyalty, friendship and responsibility. Conflict between the city and the family (between the new and the old gods) cannot possibly arise "if the city is the family, if our only family is the city. But, in the light of this idea, Polynices stands in no particular relation to the family of Creon, except the relation of enmity. And an 'enemy (*echthros*) is never loved one (*philos*), not even when he dies'" (Nussbaum, 2011, p. 57).

Guided by what is good for the city (*polis*), Creon forbids Polynices' burial. His unwept body is left to birds and dogs. Segal (1999) notes that by treating Polynices' body in such a way, Creon violates civilizational division between men and beasts. Antigone grasps the effects of Creon's decree by picturing Polynices' body being torn apart. "She grasps the meaning of the decree in the most immediate, physical terms. Her sense of civilised values is personal, specific, visceral. She pictures his corpse exposed to vultures" (Segal, 1999, p. 157).

Creon does not consider his decision problematic. From his perspective (the perspective of the polis), a dishonoured corpse of an enemy should lay exposed for citizens to see it. Believing that Polynices' body pollutes the city, Creon sees his own decision as prudent.

Creon will many times appeal to (what we could today regard) *good sense*. In his dialogue with a guard, the chorus leader interprets the absence of traces at the Polynices' burial place as possible involvement of the gods. Hearing this, Creon insults the chorus' judgment:

Cease, before your words fill me with rage, so that you may not be found to be not only an old man but a fool. What you say is intolerable, that the gods are concerned for this corpse! Did they conceal it so as to do him great honour as a benefactor, he who came to burn their colonnaded temples and their offerings and to destroy their country and its laws? (280 – 290)

For Creon, the man of sound mind is he who puts the wellbeing of the city first. He considers Antigone's disobedience of civic values and Ismene's sympathy for her sister to be signs of madness (560 – 565).

A good woman is a woman who obeys the laws of the polis, thus Haemon must hold on to his good sense and renounce his fiancée. Creon advises Haemon:

Never let go your good sense, my son, for sake of the pleasure that a woman gives, knowing that this thing is an armful that grows cold, an evil woman sharing your bed in your house. For what wound could be deeper than a dear one who is evil. (645-655)

Creon does not respect Haemon's love for Antigone. His metaphor is quite clear: "Yes, for the furrows of others can be ploughed (565-570)." Guided by what is good for the polis, Creon (notwithstanding Haemon's love for his fiancée) sentences Antigone to be buried alive.

Pursuing what he believes is reasonable and what should save the city from destruction, Creon becomes one of the actors who gradually bring chaos and madness to the group (*polis*). Violating the burial rite and condemning Antigone to go down to Hades alive, Creon's law perverts the entire cosmic order.

Polynices' mutilated body becomes a source of pollution for the city. Birds bring pieces of flesh of the son of Oedipus' son to sacrificial altars, warns Tiresias. He says to Creon:

And the gods are no longer accepting the prayers that accompany sacrifice or the flame that consumes the thigh bones, and the cries creamed out by the birds no longer give me signs. . . for they have eaten fat compounded with a dead man's blood. (1020 – 1025)

Creon maintains that he knows the will and laws of the gods. He angrily counters Tiresias:

... even if Zeus's eagles should snatch the body and bear the carrion up to their master's throne. Not even then shall I take frights at this pollution, and allow him to be buried; for I well know that no mortals have power to pollute the gods. (1040 – 1045)

Segal (1999) points out that in so doing Creon violates two ritual acts – the burial ritual and the ritual of sacrifice – which set boundaries between gods, humans and animals. Instead of the smoke of a burnt animal, which mediates between men and gods, there is the foul smell of Polynices' dead body rising to the sky. Even more flagrant is the desecration of Zeus' eagle. The Zeus' eagle, the guardian of the hierarchy separating beasts, men and gods, is turned into a bird of prey (Segal, 1999).

As a consequence of Creon's decision, Polynices' dead body is left unburied and Antigone descends alive into a tomb. Tiresias predicts that a terrible fate will befall Creon because of that:

... blasphemously lodging a living person in a tomb, and you have kept here something belonging to the gods below, a corpse deprived, unburied, unholy. Neither you nor the gods above have any part in this, but you have inflicted it upon them, On account of this there lie in wait for you the doers of outrage who in the end destroy, the Erinyes of Hades and the gods, so that you will be caught up in these same evils. (1065-1080)

Frightened by Tiresias' prophecy, Creon for the first time begins to reconsider his own decision. Deciding to bury Polynices first and then to set Antigone free, he continues to bring ruin on himself and his family.

Antigone's tragic problem is that she (believing to follow what has been imposed by the gods) defies the laws of the city. She denies the value of Creon's law. Creon's law is the law created by a mortal and cannot compare with the eternal, divine, unwritten law of the chthonian gods.

In putting blood ties before the interests of the polis she is guided solely by her duty towards her family. For her, Polynices is not an enemy of the city. He is, above all, her brother, and it is her obligation (according to the very chthonian laws governing family relations) to bury him. Creon's (*political*, in the original sense of the word) imperative does not have the right to separate her from her family member. Countering Ismene, who warns her that it is not reasonable to defy Creon's decision, Antigone says that pleasing the dead is more important to her than pleasing the living:

Do you be the kind of person you have decided to be, but I shall bury him! It is honourable for me to this and die. I am his own, and I shall lie with him who is my own, having committed a crime that is holy, for there will be a longer span for me to please those below than there will be to please those here... (70-75)

Antigone considers her decision prudent and the only possible decision. If Creon thinks her actions were foolish, she will bear the charge of folly by a fool (465-470). By burying Polynices, she will attain a *beautiful death*.⁷ Antigone is in fact between two deaths: she is (symbolically) already dead, her soul had migrated long time ago, she serves the dead.

Antigone not only refuses to submit to Creon's imperative, she also violates the laws of the polis which she, being a woman, is supposed to obey. When Antigone says that she was born to love, not to hate, she primarily refers to her devotion to family. Possessed by Eros, by her love for her dead brother, she rejects her feminine *eros* of procreation and her familial duty of continuing the line of the Labdacids. She not only renounces a husband and children, but also her other living kinsmen – Creon and Ismene. Marta Nussbaum notes: "Neither Creon nor Antigone, then, is a loving or passionate

⁷In Athens, *kalosthanatos* (beautiful death) referred principally to the honourable death of a warrior. Athenian women could not be bestowed with such an honour. Cecilia Sjöholm (2004) thinks that Antigone, aspiring to an honourable death, subverts the order of the polis. Burkert's (1985, 2001) interpretation of the origins of Greek tragedy points us in a different direction, i.e. to the elements of sacrificial ritual in Greek drama.

being in anything like a usual sense. Not one of the gods, not one human being escaped the power of eros, says the Chorus. Creon sees loved persons as functions of the civic good For Antigone, they are either dead, fellow servants of the dead, or objects of complete indifference“ (Nussbaum, 2011, p. 65).

Tightly holding on to her *philia*, Antigone determines her own tragic destiny and becomes one of the actors who transgress the cosmic order. Walking to her tomb, Antigone regrets what she, because of the laws of the chthonian gods, rejected. She bemoans the fact that she will die young and marry Acheron. Antigone, who claimed to be only in love with death, now regrets having to die unwedded, without nuptials and nuptial songs. Comparing herself to Niobe, she realizes that she is destined to die a most horrible death:

Ah, unhappy one, living neither among mortals nor as a shade among the shades, neither with the living nor with the dead.(850)

Despite her tragic insight, *she believes that in the eyes of the wise she did well to honour her brother*. She would never have transgressed the laws of the polis for her child or husband. If her husband had died, she could have had another. But with her parents in Hades, she could never have another brother (910 – 915).

Thus Creon and Antigone, pursuing what they believed was given by the gods, determine their tragic fate and the fate of their kin. Haemon, once a reasonable son and good citizen, yet politically undecided, ends up bewildered. After an unsuccessful attempt to kill his father, he takes his own life in Antigone’s tomb. Breathing his last breath, he falls over his fiancée:

He lay, a corpse holding a corpse, having achieved his marriage rites, poor fellow, in the house of Hades (1235- 1240)

The tomb scene becomes a scene of perverted bridal chamber, with Haemon lying on top of the dead Antigone. Instead of making Antigone pregnant with his semen, Haemon sends out from his mouth a stream of bloody drops on her cheek (Segal 1999, Oudemans, Lardinois 1987).

On hearing of Haemon’s death, Eurydice kills herself. Holding himself responsible for the death of his son and wife and referring to himself as *nothing*, Creon leaves the city.

Greek tragedy, according to Vernant and Vidal-Naquet (1993), can only be fully understood if account is taken of the context of the overall social and mental conditions that prompted the appearance of the tragic consciousness. The way how tragedy assimilates elements of social life should also be taken into account.

Although the language of tragic writers abounds in technical, legal vocabulary, this vocabulary is used differently from the way it is used in a court of justice. In tragedy, legal terms have a different function and are primarily used, by confronting various norms, to examine man as a *formidable/terrible* being. Man is both an agent and an object of unknown forces taking action over him; so the tragedy explores his responsibility and his place within the social and divine world, a world fraught with contradictions in which a clear divine imperative does not exist. It is a world “in which no rule appears definitively established; one god fights against another, one law against another and in which, even in the course of the play’s action, justice itself shifts, twists, and is transformed into its contrary (*Ibid*, p. 29).“

Greek religion has not undergone a dogmatic revolution, and, even though the Olympian gods took primacy over other gods, worshiping the old gods was not doctrinally forbidden. These two forms of religion were (potentially) mutually exclusive because the old religion had put family before the state, whereas the Olympian gods demanded that humans conform to the laws of the polis.

In Aeschylus’ *Oresteia*, a balance is established between justice of new and old gods. When founding the Areopagus, Athena leaves room in it for Erinyes, believing that the fear they cause may preclude murders and violence. Sophocles does not share Aeschylus’ optimism. The existence of two forms of religion which, in Antigone’s and Creon’s view, exclude each other, and when clash with each other, cause tragic fate for individuals and disorganization of the group (polis).

Vernant and Vidal-Noquet find it significant that the only deities referred to by the chorus in *Antigone* are Dionysus and Eros, who are both foreign to politics. The authors go on to say that the two deities condemn the pseudo religion of Creon, the head of the polis. "But the two deities also turn against Antigone, enclosed within her family *philia* and of her own free will sworn to Hades, for even through their link with death, Dionysus and Eros express the powers of life and renewal. Antigone has been deaf to the call to detach herself from 'her kin' and from family *philia* in order to embrace another *philia*, to accept Eros and, in her union with a stranger, to become in her own turn a transmitter of life" (Vernant, 1993, p. 39).

In his theory of group psychodynamics, Bion (1983) established a dichotomy between *work group* and *basic assumption group*. The work group operates at the level of secondary thought processes. Members of the work group, who are characterized by rationality and ability to observe the rules, choose as their leader an individual who will most efficiently execute the task assigned to the group.

Basic assumption groups (pairing group, fight-flight group, dependent group) are characterized by predominance of psychotic defence mechanisms, splitting and projective identification. The groups functioning at the level of basic assumptions chose as their leaders those individuals that have the highest valency with respect to the specific pathology of the group (Bion, 1983).

If we were to examine the acts and the way of thinking of Antigone and Creon in the context of Bion's theory, we would see that the two of them, as representatives of two symbolic orders, operate at the level of secondary thought processes. What Bion's theory fails to explain is the fact that their *consistent* acting in conformity with the laws of the gods generates madness of the group (polis). Sophocles' *Antigone* would therefore be potentially enriching for the Kleinian theory of group psychodynamics.

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Rezime

U ovom tekstu će biti analiziran (unutar konteksta savremene psihoanalize) odnos između individue i grupe (*polis*). Analiza ove dobro poznate antičke drame će ukazati na ključne strukturalne determinante esencijalne za razumevanje tenzije između individue i grupe (*polis*). Konflikt između različitih poredaka zakona koje reprezentuju Kreont i Antigona (građanskog zakona i matrijarhalnog zakona) će biti razmatran unutar konteksta psihoanalitičkih teorija. Kreont je predstavnik *novog zakona*, zakona simboličke regulative *polis*. U tom kontekstu, (ono što bismo danas nazvali) *zdravim umom je um u potpunosti posvećen građanskoj sigurnosti i blagostanju*. Kreont, za razliku od Antigone, insistira na zameni srodničkih veza vezama

gradanskog prijateljstva i odgovornosti. Mogući konflikt između grada i porodice (između starih bogova i novih bogova) ne može da nastane ukoliko grad (*polis*) transcendiraju bilo čiju simbolički akcidentnu porodicu. Ukoliko je naša jedina porodica *polis*, Polink (Antigonin mrtav brat) nije Kreontov rođak, već njegov neprijatelj.

Ključne reči: *individua, zakon, polis, Bion, psihoanalitička teorija grupe*

MENTAL HEALTH – BETWEEN PSYCHOLOGICAL THEORIES AND PRACTICES

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RESILIENCE AS A RESPONSE TO STRESSFUL LIFE EVENTS: PERSONALITY TRAITS OF RESILIENT PEOPLE

Abstract

Although the systematic scientific study of resilience is relatively new, awareness of resilience is very old. Throughout the centuries, in many cultures of the world, there have been stories and legends of people who overcome obstacles in life in order to reach success and about heroes and heroines who overcome difficulties and become winners at the end. Attempts to understand the correlation between human suffering, despair and resilience are encountered in almost all religions, and are motivated by spiritual search for 'God' as a response to suffering experience which inevitably happens in life. The most general definition of resilience is that it is a manifested competence in regard to important challenges for adaptation and development. The majority of researchers agree that in order to discuss resilience there must be something such as stress, life difficulty in the life of an individual to which stress corresponds so that it retains its good functioning. This paper deals with the importance of resilience which becomes popular in the recent history of psychology. The first part is dedicated to the historical development of this important area, including defining the term resilience. The second part is dedicated to the resilient people traits, and those are: good health and even-temperedness, attachment and basic trust, competence regarding relations with others, emotional competence, cognitive competence, ability and capacity to contribute to the wellbeing of others, sense and faith. All these features are described through the prism of the newest research about resilience.

Key terms: *resilience, personality traits, stress, individual resilience, resilient people*

The term resilience

Although the systematic scientific study of resilience is relatively new, awareness of resilience is very old. Throughout the centuries, in many cultures of the world, there have been stories and legends of people who overcome obstacles in life in order to reach success and about heroes and heroines who overcome difficulties and become winners at the end.

Attempts to understand the correlation between human suffering, despair and resilience are encountered in almost all religions, and are motivated by a spiritual search for 'God' as a response to suffering experience which inevitably happens in life. For example, Buddha considered life to be suffering and he saw the solution in the Noble Eightfold Path. For Jesus Christ, people could suppress pain, isolation, betrayal and desolation only with love.

A transition from sermonizing and religious treatment of resilience towards scientific treatment was firstly introduced by Garmezy and his colleagues (Garmezy, 1987). In order to determine the mental disorders development risk, they examined children of schizophrenic parents and found out that this risk was high among them. But what impressed them, was the fact that 90% of these children remained healthy despite that risk and they showed a relatively high competence level: good relations with children of the same age, success at school, dedication to achieving their goals. Since these researchers were interested in revealing the factors that protected those children, they started a research that led to the appearance of a new area: **resilience**.

Garmezy and his colleagues conducted a research on children who lived in extremely difficult conditions, such as poverty, family violence and other stressful issues, and they came to the conclusion that these children developed without obstacles. Garmezy, Rutter, Werner and Antony gave their contribution to the study of resilience and to revealing the importance of understanding resilience which occurs naturally.

As a result of a pioneer research of Garmezy and his colleagues, the interest in this area increased and many researchers from all around the world have been intensively examining resilience for the last thirty years in order to identify the group of children with a relatively high risk and to observe their development.

Analyzing the factors that protect mental health under difficult living conditions contributed to the development of 'positive psychology' which is concerned with the positive side of human nature, as well as the development of intervention programs which aim to achieve better results among those children under risk.

The plasticity concept is the basis of the resilience model, according to which real psychological alterations are possible only if the living conditions are changed.

The term 'resilience' is used in French and Spanish, in the engineering, referring to the material capacity to return to its previous shape after it has been previously deformed under pressure. In English, this term is used to describe people qualities analogous to those in engineering.

The continuous possibility of change is supported by the newest research made by neuroscientists, according to which the brain changes constantly as a result of our experiences, either through new connections between the neurons, or through new neurons formation (Zohar & Maršal, 2000).

However, in order to accept the plasticity concept, we need to reject what Rockwell (1998, as cited in Davis, 1999) calls myths which prevent resilience stimulation and which cause pessimistic behavior among humans.

Those are: *Self-determination myth*, according to which the child can not escape and avoid the cycles of violence, poverty, or bad luck which are part of everyday life of his/her parents, members of the family or community. Many resilience cases show the opposite.

Irreparable harm myth, which refers to the belief that children under risk usually grow up to become adults with issues children's and youngsters' potentials are not static phenomena, they can be impaired if someone makes decisions about their lives too early.

The Identity myth warns that we should not label and abandon children 'under risk', but 'constantly (to) reveal their talents that define their strength'... As one survivor said: 'Abuse is what happened to me, but it is not me' (Rockwell, 1998, as cited in Davis, 1999)

It is important to mention, that, under certain, adequately influenced conditions, all people have the capacity of positive change and the capacity to develop at least few resilience traits during their life.

The resilience concept can redefine health as an ideal condition with no problems and disadvantages and it suggests that health is the capacity to solve problems and to find constructive ways to deal with a problem.

Generally speaking, resilience is composed of two components:

1) The potential to be resistant helps the person/family to protect their integrity under difficult living conditions;

2) The ability of positive construction (to manage one's life under hard conditions). This means that hard times in life do not mark the person (family) for their entire life; in other words, there is always a possibility to break the chain of difficulties.

Typical for this theoretical model is the fact that it does not focus on weaknesses and deficits, but on the health of the individual/ family and on how they can use it to develop themselves (the family).

In the studies concerning resilience, there is no absolute agreement on the definition of this term. In the beginning of the research in this field, the terms such as 'invulnerable' and 'invincible' were used in order to explain the individual resistance to life problems. These terms would be suitable if we were referring to 'resistance to absolute difficulties'.

Rutter considers that no one of us is completely resistant, but there are levels of resistance. Based on this, some individuals are more resistant than others, although all of them have certain limitations. The terms 'invulnerable' and 'invincible' suggest that these traits match all risk factors, a situation which is biologically impossible (Rutter, 1987).

Taken as that, this concept thus refers to the innate trait of the individual, a fact that is also incorrect because the results of the research show that resilience develops in a social context.

Moreover, this term connotes that it is about unalterable traits. This fact does not correspond to reality, as well, because developmental changes influence resilience and all other traits.

The danger of such understanding of resilience, which is based on the myth of the invulnerability of the 'super child', i.e. 'the super man', means the equalization of human vulnerability with weakness and invulnerability with strength. Felsmant and Vaillant consider the term invulnerability to be an antithesis of human condition. This type of understanding may induce us to evaluate those individuals who are not resilient, in other words, those who are not adaptable when living conditions are difficult (Felsmant & Vaillant 1987, as cited in Davis, 1999).

The term resilience refers to the phenomenon of suppressing stress and difficulties. This means that there is a relatively good outcome, despite the fact that the individual finds themselves in a situation that brings high risk of psychopathology. The focus is on relative resistance of the psychosocial risk. 'It does not mean that resilient behavior allows the individual to solve all problems in life, but it means that, when dealing with unusual situations, highly resilient people do it better than lowly resilient people, and they (highly resilient people), in cases when the situation can not be solved, are capable of living their life in a more competent manner and with less pain' (Antonovski, 1987).

Masten and Coatsworth (1998) propose a more general definition of resilience, defining it as a manifested competence in a context of important challenges for adaptation and development. They emphasize that we can speak about resilience when:

- 1) There is a significant threat for the individual, which is usually a high exposure to problems and trauma;
- 2) The quality of adaptation or development is good, which means that the individual behaves properly.

Luthar and Zigler (1991) mention that the term resilience is used for a construct containing manifested success in accomplishing important developmental tasks, despite the stressful situations and the possible surrendering to the emotional stress.

Luthar (1991) discovered that adolescents who experience stress, but who are highly competent at social level, manifest a higher level of depression, anxiety and self-criticism, compared to competent adolescents who manifest a lower stress level. As a reaction to this behavioral understanding of resilience, Valliant (1993) poses a question: Does resilience only mean survival when we are faced with vulnerability and multiple factors of risk, or should we think about resilience only when it causes happiness? Is it enough for the patient to survive the surgery, or an orphan to survive in a concentration camp, or both of them should smile and be happy?

Some authors are worried about the definitions that only emphasize behavioral success and that sometimes call depression and anxiety 'price of the resilience'. Although, "behavioral deviations and studying problems have more consequences than suffering", the author emphasizes that internal difficulties and depression appear in girls during puberty, a factor that can also cause interpersonal difficulties, mostly in marriage and during the process of child-rearing "We consider that we need to talk about resilience regarding internal and external difficulties" (Wolf, 1995, as cited in Davis 1999).

Foster (1997) makes a difference between coping, adaptation and resilience. He sees coping as a complex response to stressful or challenging situation, which is defensive. Adaptation is a wider concept that starts from defensive or protective responses to those trying to improve the environmental factors. He connects resilience to "positive changes in maintaining active or latent prevalence and adaptational capacities throughout different mechanisms (such as recovering, generating, improving, etc.) that may not instantly be obvious, but will become obvious later. It is necessary to the time in which resilience is being measured, because resilience changes as time and circumstances change" (Foster, 1997).

In his influential article, Rutter insists that resilience should not be considered as a functional attribute of the individual... If circumstances are changing, resilience changes too (Rutter, 1987).

Rutter's followers emphasize the dynamic quality of resilience, but they do not answer questions regarding mental hygiene.

Dyer and McGuinness, for example, regard resilience as a global concept influenced by protective factors that enable people to recover from hard situations and to continue with their life. They define protective factors as "specific competences that are necessary for the occurrence of the

resilience process, while ‘competences’ as healthy skills and possibilities that are available for the individual” (Dyer & McGuinness 1996).

Other authors define resilience too, emphasizing its dynamic character:

Resilience is a universal capacity that enables the individual, group or community to prevent, minimize and suppress the damaging effects of the problems. Resilience can transform or make better resilient people life. Resilient behavior can be response to difficulties referring to maintenance of normal development, despite problems, or promoter of growth above the current functioning level. Resilience may not always appear as a result of difficulties, it can develop as an anticipation of difficulties that can not be avoided (Grothberg, 1995).

“Resilience is defined as a pattern of psychological activities composed of motif – to be strong when we face unusual life situations, to focus on recovery, and to do this with emotions and cognition. It is dynamic phenomenon, influenced by internal personality traits and different external life situations, conditions and possibilities” (Stumpfer, 2001, p. 10).

The construct ego-resiliency was defined by the Blocks (Jack & Jeanne Block, 1980), and it is aiming to provide a more global and operational definition of this approach

Empirically, they deduced five personality types:

1. Ego-resilient – fairly adapted and interpersonally effective;
2. Changeable, out of control – highly impulsive and anti-social;
3. Controlled by vulnerability – too much controlled and not adapted;
4. Adapted too late – not adapted during adolescence, but effectively functional in adulthood;
5. Anomic extrovert – suitably adapted in adolescence, but not adapted in adulthood.

The ego-resilient type is of crucial importance for the research presented in this paper. The Blocks say that this type of person is connected to some different personality traits: activity and connectivity to the world, positive attitudes towards life, trust, autonomy, competence, feeling power in many life domains (areas), carefulness, insight, capacity for maintaining good relations, good interpersonal skills and rank in the company.

It has been found in some studies that the ER (ego-resilience) is connected to secure relationships and personality constancy during time (Klohen, 1996). One study has emphasized that the ER at the age of seven is reflected upon understanding of friendship and moral judgement at the age of nineteen (Hart et al., 1998).

Klohen elaborates the connection between the ER and the general definition of psychological health and flexibility.

Despite the fact that definitions about mental health are not identical, all of them include the following:

1. The ability to be happy and to fight for the sense of orientation towards the goal;
2. The capacity for productive work, sense of competence and knowing how to handle certain situations;
3. Emotional security, self-accommodation, self-actualization, realistic and undistorted image about oneself, the others and the environment;
4. Interpersonal adequacy and capacity for good relationships with others, respect and intimacy.

The following general mental health criteria are similar to the four components of resilience, and those are:

1. Optimism;
2. Autonomy and productivity;
3. Interpersonal insight and warmth;
4. Expression skills (Klohen, 1996).

Klohen believes that general components of ego-resilience that were found in adults are similar to those discovered by Garmezy and Werner in children.

According to Lahad, although the human personality and behavior are more complex than the theoretical attempts to describe them based on dichotomous dimensions, each person develops their own unique coping pattern, which consists of six elements (Lahad, 1992).

Hence, the proposed multi-dimensional resilience model encompasses these six elements, which are the key factors in an individual’s coping style: (a) Beliefs and Values; (b) Affect; (c) Social; (d) Imagination; (e) Cognition; and (f) Physiology.

This model uses the speech analysis by the implementation of specific diagnostic techniques, so it can be observed that the channels of communication are dominant. That is necessary for developing a strategy to help traumatized individuals. The basic assumption is that people react in more than one of these modes, and that everyone is potentially capable of coping in all six modes (Lahad et al., 2012).

Walsh's definition refers to the individual and family resilience: "Resilience is the capacity of the individual and his/her family for living together in a particular environment with adequate functioning and positive development despite difficult life circumstances." Resilience can be stipulated as an interaction of risk factors combined with positive strength (protective factors) that contribute to the result that requires a suitable adaptation (Garmezy & Masten, 1994).

Resilient people traits

We can not speak about protective factors as we can speak about features or individual personality traits. According to Rutter, it is about processes, in other words, about interactions between these variables and these processes and interactions provide protection instead of risk. Taken as it is, resilience must be observed holistically: taking into consideration the motivation, feelings, opinions and behavior – all these are interacting and are mutually dependent. In order to make this paper more clear, a review of resilient people traits will be presented.

Good health and easy temperament

Good health is a sort of protection since an early age, because it is easier to educate healthy children and it is easier for parents to satisfy their needs. However, children who were born with health disorders can also grow up without obstacles, if parents or tutors satisfy their special needs.

Easy temperament is another protective factor, which includes stable mood, adaptability, predictable behavior, low-medium emotional reaction intensity and easy adaptation in new situations. These children are happy because, as Rutter points out in his paper, referring to children with psychotic parents, they are not targets of parental hostility, criticism and agitation, while temperament children develop a tendency of becoming 'scapegoats' (Rutter, 1987).

Longitudinal studies also support the fact that resilient children tend to be more susceptible, more flexible, more active and more adaptable, and to have a positive influence on the people who take care of them (Werner & Smith, 1982).

Attachment and basic trust

Bowlby's paper on attachment emphasises the competence of the relationship between mother and child. Masten and Coatsworth (1998) mention that the system of connection is so basic and universal that lack of behavior connected to attachment usually appears in cases when something is wrong with the organism or environment and it brings high risk of unsuccessful adaptation.

Although in the past studies babies were considered passive part of the system, researchers identified the differences between babies regarding their ability to attract attention of the people who take care of them when they need to regulate their physiological needs or emotional reactions and behavior. If everything is as it is supposed to be, the competent couple will provide the baby with a necessary basis for a safe exploration of the world.

Some researchers have discovered the connection between attachment and resilience: resilient children are children with strong bonds (Fonagy et al., 1994).

Basic trust is the first phase out of eight in the Ericson's theory of social development (Erikson, 1976). As a result of the confidence and intimacy in the relationship with the mother, the baby feels that he/she is accepted and expects that the mother will return. Daily routine, consistency and continuity which are part of the baby's environment are the basis of the socio-psychological identity. Through the continuity of the experiences of adults, children learn how to rely on them, to trust them, and, what is most important, to trust themselves. This type of safety is necessary for the evolution of people.

"In the essence, Ericson speaks about our internal model of ourselves and others which is generated in the beginning, in earliest childhood, throughout our interactions with those who take care of us, but they can be modified during our development and throughout interactions with other people. This means that children develop cognitive and affective feelings towards the way their mother, and

later, their father and other people treat them. Children who are attached or bound safely show emphatic response, while children with the opposite show anxiety, fear or they are too much connected to their parents and are unable to see other people and the world” (Fonagy et al., 1994).

Fonagy and colleagues were interested in revealing whether parents could transfer their internal model to their child. With the help of interviews on the assessment of the importance of binding between adults, they discovered that it was possible to discover the natural relationships that would develop between the parents and the child in the first 18 months of life even before the child was born, based on the quality of attachment with the parents. They found out that parents who showed ‘safe attachment/binding’ were prone to having ‘safely attached/bound children’, while parents who manifested ‘unsafe attachment/binding’ had ‘unsafely attached/bound children’ too.

This group of researchers also wanted to know whether it was the issue of ‘safe binding’ or it was only correlated to resilience processes. They came to the conclusion that every parent transferred their internal model irrespective of the actions of the other, and that the child developed and expressed different sets of mental representations about the expectations of the relationships with those who took care of him/her. They also found out that it was not possible to know how and when these divided internal models combined to determine the general condition of the child in regard to ‘binding relations.’

A division of the internal model in little children allows the formation of safety based on one or more insecure models.

This is what happens with ignored resilient children, and the presence of stable and responsible adults in the life of the child may be a protective factor that can create a secure internal model of relationships and can contribute to resilience of the child facing difficulties (Fonagy et al., 1994).

Fonagy’s group findings about the transfer of the model of abuse of their own children is only 30%, in other words, 30% of parents who used to be abused in childhood transfer this model to their own children. They are interested in those 70% of resilient parents who, despite the fact that they were abused by their parents, do not abuse their children, thanks to the internal model of relationships called reflective- self function.

“Reflective – self function includes the possibility of finding oneself in a position above one’s mental state and consciousness about the mental state of organizations, development and maintaining binding relations. People with a high reflective – self function score possess the ability to think about their and other people’s actions as mental states; they have a coherent mental representation of the psychological world of those who take care of them. This construct is similar to the ‘selfconsciousness’ or to what W. James calls ability to ‘consider ourselves as thinkers’ (Fonagy et al., 1994).

Reflective – self function is especially important for resilience studies because it is a precondition for the development of other resilience elements, including the possibility to see from different perspectives, capacity of planning, creativity and sense of humor. All this points out to a psychological plasticity, in other words, the ability to change the personal internal world.

Other authors analyse the ‘internal model’ in a different way; for example, Volin and Volin, who wrote about seven components of resilience: **insight, independence, relations, initiative, creativity, humour and morality** (Volin & Volin, 1996). Regarding the insight, they believe that the personal internal model and the internal model about others evolve throughout time. Moreover, at an early age, the child is able to feel the life affective quality. As the child develops intellectually and emotionally, he/she starts to search for the answer to the following question: “What is going on?”, and he/she collects further information about what is seen. Throughout time, as understanding becomes insight, the child learns to answer honestly to honest questions and in that way, he/she understands his/her problematic past.

The enthusiasm regarding the attachment theory led to a type of ‘determinism of the baby’, - an attitude according to which the child remains doomed in case there are attachment problems between mother and child at an early age. The above mentioned papers show that the one who takes care of the child is not always the mother or the father, and that problems regarding attachment at early age may be solved under suitable conditions and in adequate circumstances.

Competence in relationship with others

Researchers of resilience have found out that resilient children are highly sociable, in other words, they are able to find support among other people.

Emmy Werner emphasizes the importance of a presence of an adult who is not one of the parents. She has discovered that resilient people very often, without exceptions, despite their family, have some adult person in their life, on whom they can rely: grandmother, older sister, teacher, a trainer, neighbour etc (Werner, 1994).

Garmezy and Neuchterlein also believed that resilient children had at least one adequate adult person who served as an identification model (Garmezy & Neuchterlein, 1972).

Children of divorced parents or children of a low socioeconomic status are less inclined to abandon school if they have grandmother or grandfather who supports them (Robins et al., 1996).

Rutter believes that there are situations when “good relationships outside the family have protective effects similar to those which arise from the family” (Rutter, 1999).

One study, which examined nine adults who grew up with psychotic mothers, showed that they had support outside the family and that they were welcomed and felt secure. They said that these relationships were the main support for them and that they changed their lives and helped them not to become like their mothers (Dunn, 1993, as cited in Davis, 1999).

Speaking about the presence of important adults in the respondents’ lives, the Volins give an interesting explanation. They assume that the presence of these people is not accidental and that these children do not only sit and wait for the adults to approach them. On the contrary, these children create the situation themselves, and those are situations that attract the attention of the adults, who were chosen by the children. In other words, they make the choices that will increase their competence alone. The situation is similar to the choice of a partner. Resilient people usually choose a partner from a stable family, a family resilient people has never had.

Resilient children, despite maintaining relationships with adults, maintain good relationships with the children of the same age, too. Werner concludes that resilient children are not very popular, but they choose few friends with whom they spend time from childhood to seniority (Werner, 1995).

The importance of good relationships with other children is very important for the development of the child: they receive support in other area and they have the possibility and model for prosocial development. This helps children to learn about attitudes, values and skills. Relationships with other children are intensive, different and allow experimenting.

Children of the same age contribute to the development of morality since they have the opportunity to see the rules of the company which are not only dictated by certain authority but are also a product of mutual agreement.

During the interaction process, children learn how to share, how to help and how to show empathy, which is very important for their cognitive and social development. Moreover, children learn how to control their impulses, learn communication skills and learn to develop critical and creative opinions about their friends. Some authors mention that a shortage of these skills is a predictor to delinquency, substance misuse and psychological problems.

Positive relationships with other children are connected to positive attitudes towards school and success at school. (Ladd, 1990; Bukowski & Hoza, 1989, in Davis, 1999).

To sum up, relationships with other children have a powerful influence on the development of children’s identity and autonomy.

Cognitive competence

When we speak about cognitive competence, we usually think of intelligence first, which is over-estimated by the contemporary society. A high IQ is a powerful predictor of an academic success (Pellegrini et al., 1987), and this is connected to having fewer behavioral problems, social competence and successful adaptation overall (Garmezy, 1987). However, many resilient children are not particularly intelligent (Werner, 1995). The truth is that Emotional Intelligence Quotient, EQ, contributes more to success in life than IQ, because a high EQ influences our relationships with others (Goleman, 1995).

According to Werner, the ability to read is an absolutely essential cognitive skill. She says that reading is a skill necessary for survival and developing resilience in a society like ours, which depends on the written word” (Werner, 1995).

The benefit of reading is that it actually deceives the individual about many aspects and develops an approach to different ideas which increases the possibility of considering wider and more complex perspectives.

The capacity for planning is another component of the cognitive competence, and it is practicing the skills of making predictions and facing challenges in the environment.

The ability to solve problems is connected to the capacity for planning. The Volins call this capacity **Initiative**: satisfaction with problems; they define it as affirming oneself and managing the situation. "I use the word initiative to refer to courage, ability to solve problems, optimism and belief in its own control... Initiative is a resilience which is created when survivors take responsibility for their own life and become witnesses with the testimony about their abilities" (Volin & Volin, 1993).

Resilient people focus on the area in their life which can be managed and controlled by them. In adulthood, this initiative becomes the action which leads to self-respect of the resilient individual.

Initiative requires positive expectations from the future and internal control. Volins' initiative includes: security, capacity for solving problems, optimism and faith in self-control. They state that many survivors believe that they can influence the course of their life.

Other researchers have also found that positive expectations of the future are correlated to a better affective regulation, better self introduction and better success at school (Wyman et al., 1993).

Self-efficacy is another component of cognitive competence, according to which we can influence our world the way we like. Then, we are able to influence people and they will obey us, we are also able to receive what we want, to do what we want, to receive love and help when we want, and with all this we provide a basis for safety and self-respect.

Understanding ourselves is a very important component of cognitive competence. Self-understanding dimensions are: adequate cognitive evaluation, realistic evaluation of the consequences of an action, developmental perspective and understanding (Beardslee, 1990).

Formal, operational and abstract opinions are the conditions necessary for the development of resilience among adults.

Emotional competence

Children's capability to regulate their own emotions depends to a great extent on their even-temperedness, as well as on the sensitivity and responsibility of those who take care of them in the early childhood. Although the emotional regulation is generally considered to be with positive quality, Thomson and Calkins notice that it can have positive as well as negative impacts. They mention in their paper about children who live with depressive parents, or who witness family violence or inhibited children that "the effort of the child to manage its emotions can protect it from stress, while at the same time it increases vulnerability about other risks and demands" (Thomson & Calkins 1996).

The ability to delay gratification is an emotional competence connected to multiple adaptive tendencies in early adolescence.

Resilient people usually have a realistic high esteem and self-respect. It has been found that students resistant to stress are more adapted, more competent, more emphatic, more self-respectful, with an internal realistic sense of control and more efficient skills for solving problems and positive strategies for overcoming problems.

It is important to mention that trust and self-respect are products of competence (Werner, 1995). Competence may appear in many areas: school and academic success, success in music, sport, art, specific hobbies and talents. These competences are a source of pride, since they often improve relationships with people of the same age and provide consolation in difficult situations. Trust and self-respect based on competence are powerful motivators; people who believe to be more competent are persistent at work and can be more efficient.

Competence, trust and high self-esteem are preconditions for the development of the feeling of autonomy that enables the person to think and work independently.

Kobasa and associates discover that resilient people possess three general features: 1) the belief that they can control or influence the events; 2) the ability to participate in their life's activities; 3) the ability to see changes as exciting challenge and opportunity of personal growth (Kobasa et al., 1982). Similar to this, Werner emphasizes that the essential feature of resilient people is the belief that difficulties will be overcome and the belief that they can influence their destiny. The internal locus of

control is more expressed among resilient people and they believe with optimism in their ability to create the course of events (Werner, 1995).

A resilience trait that is partially cognitive, partially emotional, useful for others and valuable in the fight against life problems, is **humor** (Masten, 1986, 1989).

A natural sense of humor enables people to smile and not to take themselves seriously. "Humor is a manner to establish relations, to defuse conflict, to handle pain and anxiety and it leads to joy and distraction" (Berg & Bockern, 1995, as cited in Davis, 1999).

Humor is more than joy and more than a protective mechanism, it is a way to integrate reality in life and to transform it into something more positive and bearable. It helps us to identify imperfections, problems and difficulties, and to ignore them with a smile.

Some elements of humor are: **accepting imperfection, accepting failure, changing perspectives, creativity, fantasy** etc.

The Volins emphasize the connection between humor and creativity and they agree with Freud that humor and creativity have the power to spiritually transform reality into imagination.

Practicing art improves resilience because it enables someone to transform themselves from a victim to someone who creates beauty and is proud of it. Art provides an opportunity for expressing the internal anxiety and regulating the confusion. With the help of art, melancholy is transformed into something else. The Volins say: "Resilience is the ability to shape our negative experiences, to make them art and, instead of being victims, to have a positive and proud attitude. During adolescence, many survivors entertain themselves with art, sport or dance, in order to express their internal chaos and to make order out of confusion. Imposing discipline and creativity, in their desperation, resilient people treat their vulnerable personality (Volin & Volin, 1993).

Ability and possibility to contribute to the wellbeing of others

Almost always, researchers agree upon the features of resilience: **self-esteem, morality, ability to have and maintain complex social relations with participation in social or/and economically useful tasks.**

It is clear from the research of resilient youngsters that the existence of an environment that supports and encourages their active participation, solving problems, making decisions, planning, helping others in important activities is very important (Bernard, 1990). These activities promote a healthy psychological, intellectual and social development of the individual.

In his study about resilient adults, Higin concludes that they perceive things more intensively and are able to find a hidden sense of life. Very often, they engage in helping others to solve problems, and as a result, they undergo personal growth and development (Higin, 1994). It is interesting that half of Higin's respondents are psychotherapists.

Meaning (sense) and faith

When we have the feeling that it is worth dedicating time and energy to certain demands and problems which we consider challenges and not difficulties, it means that we can see some sense in difficult life experiences. If we find the sense when we are searching for it, even in difficult and undesirable situations, then this search is an adaptive process which reduces stress.

The sense is a central concept in the stress theory (Lazarus & Folkman, 1984). After a certain stressful event, individuals interpret the conditions and it is this interpretation that determines the result.

In this general context, Zohar and Marshall (2000) introduce the concept 'spiritual intelligence', i.e. the intelligence that helps us to solve the problem of meaning and values and it helps us to analyse our actions in a wider context. They discuss numerous studies in the area of neurology, psychology, anthropology, as well as reviews about oriental religions, in support of this concept.

Experiencing the sense can be described as understanding that in life there is some good, despite bad experiences, i.e. it gives us positive feelings of orientation, clarity and consistency in our life.

Viktor Frankl, a psychologist and founder of the logotherapy, disagrees with the 'pan-determinism' of psychoanalysis, and thinks that what happens to an individual is not conditioned and designated, but that those events designate themselves alone. People always decide regarding their existence and what they will accomplish in future (Frankl, 1981).

Frankl believes that the need for sense is not connected to other needs and that it maintains people in life in the situations when basic life needs are not satisfied, for example, in concentration camps. One person who used to be in a concentration camp stated that in the camp, "...biggest chances of survival had those who were directed towards the future, towards some task or a person who waited for them somewhere" (Franklin, 1981). Consciousness about unconditional sense of life may arise from a state of unimaginable suffering.

According to him, a desire for sense is not only a reflection of people's humanity, but an indicator of mental health, too.

Emmy Werners' resilient children had faith in something more powerful than them, and those who managed to use this faith and to overcome difficulties were those who found sense in their life, even throughout suffering and pain.

Although having faith does not always mean being part of some religious group, Werner finds out that stable church communities offer stability even to the people with severe mental disorders. "The church gives these people the sensation that they are themselves...the sensation that they are part of the community...and the sensation of a mission" (Werner, 1995).

The Volins describe these resilience components as "Morality: holiness in an unholy world... Earliest indicator of morality is when a child is hurt and wants to know why, and it starts to make a difference between good and bad in the situation that happened. When the sense of morality develops among adolescents, then the assessment becomes a principle of evaluation such as decency, compassion and honesty. Resilient people defend unprotected people, are dedicated to their goals, they try to establish discipline in the family and, in that manner, by reacting to other people's suffering, they become stronger. Among adult survivors, morality becomes obligation more than personal recovery. By serving others and dedicating time and energy to institutions, resilient survivors connect their personality to other people" (Volin & Volin, 1993).

Conclusion

In this paper, we review the development and definitions of the term resilience as a capability of solving problems successfully and recovering from stress and loss relatively quickly. We also review different papers that emphasize the crucial traits of resilient people. The resilience concept opposes the determinist view in psychology, according to which identity is connected to the circumstances in which the individual is exposed. According to this view, stressful events always reveal the individual's identity, leaving permanent consequences, which leads to labeling people who have experienced stressful events. If the child experiences a stressful event, such as divorce or death of some of the parents, maltreatment, etc, it does not mean that it will determine the identity of the child forever. Divorce, death of the parents, maltreatment is what has happened to us, but that is not us, that is not our identity. Under certain circumstances, all people have the capacity for positive changes and the capacity for developing at least some resilience traits during their life. Accepting the view, according to which the identity is changeable and amenable, we accept the view that resilience helps individuals and families to recover after stressful life events. The term resilience is a term in positive psychology that has a positive influence on human nature and which has the power to heal human beings.

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Rezime

Iako su sistematska istraživanja rezilijentnosti novijeg datuma, svest o rezilijentnosti postoji odavno. Tokom stoleća, u mnogim kulturama su postojale priče i legende o ljudima koji su prevazilazili prepreke u životu kako bi ostvarili neki uspeh i o herojima i heroinama koji su prevazilazili teškoće i na kraju postali pobednici. Pokušaji da se razumeju veze između ljudske patnje, beznađa i rezilijentnosti ugrađeni su u gotove sve religije i motivisani su spiritualnim traganjem za Bogom, kao odgovor na iskustvo patnje koje se neizbežno događa u životu. Najopštija definicija rezilijentnosti je da se ona manifestuje kao kompetentnost za adaptaciju i razvoj u situacijama važnih izazova. Većina istraživača je saglasna da kada govorimo o rezilijentnosti, govorimo o nečemu poput stresa i životnih teškoća u vezi sa kojima pojedinac doživljava stress, ali tako da očuva svoje dobro funkcionisanje. Ovaj rad se bavi značajem rezilijentnosti koja u poslednje vreme postaje popularan concept u psihologiji. Prvi deo je posvećen istorijskom razvoju ove važne oblasti, uključujući i definisanje pojma rezilijentnosti. Drugi deo je posvećen osobinama rezilijentnih osoba, kao što su: dobro zdravlje, atačment i bazično poverenje, interpersonalna, emocionalna i kognitivna kompetentnost, sposobnost i kapacitet da se doprinese dobrobiti drugih, razum i vera. Sva ova svojstva opisana su kroz prizmu novijih istraživanja rezilijentnosti.

Ključni pojmovi: rezilijentnost, osobine ličnosti, stres, individualna rezilijentnost, rezilijentne osobe

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STAGES OF UNCONSCIOUS AND CONSCIOUS FEELINGS CHANNELING IN RADIX: DEVELOPMENTAL COURSE FROM "LITTLE" TO AUTHENTIC MAN

Abstract

Theoretical understandings of Radix education about feelings and purpose are founded on a wider comprehension of human nature which is not very different from the basic premises of Maslow and other humanistic psychologists. The first developmental level and the first stage of motivation imply an instinctive biological reaction - directly from the feelings and natural drives, characteristic of the animal kind. What follows is developing the new motivational system arising from thought and will, characteristic of the human kind. On account of the need to adapt to a group, a man develops a new motivational system implying building an armor in Reichian sense. The process of armoring, as a crucial process of sustaining control of the life processes in people, is unconscious. A person's ability to think, plan, anticipate, delay, and control is a mechanism by which the free flow of the life energy, or life force, becomes discontinuous, compartmented by a willing musculature. By channeling one's liveliness one becomes a respondent, trapped by imposed exterior demands and one's own unacknowledged feelings. Radix work on releasing the life force goes along with the process of removing muscular blocks and releasing suppressed feelings. This painful, yet healing process, opens and deepens the human capacity for experiencing their feelings. At the same time, education of purpose takes place: the person learns to set new life goals, to analyze and make their own choices of new life values that will be more attuned with their personal nature. Actually, a meta-motivational system develops. The conditions for living on a higher level of humanity are being created. The conscious channeling is qualitatively a new subtle form of "blocking" in which the person does not deny their feelings and life processes to serve the community. They do so in service of the self (as well as higher self) and what they understand as the long term directions of their own life. It is the nature of the new process of channeling, the way of developing autonomy and authenticity.

Key words: *radix, blocking, channeling, meta-motivation, authenticity*

"There are all sorts of ways to slice and dice development, and therefore there are all sorts of stage conceptions. All of them can be useful... Which is right? All of them; it just depends on what you want to keep track of in growth and development".

Ken Wilber (2007, p 32)

Reich's character types

Radix body psychotherapy approach was built on foundations of Reich's learning on life energy (cosmic orgone energy) and ways of blocking and distorting it through a muscular armor. The concept of the muscular armor is significant for understanding the functional unity of psyche and body and it enables us to comprehend the roots of psychological and medical issues of individuals, as well as the causes of numerous socially pathological phenomena. Based on the studies of the muscular and character armor, Reich has developed an understanding of two general character types: neurotic - armored character, and genital - unarmored character. Understanding the structure of neurotic character is basically founded on Freud's typology of phases of psychosexual development. Reich enriched this typology with findings related to the bond between psyche and soma and their synchronized functioning (Klisić, 2004).

An essential understanding of human nature and problems is not possible without the concept of life energy, which Reich named orgone. The orgone energy functions in the human organism and everything that surrounds it. Social repressive mechanisms, acting through (authoritative) family

patterns, lead to muscular contractions which consequently bring changes in breathing and blocking the natural energy flow through the body plasma that would otherwise be experienced as a feeling. Undesirable feelings and behaviors are blocked and unconscious conflicts resume smoldering inside the individual through psychological and somatic manifestations.

A process of body segmentation is at the basis of the muscular armor. The powerful human energy system becomes divided into cross section rings which are in the right angle in relation to the spine. Reich separates the seven segments which are functionally connected in blocking certain emotional expressions: ocular, oral, cervical, thoracic (appertaining arms and hands), diaphragm, abdominal, and pelvis (appertaining legs and feet). Once it is formed, the armor acts automatically, the individual is not fully aware of it, it is not experienced as something unnatural. However, the person faces its consequences: apathy, depression, anxiety, and the whole strain of medical problems. The armored neurotic type is unable to feel more deeply because the natural mobility of their body is damaged: "body expresses restraint" (Reich, 1982. p. 311).

The orgone therapy eliminates the armor and reestablishes the natural body movement, i.e. the ability of full pulsation. An orgasm reflex appears as an expression of a person's involuntary posture of "letting go". Eliminating the armor leads to the individual's ability to express themselves biologically. A special moral structure and a self-regulatory processes also develop which follow the basic natural laws of enjoying love and work.

So, the orgone therapy is one way to achieve the desired ideal of a healthy person. Reich organized pro bono consultancies where he provided sexual education to people. He also believed that the key to healthy development lay in altered social relationships because the process of armoring is the direct result of unhealthy social and cultural processes. In his later years, he believed that perhaps the child raising system would be the best way to cultivate healthy genital types.

Although we can consider this character type as a "myth" or some sort of unachievable ideal (Kelley, 2004), the concept of the genital character has a great theoretical significance. It depicts the individual's natural pulsating ability, their potential to experience pleasure, to surrender to involuntary body movements, and to pulsate in the same rhythm with another organism (in an orgasm) and with the entire cosmos (cosmic superimposition). These human potentials are opposed to armored, morose, hypocritical little man (Reich, 1997) who organizes his life by suppressing spontaneity and liveliness in himself and others and with that general attitude towards life he participates in creating and maintaining the social relationships and productive forces that will just as well suffocate the lives of new generations.

Basic radix concepts

Reich's learning was being developed through numerous body psychotherapy schools. Radix, founded by Reich's student Charles Kelley, is one of these schools. If we are to follow the consecutive line of ideas of the life force, its causes, its blocking mechanisms, and stages of development of a human and humanity, we need to clarify the original basic concepts the radix learning was based on.

Radix or life force is a natural creative process, as well as a natural substrata, where all nature comes from. It flows through the human body plasma and converts into feeling and action, and by doing so it represents the bridge between an individual's subjective and objective manifestations, between the feeling and the behavior. Radix system *pulsates*. That means that there is an entering flow from the system center towards the periphery, and an exit flow from the periphery towards the system center, which is rhythmically displayed. The most important pulsation in radix work is the breathing pulsation: with inhaling radix enters, it is absorbed from the environment, and with exhaling it is used and discharged. When we pulsate in the entering phase (instroke), a *charge* develops. In the exiting phase (outstroke), radix *discharges*. Charging is a process during which we build radix, we create the capacity for discharging. Charging happens slowly, while discharging is fast. In the instroke of pulsation, our awareness is reduced, while the outstroke is characterized by awareness, growth, action.

Radix *blocking* is a concept developed from Reich's concept of the muscle armor. These are seemingly congenial concepts, although, as we shall later find out, blocking is a lot more complex and we can use it as a concept of channeling the life force. Chronic muscular tensions represent an obstacle in the flow of the life force which can be experienced in the discharge process as a feeling. Blocking or muscular armor is not a static objective barrier, but the constant activity aiming to block,

or prevent, feelings (Kelley, according to Klisić, 2004). The basic activity of the armor or blocking is a counter-pulsating activity that has the same course of pulsation as the center but in the opposite direction. This concept clearly depicts the basic blocking activity: as the body pulsation deepens and develops a bigger charge, a 'threat' to discharging exists; blocking activates, that is, counter-pulsating activities stand in the way of the emotional discharge.

Purpose development stages

Within the development of the individual and the human civilization we can differentiate three general stages of motivation: an individual as a "victim" of their feelings, an individual as a "victim" of their armor/blocking, and an individual with conscious choices. The last two stages basically represent the processes of channeling the life force: unconscious and, a more developed form, conscious radix channeling.

Very young children are freely opened pulsating beings. They are completely reactive to vegetative bodily processes. A child has no option but to experience and express its emotions. That is the reason why we say that a child is the "victim" of its feelings. This is the stage which we share with animals. Only humans have succeeded in overcoming this system of experiencing and reacting.

Armored "little" and blocked purposeful man

The usual educational models encourage emotions not to be expressed, to be suppressed, to actually block the life force in the body. In the beginning, a child needs a lot of effort to handle the feelings, especially the strong ones which are basically strong energy streams (anger, pain, fear). The child implements the blocking with a lot of engagement, the contractions are global and undifferentiated. In time, when the road is "ploughed" for the main blocking of the strong feelings, the very process of blocking becomes more selective, the breathing comes in tune with counter-pulsating emotional blocks. The process of blocking is actually a process of channeling: the life force is barricaded at some places, and allowed to flow at other. Muscular tensions form an armor with which an individual "protects" themselves from undesirable feelings. Accordingly, the individual develops a certain pattern of life functioning, of experiencing the world, and of behaviors that function automatically. The armored shield is out of reach of conscious functioning. Even if a person wanted to experience emotions, they would not be able to anymore. That is why we say that the individual becomes the "victim" of their armor and blocking.

How and why do we block our feelings?

Reich explained that the armor is a mechanism of the emotional repression (Reich, 1982,1988). Many social and individual pathological occurrences develop out of chronically numb, tightened bodies which use the armor to defend themselves from their own liveliness. He did not discover why the armor comes to existence, because of his persistent quest for 'divinity' - the unarmored man - the genital character (Kelley, 2004).

Kelley was impressed by many individuals who, although being armored, made great literary and scientific contributions. The armor undoubtedly has many negative effects, but also apparently a great significance because it remains in each new generation. If it had been just something destructive, the evolution would have eliminated it. The key dilemmas are resolved by Ribot's psychology of attention.

Ribot's descriptions of spontaneous and voluntary attention enabled the clarification of the armor as a purposeful mechanism. The armor is the mechanism of the voluntary attention by which the human being rises above the animal world. The implications of voluntary attention are muscular tension, altered breathing, generally the strain. Ribot's findings were therefore of crucial significance to understand more accurately the complete process of blocking and channeling emotions and forming the armor. Also, it has become clear that the blocking represents a single developed form of motivation characteristic to humans alone, whereas it is widely used in more progressive societies and cultures.

According to Kelley, at a very young age, a child develops a conflict between emotions and thoughts, between spontaneous and voluntary, between the desire to flow spontaneously with the action which is 'here and now' and what the child decides to do with the action which is 'somewhere in the future'. The child slowly learns to direct its voluntary attention by stopping and blocking the

spontaneous impulses. The stronger the impulses, the more blocking they need: holding the breath, rigid neck, clenched teeth... This effort takes place through the second branch of radix by engaging the child's will. The original emotion is opposed by the assessment that it is wrong or embarrassing to be scared, angry, or sad.

The mechanisms of voluntary behavior come from the conflict between the old motivational system which implies an immediate reaction to our needs and the new motivation which demands that the spontaneous impulses "stay out of the way" in the name of future or something we considered and decided to put in practice. This is the manner in which the blocking unfolds as a crucial mechanism of a purposeful, controlled, and planned existence.

The second branch of radix and the new motivational system

From the perspective of life force and our emotional life, the process of blocking and channeling means that the man develops the second branch of radix which is moving towards the inside, it controls and manages the more primitive branch (Kelley, 2004). The original branch of radix is tied to the visceral core and the autonomous nervous system, and the new (second) purposeful branch is tied to the central nervous system and skeletal striated muscles. The new branch, with the muscular tension system, is creating the "wanted" pathway, a channel through which the original radix branch will flow. The new motivational system is founded on the individual's distinctive ability to think, to decide, and to act upon their beliefs and life values.

The imperfection of the new motivational system

Blocking, therefore, represents more than the concept of the armor protecting us from suppressed emotions and, as such, it controls and causes the illness of the individual and the society, and it is also the process of channeling the life force in the way we manage our lives. Blocking radix, although an imperfect product of the evolution and with many side-effects, is a developed form of human functioning and motivation.

It makes no sense to speak of "destroying" the armor, but it needs to be made more evident, more flexible, because without it we would not have any chances of survival. Blocking emotions and forming the armor in our childhood enables us to adjust to the environmental demands. As described earlier, a relatively stable character structure is being built with reduced liveliness and contact with core emotions and desires. The problem is that it remains in the adulthood in spite of altered environmental conditions, and that is why Kelley sees it as an anachronism (Kelley, 2004). Blocking leads our life uncritically along the roads that were made for us. People play the compulsory avoiding game of their lives. Basically, the gift of being able to channel the life force drives us into the masses, the collective, and conformity. Reich also studied this phenomena very devotedly, naming it figuratively "the emotional plague".

Radix education of emotions

Blocking and channeling spontaneous life processes is painful, long lasting, complex, and unconscious. That is why the unblocking must be cautious and carefully considered. Alongside the working on emotions, experiencing the emotions that are blocked (radix education in feeling), there must be the work on building a more subtle and mature form of blocking, i.e. a conscious channeling of the life force (education in purpose). Radix education in feeling and purpose is one complex responsible system of helping people to significantly raise the level of psychological functioning and wellbeing.

In radix education in feeling, two approaches have been developed. One follows the segmental partition of the armor, according to Reich's model. This approach was named *structural* and it implies the process of removing blocks that interfere with the flow of the life force, following the body segments, with addition of eight segments which are "organs" of contact with reality: eyes, hands, and feet. The other approach in radix work is the *functional* approach. This is a brand new approach to working with the life force which emerges from Kelley's understanding that at the basis of strong longitudinal flow of the life force through the body there lie basic emotions of anger-love, fear-trust, pain-pleasure. The one and the same blocking prevents the discharge of emotional polarities. An individual cannot experience love if one has blocked anger, and so on. Based on these understandings, a personality typology has also been developed, founded on a predominantly suppressed emotion, so

the three basic types emerge: anger, fear, and pain blockers. The radix practitioner can use the new original approach to observe, follow, and work with the patterns of blocking a certain radix process alongside the body.

The goal of this work is to release the suppressed emotions which would deepen the capacity of the person so they could experience and express their genuine feelings; emotions are more lively, more focused. One can deepen the contact with oneself and open the capacity to experience the feelings of pleasure, trust, and love.

Radix education in purpose

It has already been stated that the radix system is a very thorough and responsible system of encouraging human growth. Unlike most modalities, besides dealing with awareness and experiencing suppressed emotions, radix also works on developing the conscious blocking and channeling of the life force.

Blocking, as a great achievement of the second stage of purpose development, is imperfect. It implies planning, controlling life, which is imposed by the environment rather than initiated by authentic personal needs. Channeling the life force is important for purposeful living and we cannot deny that achievement.

Kelley states that working with unblocking in radix, without working on the purpose, can lead to a regressive infantile behavior of people. Some may have for the first time experienced deep emotions and the strong desire to enjoy these long suppressed feelings. Individuals may resist to self-discipline, sturdiness, and thinking, all qualities necessary for building a new blocking and abilities of a conscious channeling of emotions.

One of the important goals of working on purpose is developing the ability to think and feel simultaneously (Kelley, 2004). There are many differences between working on emotions and on purpose. We could say that working on emotions is actually working on fullness, expressivity, and deepening the quality of emotional living. Working on purpose means choosing personal goals, principals, and values, objectivity, working ability, life management, and so on. We can perceive it as working on the improvement of cognitive and conative efficiency. This author's impression is that the field of radix work on purpose is widely open for many new creative additions.

It is necessary to have a balanced work between unblocking and efficient building of new models of channeling. What do we gain from a conscious channeling? We increase our freedom and we are capable of making choices: the person has built their capacity to experience and contain emotions, but he/she has the ability to determine whether it is appropriate to express them or not.

Toward autonomy

Radix education has been declared as a humanistic oriented approach with the basic interest in the growth, not healing and removing symptoms. Still, radix education is much more than that: it includes postulates of psychodynamic and humanistic psychology with the main focus on body and bodily life processes.

The well-based work on purpose leads us to autonomy, the more advanced stage of purpose. This means that we have established a deeper contact with ourselves, that we have independently chosen our life values and goals towards which we strive with self-discipline and dedication. We have built a more flexible system of channeling the life force which provides persistency in the completion of life projects, with a preserved ability to react to a certain situation in the biological, open, and emotional manner. It is all about the personal choices.

Just as Maslow has studied a few self-actualized individuals with amazement, so has Kelley observed their great significance and role from his point of view. They are in agreement with the fact that their numbers in general population are very few. Kelly has explained it with current stages of collectivism, i.e. unconscious channeling of the life force. For both authors, these people are the personification of what is achievable in our development. They were purposeful, differently armored, authentic individuals who did not serve primarily to the group. Selfishness implied in the autonomy concept rises from the current conformist and collectivistic perspective. Autonomy, as an evident stage of development, also idealistic for most, in the current stage of mankind's development, has its own price. It is condemned, rejected, and exiled, as history teaches us. Still, their accomplishments have, in time, been accommodated to the groups to be used. Their will power is beyond contestation,

as well as their independent thinking and passion, all traits of such persons. They are the prophets of the third individual stage of purpose that lies before us, states Kelley.

Instead of conclusion: Kelley and Maslow - one beautiful growth mosaic

Maslow has never denied the significance of psychoanalysis as a therapeutic way of providing help to individuals. He is simply occupied with a 'brighter' side of human psyche, our innate potential for growth, for actualizing the self. He believes that this work follows some other principles. Kelley submerges into 'dark' blocked sides of our souls, which he explains. After bringing to light the conflicted side of our united body and soul, we need the education of purposeful living. Maslow names it meta-counseling. Maslow's descriptions of meta-pathology (alienation, anemia, inability for joy, meaninglessness, sense of determination...) (Maslow, 2001) depict the Reich's armored little man, infected by the emotional plague. How to achieve the conscious channeling of the life force? We can find the solution in the already given answer to the question: How do we achieve self-actualization? The answer is a full dedication and commitment to experiencing things (surrendering to the flow of the life force), thinking of life as a process of choice-making (personal goals, purposeful living, conscious channeling of radix), and so on.

Developmental lines clearly extend to transpersonal layers (Wilber, 2002) stated by both authors. Maslow believes that the man's spirituality is biologically given. To Kelley, spiritual dimensions are tied to the concept of centering. Superficially observed, the centering denotes the contact of an individual with their own self. On a deeper level, we can consider the concept of radix as the creative process in nature, substrata where everything comes from. The man's center, the core of one's personality, is the main relay for his connection with radix, with the universal. The contact with the universal is established through the deep contact with oneself, with the experience of emptiness which is full of meaning and sense, as would say the supporters of the ancient eastern learning.

In conclusion, the significant product of experiencing the deep connection with oneself and the universe should be emphasized: the radix sight. It is established by the centering with open eyes, according to Kelley. It is a special centered form of perception in which the old biological core of the self is activated, where the things we see around ourselves are real and familiar, yet strange and mysterious. These are the moments of wonder, admiration, exaltation, similar to those present in peak experiences described by Maslow. They are the experiences of the wave of powerful energy of a different and, yet, more authentic purposeful existence. Our maturity and the stage that our development is going through are also determined by our ability to integrate these experiences into everyday life.

There are two developmental qualities of these experiences: peak and plateau experiences (Maslow, 1970). The former are ecstatic, intense, more emotional; the latter are calm, lasting, cognitive, predominately characteristic of a mature age, more like a gift of self-transcendence, not self-actualization.

Radix educates us that the right pathway to man's unsuspected greatness is through a descent into the dark depths of the individual's unity of body and soul. It is the place where the suffering, because of unfulfilled urges, embodies itself and, like a plague, pulverizes into a social regression and stagnation. Reich's concepts offer a detailed view of the harmful consequences of the process of blocking and channeling the life force, whereas humanistic psychologists focus on enormous developmental possibilities of an individual, contained in great potentials of a mature channeling.

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Rezime

Teorijska shvatanja radiks edukacije o osećanjima i svrsi utemeljena su na širem razumevanju ljudske prirode koje se bitno ne razlikuje od bazičnih stavova Maslova i drugih humanističkih psihologa. Prva razvojna etapa i prvi stadijum motivacije podrazumeva instinktivno biološko reagovanje - direktno iz osećanja i prirodnih impulsa, što je karakteristično za životinjski svet. Sledi razvijanje novog motivacionog sistema koji proizilazi iz misli i volje, karakterističan za čovekovu vrstu. Usled potrebe da se prilagodi grupi, čovek razvija novi motivacioni sistem, koji podrazumeva građenje oklopa u Rajhovom smislu. Proces oklopljavanja, kao suštinski proces održavanja kontrole životnih procesa u ljudima, je nesvestan. Čovekova sposobnost da misli, planira, predviđa, odlaze i kontroliše je mehanizam pomoću koga slobodan tok životne energije, ili sile, biva isprekidan, pregrađen voljnom muskulaturom. Kanalisanjem životnosti postaje respodent, u zamci nametnutih spoljašnjih zahteva i sopstvenih nepriznatih osećanja. Radiks rad na oslobađanju životne sile ide uporedo sa procesom otklanjanja mišićnih blokova i oslobađanjem potisnutih osećanja. Ovaj bolan, ali isceljujući proces otvara i produbljuje čovekov kapacitet da doživi osećanja. Uporedo sa njim, odvija se edukacija o svrsi: osoba uči da postavlja nove životne cijeve, analizira i sama vrši izbor novih životnih vrednosti koje će biti više usklađene sa njenom ličnom prirodom. Zapravo, razvija se metamotivacioni sistem. Stvaraju se uslovi za življenje na višem nivou ljudskosti. Svesno kanisanje je kvalitativno novi, prefinjen oblik "blokiranja" u kome se osoba ne odriče svojih osećanja i životnih procesa da bi služila društvu. Ona to radi u službi selfa, (pa i višeg selfa) i onoga što shvata kao dugoročna usmerenja sopstvenog života. To je priroda novog procesa kanisanja, puta ka razvoju autonomije i autentičnosti.

Ključne reči: *radiks, blokiranje, kanisanje, metamotivacija, autentičnost*

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PERSONAL MEANING OF DREAMS – A BRIDGE BETWEEN HOBSON’S SYNTHESIS OF ACTIVATION THEORY AND FREUD’S PSYCHOANALYTIC THEORY

Abstract

The paper presents a theoretical comparison between two big theories about dreams, Alan Hobson’s neuropsychological theory and Sigmund Freud’s psychoanalytical theory. The authors come to some important conclusions about the middle common grounds between these theories through the practical comprehensions from the prism of the group psychological work on dreams and sleeping. Although they stand as diametrically contrary theories, a great number of phenomena are proven to be overlapping and acting as equivalent psychic processes, only differently defined. Hobson’s theory claims that dreams are only results of cortex’s blind efforts to give some meaning to the information which has “bombed” it and comes from the brain stem. Freud’s theory claims that dreams are manifestations of suppressed desires which appear in the content of the dream through the mechanisms of dream work. From a theoretical aspect, the authors try to find the common grounds through their comprehensions and to show that only psychological phenomena are found in the essence of both theories. They insert their own personal views into the concepts explained by these theories from a synthetic and integrative aspect, trying to show the equivalence and the common basis. This paper displays the results of both traditional researches and theoretical and practical reviews of these concepts.

Keywords: *dreams, sleeping, neuropsychology, psychoanalysis*

Introduction

There are almost no areas in psychology and neuropsychology that could be compared to sleeping as a process and dreams as a product of that process, with respect to their own complexity, heuristic power and attraction. Since the dawn of civilization, mankind has been interested in the origin of these two related psychological occurrences, sleeping as the neuropsychological one, and dreaming as the psychological reality of the whole phenomenon of the so called *dream sleep*.

For a long time, neuropsychologists believed that sleeping was a consequence of fatigue and tiredness, and that our body spent all its energy in the course of our conscious daily activities so that sleeping was the recovery stage, a stage that should refresh our mind and our body, and heal them from everyday life. This so called *Recuperation Theory of Sleep* claimed that sleeping was a blessing that helped us recuperate from the daily exhaustion, and that sleeping was the “master” of the night that repaired the damages of wakefulness. According to this theory, the definition would be “*sleeping is the only uniformed state of physical and psychological activity throughout which the brain is off*”. Another theory, known as the *Circadian Theory of Sleep*, claims that sleeping evolved in order to keep animals inactive during the part of the day when activity is unnecessary in order to survive. This theory describes sleeping as a “strict parent” that demands less activity in order for us to avoid troubles! Today, the Circadian theory is the dominant one, which states that, in everyday life, there is a constant, purely biological change of the states of wakefulness and sleeping according to the biological needs of the organism during one day, affecting the cycles of wakefulness-sleep. These theories were the foundation for the later and shocking (at that time) theory of Alan Hobson and Robert McCarley who established the concepts under which the basis of the dream as a reality was purely and unquestionably neurological and neurocognitive in the late 70s of the 20th century (Hobson & McCarley, 1977).

The emergence of these theories was enabled by certain discoveries. Kleitman and Aserinsky in 1953 and right after that Berger and Oswald in 1962 came to some important discoveries. During their lab experiments, Kleitman and Aserinsky (Aserinsky, Kleitman, 1953; Domhoff, 2000; Plotnik, 2005) discovered that during a specific stage in the sleeping process, the participants' eyes moved fast under their eyelids. Later, they discovered that if they woke up the participants in that stage, they stated that they dreamed and that they were able to recall all the details from the dream. They named this stage simply REM (Rapid Eye Movement). Berger and Oswald (Berger, Oswald, 1962) also discovered that during this stage, known also as *paradoxical sleep*, a number of physical and physiological changes occurred (the activity of the independent nerve system rose, changes in blood pressure, pulse, breathing, sudden movements, limb movement, a certain degree of erection of the penis and clitoris and etc., a certain decrease in the tonus of the neck muscles occurred and the EEG waves had a low amplitude and high frequency). This phase today is known as *the psychological phase in sleeping*, because it is believed that humans dream the most during the REM phase and the highest percentage of the dreams that we remember are those dreamed in this stage. These findings led to some changes of the pure psychological and psychodynamic understanding of sleeping that was known until then, and especially of dreams as the result of the unconscious human psyche.

The content of the dreams and our psychoanalytical understanding of them, though, were dominated by Freud's psychoanalysis and Jung's analytical psychology. Freud's theory (Domhoff, 2000) is by far the most cited and the most used one, stating that the dreams are an unconscious product that stems from our suppressed wishes, impulses and needs, most of them having an aggressive and sexual nature, which are unable to pass through the so called "ego censorship" because of their undesirability, and which, distorted by the stream of the dreaming process, come out as masked, mystified deep messages in the form of narrative visual and audio stories in the so called manifestation of the dream.

The dream is the best way to the unconscious, which enables two processes through mystified symbolism, the processes which seem unrelated at first, the first enabling a manifestation and release of the energy and pictures of the unconscious which have piled up over time, and the second guarding sleeping by bypassing the censor, thus enabling rejuvenation of the body.

The main point of this introduction is to lay the foundations of the already legendary differences between these two seemingly unrelated theories which bring up the dilemma – whether the dream is a psychological or a neuro-psycho-physiological reality. This paper offers us a review of both theories and their stems, their own specific rules, strong points and weaknesses, which, by using a stark opposition, can be used to find the common ground between them, a place where mind and soul meet, where cognition meets emotion, where the conscious meets the unconscious. There are a number of implicit and specific questions that emerge here, the same ambiguities that the magic of dreaming creates every night when we lay our head on the pillow.

Neurocognitive views on dreaming: counterbalance/weight of the psychologism of psychoanalysis

Before the emergence of these theoretical concepts, the dreams were understood, almost without exclusions, as a purely psychological reality, as a product of the human unconscious. Neurologists and neuropsychologists reacted because they considered Freud's claims to be too speculative and too one-sided. These theories should be first considered as a natural reaction, and then as a separate scientific area after that. For many neuropsychologists, defining the dream as only an internal personal tale which originates from the unconscious and as "the guardian of sleep" was incomprehensible and unacceptable. These scientists strived to find the basics of it in the physiology and neurology of the brain.

The beginnings of this neuropsychological boom are connected to the findings of the systematic studies in neuropsychology which opposed the medical theories, especially Freud's psychoanalysis (Domhoff, 1999; Domhoff, 2000; Fisher & Greenberg, 1996; Foulkes, 1996a; Foulkes, 1999). The purpose of these, then new studies was to scientifically understand the true natural way of dreaming (Foulkes, 1982; Foulkes, 1999; Foulkes, Hollifield, Sullivan, Bradley, Terry, 1990). The most important findings originate from three areas of research: 1) neuropsychological assessment of patients who suffer from partial brain damage which are and, at the same time, not required to dream

(Solms, 1997; Solms, 2000); 2) studies on neurovisualisation and 3) findings from “sleeping” laboratories (Braun et al., 1997; Braun et al., 1998; Heiss, Pawlik, Herholz, Wagner, Wienhard, 1985; Kerr, Foulkes, 1981; Kerr, Foulkes, Jurkovic, 1978; Maquet et al., 1996, according to Domhoff, 2001). The neurocognitive theories essentially emanated from these findings in the form of generalizations and some important axioms, some of which are the following:

- Dreaming primarily depends on the normal functioning of some relatively specific neuron webs located in the limbic, paralimbic area and in the associative areas in the big brain
- The dreaming is a cognitive achievement that develops gradually in the first 8 to 9 years of life
- The output of the nerve web that generates the dream is called “content of the dream” and is available through the written or copied “report of the dream”; it is generally in continuity with the concepts of wakefulness and contains a large part of previously unrealized repetition in signs, social interactions, accidents, negative emotions and topics (according to: Domhoff, 2001, p.2)

These findings, as well as some other ones, represented a real boom in the area of researching and testing of the new hypothesis which developed the new neurocognitive theory of the dream. The fact that the centers responsible for the emotional and cognitive functioning of the cortex during dreaming were discovered, as well as the findings that the dreams were not an unconscious product but a cognitive achievement that develops in the first 8 to 9 years in life, support the cognitivist concepts. That indicates the fact that with the development of the centers responsible for the cognitive regulation in different states of consciousness (sleeping, dreaming), the cortex assumes the role of a creator of the dream that is an essential contradiction to the belief imposed by psychoanalysis, which states that the basis of a dream are our deepest needs, wishes and unconscious motives hidden in the ID.

Some other theorists and neuropsychologists have also made researches in order to uncover the neuropsychological basis of the dream. One of the most significant ones, Mark Solms (Solms, 1997, 2000), contributes greatly to affirming some of Hobson’s and McCarley’s opinions, claiming that the frontal limbic part of the brain plays a significant role in selecting the important elements of the content of the dream. He supports this with a finding from the already mentioned research in which 10% of the patients with focal injuries of the frontal limbic area had dreams with very vivid visual content and “overdreaming” with vivid experiences, which underlines the importance of the limbic part, which is responsible for the emotions, and even much more for dreaming. He questioned 361 participants about the possible changes in the frequency and nature of the dream from a neuropsychological aspect. He also discovered another very important segment in the dreaming process. Solms, according to his research, discovered that the REM stage in sleeping was not enough for dreaming, saying that many vivid and detailed dreams occurred during non-REM stages too. These findings led him to suspect that there are cortical webs which are responsible for the physical display of the dream, located in the parietal lobe (Robertson, 1998) and crucial to the meaning of the dream (according to: Domhoff, 2001, p. 5). This thesis underlines Hobson’s constructs which state that the part of the brain, where the centers for sight and perceptive orientation are located, is responsible for the visual appearance of the dream, not that it is part of the unconscious psychology of the dreamer but simply an activity of the brain.

The synthesis-activation theory: the big turnaround in understanding of sleeping and dreaming

Alan Hobson and Robert McCarley, both of them neuropsychologists at the Harvard University in the late 70s, revolutionized the dream theories by publishing a new, shocking and surprising theory of sleeping and dreaming. What they were claiming can be shortly described in this sentence – the dreams are nothing more than our tendency to interpret the sudden electric impulses generated automatically during the REM stage (Hobson & McCarley, 1977). It is also said that during the REM phase, there is a specific activity in one part of our brain which periodically surfaces and creates an electric activity. This part, according to Hobson and McCarley, is located in the brain stem which is also responsible for the physical movements and reception of stimuli through our senses when we are awake. During sleeping, our senses are not functioning; also our kinetic movement system is static (Hobson & McCarley, 1977).

But, as Aserinsky and Kleitman (Aserinsky, Kleitman, 1953; Domhoff, 2000) discovered, there is a paradox here - in this part of the brain, the brain activity is not totally disabled but, on the contrary, there is a strong neurological activity. This activity enables large jets of energy in the brain

over the cortex, which, under the influence of these meaningless nerve “bombardment”, tries to synthesize the large quantity of information into a meaningful whole. Hobson and McCarley (Hobson, McCarley, 1977) claim that this whole is actually the dream itself and it is not, as it was previously claimed by the psychoanalysis theory, to be a personal logical story that made sense, but simply one unconnected and bizarre story which is a result of the combinations and intersection of unconnected, meaningless and purely neurological information. We need to underline that it was discovered that these jets of neural energy still end up in parts of the brain responsible for thinking or emotions, while one part ends up touching the centers responsible for the function of our senses.

The reference here is to our sense for sight, which is most abundant as a modulator of most of the information which appears in our dreams. It is also known that most of the content of the dreams is of a visual nature, such as pictures or short stories, then narratives, i.e. audible contents which refer to the verbal story (scenario) of the dream, and part are kinetic, i.e. some small movements of organs, senses or physiological reactions. A certain narrative begins as a combination of these impulses which have acquired meaning and background in contact with the sensory centers and the cortex, and it looks a lot like the definition of the dream described by Freud, who was predominantly interested in the content of the dream, the scenario, the narration of the dream, its symbolical meaning and the process of transformation. Then, there is a theory called the synthesis-activation theory, named after the two most important processes, the activation of the cortex from the electric impulses which originate from the active part located in the brainstem, and the synthesis of these meaningless impulses in the closest thing possible to a logical story, or scenario, which, according to Hobson (Hobson, 1995, 1999; Hobson, McCarley, 1977), is not a dream in the psychoanalytical sense – as a process of awakening of the unconscious mind, nor a result of an occurrence which is a result of the daily activities while being awake and their outside influence.

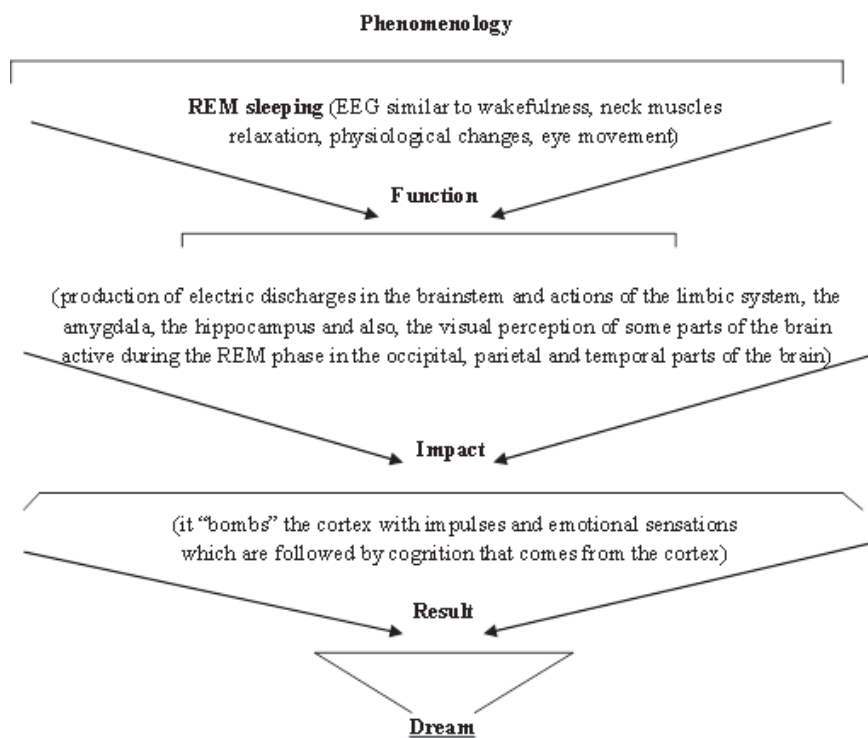
They claim that the dream is a physiological reality, which is precisely the psychoanalytical postulation of a dream. Their original and intriguing interpretation of what is called Work of The Dream, i.e. all its distortions and symbolic transformations (pointed out in the psychoanalytical theory), indicates that these distortions are actually not a way to cheat any ego censorship but simply a physiological-neurological way the brain works. If what they say is true, that the cortex tries to make and give sense to all those diverse, unconnected and bizarre pieces of information and impulses, then the number of combinations of those elements is the reason why dreams are sometimes so bizarre, thus representing the embodiment of more phenomena (sudden turns in the content, the course of situations in the dream, faces and situations that are illogical, change of locations etc.) while saying that they are not the unconscious messages of the personality of the dreamer and their suppressed wishes, as Freud claimed.

But, the main point is even more significant. Hobson and McCarley (Hobson, 1995, 1999; Hobson, McCarley, 1977) go even further by saying that the cortex gives content to the impulses that come from the brainstem. They were expected to propose a strong, logical and explicable interpretation of this process, showing HOW that happens. Therefore, they claim that in the REM stage, the brain creates its own unique activation which stems from two vectors:

- 1) Impulses of energetic nature which come from the brainstem during the REM phase and
- 2) Comparison and correlation of those impulses with memorized situations, experiences, information of the daytime life right before falling asleep (Hobson & McCarley, 1977)

But, why does this happen? Since the cortex is under the influence of the centers of higher cognitive rank (thinking, reasoning), it has to find criteria and a pattern by which it will compare and give meaning to that unconnected information. Further research will show how this claim is a stumbling block and auto negation of the theory as being simply neuropsychological.

A logical consequence of Hobson’s and McCarley’s neuropsychological concepts is the theory according to which REM sleeping is what causes dreaming, opposite to Freud’s concepts, in which he claims that dreams cause the REM phase. Schematically, this is shown in picture no. 1.

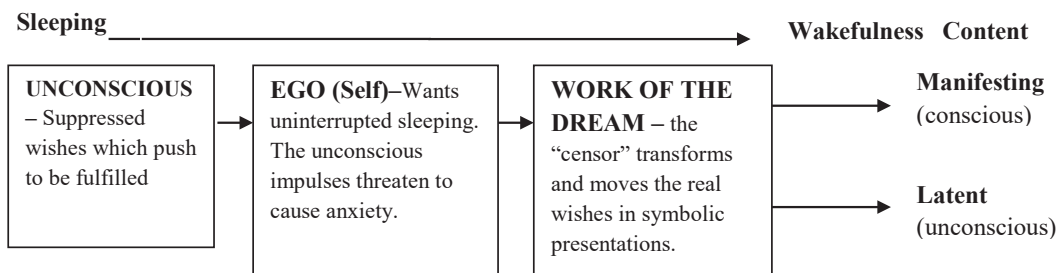


Picture 1. A schematic display of Hobson & McCarley's theory on the order of actions of the REM sleeping.

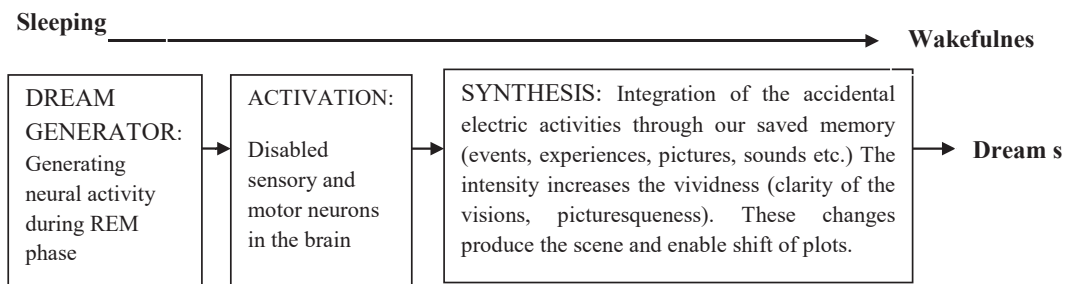
The scheme clearly displays the whole process which originates in the brainstem and is followed by strong emotional sensations that come from the amygdala and the hippocampus. In the last sequence of the process, between the REM sleeping and the result of its activity, there is the cognitive segment of the dream, which is a consequence of the cortex influence that tries to give meaning to the dream. According to this theory and some other theories with a neurocognitive background, the dream can be explained in the same way as it was explained in the psychoanalysis. The importance of the emotional segment in the content of the dream is highlighted (because the neuropsychological and neurocognitive theories explain rather the form than the content of the dream) due to its influence on the dream, allowing people to experience strong emotions during the process of dreaming which, owing to the synthetic cognitive activation of the cortex, give the dream a more vivid aspect, where the experience of the characters, the content and the story is much more emotional. Besides that, a very important explanation of this/these theories comes from the fact that some parts of the primary and secondary areas in the occipital, parietal and temporal part of the cortex are active during the REM phase, which gives a visual character to the diffuse content and shape although the subject is in the state of dreaming, by which we get visual dreams in the same way that it is explained by psychoanalysis, but from a purely psychological aspect. In accordance to Hobson's theory, some findings in neuropharmacology and neurology have shown that being awake and asleep are two ends of the continuum in relation to the presence of some chemical substance in the brain which goes with the aminergic-cholinergic continuum depending on the state they are in (Hobson et al., 1975; McCarley & Hobson, 1975). Hobson & McCarley found strong support for their theory in the discovery that the REM phases in which we dream occur in a specific biorhythm, at an exact point of time every night and do not change so that the dream cannot be a product of an external stimuli (as Freud claims), but exclusively of our brain activity, because, otherwise, we would be dreaming constantly whenever an external sensation stimulated our senses. The stimuli never stop affecting our

senses, so, this claim is a strong axiom for the activation-synthesis theory. Picture no. 2 is a systematic presentation of Hobson & McCarley's theory as compared to the psychoanalysis theory.

Psychoanalysis theory



Activation-synthesis theory



Picture 2. Graphical comparison of the psychoanalytic and the activation-synthesis theory. (Hobson & McCarley, 1977, p.3)

The psychological background of both theories: an attempt to bridge the gap

That in the last 50 years, for as long as we study dreams not only psychoanalytically but neuropsychologically, as well, there still has not appeared a theory which is fully accepted, especially in the psychoanalytical aspect, is the fact which implies the need to integrate all useful findings from two aspects. In the psychoanalytical sense, there is no paradigm which claims the dreams to be strictly Freudian or Jungian. But, it has been widely agreed that most dreams have a personal meaning to the dreamer in aspect of its rootness, a correlation to other psychological occurrences and a connection to the thoughts while being awake (Domhoff, 1996; Fisher & Greenberg, 1977; Fisher & Greenberg, 1996; Foulkes, 1985; Foulkes, 1999). The neuropsychological theories have disagreements and problems with most concepts (Hobson's criticism of Solms). Some of them admit that, although the dreams are pretty bizarre, through the prism lab experiments with awaking subjects during the REM phase, the dreams are significantly affected and stimulated by our day life (Dorus, Dorus & Rechtschaffen, 1971; Foulkes, 1985; Hall, 1966; Meier, 1993; Snyder, 1970; Staruch & Meier, 1996; Cavallero & Foulkes, 1993).

The following theoretical comparisons will be an attempt to find out what the connection, which we consider to have a psychological significance, the meaning of the dream, can be.

Some of the followers of psychoanalysis point that most concepts of neuropsychological reductionists that unusual structural elements of the dream which are purely metaphorical are actually a product of the physiological changes that happen during the REM phase; yet, they have never found any evidence to support these claims (Foulkes, 1996; Pivik, 1978; Pivik, 1986). One of the reasons why neuropsychologists point out that there is no methodological way to explore the validity of

Hobson's findings about the importance of the activation-synthesis is that the conclusions are eventually based on the statements from the participants which are no less subjective and incorrect than the findings of the psychoanalysts. Ultimately, these claims cite that personal significance and meaning of the dreams are what needs to be verifiable. On the other hand, although Freud claimed that all significant speeches come from memories of previously heard speeches and read sentences, the analysis of hundreds of speeches in the dream collected in laboratories have shown that they are new constructions which add up to the content of the dreams, and are not reproductions (Meier, 1993). But, the fact is that a large chunk of these dreamed speeches are equivalent, at least to the traces left in the long-term memory. The analysis of the most systematic and ample findings of what people dream were systematized in the so-called wide claim about the categories of the dream developed by Calvin Hall (Hall, 1951; Hall & Van de Castle, 1966), which supports the claims that suit both Hobson's and Freud's theories.

Also, some discoveries (which were previously mentioned) that apply to the electrical activation of the visual system also emphasise that because of the aminergic demodulation in the REM sleep, the aminergic neurons demodulate the brain from the state of wakefulness into the state of sleep. This is the process which, because of the unpredictable diminishing of certain neurons since a certain unpredictable "firing" of the neurons occurs, enables the cholinergic excitation (the neurons get excited, activated under the influence of the transmitter acetylcholine and cause abrupt eye movement – well known in the REM phase) which can neurologically explain the phenomenon of jumps and shifts between the events and the content in the dream. If we are to make a parallel of these crossings, of the "firing" of the neurons in the cortex which cause changes in eye movement, we can do it in a psychological aspect by comparing them to the swift changes in the content of the dream (e.g. at one moment you are on a mountain, next, you are on a beach, etc.). Furthermore, these findings claim that changes as these enable the occurrence of visual imagination in the dream, which is the basis of the scenario of the dream in the psychoanalytical sense. These neurological changes cause loss in the will and ability to control our attention (which probably happens because of the loss of control over eye movement during the REM phase and the ability to dream lucidly, according to LaBerge, 1985). All these processes disable us from keeping any memories of the dreams in our awake state right after we wake up, a fact which has already been documented in psychoanalytic studies. This can be explained by psychoanalysis as the work of the censor which deletes the inconvenient elements of the dream and transfers the content from one place to another to prevent the preplanned personal story because of fear of revenge from the Ego, rather than by neurological explanations. But, what can connect these two sides is the fact that different people dreaming similar dreams, even the equivalent ones, in their statements show a different crossing in the content of the dream, a different course of the scenario, a different level of memorizing the dreams and a different ability to dream a lucid, controlled dream, which confirms the thesis that personal meanings have an effect regardless of whether we use one or another aspect to explain them. As much as the theory that because of the unpredictability of the explosions in the aminergic and cholinergic neurons the course of the dream cannot be determined is correct, so is the fact that because of the censor, some content and events will be transformed, switched, forgotten etc.

Another finding implicates the need to integrate and improve the two approaches that both Hobson & McCarley's theory and Freud's psychoanalysis are oriented towards the content analysis and not to the global, common formal elements and levels of analysis. Although Hobson's theory talks about the neurocognitive basis of the dream, it also gives a detailed explanation supported by research findings captured and documented with EEG data, PET data etc., it doesn't give a clear and full display of the process of dreaming from a formal aspect, it is a holistic process from beginning to end. Psychoanalysis, on the other hand, is interested only in the content, not in the paradigmatic points which give general deductive conclusions applicable to larger population and susceptible to scientific research and individual comparisons.

There may be no better place for the integration of these two theories, from a personal point of view, than the census of the parts responsible for creating the dream, its structural aspects, and the phenomenon. Namely, according to some neurocognitive theories (similar to Hobson's), the dreaming process contains six characteristics: 1) halucinoid imagination; 2) narrative structure; 3) cognitive bizarreness; 4) hyperemotionality; 5) acceptability of delusions and 6) deficit memory for the content of the dream (inability to remember)

The same elements are observed by psychoanalysis too, which only names them differently. For example, the hallucination imagination in the psychoanalytic sense is just another term for the impossible imagination, visions, combinations and pictures of the incredible and magical story of the dream. The narrative structure is the scenario itself, that is, the pure personal psychology of the dreamer in psychoanalysis, while in Hobson's theory, that same thing is the synthesis that the cortex tries to produce. The cognitive bizarreness or the so called *orientational instability* in psychoanalysis is explained with the process of dreaming (transformation of elements in order to avoid censorship, condensation of multiple elements in one dream, symbolization of one element with multiple symbols etc.) which creates an illogical manifest content which has an unpredictable course in the scenario of the dream. In Hobson's theory, it refers to the cognitive processes initiated while the brainstem does not acquire any external signals. These processes together with the activity of the cortex try to give meaning to the memorized information. From the psychoanalytical aspect, hyperemotionality refers to the meaning of the dream to the dreamer and its connection to their wishes and needs, while in the neurocognitive theory, it refers to the participation of the amygdale during the REM phase. Acceptability of delusions – from the psychoanalytical aspect it refers to the understanding that because of the dream process, it is necessary to allow delusional thoughts and ideas in their manifest content, whereas according to neurocognitive scientists, those delusions are a product of the connection of variety of different and illogical content of the cortex. Deficit memory – from the psychoanalytical concept, it is nothing more than the work of the censor and psychological amnesia for the uncomfortable and unacceptable contents and events for the consciousness, while in neurocognitive theories, the inability to remember is understood as something that originates from the processes in the cortex during the REM phase dreaming, and also happens under the influence of the changes in the aminergic and cholinergic excitations during which the conscious cognitive processes such as attention, will, memorization and others, are disabled.

These significant convergences and integrative processes are congruent with some findings and claims from other sources which state that the work of the dream is not unique only for sleeping, but that it is only an instance, part of figurative thinking (Gibbs, 1994; Lakoff, 1997). This claim is very important for this theory because it highlights that although it refers to the psychoanalytical concept (the work of the dream), in its essence, it is a purely cognitive process from a higher rank (figurative thinking). The difference is that figurative thinking, according to academic psychology and the neuropsychological theories, represents a complex, strictly conscious process, while according to psychoanalysis, the dream is a purely unconscious process. This is an amazing example based upon these two aspects. However, it should not be forgotten that it is not so important to define whether it is about a purely conscious or unconscious process, as long as it is pointed out that both figurative thinking and unconscious processes in their stem are a psychological phenomenon, and not neurological processes and activities. Some of Hall's (1953) and Lakoff's (1997) findings support these claims, findings which state that the unusual functions of the dreams, such as the unexpected crossing, shifting, impossible events etc. (which are functions of the work of the brain), may be a product of figurative thinking (Hall, 1953a; Lakoff, 1997) Once more, the double sidedness and dialecticism in the neuropsychological and psychoanalytical constructs are confirmed. Namely, the work of the dream, that is, the unconscious mental processes serve the same function to reach the ending scenario of the dream, which, of course, represents a personal psychological reality.

A very important intersecting point is the one relating to the Hobson theory which reveals to us that children's dreams can be as bizarre as the ones adults have, implying that experience is not responsible for this but the neurocognitive processes in the brain, mainly because children have little life material and personal psychology to produce that sort of dreams. But, on the other hand, it is correct that children's fantasy is more developed, they operate their right hemisphere a lot more than adults and have many wishes and ideals, which, psychoanalytically perceiving, are strongly desired. And where would it be more accentuated than in their dreams. The statement gains even more credibility when we point out that Foulkes (Foulkes, 1996, 1999) noticed that the indirect pressure for recollecting dreams, in the studies of Resnik, Stingold, Ritenhaus and Hobson (Resnick, Stickgold, Rittenhouse, Hobson, 1994) could lead to a made-up report about some of the children. When it comes to children, it is convenient to mention that Foulkes (Foulkes, 1982, 1999) revealed how children from the ages of 5 to 15 dream very little about their two long lasting daily activities, going to school and watching television. Folkes pointed out instead that they dreamt more of recreational

activities (according to Domhoff 2001). Psychoanalytically, the children dreamt of what they desired or, to be more exact, of the wishes they wanted to come true. Thus, what motivates the dream are the personal needs and the meaningful life aspects and not strictly the brain activities.

Domhoff (Domhoff, 2001) offers another possible point of intersection of the two views and the personal sense. Mainly, he claims that some discoveries originate from studying the HVDK system, especially the consistency of what adults dream of during the course of their life, which leads us to the idea of "The repetition of dreams principle" (Domhoff, 1993; Domhoff, 1996). The idea confirms itself in the series of 20 or more dreams (Domhoff, 1993; Domhoff, 1996). Domhoff claims that the principle of repetition points out to some potential connections between the content of the dream and the nerve net of dreams, especially when it comes to the possible relation with the system of precaution/fear centred in the amygdala (Le Doux, 1996; Whalen, 1998). As the best examples, he indicates the nightmares which repeat consequentially to a posttraumatic stress which sometimes happens in the second phase of REM (Van der Kolk, Blitz, Burr, Sherry, Hartmann, 1984) and it appears that those who suffer from epilepsy due to the attacks during the REM phase have a parallel of nightmares.

The parallel between the real-wakeful life and dream is something that a lot of psychoanalytic researchers and theoreticians and even neuropsychologists wanting to emphasize the connection between dreams and personal life, events and needs of the dreamer, a lot of anthropologists, sociologists, philosophers support. The anthropologist Thomas Gregor (Gregor, 1981, p. 389) points to this conclusion in his detailed study of 385 reports on dreams of both men and women belonging to a small group from the depths of the Amazon jungle, with the goal of proving how "the dreaming experience is a bit more different than other aspects of culture". If culture is understood as the culture of personal meanings of the dreams, as well, in a specific cultural, sociological, economic and other global branch, we can state that the magic of the dream cannot be simply in the way of connecting accidental impulses in the brain, but also the wider social context we live in, socio-economical states and events of everyday life as socio-psychological and biological creatures.

In the end, a question is raised whether it is a vitally pure methodological explanation of the stated analysis or attempts of a theoretical approach in terms of possible integration. It is more than clear that the dream cannot be deprived of its true place in the human soul and its unconscious self. It continues to be the place of complementing the wakeful life, it is a modulator, corrector and finally its creative, endless imaginative source without which it would be a two-dimensional matrix of the superficial. However, the dream is not only a trans-cognitive and spiritual unexplored area of the individual soul but also the infinite and stable ground built on the biological basis of its majesty, the organism, a tangled neuron web led by the cortex kingdom which does not sleep even while we dream. In the future, the dream will represent a phenomenon of constant revision and research, throughout thinking and claiming that in the core of every state of the conscience lies an idiosyncratic meaning of things, even if they are dreamt.

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Rezime

Rad predstavlja teorijsko poređenje dve velike teorije o snovima, jedna je neuropsihološka teorija Alana Hobsona, a druga je psihoanalitička teorija Sigmunda Frojda. Autori iznose važne zaključke o zajedničkim osnovama ovih teorija kroz praktična shvatanja iz prizme grupnog psihološkog rada na snovima. Iako su ovo dijametralno suprotne teorije, kroz praksu su autori dobili dokaze da se mnogi fenomeni preklapaju i deluju kao ekvivalentni psihički procesi koji se razlikuju samo terminološki. Hobsonova teorija tvrdi da su snovi samo rezultati slepih napora korteksa da da neko značenje informacijama koje ga "bombarduju" i dolaze iz mozga. Frojdova teorija tvrdi da su snovi izraz potisnutih želja koje su se pojavile u sadržaju sna kroz mehanizme rada sna. Sa teorijskog aspekta, autori pokušavaju da pronađu zajedničke osnove i da pokažu da su pronađeni isti psihološki fenomeni u suštini obe teorije. Oni unose svoja praktična iskustva u koncepte koje objašnjavaju ove teorije, pokušavajući da ukažu na zajedničku osnovu. U radu se predstavljaju nalazi tradicionalnih istraživanja, ali i shvatanja teoretičara i praktičara koji su revidirali ove koncepte.

Cljučne reči: snovi, spavanje, neuropsihologija, psihoanaliza, tumačenje

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WOMEN IN PSYCHOANALYSIS ("THE FORGOTTEN" WOMEN IN PSYCHOANALYSIS)

Abstract

Have women not contributed to the development of Freud's theory and therapy? The answer to these questions is complicated and ambiguous. The reasons for that are complex: historical, even androcentric. This paper presents the achievements of Sabina Spielrein, Helene Deutsch and Frieda – Fromm Reichmann, and shows their contribution to the psychoanalytic movement. Each one of them brilliantly developed and defended their own conceptions and ideas. They deserve to be honoured not less than many men representing the psychoanalytical movement. "The Rediscovering" of Sabina Spielrein, Helene Deutsch and Frieda Fromm-Reichmann motivated the psychological society to develop future works about the valuable role of women psychologists.

Key words: *psychoanalysis, women, forgotten, achievements, contribution*

Introduction

Psychoanalysis is one of the biggest accomplishments of human reflection and its founder Sigmund Freud – one of the persons that changed the world. Freud managed to enter the depths of human nature and show us that we are conflicting, suffering, and dependent on some subconscious powers. The founder of psychoanalysis made revolution in scientific thought at the end of the 19th and the beginning of the 20th century. As he himself noticed, in 1917 humanity made three discoveries (blows onto collective ego). The first blow is caused by the polish astronomer Nicolaus Copernicus. He proved that the Earth is not the centre of the universe, but just a small planet, which like others, circles around the Sun. The second blow happened in the 19th century, when Charles Darwin found that we are not a unique species in the universe, but a species that evolved and developed consciousness. The third blow onto collective ego is caused by Freud himself when he proved that we are not conscious and rational beings but we are subjected to subconscious powers, which we cannot control or understand (Froid,1990).

The revolutionary ideas of Freud inspired many of his students – Jung, Adler, Fromm, as well as the next generations of psychoanalysts.

Looking at the studies of psychology and particularly about the History of psychology we can notice that the women psychologists are very rarely mentioned and some of them are not even familiar to the experts. There are studies of psychology in which there is not a single woman's name. Why is that? Have women not contributed to the development of psychology? The answer to these questions is complicated and ambiguous. The reasons for that are complex: historical and even androcentric – the authors of most studies are men. The first women-psychologists in the USA, who were occupied with teaching and scientific work were discriminated although they were as qualified as their men colleagues. Thus, for example, Harvard refused to give Mary Calkins (1863 – 1929) a PhD only because she was a woman. The widespread prejudices against women have existed throughout the whole history of psychology. Women had been denied admittance into universities and teaching jobs. The history of psychology shows that gender discrimination is not the only one. Psychologists were discriminated on the grounds of their ethnic origin too.

There is evidence which shows that in the USA until the 1960s, Jewish lecturers were not allowed to teach and there were limitations for Hebrews entering colleges and universities (Shultz & Shultz, 2006). African Americans were target of prejudices too.

When we follow the course of the history of psychoanalysis it is obvious that except for Freud's work and ideas, the other most famous psychoanalysts are Jung, Adler, Fromm, Horney and Erikson (Stor, 2009). Apart from Anna Freud and Karen Horney there almost are not any other women mentioned in the studies about the history of the classical period of psychoanalysis. There are women psychoanalysts who contributed not less than many men to the development of Freud's theory and therapy but they have been undeservedly forgotten in a couple decades.

The views of Freud for women and their place in the therapy he created are clearly stated. According to the father of psychoanalysis, laws and traditions should present many rights to women but they are taken away from them. The situation is going to stay the same – an adored creature when young and loved and a respected woman in maturity. Freud was afraid of the possibility that one day our ideal for femininity will vanish. Despite that he admired and supported women psychoanalysts towards whom our research interest is directed. In his eyes they harmonize the professional competition with their beauty, charm and kindness (Magor & Talagan, 2009).

Here is why we set as our goal to represent the achievements of Sabina Spielrein, Helene Deutsch and Frieda Fromm-Reichmann and to show their contribution to the psychoanalytic movement.

Sabina Spielrein (1885 – 1942)

Sabina Spielrein is not very well-known to the wide audience and to the historians of psychology too, but she is one of the most influential persons in the world psychology and particularly in psychoanalysis. While communicating with the classics of psychoanalysis like Freud and Jung, Spielrein not only learned from them but with her own work she influenced them too. As if her name was forgotten in a couple of decades and historians of psychology only remembered it when in 1974 a correspondence between Jung and Freud was published. In this dialog the name of Sabina Spielrein is mentioned 40 times. In 1980 after he found and got to know the correspondence between Spielrein and Jung as well as between Spielrein and Freud, the Italian Jungian analyst Aldo Carotenuto wrote the book "*Diario di una segreta simmetria*" (A secret symmetry) which has been translated in many languages and become a bestseller (Stepanov, 2001).

Who is Sabina Spielrein? She was born in Rostov-on-Don in 1885, in a Jewish family with a father who was a successful merchant. Sabina grew in her strict family. Her father aimed to give his children a good education and he himself spoke fluently a couple of languages also her mother was a dentist.

Sabina could not finish secondary school because she was diagnosed with neurosis. Her father then sent her for treatment in Switzerland, which proved to be a fateful moment in her life. That way she found herself in a clinic in Zurich with the director professor, E. Bleuler. Karl Jung became her doctor. Sabina fell in love with him and real love developed between them. In 1905 after she got her disorder under control she entered the Zurich University. Meanwhile Jung continued her treatment until 1909 and from 1906 he discussed the case Spielrein through a correspondence with Freud (Lothane, 2013).

After she was engaged with psychoanalysis for a while she devoted herself to scientific work and in 1909 she started to communicate with Freud. She then graduated from the university still working on her dissertation "Concerning the Psychological Content of a Case of Schizophrenia", which she successfully defended in 1911 (Launer, 2011). The talented therapist became a member of the Vienna Psychoanalytic Society. In 1923 with the support of Freud, Sabina Spielrein returned with her family to Russia. There she had financial and family problems which forced her to start work and teach. She was accepted into the Russian psychoanalytic society which had recently been created by Wulf and Ermakov, in which she was quickly recognized. In 1924 Spielrein moved in Rostov-on-Don and gave birth to her second daughter. In 1925 the Soviet authorities liquidated the national psychoanalytic institute in which Sabina was one of the contributors. Gradually the ideological pressure to the psychoanalytic theory and practice rose. In her native town she conducted various activities including teaching at the local university. In 1942 she and her two daughters died tragically. They were killed by the Nazis in Rostov-on-Don (Stepanov, 2001).

The original ideas of Spielrein influenced the work of Sigmund Freud and thus the whole psychoanalysis. In 1912 Sabina Spielrein published the book: "Destruction as the cause of coming into being". In this book she voiced idea which preceded the thesis of Freud about the destructive component of sexual attraction (Launer, 2011). In 1911 Spielrein met Freud. In the same year she read a report on this book in front of the Vienna Psychoanalytic Society which caused wild discussions.

The thesis of Spielrein is that in order to create something new you must first destroy the one before it. Therefore in every creation there is destruction too. The instinct of self-reproduction contains in itself two equal components: instinct for life and instinct for death. These ideas will be developed by Sigmund Freud in his later works (Laplansh & Pontilis, 2009; Martinkevich, 2014). Sabina Spielrein marked that for love and work the attraction to death and destruction is not something external which defiles them and from which they can be cleansed. Actually the attraction for death is in essence of the instinct for life and for its extension in the other person. Conformation for this is all the cases in which love is caused by hatred, made of death or causing death – masochists, sadists, lovers' suicides, for example, Romeo and Juliet and others. Love has another side – the intention for destructing its own object. The conclusion is that the instinct for protecting the species requires for its completion – destruction of its old in the same way as creating the new. In their essence they are ambivalent (Lothane, 2013).

Freud tells for Sabina and her ideas the following: "She is very talented; in everything she says there is a point; her destructive desire is what I dislike, because I think that it is personally determined. She looks abnormally ambivalent" (Stepanov, 2001; Martinkevich, 2014). In the same year (1911) she became one of the first women accepted in the Vienna Psychoanalytic Society. In this period the relationship between Sabina and Jung complicated. Her relationship came to an end after in 1912 she married a Russian doctor. She gave birth to her first daughter. In the following years Sabina worked in different Swiss, German and Austrian clinics. In these years she studied the German folklore in "The song of the Nibelungs", published papers and took part in scientific conferences. She started to teach many psychoanalysts. Her most famous student was Jean Piaget.

In 1923 Spielrein published the article 'Some analogies between the thought of the child, that of the aphasic and the subconscious thought'. In the article Spielrein developed a system of analogies (the autistic speech of the child – thinking with aphasia – Freud's subconscious). She supported her ideas with researches (and small experiments) over her daughter Renata (Lothane, 2013).

Spielrein did not influence only Freud but Piaget and his work too. She helped Piaget to realize his interests in psychology. In her work Spielrein reflected on the genesis of concepts like space, time and causality of children. These concepts could later be seen in Piaget's work too. On the other hand, Spielrein and Piaget started from the same foundation but continued in different directions (Stepanov, 2001). The approach of Spielrein was psychoanalytic, focusing mainly on the essence of the interaction between the child and the parents, whereas Piaget created a structural (genetic) method for understanding intellect.

Helene Deutsch (1884 – 1982)

Other, relatively, not very well known woman that contributed to the development of psychoanalysis is named **Helene Deutsch** (1884 – 1982). Helene Deutsch, as most of the first generation of psychoanalysts was of Jewish origin. She was born in Przemysl, then Austrian Galicia, nowadays the town is in the territory of Poland. She wanted to become a lawyer and a leader of the women's emancipation, but she studied medicine in Vienna. She firstly interested herself in psychiatry but after having taken lectures of Freud and reading a lot of psychoanalytic literature, she became a member of the Vienna Psychoanalytic Society (1918). Helene Deutsch was one of Freud's favourites. Freud is known to have had fondness for beautiful and smart women. Helene became very fast a notable figure in the young generation of psychoanalysts (Ratner, 2005).

She joined the Vienna Psychoanalytic Institute. Freud gave her the opportunity to work on very hard cases because he valued highly her competence.

In 1925 Deutsch published "Psychoanalysis of the Sexual Functions of Women" making her the first psychoanalyst to write a book on feminine psychology. Her interest in the subject helped her to push Freud into writing articles about female psychology.

Deutsch then moves to live from Austria to the USA in 1934 and soon became a leading figure in the American psychoanalysis (Ratner, 2005). In 1944 Helene Deutsch published a two-volume

book “The Psychology of Women. A psychoanalytic interpretation”, which was an important moment in her work and studies. The book had many publications and was translated into a couple of languages. Because of that Deutsch is well-known as a specialist on “women psychology”. In the introduction of the first publication Stanley Cobb (professor in neuropathology from Harvard’s University) evaluated the book as brilliant and emphasized: “The point of this book is to explain the normal mentality of women and their normal conflicts. We know that the degree of psychical health isn’t determined from the lack of conflicts but from the adequacy of the used methods for their resolving and overcoming. The pathology reveals that normal conflicts and helps us understand the normal process in the light of the” (Deutsch, 1944).

Some of her other books are: “Selected Problems of Adolescence” (1967) and “Neuroses and Character Types” (1965). Helene Deutsch died at the age of 98 in 1982.

The conceptions of Helene Deutsch about femininity:

In her early work Deutsch was a follower and supporter of Freud’s ideas about female psyche. She accepted the basic ideas of her teacher: “complex for masculinity” the envy for the penis and the three clear qualities of the female mentality – infantilism, masochism and narcissism (Laplansh & Pontilis, 2009).

Helene Deutsch did not agree with the thesis of Horney that identifying herself with her father often leads to lack of femininity. Deutsch indicated that a good relationship with the father could become a source of personal development of the girl. There is probably an autobiographic moment here because Helene was fond of her father, greatly influenced and encouraged by him (Ratner, 2005). Historians of psychology are familiar with the fact that many psychoanalysts have autobiographic moments in their theories. We can see it even with Freud’s idea for the “Oedipus complex”.

Deutsch accepted the “complex for masculinity” for something normal amongst women, unlike other psychoanalysts who define it as neurotic. For Helene Deutsch sexuality is just a part of human life whereas Freud assigned sexuality a main role in human nature. With her conception the talented psychoanalyst is closer to Jung, Adler and Horney, who do not exaggerate the role of sexuality. In her later work like “The Psychology of Women”, Deutsch emphasized the role of the social factor in the development of the character. Social effects have the same impact on forming the male and female character as the anatomical differences between the two genders.

In the first volume of “The Psychology of Women” Helene Deutsch talked mainly about puberty, adolescence, masturbation, femininity, women’s passivity and masochism, the complex for masculinity. The author followed the growth of the boys and girls in the period before puberty and during puberty. She stressed the differences between the two genders during that growth. The psychoanalyst wrote about the “offensive” of children before puberty which becomes possible by their separation from the family (Deutsch, 1944). If the girl manages to free herself from the affective connection to her childhood she can freely choose “new objects” i.e. make new relations which do not bear the mark solely on the child behaviour. The student of Freud emphasized the restriction and confirmation of the personality in relation to the surroundings. Together with the desire of independency, the fear from the forthcoming responsibilities in life grows too. Courage and feeling of weakness are the two poles between which the experiences of the adolescent revolve (Ratner, 2005).

The first menstruation reminds the girl that she is set to become a woman. The eventual dreams for masculinity are left behind but this does not mean that the girl has fully given up on them. The friendships between girls are important for the development of their “Ego”. Deutsch, like other psychoanalysts, worked on the problem for the crisis in adolescent age. One of the tasks which must be solved is the integration of the impulsive life of the personality. At the same time the attitude towards yourself and the world should be structured in a new way. The narcissism comes with maturation and should not always be defined as “neurotic”. The narcissism could consolidate the “Ego”. It replaces the need of loving and being loved. It is normal for the girl to go through a fantasy stage of her love – “dreamed beloved”, who she can love and praise from far away. Helene Deutsch reckoned the passive as a part of woman’s nature explaining the passivity with biological terms. The authoress examined the role of menstruation in the life and behaviour of the woman.

The female masochism can be found in “the psychology of prostitution”. According to Helene Deutsch the prostitute is often attracted to her job because of her social inadaptability, masochistic behaviour and infantile narcissism. That is why she “chooses” the male attitude - seduces the man,

neglects the barrier of shame and confronts “the orderly society”, practicing and propagating the vice. The sexual repression and the devaluing of the woman are important causes of prostitution.

Deutsch voiced the opinion about the “male complex of the woman” that a lot of women in man’s culture cannot reconcile with their passive-masochistic existence. They strive for the ideal of masculinity which makes them give up many of their feminine qualities (Ratner, 2005). The example for a woman with an obvious complex for masculinity is George Sand.

The second volume of “The Psychology of Women” is focused mainly on the different stages of motherhood – pregnancy, birth, breastfeeding, relationship mother – child, adoption and others. Helene Deutsch formed the concept of the woman through pathological research of the female development. She was criticized by feminists for declaring passivity, masochism and narcissism inherent for the woman despite the fact that Deutsch clarifies the sociocultural nature of these qualities. Helene Deutsch contributed to the development of psychoanalysis not less than any man and stood alongside Karen Horney and Anna Freud with this accomplishment.

Frieda Fromm-Reichmann (1889 – 1958)

Frieda Reichmann was born on October 23, 1889 in Karlsruhe, Germany. She was raised in an Orthodox middle-class German Jewish family with a father – successful banker. The future psychoanalyst attended the medical school in Königsberg and graduated as a doctor in 1914. During World War I she treated soldiers with brain traumas. After the war she travelled to Dresden where she worked in a sanatorium. Later on, Frieda worked in a university hospital for mental diseases in Munich with director – Emil Kraepelin. In the early 20s Frieda started learning psychoanalysis. Until 1935 she studied psychoanalysis. In 1926 she married Erich Fromm but her marriage didn’t last long. Together with Erich they founded the Frankfurt chapter of the German Psychoanalytic Society, and then the Psychoanalytic Institute of South-western Germany. In 1930 she founded a private sanatorium in Heidelberg for treatment of neurotic and psychotic patients. When Hitler and his party came to power in 1933, Frieda was forced to emigrate and after brief stays in a couple of places, she settled in the USA, where she founded her second home. She started work in a specialized sanatorium for treatment of mental diseases. Due to her qualities that sanatorium became the centre for treatment of schizophrenia. In this clinic the leading psychiatrist was Harry Sullivan. Reichmann achieved great results with the treatment of schizophrenia and manic-depressive psychosis. Her patience, empathy and kindness opened the heart and soul of the mentally ill. She published her work and ideas not in books but in articles and there are collections of articles in German too. Frieda Reichmann might be associated to neo-psychoanalysis whose beginning she set along with Horney, Sullivan, Clara Thompson and others. Reichmann passed away at the age of 68 in 1958 (Ratner, 2005).

Frieda Reichmann developed her conceptions and ideas for psychosis and therapy based on her clinical experience. She neglected the criteria for the selection of patients suitable for psychoanalysis, amongst which were the reasonable degree of education and the moderately durable character. The father of psychoanalysis refused to work with psychotic patients, for example, such that suffer from schizophrenia whereas Reichmann focused her effort particularly towards that direction. Her insights and therapeutic work are valuable for generations of psychoanalysts in their communication with patients who are stigmatized and often qualified as not subjected to treatment (Hoffmann & Haffner-Marti, 2011). During that time, the biological conception and therapy of psychosis were created but Frieda Reichmann assembled a team of psychoanalysts who examined the disease in-depth. They focused their attention on the early socialization of the personality and researching the impulsive and emotional development. Psychotherapy of schizophrenics requires the therapist to be very patient because the treatment continues for years. Frieda Reichmann said that the therapist who did not possess patience should focus on treatment of neurosis because you can achieve good results faster and easier (Ratner, 2005). The difficulties of the psychological treatment of schizophrenia are many: the schizophrenic builds a wall around him/her, the reticence, the hard communication, the regressions, the fear and the outbursts of aggression or self-aggression, the distrust. They all create many serious obstacles in the attempts of the analyst to approach the patient. The psychotic is “a hermit of the social world”. He/she is quite distant from his relatives and suffers from it but at the same time he/she is glad that nobody bothers him/her. The Analytical examination leads to the conclusion that psychoses are not only diseases but attempts for self-medication. The psychotic has calculated the amount of his fears and inabilities and he attempts to stabilize by the disease.

According to Frieda Fromm-Reichmann the so-called “normal persons” are just in other way “insane” and here is why every arrogance from the “normal persons” towards the “insane” is false. Whoever really succeeds in getting to know the mentally ill can learn much from them. We should just look at them and spot, in their disorders, our own weaknesses and fears. Frieda Reichmann stated – “The mentally diseased are useful for the psychically healthy with their help in finding our own mind, which often we start losing in the deformations, dissociations and hypocritical adaptations forced on us by the today’s humanity and modern culture” (Rather, 2005). Reichmann makes comparison between the neurotic and psychotic and notices that while the neurotic still has relatively unaffected “Ego” with appropriate defence mechanisms, the schizophrenic suffers from complete collapse of the “Ego”. This “Ego” gives up, fills itself with impulses from “Id” and feels like a victim of the “fear from the world”. The strong outburst of the disease (schizophrenia) is followed by a massive regression in which the patient returns to his childish stage of development where in an archaic way he relives people and things (Rather, 2005).

The outstanding psychoanalyst marked the meaning of early childhood, where you can find the prehistory of the disease. The emotional contact between the mother and the child is essential. The child has to learn to socialize with the others, to understand the world and to accept his/her close ones as partners. However many children fall under the influence of narcissism (emotional self-sufficiency), which limits their personal development and although the child seems socialized, he/she can collapse when going through puberty. The schizophrenic shifts his/her interest from the world because he/she cannot live normally in it and because he/she finds his life conditions inappropriate. The in-depth analysis which Fried Fromm-Reichmann made showed inner conflicts of the personality, the wandering and the weaknesses of the “Ego” and the compensation of the inferiority. The concept of the disease the psychoanalyst created was based on her experience. With this we can safely say that Reichmann greatly contributed to the whole psychoanalysis and set the beginning of a completely new field for studies and therapy (Hoffmann & Haffner-Marti, 2011).

According to Reichmann everything the patient reveals through his linguistic mistakes and stereotypes is actually expression of his/her fear and at the same time protection against it. The goal of the therapy is for the patients to find their own sources of satisfaction and security, without depending on the approval of their loved ones. The student of Freud examined schizophrenia as a specific personal status with its own forms of life. She wrote: “I am sure that many schizophrenics can get better if the goal of the treatment is to understand the view and needs of the schizophrenic personality and not view everything from the side of the conformist and “good citizen of the country” (psychiatrist) (Rather, 2005). The therapist has to help his patients integrate in society. The work with the schizophrenics requires authenticity. Reichmann reached the conclusion that during the therapy with the schizophrenic patients it is necessary to apply dynamically oriented psychotherapy. A man can come out from one severe mental disorder as a creator that accepts the negative aspects of his pathogenic anamnesis. The emotional and mental disturbances of the mentally ill are only different in “size”, but not in their essence, compared to “normal” people. The psychiatrist must display sensitivity and vigilance during his communication with the psychotics. This affects the attitude towards “normal” people. (Hoffmann & Haffner-Marti, 2011). In order to successfully treat psychotic patients the therapist must cover these requirements which are not seen in the average psychiatrist.

Frieda Fromm-Reichmann worked with patients with the manic, depressive psychosis. She found the reasons for this disorder in the early childhood when the mother accepts her own child only with his/her dependence and pliability and systematically discourages his/her effusive impulses. The super ego is powerful; the contact with people superficial. The manic, depressive temper is recognized by the fact that the inner void is filled with the “desire for consuming/absorbing” the others. The depressive collapse usually comes with losing love or prestige.

Reichmann focused on the qualities of the therapists. The schizophrenic can be cured only if the psychiatrist manages to build a strong relationship and mutual trust with the patient. She treated her patients with love and took care of them as if they were kids but at the same time she accepted them as mature persons. Her opinion is that the analyst should find his/her own therapeutic style – relative to his/her personality. The therapist must be consolidated and to be clear with him/herself. Only then will he/she be able to truly listen to his/her patient. He/she should believe that everybody is capable of development even people with mental illnesses. The analytical therapy stands on values like: dignity of the human person, capability to work and love, development, security, freedom of the personality.

The other problem with which F. Reichmann worked is the issue of solitude. According to her, the psychical disturbances and the mental illnesses are caused by the solitude of the personality. Rarely do psychiatrists study this problem (Hoffmann & Haffner-Marti, 2011; Ratner, 2005). There is loneliness in the normal life too. If it is a factor from early age, the consequences are noxious. This affects unfavourably the development of the person and causes depression and other disturbances. The interpersonal behaviour is affected too; persons, who as kids were left alone and felt lonely, are more likely to have a hard time dealing with their frustrations connected with the loss of a partner. Psychotic patients usually have in their past long periods of loneliness. They did not have anybody to communicate with them, understand them or sympathize with them.

Frieda Fromm-Reichmann managed to understand psychosis like no other analyst. Her sensitivity and kind attitude towards the mentally ill helped her to achieve notable achievements in the therapy of schizophrenia, manic depressive psychosis and other diseases. Reichmann is particularly well-informed but she was not in any case a "straightforward analyst". She transformed the principles of Freud, combined them with her own qualities and in that way she formed her individual therapeutic style. She was a bold person in her work and devoted to her patients too. During the communication with them she displayed honest simplicity and understanding. Frieda Fromm-Reichmann became a mentor to all the young analysts.

Sabina Spielrein, Helene Deutsch and Frieda Fromm-Reichmann are talented psychoanalysts who greatly contributed to the development of psychoanalysis. Their work should be studied and remembered because their ideas are modern even today.

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Rezime

Zar žene nisu doprinele razvoju Frojdove teorije i terapije? Odgovor na ovo pitanje je komplikovan i nije nedvosmislen. Razlozi za to su složeni: istorijski, pa i androcentrični. U ovom radu su predstavljena postignuća Sabine Špilrajn, Helene Dojč i Fride From-Rajhman, kao i njihov doprinos psihoanalitičkom pokretu. Svaka od njih briljantno razvija i brani svoje koncepcije i ideje. One zaslužuju počast ništa manju od mnogih muških predstavnika psihoanalitičkog pokreta. "Ponovno otkriće" Sabine Špilrajn, Helene Dojč i Fride From-Rajhman podstiče psihološku zajednicu da u budućnosti razvija radove o važnoj ulozi žena psihologa.

Ključne reči: *psihoanaliza, žene, zaboravljene, postignuća, doprinos*

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CORRELATIONS BETWEEN TRANSACTIONAL ANALYSIS CONCEPT OF PRIMARY MOTIVATIONAL DRIVERS AND PERSONALITY TRAITS BASED ON THE HEXACO MODEL

Abstract

The aim of this research was to test theoretically assumed correlations between five distinctive forms of behaviour, feelings and beliefs, called Drivers in Transactional Analysis and personality traits measured by HEXACO model. Both HEXACO model and Drivers indicate neurotic as well as positive sides of dominant personality traits. Eysenck's model of personality is based on dimensions that do not exclude each other as opposed to personality types, similar to TA description of personality by identifying both primary and secondary Drivers. Measuring was done using Driver Test 35Q and the 60-item HEXACO-PI-R S/R form. The research was carried out on 148 students from Belgrade and Niš (76% females, 23% males, about 23 years old). The results indicated a statistically significant, low negative correlation between Honesty - Humility and Driver "Be strong" ($r = -.19$; $df = 148$; $p < .05$). Also, results suggested a negative correlation with low statistical significance between Emotionality and driver "Hurry up" ($r = -.17$; $df = 148$; $p < .05$). Statistically significant positive correlation is found between Openness and Driver "Be perfect" ($r = .23$; $df = 148$; $p < .01$). The primary Driver may indicate the personality strength when applied to nonclinical population, and could be used as a useful psycho-diagnostic tool for clinical purposes.

Keywords: *motivation, primary drivers, HEXACO-PI-R, personality dimensions*

Introduction

The aim of this research was to test theoretically assumed correlations between Transactional Analysis Drivers concepts and HEXACO model personality traits. The term "Driver" represents characteristic sequences of behaviour shown right before an individual gets into any kind of script behaviour or feeling, lasting from a split second up to seven seconds (Stewart & Joines, 1987). By observing several thousand people, Kahler (Kahler & Capers, 1974) suggested that there are five basic Drivers: "Be perfect", "Try hard", "Hurry up", "Please me", and "Be strong". Although they seem helpful, each of these drivers is, actually, an invitation to get more into the script behaviour because of the way they are formed. They come from a not-OK Nurturing Parent, which sends a message that the person is OK only if he/she: is perfect, strong, tries hard, hurries up or pleases others. Those messages invite the not-OK script injunctions in the way that if the person does not have or cannot gather enough energy for satisfying his/her inner Parent, he/she would not have permission to be OK, having as a consequence that he/she would have to obey the injunction from which he/she was trying to protect himself/herself.

In her conceptual analysis work Julie Hay emphasized the reference to positive drivers that was made by Klein (1987), who described the assets and ways of relating positively for each driver type. For example, for Be Perfect she wrote: "If you are mostly Be Perfect you undoubtedly have a better idea of how to live well than most people and "A Be Perfect person –minus his or her intolerance, bigotry, and autocratic self-righteousness –is as wise, steadfast, warm and good a person as you will ever know." (Klein 1987, as cited in Hay, 2003).

Referring to each driver as a personality type, Klein provides a table of assets, liabilities, needed permissions and ways to "get the best out of them" (p.161).

Hazell (1989) also commented on the positive aspects of drivers, presenting them as “habits that we all utilize to deal with the challenges... useful when well moderated...”and “positive when used to achieve”(p.212). To reflect this positive aspect, he proposed renaming Be Perfect as Be Right, so that all of them “describe a goal that is desirable and possible to achieve, within reason.”(p.212). He also suggested we use Be Pleasing instead of Please Me/Please You. Hazell presented a drivers checklist he had developed, together with an explanatory handout that gives information on how drivers help as well as hinder.

Driver test 35Q was developed by Stefan Sandström starting from the position that some existent Driver scales (Hazell, 1989; Falkowski & Munn, 1989) that are not evidence based contain non-functional items that distort the result. In his empirical efforts to develop scientifically valid Driver instrument, Sandstrom has created test with the following psychometric characteristics: Chronbach’s alpha for the Drivers, as a measure of reliability for each individual sub-scale are the following values: Hurry Up 0.83 Be Strong 0.80 Please Me 0.82 Try Hard 0.77 Be Perfect 0.73.

One of the most interesting findings from his development work came after the performance of a factor analysis on the data. In this case it uncovered subgroups in four out of five Drivers. The only one left intact was “Hurry up”.

One could probably choose to use this as a basis for a theory of nine different Drivers, or to see it as a second degree structure of Drivers. It is fairly clear that a person can have either both or just one of the sub group Drivers (henceforth referred to as Sub-Drivers), and that this yields clearly different results in behaviour, emotion and cognition.

The sub groups, then, were:

Please me. The Please me Driver was sub-divided into one that was *focusing on other peoples needs at the expense of their own*, whereas the other was concerned with *being obedient*, which means that the test persons tended to subjugate themselves in relation to others and treat them as authorities that should be obeyed. A person with both Sub-Drivers will both be obedient and taking care of others.

Be perfect. The most common way to describe “Be perfect” has to do with external behaviours; being spotless, clean, with a perfect appearance etc. The factor analysis, however, showed that besides this group there was also one that derived perfection from internal principles (morality). A person can then have either an external or internal Be perfect Sub-Driver or both simultaneously.

Try hard. In both variants of the Try hard Driver there is a pattern of valuing effort over result, which leads to a tendency to miss the target. The first one is concerned with Trying hard by working hard while the second is concerned mainly with over-detailing various tasks.

In both Sub-Drivers the permission to do things simply and effortlessly is effective in counteracting them.

Be strong. The two Sub-Drivers identified with Be strong was on the one hand concerned with being strong by enduring various hardships, such as heavy workloads, pain or suffering. It may seem easy to confuse this Sub-Driver with the Try hard Sub-Driver concerned with working hard, but it seems to me that the emphasis here is more to “suffer in silence”, “not being a coward” while the Try hard Sub-Driver has to do with “producing a lot of work”.

The second Be strong Sub-Driver is more directed towards a kind of quasi-autonomy. This expressed itself in not wanting to be a burden unto others, not wanting to ask for help etc.

Similar to stated description of 35Q test internal variability, within each dimension of the scale, there is no clear clustering of individuals within the space of the six HEXACO-PI dimensions. Instead of forming dense concentrations around the cluster centers, individuals are distributed in a roughly even fashion throughout the space. This is consistent with the findings of Costa et al. (2002), who noted that participants were distributed in a relatively even fashion throughout the space of the Big Five factors, rather than being heavily concentrated around the cluster means. HEXACO-60, a short personality inventory assesses the 6 dimensions of the HEXACO model of personality structure. 10 items of each of the 6 scales from the longer HEXACO Personality Inventory-Revised were selected (Ashton & Lee, 2008; Lee & Ashton, 2004, 2006), with the aim of representing the broad range of content that defines each dimension. In self-report data from samples of college students and community adults, the scales showed reasonably high levels of internal consistency reliability and rather low inter-scale correlations. Correlations of the HEXACO-60 scales with measures of the Big Five factors were consistent with theoretical expectations, and convergent correlations between self-

reports and observer reports on the HEXACO–60 scales were high, averaging above .50. HEXACO–60 is recommended for use in personality assessment contexts in which administration time is limited. Although further research is warranted, the HEXACO model of personality and its operationalization, the HEXACO-PI, appear to be a very useful framework for summarizing human personality variation.

Method

Sample and procedure

The sample consisted of 148 participants (23,6 % male) with the average age of 23.51 (SD = 2.06; ranging from 20 to 34 years) from student population of the University of Belgrade and University of Niš. The participants provided the data at their Faculty on a voluntary basis. Filling in the questionnaires lasted for twenty minutes on average.

Measures

Driver Test Q35. This 35 item questionnaire was constructed in order to measure five Drivers from the Transactional Analysis theory (Please me, Be perfect, Try hard, Be strong and Hurry up). Each subscale has seven questions with 5-point Likert response (0 = never/disagree totally, to 4 = most of the time/agree totally). The Serbian version of this scale was administered for the first time, and it was previously translated and back translated by two persons fluent in both Serbian and English.

HEXACO 60. This 60 item inventory represents a short form of the HEXACO PI-R inventory (Lee, & Ashton, 2005, 2007, 2009). It has been created in order to assess the six basic personality traits (Honesty/Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness and Openness), defined by the HEXACO model. Each domain has 10 items with a 5-point Likert response scale (1 = strongly disagree, to 5 = strongly agree).

Results and discussion

Descriptors and reliability analysis

Means, standard deviations, minimum and maximum scores are provided for the HEXACO-60 and Driver Q35 scales, as well as reliability analysis. The results are shown in Table 1.

Table 1. Means, Standard deviation, and Internal Consistency Reliabilities (Coefficient α) of the Study Variables (n = 148)

HEXACO and Drivers	M	SD	min.	max.	α
Honesty/Humility	3.57	.61	2.20	5.00	.66
Emotionality	3.41	.67	1.30	5.00	.76
Extraversion	3.51	.56	2.10	4.80	.72
Agreeableness	2.85	.55	1.40	4.30	.61
Conscientiousness	3.44	.64	1.80	4.80	.76
Openness	3.63	.68	1.80	4.90	.68
Please me	3.07	.51	1.33	4.00	.60
Be perfect	2.83	.67	.57	4.00	.75
Try hard	2.34	.56	.33	3.50	.51
Be strong	2.11	.67	.67	3.50	.61
Hurry up	2.57	.70	.29	4.00	.71

The result of reliability analysis, using Cronbach's α coefficient, shows that six HEXACO scales had adequate reliabilities, ranging from .61 (Agreeableness) to .76 (Emotionality and Conscientiousness), with a mean coefficient of .70.

For the five Driver domains, the reliability coefficients were acceptable, ranging from .60 to .75, except for the Try hard domain, where the coefficient was only .51. Practically, low values of Cronbach's α coefficient mean that some of the items intended to measure Try hard dimension does not stand in correlation with this factor. Lack of internal consistency could be expectable since factor analysis conducted by Sandstrom indicated the existence of Sub-Drivers that were not included as

separate factors during the construction this questionnaire. Since the construction and validation study of Drivers Q35 inventory hasn't been published yet, we are not able to compare more thoroughly our results of the internal consistency, as well as the descriptors.

Correlations of Drivers Q35 with HEXACO scales

The correlations between the five drivers and the HEXACO scales were analyzed to determine the relations between the drivers and basic personality traits. In the Table 2 the coefficients are presented.

Table 2. Correlations of Driver domains with HEXACO scales (n = 148)

	Please me	Try hard	Be perfect	Hurry up	Be strong
Honesty/Humility	.01	.03	.12	-.02	.19*
Emotionality	-.14	-.09	.06	-.17*	.10
Extraversion	-.01	-.15	.16	-.02	.13
Agreeableness	.03	.03	.01	-.04	.06
Conscientiousness	-.06	-.02	.11	-.06	.08
Openness	.09	.04	.23**	.05	-.03

Note: * - $p < .05$; ** - $p < .01$

Results indicated a statistically significant, although low negative correlation between dimensions Honesty - Humility and Driver "Be strong" ($r = -.19$; $df = 148$; $p < .05$). Honesty/Humility as the sixth factor of HEXACO model includes sincerity, rightfulness, modesty, loyalty as opposed to deceitfulness, hypocrisy, conceitedness, slyness and greed (Ashton & Lee, 2007). As expected, in the research we obtained a negative correlation in relation to the driver "Be Strong" ($r = -.19$; $df = 148$; $p < .05$), which suggests that the more person is in the driver, the more reduced positive aspects of Honesty/Humility are. Persons in the driver "Be Strong" almost always share the opinion that their feelings and actions are not their own responsibility, but are caused by external circumstances. They expect a lot from others, but usually the worst. They are not prone to trusting others due to their conviction that they always have to be strong and invulnerable. They believe they are worthy only if they hide their feelings and desires from others.

Also, results suggested a negative correlation with low statistical significance between Emotionality and driver "Hurry up" ($r = -.17$; $df = 148$; $p < .05$). Emotionality in HEXACO model (Neuroticism –in Five Factor Personality model) can be defined as oversensitivity, sentimentality, fearfulness, anxiety, irritability, vulnerability or as shyness, independence, self-awareness and stability. In the research we obtained a negative correlation between Emotionality and driver "Hurry up" ($r = -.17$; $df = 148$; $p < .05$), which could suggest that the more prominent emotionality is, the less manifested driver "Hurry up" will be and vice versa. We could assume that due to the negative correlation, a change between drivers and permissions happens, therefore, these persons will rather use permission "slow down" than driver "hurry up", but not in a functional, but in an inhibiting way. In the functional structure of ego state it would mean that a person will not act from Adult (with the existing permission), but from negative Adapted Child, intensifying the counter script. We could also explain the negative correlation between Emotionality and the driver through the knowledge of the script process. Factor analysis performed by Sandstrom, mentioned in the introductory part, reveals the existence of Sub-drivers within each driver type with the exception of the driver "Hurry up". According to the theoretical model of Transactional Analysis (Joines & Stewart, 2002), the driver "Hurry up" is not found as a primary, dominant driver, but is combined with one of the remaining four drivers, which only intensifies the level of adaptation and prominence of negative aspects of the primary driver. Namely, since drivers represent the manifestations of the prominent ego state Adapted Child, the repression of authentic emotions is one of the basic indicators of dysfunctional adaptation.

Statistically significant positive correlation is found between Openness and Driver "Be perfect". Openness has high correlation with intelligence and with the superior aspect of "Be perfect" dominant driver ($r = .23$; $df = 148$; $p < .01$). Openness is manifested "in the breadth, depth, and permeability of consciousness, and in the recurrent need to enlarge and examine experience" (McCrae, 1996). Numerous researches have shown that this dimension is a key political determinant

of people since it includes extroversion, imagination and openness to new experiences. At the same time, the driver “Be perfect” shows that a person can have great accomplishments, can achieve autonomy, success and need to always be right. Openness is the only domain of Five Factor Model which shows systematic positive correlations with intelligence. Therefore, if we suppose that intelligence has a high positive correlation with the driver “Be Perfect”, we can conclude that persons in whom this dimension is prominent possess the skills to apply the resources of ego state Adult in the analysis and prevention of dysfunctional script processes and games in relation to others.

Since not only the reliability coefficients of sub-scales within Test 35Q are low, but also the obtained correlations, all these hypotheses based on the obtained results are presented as initial hypotheses which require further research and check.

Conclusion

The research tested the assumed correlation between HEXACO Personality model and Transactional analytical concept of motivational drivers as a basis for understanding individual differences. At the same time, this research has checked the reliability and internal consistency of Test 35Q after being translated from English, in which the test was made, into Serbian. The results suggest that a reconstruction of the scale measuring Try Hard driver is needed, that is re-examining and reformulating the questions that it consists of. Also, based on the example of the driver Be Perfect, it has been concluded that the results support a broad understanding of the driver concept which can have its positive sides beyond clinical application. On the other hand, the relation between drivers Hurry up and Be strong and personality dimensions shows the negative driver aspects by being compared to HEXACO personality model supplemented by the sixth factor Honesty/Humility, which proved to be especially important for understanding how the driver Be strong affects personality.

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Rezime

Cilj istraživanja je ispitivanje prirode odnosa, s jedne strane pet karakterističnih postojećih obrazaca ponašanja, osećanja i uverenja nazvanih Drajverima u Transakcionoj analizi i s druge strane, crta ličnosti merenih HEXACO modelom. HEXACO model, poput Drajvera, otkriva kako neurotske tako i pozitivne strane dominantnih dimenzija ličnosti. Ajzenkov model ličnosti zasniva se na dimenzijama koje nisu isključive, za razliku od tipova ličnosti. Kao instrumenti primenjeni su Driver Test 35Q, koji meri primarne i sekundarne drajvere, i inventar ličnosti HEXACO-PI-R S/R forma od 60 ajtema. U istraživanje je uključeno 148 ispitanika iz populacije studenata iz Beograda i Niša (76% ženskog pola, 23% muškog pola, prosečne starosti 23 godine). Dobijene su statistički značajne, mada niske, negativne korelacije između Poštenja i drajvera "Budi jak". ($r = -.19$; $df = 148$; $p < .05$). Takođe je dobijena statistički značajna niska negativna korelacija između Emocionalnosti i drajvera "Požuri" ($r = -.17$; $df = 148$; $p < .05$). Statistički značajna pozitivna korelacija jeste između Otvorenosti i drajvera "Budi savršen" ($r = .23$; $df = 148$; $p < .01$). Kao što smo pretpostavili, dominacija Drajvera može govoriti i o snagama ličnosti na nivou ne - kliničke populacije, pored ukazivanja na psihodijagnostički indikativne karakteristike za kliničke potrebe.

Ključne reči: *motivacioni pokretači, primarni drajveri, HEXACO-PI-R, dimenzije ličnosti*

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NARRATIVE CONVERSATIONS RE-AUTHORING IDENTITY STORIES OF THE ELDERLY IN ROMANIA

Abstract:

This is a review of the results of a formative evaluation of a home-based social care program for the elderly in Iasi and the clinical evaluation and psychological counselling of elderly patients in the geriatric clinic of a university hospital in Iasi, Romania. The formative evaluation took the form of a "definitional ceremony" (White, 2007), a narrative approach structuring conversations in storytelling communities or groups and audience communities or groups, focusing on telling, re-telling, and re-re-telling of the experience of the persons who are in the centre of this process, in our case, the 8 elderly people who were part of a home-based social care program in Iasi. The elderly patients in the geriatric clinic benefited from the individual clinical psychological evaluation and, on request or referral, of psychological counselling. The individual narrative counselling conversations principles and some of the findings are described. The narrative approaches, in a group format or in individual interactions, permit the conclusion that such conversations result in re-authoring identity stories with various wellbeing outcomes for those involved. The basic role of the narrative facilitator of the conversations is underlined. Also, the final conclusion of these experiences relate to the therapeutic effect of orchestrating narrative conversations, indifferent to the main purpose of the interaction. Theoretical aspects of narrative identity development are included, as a basis for comparing the different settings of the similar narrative approach.

Key words: *narrative therapy; identity; the elderly*

Introduction

This study is part of a European funded project (Progress VS/2010/0106) called GRAMPS "Servizi socio sanitari: Un Sistema di qualità volontario" focusing on the quality of home-based services for the elderly in Italy, Spain, The Netherlands and Romania.

In the preparation phase Ovidiu Gavrilovici contacted and provisioned with individual discussions the psychologist at the Residential Centre for Pensioners in Iasi, Municipal service, with the President of Catharsis Foundation (promoting mental health for seniors, especially for those alone, without any family, living at their own homes), and with the Executive Director of the Solidarity and Hope Foundation of Iasi. The SHF director agreed to be part of the experimentation of the home based services for the elderly that they are providing in Iasi. Two meetings with the staff were planned and the narrative methodology was presented, tested with the staff and commonly agreed upon adaptation and implementation with the elderly who were served by SHF.

Aim of the study

The Romanian team lead by assoc. prof. Ovidiu Gavrilovici, Ph.D. proposed a narrative approach method to be applied within the group meeting in Iasi, Romania, respecting the main focus agreed of the project experimentation, that is, to focus on the interaction between all the subjects involved in the services – the elderly, family members, and multidisciplinary staff. The ultimate aim of the study was to create a conversational space for those in interaction so that evaluative reflections

about the experience being served at the domicile may be informative for all those involved and may inform outer audiences (such as the managers of social and medical services, the general public, researchers, policy makers, etc.).

Epistemological position

The researcher's position was deliberately social-constructionist; as a result, it was assumed that no theories would guide the investigation. The interviewer/facilitator position is close to a "not knowing" position (Anderson, 2005).

Method and participants

For the Iasi experimentation, the preparations included designing a narrative approach group method adapted for the purpose of the project. The method chosen and adapted was the "Definitional Ceremony" (White, 2007), developed initially by the cultural anthropologist Barbara Myerhoff (1982, 1986). This is a narrative approach structuring conversations in storytelling communities or groups and audience communities or groups, focusing on telling, re-telling, and re-re-telling of the experience of the persons who are in the centre of this process.

The study describes the whole process of involvement of all actors in the narrative encounter and delineates the main themes which emerged from the transcript of the conversations.

A total of 16 participants formed the group – including the facilitator of the meeting, Ovidiu Gavrilovici. In this study 6 elderly and 2 family members formed the "story telling community" whose stories were listened in the first phase of the ceremony by 7 staff members and volunteers of the foundation (1 social worker, 2 nurses, 3 home caretakers, and 1 physician/doctor in the "audience community").

Results

An unique aspect that emerged during the experimentation was that the home assisted elderly never came together since the beginning of the services, and that some of them never knew where the foundation was located, never have seen the staff together, and never had an occasion to tell some aspects of their life stories in front of an audience. The elderly have met for the first time during the experimentation.

All participants – the elderly, family representatives and staff members – were moved (emotionally) with respect to the shared stories and they were appreciative for being part of this experimentation. Also, they mentioned that this approach should be reiterated and that they would be able to participate more, in next meeting(s). The elderly mentioned their high appreciation for the respect they are treated while staff members visit them at home, highlighting especially the communication style of the staff and their perseverance in following their needs. The elderly valued the service provider and they showed the development of a common "pride" of being served by this foundation which is also a social "arm" of the Christian Orthodox Church in Iasi, so it has explicit spiritual values embedded into their services.

"it is for the first time that I have participated in such a thing; it is a very close knit staff team and they are respecting us beautifully... what can I say... because I am but a bird on the ground... but I like when they come to our home, they respect us. They respect us primarily starting with saying hello when they enter, goodbye at the exit, bon appetite when we have to eat, ... this is a very educated way,... very..., they see us as normal people, but we are not that normal, I am not normal..." [this participant is the only man in the narrative conversation group and he is a blind man]

"this respect is as if we received a sort of life... I am fed, I am tormenting a lot of people who work for me: 1. I torment that one who cooks, 2. That one who brings the food, who carries it, there is also a driver, and there is the person who puts the food on the table, the one who hands it to me, and, at the end, he [or she] comes and says also "bon appetite" and says "good day", and says "goodbye".

Discussion

The elderly mentioned their high appreciation for the respect they are treated with while staff members visit them at home, highlighting especially the communication style of the staff and their perseverance in following their needs. We conclude that the valorisation processes apparent in the dialogical encounter during the 2 hours of narrative enriching conversations among the successive

audiences deconstruct the lack of respectful practices surrounding the life and existence of the elderly who are alone, still capable to self-care, but at risk of institutionalization.

The narrative framework utilized in the formative evaluation design proved its merits in engaging participants in both communities (storytelling and audience) in the deep rooted values that animate their interactions, bringing forth arguments and stories from their own lives and resurrecting identity claims otherwise hidden, unacknowledged, and muted.

The study is highly participative and is evolving with the stories knit in the conversation, weaving from the “landscape of action” to the “landscape of identity” (White, 2007), gradually engaging the participants in higher level abstract considerations of actions and events of their lives and unveiling deep values and convictions that they held precious about their lives, values and beliefs which guide their interactions and practice (both for the elderly who were served and for the professionals who offer the services).

In line with Abma et al. (2012), this study is promoting narrative conversations as spaces to invite resolutions to the moral question of how older people may remain autonomous and continue to live in dignity, as far as they continue to be connected to their own preferred values. Providing storytelling opportunities – connecting present time experience to lifelong expressions of preferred identities may be an important competence to exercise for the professionals in the multi-disciplinary social and medical care team.

Such a study would benefit from a mixed model of research, connecting the qualitative aspects of lived experience to a series of quantitative indicators of wellbeing and satisfaction with life and with the services.

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Rezime

U radu je prikazan pregled rezultata formativne evaluacije socijalnog programa kućne nege starijih osoba u Jasiju, kao i kliničkih procena i psihološkog savetovanja starijih pacijenata gerijatrijske klinike Univerzitetske bolnice u Jasiju, u Rumuniji. Formativna evaluacija je vršena u formi “završne ceremonije” (White, 2007), koja predstavlja narativni pristup struktuiranja razgovora u pripovedačkim zajednicama ili grupama ili u zajednicama ili grupama koje predstavljaju publiku, pri čemu je fokus na pričanju, ponovnom i ponovnom pričanju o iskustvima osobe koja je u centru ovog procesa, u našem slučaju, 8 starijih osoba uključenih u socijalni program kućne nege starijih osoba u Jasiju. Stariji pacijenti gerijatrijske klinike su imali dobit od individualne kliničke procene i od psihološkog savetovanja, ukoliko su na savetovanje bili upućeni ili su ga sami tražili. U radu su prikazani principi individualnih savetodavnih razgovora i opisani su neki nalazi. Narativni pristup, primenjen u grupnom radu ili u individualnoj interakciji, nam dozvoljava da zaključimo da je rezultat ovakvih razgovora ponovno autorizovanje ličnih priča sa različitim dobrim ishodima za one koji su uključeni. Istaknuta je osnovna uloga narativnog facilitatora u ovim razgovorima. Takođe, krajnji zaključak na osnovu ovih iskustava odnosi se

na terapijski efekat organizovanih narativnih razgovora, koji nema veze sa osnovnom svrhom interakcije. Uključeni su i teorijski aspekti razvoja narativnog identiteta, kao osnova za poređenje različitih postavki sličnog narativnog pristupa.

Ključne reči: *narativna terapija; identitet; stariji*

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KARL MARBE: DAWN OF FORENSIC PSYCHOLOGY

Abstract

At the dawn of forensic psychology, an original figure stood up on the scientific landscape: Karl Marbe, a German psychologist who was the first to walk the streets of psychology applied to forensic psychology. Appointed by the Court as an expert in several legal disputes, including the famous case of the railway disaster of Müllheim, Marbe had worked hard to trace the multiple factors that could influence a criminal action or a human error. Among those factors, Marbe had considered as relevant the seasons and the days of the week. At the same time, Marbe had followed a research path which considered individual characteristics, such as age, gender or social position. The number of crimes, for example, had increased among subjects aged between 21 and 25, between men older than 70 and among former prisoners. Therefore, his position was not very far from phrenology. Marbe had continued to distinguish the experimental subject according to the physical aspects, adding a new perspective: the predisposition to make mistakes, a concept that emerged especially in Psychology of work.

Key words: *psychology, forensic psychology, criminal act, Marbe*

Until 1899, the interests of the German psychologist Karl Marbe had been directed to the study of perception and sensation, in line with the trend of psychology in the late 19th century.

Such interests changed at the turn of the century, since they seemed to be aligned with the institutional question about the utilization of psychology in other scientific fields (Marbe, 1912, 1913a, 1913b). The 1901 works by Marbe followed this direction (Marbe, 1901; Thumb & Marbe, 1901), whereas his transition to applied psychology took place 10 years later (Mülberger, 1996, p. 117). In this new context, Marbe contributed to the birth of law psychology, thus inspiring a whole generation of German psychologists, who sought a stronger anchorage to the various vital realities.

Marbe had this opportunity because of a trial for a sexual crime, to which he was called by the defence to speak as an expert (Marbe, 1926). This activity had some precedents. The most significant work of the pre-scientific criminal psychology could be considered to be the series

Causes célèbres et intéressantes, avec les jugemens qui les ont décidés, twenty volumes published between 1734 and 1741 by the French jurist François Gayot de Pitaval. They were followed by other series of the same type (Middendorf, 1983, pp. 166-168), which treated murders as "exceptional events". Criminal psychology, if understood in scientific terms, dates back to the end of the 19th century with Cesare Lombroso's anthropological studies (1876), Hans Groß's *Kriminalpsychologie* (1898) and the research in forensic psychology carried out by James McKeen Cattell in 1893 at Columbia University (Cattell, 1895).

Assuming that "a lawyer without scruples can discredit the statements of a truthful witness through cunning selected questions, the jury [...] must know to what extent the mnemonic errors are normal and how they can vary under different conditions", Cattell asked 56 students a series of questions as though they had been in Court: "During autumn, what loses its leaves first: chestnut trees or oak trees? Do horses stay in the field with their heads or tails to the wind? What was the weather like a week ago? Are you sure of your answers?" (Cattell, 1895, p. 761). The result was that some students were sure of their answers, some not, as proof of the inability to give correct statements especially under stressful conditions (Cattell, 1895, p. 765). Cattell's research attracted the attention of psychologists. This issue was treated in France by Alfred Binet (Binet, 1905; Binet & Claparède, 1906) in his famous work on suggestion, and in Germany by Wilhelm Stern who, in 1901 together

with a criminologist, F. V. Liszt, experimentally demonstrated the high imprecision of witness. The experiment consisted of a false debate with law students that culminated with the drawing of a gun by a student. The debate was then interrupted by the teacher. Students' reports about the event revealed many errors, especially in the second part of the debate, when stress was higher. Stern concluded that evocative questions could compromise the accuracy of witness accounts, that witness changed according to age, and the events occurring in the meantime could greatly affect memory (Stern, 1902, 1903-1906, 1910).

As a parallel phenomenon, psychologists began to be utilised as experts in criminology; through laboratory techniques, they were deemed able to provide factual witnesses, such as the ones obtained by experimental data or related to the expression of their opinion. The last type of witness was given for the first time in 1896, when the Baron Albert von Schrenck-Notzing testified in a process to the murder of three women committed by a man from Munich (Hale, 1980). The murders received a great attention from the press in the months before the trial and Schrenck-Notzing (1897) believed that such a publicity, through suggestion, probably had affected many witnesses to falsify their "retrospective memory", since they were not able to distinguish between what they had seen and what was reported in the press. Schrenck-Notzing supported his opinion with a testimony given in the form of reports of a laboratory research on memory and suggestibility. Although the accused was guilty on the basis of solid evidence, the psychology of suggestion applied by Schrenck-Notzing during the criminal trials demonstrated how the results of the processes could be manipulated.

The German psychologist Hugo Münsterberg, another Wundtian student, continued the research in the United States, where he moved in 1892 upon the request of William James in order to supervise the laboratory of psychology at Harvard University. He took him 24 years to demonstrate that psychology could be applied in many fields, from education to industry, from advertising to music, art, and law. As he did this through popular newspapers, his colleagues nicknamed his psychology a "Sunday-supplement psychology".

His ardent patriotism provoked a strong antipathy among the Americans, especially before the First World War. This was evident because of the publication of a satirical article written by the famous journalist Wigmore (1909) in a legal journal. Münsterberg's answer was published in an article, *On the Witness Stand* (Münsterberg, 1908), which was the result of an unpleasant episode. In 1906 a defence attorney had asked him to examine the declaration of the guilt of his client and the proofs. The client had confessed to killing, but later he withdrew his confession. Believing the man mentally disabled and probably innocent, Münsterberg was sceptical about his confession. Unfortunately, the court refused to review the case and the man was hanged. So, in this volume, Münsterberg proclaimed the vital importance of psychology in the courtroom and denounced how suggestion could create false memories as well as that eye-witnesses were often unreliable. As for Marbe, his experience as an expert in the court led him to organise a criminal psychological training with demonstrations and experiments in the winter semester 1911/12.

In April of the following year, he was called for the second time (Marbe, 1913c). This is how he reported the news: "Until now psychology has only dealt with defence. But recently also state law has turned to psychology: the lawyer in Baden Justus Bender decided to have a psychological report during the hearing of the train crash in Müllheim, July 17, 1911" (Marbe, 1912, p. 63).

As reported in both articles *Furchtbare Eisenbahnkatastrophe*, published in the newspaper "Vorwärts Berliner Volksblatt", on 18th July 1911, and *Von Nah und Fern. Zur Eisenbahnkatastrophe bei Müllheim*, published in the daily newspaper "Leipziger Volkszeitung" on the same day, "on the morning of 17th July, around 8.30, a direct train from Basel had derailed at the entrance of the station of Müllheim. Instead of slowing down as reported by the station, the train had continued its route exceeding 100 km per hour, crashing into a curve of the track created for work in progress. Fourteen people lost their lives and about 30 were injured, 7 seriously. [...] Both the general direction of Baden State railways and the court of the Land of Freiburg were very interested in establishing the causes of the disaster. [...] The trial took place on 12th May 1912 and lasted 13 days. The engine driver, the train conductor and the stoker were accused of murder and disaster (Marbe, 1913c, p. 339). Marbe was asked the following questions by the court:

1. Did the alcohol drunk by the engine driver cause (or increment) a state of fatigue?
2. Did the alcohol weaken the sense of duty, i.e. did it reduce the engine driver's attention?

3. If in 22 seconds the conductor realised that the engine driver was incapable of making a decision and if he understood that there was a danger for the train, should he have invoked the driver to his duty and achieved this purpose?
4. How many seconds does the stoker need to realise the delay of the driver, to recall him to his responsibility and to decide to operate the emergency brake? (Marbe, 1913c, p. 346).

Marbe recorded all the details and investigated many experimental works on the reaction time and the acts of will. Therefore, his answers to the questions were as follows: “To questions 1 and 2: As the studies of Kraepelin, Aschaffenburg and others have shown, a higher rate of alcohol causes a decrease in intellectual capacity, a suppression of psychic inhibitions and drowsiness. To questions 2 and 3: Scientific studies of the psychology of thought have shown that psychic recognition needs only states of consciousness which take more time than thought” (Marbe, 1913c, p. 362).

Marbe continued citing the “determining tendency” (determinierende Tendenz) of Narziß Kaspar Ach, who had dealt with the relations between thought and will, by showing the inadequacy of the traditional associationist theories and postulating the presence of “determining tendencies” in the associationist flow (Ach, 1905). The “tendencies” were used by Marbe to demonstrate that the conductor and the stoker should have reacted unconsciously to the action of pulling on the brake only if they had previously received a good training in the rules. This was the result of his research conducted first in the laboratory, where the conditions of a moving train had been reproduced and then, directly in a locomotive, using as experimental subjects a conductor and a stoker to test their time of reaction. He was thus able to demonstrate how both needed less than five seconds to react properly.

The driver was sentenced to two years and four months and the conductor to six months.

Both had to pay legal costs. The fireman, however, was found not guilty because, being very busy with his work, he did not have enough time to realize the danger.

Thanks to the success derived from the process, Marbe taught a training course for senior court officials on behalf of the Bavarian Ministry of Justice. His lectures were on the subject of the volume *Grundzüge der forensischen Psychologie* (Marbe, 1913d).

His speech during the fifth Congress of Experimental Psychology held in Berlin in 1912, was of a crucial importance (Marbe, 1912). The article, published the following year in a more complete form (Marbe, 1913b), pointed out the need for psychology to be open to other disciplines, to enter the field of everyday life and clarified the various applications of forensic psychology, divided, according to the classification made by Hans Groß, into criminal psychology, diagnostics of the action and witness psychology. Marbe also provided some examples for each of these three fields: for the first one, it was Ach’s valuable work on voluntary action (Ach, 1905), for the second, Wertheimer and Klein’s work focused on the test of the associations (Wertheimer & Klein, 1904), in which the responses of the subject to the keywords related to the facts and the significant objects of a criminal act could have had the capacity for highlighting the emotional reactions and revealing the fault, and, finally, for the third, Stern’s essay on testimony (Stern, 1902).

There were many reactions against Marbe’s report (Schumann, 1912). The psychiatrist Wilhelm Weygandt pointed out the state of affairs of forensic psychology. Weygandt explained the question in this way: “In the judicial administration, the context of application [of psychology] would be immense, but as a matter of fact, the law teachers and the judges who are interested are still mostly in a small number. Certainly, there have been here and there some starting points: the societies of forensic psychology have gained (sic!) more places (about 8); [...] the attempts to ensure that criminal science material can take advantage of the psychological research meet a stiff resistance with the authorities” (Weygandt, 1912, p. 115).

However, since Groß’ *Kriminalpsychologie* excluded any reference to the psychology of witness, Marbe’s *Grundzüge der forensischen Psychologie*, together with Lipmann’s *Grundriß der Psychologie für Juristen* (Lipmann, 1908), remained among the very few specialized texts published before the First World War. After underlining the scientific nature of psychology, in his *Grundzüge*, Marbe identified its specificity in the law field by drawing attention to many factors that would have influenced criminal action. Among them, relevant factors were those highlighted by Aschaffenburg (1903), like the seasons (August, in particular) and the days of the week (Sunday, in particular), the periods in which significant statistical variations were recorded. Other factors were the individual

characteristics such as age and gender. The number of crimes, for example, increased among subjects aged between 21 and 25, among men older than 70 and among former prisoners.

Marbe referred to the tradition of individual and differential psychology and, thus, to the anthropological research that, especially from the second half of the nineteenth century, had attempted to reconstruct experimentally the natural history of man by measuring the skull, build, stature, etc. The differential analysis of forms and structures found its source in physiognomy and phrenology, whose product was criminology.

Marbe's concept of typification belonged to this framework. On the basis of Stern's assumptions on testimony (Stern, 1902), he declared that men had more "false perceptions" than women. However, the "false perception" was not the only factor that affected testimony in a negative way; there were also memory, suggestion, stress, as they resulted from his laboratory investigations (Marbe, 1913d, p. 43).

Regarding the method of associations conceived by Wertheimer and Klein (1904) and later used by Carl G. Jung (1912), Marbe remarked its "occasional" usefulness and only if used by experts. According to him, tests were dangerous because, due to the negative assessment given to the psychic potential of criminals, the accused subjects would have been able to derive benefits. He feared that, in case of a diagnosis of intellectual deficiency in young offenders, they could not be judged correctly (Marbe, 1913d, p. 79).

A particular attention, however, was given by Marbe to the distinction between a voluntary action and the act of will, where the first was caused by the second. In order to clarify how the events related to the will were influenced by intentions or voluntary acts, Marbe referred to the work of Franz von Liszt, *Lehrbuch des Deutschen Strafrechts* (von Liszt, 1912). His experiments with *selbst-observieren* (observation) in the context of the psychology of thought had convinced him that the (imaginative) representations played a more restricted role in the life of consciousness than it was generally believed. Consequently, in many cases the concrete representations did not lead to the act of will; they led to disseminated psychic states or states of conscience, like words or even verbal and abstract events. The voluntary actions were defined by Marbe as "those movements which are intentional or wanted" (Marbe, 1913d, p. 85); they could be external if transformed by muscular movement or internal if they were the result of representations or states of consciousness. He identified three circumstances in which the punishability of voluntary action took place: first of all, when it was made with the knowledge of its result; secondly, when such a result was wanted and, finally, when the offender was aware of the causal connection between the voluntary action and its punishable result. The Marbian Grundzüge, even if supported by experiments, were not always favourably accepted. Arthur Nussbaum, a lawyer from Berlin, expressed an unfavourable opinion against the laboratory experiments which were "far away from everyday life", and he considered grossly the efforts of psychology to be useful in the field of law, "without having previously made a long and proven experience with law practice" (Nussbaum, 1914, p. 38). On the contrary, August Finger, a professor of law at the University of Halle, wrote a favourable review (Finger, 1915) published in the *Gerichtssaal*, the journal co-edited by Martin Oetker, a colleague of Marbe's in Würzburg, to whom Marbe dedicated his work. Two reviews signed by Wilhelm Peters, Marbe's collaborator, appeared in the same journal. The first concerned his essay on the testimonies given by children (Peters, 1913a) and the second concerned the railway accident (Peters, 1913b). As for Finger, he closed the review using these words: "The refined exposures of Marbe,s provide in a minimal frame an amount of information of cognitive value expressed in an easy and clear language. [...] The book, which informs very well on the most important issues of forensic psychology, is today at the centre of interest" (Finger, 1915, p. 233).

Finger recognized the importance of psychology as a supporting discipline of law thanks to the new psychological interrogation methods which could help to discover the truth or falsity of a witness. In conclusion, a good judge would not have done without forensic psychology, which had become by the time a branch of science (Finger, 1915, p. 230).

It was this issue that interested psychologists, as resulting from the discussion on the psychological training for lawyers that began during the fifth Congress of Experimental Psychology in 1912. After Marbe's speech, Weygandt underlined: "Also the other studies, especially if they concern law, should be based on psychology. The university didactic principle that dated back to 100 years

ago, in which it was said: First, Collegium logicum, we have to claim its reprint for all students, as: first, Collegium psychologicum” (Schumann, 1912, p. 112).

The psychological training of lawyers was debated also in the circle of lawyers in 1913, in Copenhagen, during the meeting of the “Internationale Kriminalistische Vereinigung” (IKV) (International Society of Criminology) (Marbe, 1916, pp. 302-305; Bellmann, 1994): the agenda showed the proposal to reformulate law teaching and the training of the officials who had to decide on the issue of dangerousness in general. Actually, it was not a new issue: Joseph Heimberger, a professor in Bonn and spokesman of the German group, had discussed it the previous year.

After denouncing the scarcity and the vagueness of the various attempts of training performed until then by the auxiliary sciences in the criminal field, Heimberger wondered what the future training could be. In this perspective, he considered anthropology, psychology, psychiatry, statistics, forensic medicine, and jail discipline as indispensable auxiliary disciplines. They should have been taught after the completion of studies (degree, diploma, etc), not by jurists, but by doctors, philosophers and psychologists to judges, police officers and prison guards, whose training should have foreseen a state exam (Heimberger, 1913, 1914).

Heimberger’s speech was followed by that of the Danish judge August Goll, who thought that the young lawyers not only would have had to learn the “technical” use of psychology, but they also had to learn to think in a psychological manner, since in their future career, they would have had to “work with the human psyche and with the destinies of human beings” (Goll, 1913, p. 500). His wish was, then, that Universities were to be made aware of the importance of psychology, which he saw as divided into 2 branches: differential psychology and experimental psychology. The negative judgment given to psychology by the Danish philosopher Harald Höffding, according to whom it was more art than science (Höffding, 1913, pp. 561-563), was followed by the comment of the psychiatrist Albert Moll, according to whom “the experimental psychology, the psychology of numbers [...] has given little that can be practically used” (Moll, 1913, p. 569).

The continuation of the meeting alternated positive and negative tones regarding the psychological training of judges. The meeting was closed by the Dutch J. A. van Hamel, a professor of law and the son of one of the founders of the IKV in 1889. According to him, scientific psychology had not yet reached a level that could help judges in practical psychological issues (Hamel, 1913, p. 575); it would have been more useful if the judges had read novels, had taken an active part in the daily life of people and had carried out a social work. This would have guaranteed them a “men’s knowledge” more than a psychological training. Liepman reacted immediately with a second intervention. It was not – he protested vividly – a matter of teaching judges “men’s knowledge”, but of drawing their attention to the procedures of psychology. He cited the experiments conducted by Marbe in the trial related to the rail accident which happened in Müllheim, showing that the results had made “such an impression that clearly emerged on this occasion, despite the desperate attempts of the defender who did not know any psychological issues. On the basis of this opinion, the people in question were convicted, since the judges came to a much more firmly established conviction than our criminological and conventional wisdom” (Liepman, 1913, p. 578).

Liepman continued: “If the jurist does not know anything at all, he will be soon overtaken by those who are not jurists [...], and we want to avoid this” (Liepman, 1913, p. 579).

Significantly, the shorthand writer added of his own initiative: “Bravo!” It was, therefore, a topic that would have involved more and more psychologists and jurists.

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Rezime

U samim počecima forenzičke psihologije, jedna originalna ličnost se istakla na naučnom području: nemački naučnik Karl Marbe, koji je otvorio put ka primenjenoj psihologiji u okvirima zakonskih pitanja. Marbe je od strane Suda bio imenovan za stručnjaka u nekoliko sudskih sporova, uključujući čuveni slučaj železničke nesreće kod Müllheima. On je naporno radio kako bi utvrdio višestruke faktore koji su mogli uticati na krivično delo ili ljudsku grešku. Među tim faktorima, Marbe je smatrao relevantnim godišnja doba i dane u nedelji. Istovremeno, nemački naučnik je usvojio metod istraživanja koji je uzeo u obzir individualne karakteristike, kao što su starost, pol ili društveni položaj. Zapaženo je, na primer, da je veći broj krivičnih dela izvršen od strane subjekata starosne dobi između 21 i 25 godina, među muškarcima starijim od 70 godina i među bivšim zatvorenicima. Dakle, njegov položaj nije bio daleko od frenologije. Marbe je nastavio da razvrstava eksperimentalni predmet prema fizičkim aspektima, dodajući novu perspektivu, predodređenost na grešku. Ta će koncepcija posebno doći do izražaja u psihologiji rada.

Ključne reči: *psihologija, forenzička psihologija, krivično delo, Marbe*

INDIVIDUAL AND FAMILY ENVIRONMENT

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QUALITY OF FAMILY INTERACTIONS AND ATTITUDES ON GENDER EQUALITY

Abstract

The purpose of this research is to examine the connection between attitudes on gender equality and perception of family relations. Examining the correlation of these phenomena can contribute to a better understanding of how attitudes about gender are being formed and to what extent family relationships and their structure contributes to it. The sample includes 122 respondents, from both the countryside and the city, ages between 19 and 27 ($M=22.72$; $SD=1.57$). For research purposes, the following instruments were used: the Scale of attitudes on gender equality (SORP) and the Scale of quality of family interactions (KOBI). The results obtained showed that there is a connection between some dimensions of family relations and egalitarianism. Satisfaction with family is statistically negatively correlated with social-interpersonal-heterosexual role dimension. Rejection by the mother is negatively correlated with parental and professional roles dimension while acceptance by the father is negatively correlated with social-interpersonal-heterosexual and professional role dimension, marital roles and education roles. Acceptance by the mother is positively correlated with professional roles dimension. It was determined that woman has a more positive attitude towards certain aspects of equality: social-interpersonal-heterosexual role, professional role, marital role and education role. It has been shown that respondents with a university degree have more positive attitudes towards all aspects of equality than respondents with only high school degree. The results show that for the development of egalitarian attitudes warm and accepting family relations are important, but also that education of both children and parents has an important role, while the environment and place of residence don't have a significant impact.

Keywords: *gender equality, family interaction, satisfaction with the family*

Introduction

For some of the researchers, gender asymmetry is a sign of the biological adaptation of the human species. However, according to the social role theory (Wood & Eagly, 2002) this inequality is considered to be the result of differential social roles inherited by men and women. Based on this theory, gender stereo-types and gender role beliefs are admitted to be ingrained and socialized from an early age.

Some of the initial researches regarding gender role beliefs and their creation started in 70's and 80's and tried to determine variables that are related to traditional/nontraditional beliefs. Gerson found that some of the biographical variables play a significant role in traditional/nontraditional beliefs about the roles of women such as: sex, education, family income, why mother worked and closeness to father (King & King, 1985). Eataugh reported additional associations between students' sex-role attitudes, religion, grade-point average, college major and size of hometown (King & King, 1985). Social attitudes including gender equality attitudes represent expected behavior related to certain position and includes actions that are expected and anticipated from person in that social role. When it comes to gender role beliefs egalitarian attitude is defined as a tendency of individual to evaluate social roles of other people regardless of their gender. A person with strong egalitarian attitude believes that "the sex of an individual should not influence the perception of an individual's abilities or the determination of an individual's rights, obligations, and opportunities. A sex-role egalitarian does not discriminate against or relate differentially to another on the bases of the other's sex" (Beere at al., 1984, p. 564). Most of the norms regarding the 'proper' role of women in society come from institutions, such as family policies. Studying the effects of different types of socializing influences in the family of origin, we are able to identify the societal influences that produce macro-

level change in gender-role attitudes via their effects on individual attitudes at the micro-level (Fan & Marini, 2000). The study presented in this paper explored how different types of family interaction could contribute to young people's attitudes on gender equality.

According to Ronald Rohner's Parental acceptance-rejection theory (PART), warmth and affection from the most significant people (parents) in the child's environment is an important psychological need of children. The theory suggests that parental rejection and acceptance are two extremes of dimension or continuum that's been defined as "warmth". On the rejection side of the continuum are behaviors such as lack of warmth, care, support or simply the lack of love that children are experiencing from their caregivers. In a number of different studies Rohner revealed that "parental rejection can be experienced by any combination of four principal expressions: (1) cold and unaffectionate, the opposite of being warm and affectionate, (2) hostile and aggressive, (3) indifferent and neglecting, and (4) undifferentiated rejecting". (Rohner et al., 2012). Acceptance dimension is defined by the presence of all behaviors mentioned above – affection, concern, love and in general a strong bond between parents and their children. Studies have shown that lack of warmth and parental rejection in the long run can contribute to the development of different psychological and behavioral problems such as dependence, hostility, aggression, anxiety, passive aggression, emotional unresponsiveness and feelings of impaired self-esteem and impaired self-adequacy (Rohner et al., 2012, Ansari and Qureshi, 2013).

Depending on the quality of family relationships children will embrace their parents' views and attitudes on different subjects or they could reject it as a form of rebellion. When it comes to different social problems there is a strong compatibility between children's and parents' views and opinions but only if there is strong positive connections in family and sense of belonging. If there is no family atmosphere that supports identification with parents, children will not internalize their views and it is possible that they will form completely opposite attitudes on different subject including gender role attitudes. This can happen even if there is a positive family atmosphere but there is a significant divergence between levels of education of parents and children. Children can develop completely independent orientation, not because of antagonism, but because of different and broader view which is a consequence of higher level of education (Rot, 1975). This applies to gender roles beliefs and attitudes and in this research we tried to explore some of these problems.

Aim of the study

The aim of this research is to examine the connection between attitudes on gender equality and perception of family relations.

Examining correlation of these phenomena can contribute to a better understanding of how attitudes about gender are being formed and to what extent family relationships and their structure contributes to that, which as the ultimate goal may have establishing more egalitarian relations in all fields.

Method

Sample

The sample includes 122 respondents, from both the countryside and the city, ages between 19 and 27 ($M=22.72$; $SD=1.57$) including 62 women and 60 men. Participants were equalized by the level of education and by the size of their home town.

Instruments

For research purposes the following instruments were used:

- Scale of attitudes on gender equality (SORP) that contains following subscales - social-interpersonal-heterosexual role, professional role, marital role, education role and parental interaction.
- Scale of quality of family interactions (KOBİ) that contains following subscales- satisfaction with family, rejection by the mother, rejection by the father, acceptance by the mother and acceptance by the father.
- General information questioner, containing question about gender, place of residence, level of education and parents' level of education.

The data was statistically analyzed, using SPSS 19, and t-test was used to determine statistical significance of differences. Also, descriptive statistics techniques were used, and correlative techniques for determining level of connections between variables.

Results

Table 1. Sample distribution by demographic variables

	Frequency	Percent
Gender		
Male	60	49.2
Female	62	50.8
Level of education		
High school	62	50.8
College	60	49.2
Place of residence		
Countryside	62	50.8
City	60	49.2
Father's education		
Primary school	10	8.2
High school	77	63.1
Associate degree	26	21.3
College degree	9	7.4
Mother's education		
Primary school	20	16.4
High school	84	68.9
Associate degree	7	5.7
College degree	11	9.0

Data in Table 1. shows that participants' were equalized by gender, level of education and by size of their home town. Most of participants' fathers and mothers finished high school (63.1 / 68.9 %) while the lowest number of fathers and mothers of participants have a college degree (7.4 / 9.0 %).

Table 2. Significant differences of egalitarianism dimensions by gender, place of residence and level of education

		Parental interaction	Social-interpersonal-heterosexual role	Professional role	Marital role	Education role
Gender	t	-1.553	-4.836	-3.987	-3.098	-2.036
	df	120	120	120	120	120
	sig	.123	.000	.000	.002	.044
Place of residence	t	-.030	1.571	.682	-.670	.532
	df	120	120	120	120	120
	sig	.976	.119	.496	.504	.596
Level of education	t	-3.051	-2.944	-2.690	-2.005	-1.979
	df	120	120	120	120	120
	sig	.003	.004	.008	.047	.050

Results in Table 2. show that woman have a more positive attitude towards certain aspects of equality: social-interpersonal-heterosexual role ($t(120) = -4.83$; $p < .01$), professional role ($t(120) = -3.98$; $p < .01$), marital role ($t(120) = -3.09$; $p < .01$) and education role ($t(120) = -2.03$; $p < .05$).

Respondents with a university degree have more positive attitudes towards all aspects of equality than respondents with only high school degree: parental interaction ($t(120) = -3.05$; $p < .01$),

social-interpersonal-heterosexual role dimension ($t(120) = -2.94$; $p < .01$), professional role ($t(120) = -2.69$; $p < .01$), marital role ($t(120) = -2.00$; $p < .05$) and education role ($t(120) = -1.97$; $p < .05$).

There are no significant differences in attitudes on gender equality when it comes to respondents from different places of residence.

Table 3. Correlations between SORP and KOBİ dimensions

		Parental interaction	Social-interpersonal-heterosexual role	Professional role	Marital role	Education role
Satisfaction with family	Correlation	-.033	-.187	.051	-.064	-.041
	sig	-.720	.039	.575	.487	.654
Rejection by the father	Correlation	-.020	.094	-.117	-.032	.019
	sig	.835	.319	.212	.738	.838
Rejection by the mother	Correlation	-.282	-.006	-.332	-.178	-.174
	sig	.002	.948	.000	.053	.058
Acceptance by the father	Correlation	-.127	-.340	-.232	-.202	-.231
	sig	.177	.000	.013	.030	.013
Acceptance by the mother	Correlation	.143	-.025	.196	-.028	.032
	sig	.121	.788	.033	.765	.732

Data in Table 3. show that there is a connection between some dimensions of family relations and egalitarianism. Satisfaction with family is statistically negatively correlated with social-interpersonal-heterosexual role dimension ($r = -.19$; $p < .05$).

Rejection by the mother is negatively correlated with parental roles dimension ($r = -.28$; $p < .05$) and professional roles dimension ($r = -.33$; $p < .01$) and acceptance by the father is negatively correlated with social-interpersonal-heterosexual role dimension ($r = -.34$; $p < .01$), professional role dimension ($r = -.23$; $p < .05$), scale of marital roles ($r = -.20$; $p < .05$) and scale of education roles ($r = -.23$; $p < .05$), while acceptance by the mother is positively correlated with professional roles dimension ($r = .19$; $p < .05$).

Table 4. Significant differences of egalitarianism dimensions by mother's and father's education level

		Mother's education level	Mother's education level	Mean difference	St. error	Sig	95% confidence interval	
							Lower	Upper
Mother	Parental interaction	College degree	Primary	12.34	3.36	.000	5.67	19.00
			High sc.	4.29	2.87	.138	-1.39	9.98
			Associate	.037	4.33	.931	-8.20	8.95
	Marital role	Associate degree	Primary	7.30	2.95	.015	1.45	13.14
			High sc.	2.95	2.64	.267	-2.28	8.19
			College	1.27	3.25	.696	-5.16	7.71
Father	Parental interaction	Associate degree	Primary	8.46	3.50	.017	1.51	15.40
			High sc.	3.24	2.13	.131	-.98	7.47
			College	1.73	3.64	.634	-5.47	8.95
	Marital role	College degree	Primary	7.16	3.12	.024	.97	13.35
			High sc.	1.90	2.39	.429	-2.84	6.64
			Associate	1.05	2.63	.690	-4.15	6.26

Looking in data in Table 4, it can be concluded that respondents whose mothers have a college degree show more egalitarian attitudes when it comes to parental interaction when compared to those respondents whose mothers have only a primary school degree. When it comes to marital roles dimension, higher scores have the respondents whose mothers have an associate degree and whose fathers have a college degree. Similarly, an associate degree of fathers is connected with the higher scores on parental interaction scale.

Discussion and conclusion

The basic hypothesis of this study is that there is a connection between attitudes on gender equality and perception of family relations and we can determine that that hypothesis is partially confirmed. There is a statistically significant connection between some aspects of those phenomena.

Satisfaction with family is statistically negatively correlated with social-interpersonal-heterosexual role dimension which means that the respondents that are more satisfied with their family relations are having more traditional beliefs and we can contribute that to the fact that they are more likely to identify with their parent's beliefs and since the majority of parents in this study has a lower education we can assume they have more traditional beliefs.

Rejection by the mother is negatively correlated with parental roles dimension and professional roles dimension and acceptance by the father is negatively correlated with social-interpersonal-heterosexual role dimension, professional role dimension, marital roles and education roles. We can understand these findings if we take into consideration that children that are having closer relation with their fathers probably easily internalize their father's beliefs and attitudes and men traditionally have more rigid gender-roles beliefs. Acceptance by the mother is positively correlated with professional roles dimension ($r=.19$; $p<.05$) which can be explained by the fact that usually mothers are the ones that encourage professional advancement and influence the motive for the achievement.

Results also show that woman have a more positive attitude towards certain aspects of equality: social-interpersonal-heterosexual role ($t(120)=-4.83$; $p<.01$), professional role ($t(120)=-3.98$; $p<.01$), marital role ($t(120)=-3.09$; $p<.01$) and education role ($t(120)=-2.03$; $p<.05$). Male and female participants also showed most differences in attitudes on gender equality in some previous researches on this subject: (Anderson & Johnson, 2003; Gibbons et al., 1991; King & King, 1985; Beere et al., 1984 quoted in Ravlic & Raboteg-Saric, 2002). We can understand these differences by taking into consideration different approaches in upbringing, expectations and demands for boys and girls during their development.

The respondents with a university degree have more positive attitudes towards all aspects of equality than the respondents with only a high school degree: parental interaction ($t(120)=-3.05$; $p<.01$), social-interpersonal-heterosexual role dimension ($t(120)=-2.94$; $p<.01$), professional role ($t(120)=-2.69$; $p<.01$), marital role ($t(120)=-2.00$; $p<.05$) and education role ($t(120)=-1.97$; $p<.05$). This is probably the result of being better informed (including gender roles stereotypes), better connections with others, and adjustment to the norms of the majority in a college environment.

There are no significant differences in attitudes on gender equality when it comes to respondents from different places of residence. This is due to the fact that smaller cities and villages are not that isolated as they were before and young people are more connected, mobile and informed in general and that can result in the shift in perspective on all social issues.

Results also show that there are statistically significant differences on parental and marital roles dimension between the participants whose mothers and fathers have a higher education (college and associate degree) and those whose parents have only a primary school degree. This is in compliance with some of the previous studies that showed that "more stereotyped scores are obtained by parents who were lower in social status, less educated, full-time homemakers" (Hoffman and Kloska, 1995).

The results show that for development of egalitarian attitudes, warm and accepting family relations are important, but also that education of children has an important role. Also, both mother's and father's education affect the degree to which gender-role attitudes of daughters and sons are egalitarian while the environment and place of residence don't have a significant impact which may be the result of a better mobility of the youth from the countryside and contact with their peers from urban areas.

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Rezime

Cilj ovog istraživanja je ispitivanje povezanosti između stavova o ravnopravnosti među polovima i doživljaja porodičnih odnosa. Ispitivanje povezanosti ovih fenomena može doprineti boljem razumevanju načina na koji se formiraju stavovi o polnim ulogama i koliku ulogu u tom procesu imaju porodični odnosi i njihova struktura. Uzorak obuhvata 122 ispitanika, sa sela i iz grada, starosti od 19 do 27 godina (M=22.72; SD=1.57). Za potrebe istraživanja korišćeni su: *Skala stavova o ravnopravnosti polova (SORP)* i *Skala kvaliteta porodičnih interakcija (KOBI)*. Dobijeni rezultati pokazuju da postoji povezanost nekih dimenzija porodičnih odnosa i egalitarnosti. Zadovoljstvo porodicom je u statistički značajnoj negativnoj korelaciji sa dimenzijom socijalno- interpersonalno -heteroseksualnih uloga. Odbacivanje od strane majke je u negativnoj korelaciji sa dimenzijom roditeljskih uloga i dimenzijom profesionalnih uloga dok je prihvatanje od strane oca u negativnoj korelaciji sa dimenzijom socijalno-interpersonalno-heteroseksualnih uloga, profesionalnih uloga, bračnih uloga i obrazovnih uloga. Prihvatanje od strane majke je u pozitivnoj korelaciji sa dimenzijom profesionalnih uloga. Utvrđeno je i da žene imaju pozitivniji stav prema određenim aspektima ravnopravnosti: socijalno-interpersonalno-heteroseksualne uloge, profesionalne uloge, bračne uloge, obrazovne uloge. Pokazalo se i da ispitanici sa završenim fakultetom imaju pozitivnije stavove prema svim aspektima ravnopravnosti od ispitanika sa završenom srednjom školom. Rezultati pokazuju da su za razvijanje egalitarnih stavova bitni topli i prihvatajući porodični odnosi ali i obrazovanje kako dece tako i roditelja, dok mesto življenja ne igra veliku ulogu.

Cljučne reči: ravnopravnost polova, porodična interakcija, zadovoljstvo porodicom

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PERCEPTION OF PARENTING STYLE, EMPATHY AND SELF-REGULATION IN PERSONS FROM SINGLE-CHILD AND MULTI-CHILD FAMILIES

Abstract

The aim of this research is to examine the differences in the perception of parenting style, level of empathy and level of self-regulation between adolescents and young adults from single-child and multi-child families. The number of participants (adolescents and young adults) is 120, 60 of whom are from single-child families and 60 from multi-child families. All of the participants live in Macedonia, are Christians, are not married and are firstborns. The results about the perception of parenting style suggest that participants from single-child families perceive their parents as more permissive, less authoritative and less authoritarian than those from multi-child families. Regarding their age, the results suggest that adolescents perceive their parents as more permissive, more authoritarian and less authoritative than young adults. Concerning the level of empathy, it is shown that participants from single-child families and adolescents are less empathetic than participants from multi-child families and young adults. The results for the level of self-regulation show that participants from multi-child families and young adults have higher levels of self-regulation than only children and adolescents. These results indicate that the number of children in the family and the age of the children may affect the children's perception of parenting style and levels of empathy and self-regulation.

Key words: *single-child family, multi-child family, parenting style, empathy, self-regulation*

Theoretical framework of the research

Despite the differences in socializing factors that exist between cultures and societies, in all of them, through the process of socialization, the same or equivalent agents transform every human being from an unhumanized, uncultivated and unsocialized biological creature to a person with specific characteristics and socially relevant forms of behavior. Socialization is an integral part of the processes through which each individual passes, regardless of his gender, culture or geographical location (Handel, 2006). In related literature it is regularly stated that out of all social factors, family has the utmost importance in the process of socialization. According to Kuburić (Kuburić, 1996; in Todorović, 2005, p. 12), family represents the oldest, the most enduring, but also variable primary social group, based on the bio-reproductive, bio-sexual and bio-social, socio-protective and socioeconomic links between a man and woman and their children, born or adopted, who are interconnected by marriage and kinship and are joined in order to facilitate the diverse needs of the person, family and society.

Many children in the postmodern family undergo dual socialization, i.e. socialization by parents and by institutions, but the emphasis is placed on the family socialization (Elkind, 1994). It is an important family function, the weakening or loss of which would mean the disintegration of the family (Andersen & Taylor, 2006).

Within the process of family socialization parents have a specific and irreplaceable role because of their influence on the overall social, emotional and intellectual development of the child. Studies indicate significant temporal stability of the individual differences in the behavior of parents toward their children (Collins & Russel, 1991). The parent-child relationship can be considered at a dimensional level (emotionality and control) and at a level of parental behavior styles that represent combinations of these two dimensions. Parenting style implies an assessment of the upbringing

methods by which parents are going to achieve the educational goals in the best way, without compromising their emotional relationship with their child, which means that actions arise from the basic feeling of love and acceptance or rejection and conditional love (Piorkowska – Petrovic, 1990; according to Todorović, 2005, p. 25). The two best known classifications of parenting styles are made by Baumrind (1971) and Maccoby and Martin (1983). Baumrind (1971) cites three different parenting styles: authoritative (emotional warmth and firm control), authoritarian (firm control and emotional coldness) and permissive style (emotional warmth and low control) (Todorović, 2005). Maccoby and Martin (1983) added one more parenting style – the uninvolved parenting style (low control and emotional coldness). All of them develop different qualities in children.

However, despite parenting and parent-child relationships, the horizontal relationships between siblings are also very important (Cicirelli, 1995). A lot of research has been carried out on the socializing function of siblings, which is commonly studied through comparisons between single-child families and families with two or more children (Bornstein, 2002). Until the 1970s, only children were viewed as strange, selfish, ill-adapted, unnaturally dependent persons – ideas which are also present today. Then appeared a new generation of research, according to which being an only child is not seen as harmful and may even have some benefits (Newman, 2001). Because of these discrepancies which refer to single-child families, as well as differences in the style of parenting and in the socio-emotional skills between only children and their peers from multi-child families, this has become a much discussed topic.

Out of many socio-emotional skills, in this study our interest is mainly focused on empathy and self-regulation. Empathy, as one of the basic human abilities, has great importance for the establishment of interpersonal relationships in various situations, easing the adaptation in the social environment. Some authors consider it as a cognitive phenomenon, others as an emotional reaction and still others as a complex construct that includes cognitive and emotional reactions (Popovski, 2005). In this study, empathy will be considered as a complex phenomenon composed of the cognitive and affective reactions of the individual. Empathy develops early and fast, whereby the empathetic behavior is primarily affective, but it is transformed during the development of a child's cognitive system (Hoffman, 1987; according to Eisenberg & Strayer, 1987). Besides genetics, neural development and temperament, the development of empathy is significantly influenced by the parent-child and sibling relationships (Dunn, 1985).

Another important human quality is self-regulation. It sets the “social conscience” over selfish impulses, contributing to people doing what is right, not what they want to do (Baumeister & Bushman, 2008). In a broader sense, the term self-regulation is commonly used to denote the ability of an individual to monitor and modulate his cognition, emotions and behavior in order to achieve certain goals or to adapt to the cognitive and social demands of a specific situation (Berger, Kofman, Livneh & Henik, 2007, p. 257). Both theoretical models and empirical findings suggest that the capacities for self-regulation occur in early childhood and continue to develop and to stabilize during middle childhood and adolescence. However, self-regulating skills are not fully developed until early adulthood (Lerner, Lamb & Freund, 2010). During the development of self-regulatory skills, parents have the most important role (Shaffer & Kipp, 2010). But, once again, the socializing role of siblings has great importance for the development of self-regulation (Kapor-Stanulović & Petrović, 2006).

Thus, if relationships with brothers/sisters have such a great impact on the development of an individual's personality and social and emotional skills, the question is whether only children are damaged because they don't have siblings.

While earlier it was believed that a large family with many children constitutes the basis for an individual's existence, recently there has been an increased practice of family planning, resulting in declining birth rates in many parts of the world. We live in modern times, but we testify that there is still some stigma attached to only children, mainly concerning their social adaptation. Because of the existing stereotypes about singletons, frequently asked questions are: Are there differences between people who come from single-child families and people who come from multi-child families in terms of the socio-emotional skills necessary for successful inclusion in the society? And, apart from the presence/absence of siblings in the family, are there any other factors that affect their socio-emotional development? Out of these factors, within this research we were particularly interested in the parenting styles and the age of persons from families with different numbers of children.

Methodology of the research

Problem, objectives and purposes of the research

The main research question is: Are there differences in the perception of parenting style, level of empathy and level of self-regulation between adolescents and young adults from single-child and multi-child families?

The purposes of this research are:

- to obtain knowledge about how adolescents and young adults from single-child and multi-child families perceive the parenting style of their parents and what level of empathy and self-regulation they possess;
- to obtain knowledge about how individuals of different ages perceive the parenting style of their parents and what levels of empathy and self-regulation they possess in specific age periods.

Participants

The sample was composed of 120 participants (52 males and 68 females), and it comprised adolescents and young adults who come from single-child families (26 males and 34 females) and adolescents and young adults who come from multi-child families (26 males and 34 females). The adolescents were aged from 15 to 18 years (average age 16 years and 8 months) and the young adults were aged from 20 to 30 years (average age 23 years and 7 months). All participants live in the Republic of Macedonia, are Christians and are not married. Regarding the birth order, the children from the multi-child families are firstborns. The parents of all participants are married and both are employed.

Variables and measuring instruments

For measuring the perception of parenting style the PAQ-Parental Authority Questionnaire was used, with a separate form for both parents, constructed by J.R. Buri in 1991, which measures three parenting styles: the authoritarian, authoritative and permissive parenting styles. The level of empathy was measured using the IRI – Interpersonal Reactivity Index, constructed by M. H. Davis in 1983 and it consists of four subscales: fantasy, perspective taking, empathic concern and personal distress. The level of self-regulation was measured by the SRQ - Self-Regulation Questionnaire, constructed by W. R. Miller and J. M. Brown in 1991. Data about the age and the number of children in the family, and data about the relevant variables (gender, place of living, religion, birth order, family type, marital status of participants, and employment of parents) were obtained by using a Questionnaire for socio-demographic characteristics constructed for the purpose of the study.

Statistical analysis

The obtained data were processed by using the SPSS v.20 software package for statistical analysis. In this research the following statistical procedures were used: calculating of frequencies and percentages; calculating of means and standard deviations; t-test for large and independent samples.

Results

According to the basic problem, objectives and hypothesis of the research, two types of comparisons were made: comparisons between participants from single-child families and participants from multi-child families and comparisons between adolescents and young adults.

Comparisons between participants from single-child and multi-child families

These analyses took into account adolescents and young adults who come from single-child families and those who come from multi-child families. They were compared in regard to the three variables, i.e., perception of parenting style, level of empathy and level of self-regulation.

The comparison of the parenting style perception was performed twice, separately for both parents. The obtained differences for the parenting styles of the mother are statistically significant at .01 level ($t(118) = 3.05$, $p < 0.01$) for the permissive parenting style, at .05 level ($t(118) = 2.03$, $p < 0.05$) for the authoritarian parenting style and at .01 level ($t(118) = 3.32$, $p < 0.01$) for authoritative parenting style (Table 1).

The obtained differences for the parenting styles of the father are statistically significant at .01 level ($t(118) = 2.67, p < 0.01$) for the permissive parenting style, at .05 level ($t(118) = 2.04, p < 0.05$) for the authoritarian parenting style and at .01 level ($t(118) = 2.87, p < 0.01$) for the authoritative parenting style (Table 2).

The results for the perception of parenting style indicate that persons from single-child families show a significantly more pronounced tendency to perceive their parents as more permissive, less authoritative and less authoritarian than persons from multi-child families.

Table 1. Differences in the perception of the mother's parenting style between participants from single-child and multi-child families

Parenting style of the mother	Family type by number of children					
	SCF		MCF		$t_{(118)}$	p
	M	SD	M	SD		
Permissive style	35.67	7.73	32.1	4.73	3.05	.003**
Authoritarian style	30.17	4.85	32.13	5.71	2.03	.044*
Authoritative style	33.02	5.66	36.53	5.95	3.32	.001**

Note: SCF – single-child family; MCF – multi-child family; M – mean; SD = standard deviation; * - $p < 0.05$; ** - $p < 0.01$

Table 2. Differences in the perception of the father's parenting style between participants from single-child and multi-child families

Parenting style of the father	Family type by number of children					
	SCF		MCF		$t_{(118)}$	p
	M	SD	M	SD		
Permissive style	34.65	6.89	31.77	4.76	2.67	.009**
Authoritarian style	30.23	5.95	32.60	6.72	2.04	.043*
Authoritative style	32.93	5.4	35.95	6.10	2.87	.005**

Note: SCF – single-child family; MCF – multi-child family; M – mean; SD = standard deviation; * - $p < 0.05$; ** - $p < 0.01$

The difference in the level of empathy between participants from single-child and multi-child families is determined by examining the statistical significance of differences between the means of the four empathy components (fantasy, perspective taking, empathic concern and personal distress) (Table 3). The results show that participants from single-child families have lower level of fantasy than participants from multi-child families ($t(118) = 3.79, p < 0.01$). In terms of perspective taking, participants from single-child families have lower level of perspective taking compared with participants from multi-child families ($t(118) = 4.28, p < 0.01$). Regarding empathic concern, the result shows that participants from single-child families have lower levels of empathic concern compared with participants from multi-child families ($t(118) = 6.18, p < 0.01$). Next, participants from single-child families have higher level of personal distress than participants from multi-child families ($t(118) = 2.07, p < 0.05$). Hence, we can say that persons from multi-child families are significantly more empathetic than persons from single-child families.

Table 3. Differences in the level of empathy between the participants from single-child and multi-child families

Empathy components	Family type by number of children					
	SCF		MCF		$t_{(118)}$	p
	M	SD	M	SD		
Fantasy	15.53	4.34	18.62	4.56	3.79	.000**
Perspective taking	14.6	4.18	17.9	4.26	4.28	.000**
Empathic concern	15.4	4.8	20.42	4.06	6.18	.000**
Personal distress	15.83	3.45	14.53	3.43	2.07	.041*

Note: SCF – single-child family; MCF – multi-child family; M – mean; SD = standard deviation; * - $p < 0.05$; ** - $p < 0.01$

The result for the difference in the level of self-regulation shows that participants from single-child families have a significantly lower level of self-regulation than participants from multi-child families ($t(118) = 4.67, p < 0.01$) (Table 4).

Table 4: Differences in the level of self-regulation between the participants from single-child and multi-child families

Family type by number of children	N		M		SD		$t_{(118)}$	p
	SCF	MCF	SCF	MCF	SCF	MCF		
Self-regulation	60	60	204.67	221.73	19.86	20.14	4.67	.000**

Note: SCF – single-child family; MCF – multi-child family; N – number of participants; M – mean; SD = standard deviation; * - $p < 0.05$; ** - $p < 0.01$

Comparisons between adolescents and young adults

These analyses take into account adolescents and young adults regardless of the number of children in the family of origin. They compare the perception of parenting style of each parent, level of empathy and level of self-regulation.

The comparison of the perception of parenting style was performed separately for both parents. The obtained differences for the perception of the mother are statistically significant at .01 level ($t(118) = 2.71, p < 0.01$) for the permissive parenting style, at .05 level ($t(118) = 2.03, p < 0.05$) for the authoritarian parenting style and at .01 level ($t(118) = 3.46, p < 0.01$) for the authoritative parenting style (Table 5).

The obtained differences for the parenting styles of the father are statistically significant at .05 level ($t(118) = 2.09, p < 0.05$) for the permissive parenting style, at .05 level ($t(118) = 2.37, p < 0.05$) for the authoritarian parenting style and at .01 level ($t(118) = 3.82, p < 0.01$) for authoritative parenting style (Table 6).

The results for the perception of parenting style suggest that adolescents show a significantly more pronounced tendency to perceive their parents as more permissive and more authoritarian in comparison to young adults who perceive their parents as more authoritative.

Table 5. Differences in the perception of the mother's parenting style between adolescents and young adults

Parenting style of the mother	Age period				$t_{(118)}$	p
	A		YA			
	M	SD	M	SD		
Permissive style	35.48	6.17	32.28	6.73	2.71	.008**
Authoritarian style	32.13	4.15	30.17	6.24	2.03	.044*
Authoritative style	32.95	5.31	36.60	6.22	3.46	.001*

Note: A – adolescents; YA – young adults; M – mean; SD = standard deviation; * - $p < 0.05$; ** - $p < 0.01$

Table 6. Differences in the perception of the father's parenting style between adolescents and young adults

Parenting style of the father	Age period				$t_{(118)}$	p
	A		YA			
	M	SD	M	SD		
Permissive style	34.35	5.24	32.07	6.65	2.09	.039*
Authoritarian style	32.78	5.94	30.05	6.66	2.37	.019*
Authoritative style	32.48	4.98	36.40	6.19	3.82	.000**

Note: A – adolescents; YA – young adults; M – mean; SD = standard deviation; * - $p < 0.05$; ** - $p < 0.01$

Table 7. Differences in the level of empathy between adolescents and young adults

Empathy components	Age period					
	A		YA		$t_{(118)}$	p
	M	SD	M	SD		
Fantasy	15.78	4.19	18.37	4.85	3.12	.002**
Perspective taking	15.1	4.36	17.40	4.42	2.87	.005**
Empathic concern	16.13	4.97	19.68	4.61	4.06	.000**
Personal distress	16.33	3.72	14.03	2.82	3.81	.000**

Note: A – adolescents; YA – young adults; M – mean; SD = standard deviation; * - $p < 0.05$; ** - $p < 0.01$

The difference in the level of empathy between adolescents and young adults was determined by t-tests in four empathy components (fantasy, perspective taking, empathic concern and personal distress) (Table 7). The results show that adolescents have a lower level of fantasy than young adults ($t(118) = 3.12$, $p < 0.01$). Next, adolescents have lower level of perspective taking compared with young adults ($t(118) = 2.87$, $p < 0.01$). In terms of empathic concern, the result shows that adolescents have a lower level of empathic concern than young adults ($t(118) = 4.06$, $p < 0.01$). Regarding the level of personal distress, the result shows that adolescents have a higher level of personal distress compared with young adults ($t(118) = 3.81$, $p < 0.01$). Hence, we can say that young adults are significantly more empathetic than adolescents.

The result for the difference in the level of self-regulation between adolescents and young adults shows that young adults have a significantly higher level of self-regulation than adolescents ($t(118) = 3.41$, $p < 0.01$) (Table 8).

Table 8. Differences in the level of self-regulation between adolescents and young adults

Age period	N		M		SD		$t_{(118)}$	p
	A	YA	A	YA	A	YA		
	Self-regulation	60	60	206.73	219.67	17.44	23.64	3.41

Note: A – adolescents; YA – young adults; N – number of participants; M – mean; SD = standard deviation; * - $p < 0.05$; ** - $p < 0.01$

Conclusions and discussion

Based on the results the following conclusions can be made:

- 1) Regarding the differences between participants from single-child and multi-child families:
 - Adolescents and young adults from single-child families perceive their parents as more permissive, less authoritative and less authoritarian, unlike adolescents and young adults from multi-child families.
 - Adolescents and young adults from single-child families have lower levels of empathy than adolescents and young adults from multi-child families.
 - Adolescents and young adults from single-child families have lower levels of self-regulation than adolescents and young adults from multi-child families.
- 2) Regarding the differences between participants of different ages:
 - Adolescents perceive their parents as more permissive and more authoritarian, unlike young adults, who perceive their parents as more authoritative.
 - Young adults have higher levels of empathy than adolescents.
 - Young adults have higher levels of self-regulation than adolescents.

The results suggest that the number of children in the family affects the perception of parenting style, level of empathy and level of self-regulation in adolescents and young adults. The differences in perception of parenting style within this research are due to the different practices of child-rearing that are used by parents in families with one child and in families with more children. The differences in the levels of empathy and self-regulation between persons from single-child and multi-child families can be explained by different parenting styles used in the families with different numbers of children and with the socializing role of siblings, which is important for the development of these socio-emotional skills. Also, it was shown that the age of participants affects the perception of parenting

style, level of empathy and level of self-regulation. The differences in perception of parenting styles between adolescents and young adults are due to the changes in the parent-child relationship as a consequence of the different developmental tasks in the age periods examined. The obtained differences in the levels of empathy and self-regulation between adolescents and young adults are due to the cognitive and emotional development in these age periods.

These results are consistent with many studies which examine the perception of parenting styles by adolescents and young adults (e.g., Cohen and Rice, 1997; Dornbusch et al., 1987; Smetana, 1995; Marsiglia et al., 2007; Patock-Peckman & Morgan-Lopez, 2009; Arnett, 2004; Terry, 2004; O'Connor, 2006; Pickhardt, 2011) and studies which examine the development of empathy (e.g., Hoffman, 1987; Eisenberg, 2000; Shantz, 1975; Greenspan, 1976; Feshbach, 1978; Eisenberg & Fabes, 1998; Damon & Eisenberg, 1998; Zahn – Waxler et al., 1992; Erikson & Kivnick, 1986; McAdams & Olson, 2010; O'Brien, et al., 2012) and self-regulation (e.g., Bronson, 2000; Green et al., 1994; Murphy et al., 1999; Mischel et al., 1989; Demetriou, 2000; Kopp, 1982; Eisenberg et al., 2006; Eisenberg & Fabes, 2006).

This research was conducted due to the continuously increasing number of married couples who nowadays are deciding to end their reproductive history with only one child, and also due to the knowledge about the effects of growing up as an only child on the psychosocial development of children without siblings.

The findings obtained in this research can be used for the enrichment of theoretical knowledge in psychology, as well as, for their practical application within the everyday socialization of only children, in order to stimulate their psychosocial development. Namely, they can be used for designing educational programs for parents, which will point to the importance of providing adequate substitutes for the instructive situations that take place between siblings in multi-child families and their role in the development of socio-emotional skills. The findings also can be applied in designing special programs for fostering the development of empathy and self-regulation in only children. Those findings referring to the characteristics of the parent-child relationship in the periods of adolescence and young adulthood can be used for the improvement of communication between parents and children, particularly in the period of adolescence, when an increased number of conflicts appear due to the collision of the strong need for independence manifested by adolescents, on the one hand, and on the other hand, the usual parental control.

Future studies could include a larger number of participants. The attention should be directed toward other variables that might be responsible for differences between groups, for example, the quality of attachment, parental education, SES, relationships with other adults (grandparents, teachers, professors), the environment in which they live (urban/rural), etc.

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Rezime

Cilj ovog istraživanja je da se ispituju razlike u percepciji roditeljskog stila, nivo empatije i nivo samoregulacije između adolescenata i mladih odraslih iz porodica sa jednim detetom i sa više dece. Broj ispitanika (adolescenti i mladi odrasli) je 120, od kojih su 60 iz porodica sa jednim detetom i 60 iz porodica sa više dece. Svi ispitanici žive u Makedoniji, hrišćani su, nisu u braku i prvorodena su deca u porodici. Rezultati o percepciji roditeljskog stila ukazuju da ispitanici iz porodice sa jednim detetom percipiraju svoje roditelje više kao permisivne, a manje kao autoritativne i autoritarne od ispitanika iz porodica sa više dece. Što se tiče uzrasta, rezultati pokazuju da adolescenti, u poređenju sa mladim odraslima, percipiraju svoje roditelje više kao autoritarne, a manje kao permisivne i autoritativne. U vezi nivoa empatije, pokazano je da su ispitanici iz porodica sa jednim detetom, kao i adolescenti, manje empatični u poređenju sa ispitanicima iz porodica sa većim brojem dece i mladim odraslima. Rezultat koji se odnosi na nivo samoregulacije pokazuje da ispitanici iz porodica sa više dece i mladi odrasli imaju viši nivo samoregulacije nego jedinci i adolescenti. Dobijeni rezultati ukazuju na to da broj dece u porodici, kao i uzrast, mogu da utiču na percepciju roditeljskog stila i na nivo empatije i samoregulacije.

Ključne reči: *porodica sa jednim detetom, porodica sa više dece, roditeljski stil, empatija, samoregulacija*

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CORRELATIONS BETWEEN THE DOMAINS OF LONELINESS AND FAMILY FUNCTIONING INDICATORS AMONG ADOLESCENTS⁸

Abstract

The feeling of loneliness indicates discontent in interpersonal relations, a frustrated need to belong, isolation and/or painful longing for others. This research enquires into the existence and the strength of correlations between the domains of loneliness and the indicators of family functioning. The research has been conducted on a convenience sample of 211 adolescents using a Questionnaire of family functioning (45 items), and a Questionnaire of loneliness (36 items). Both questionnaires are highly reliable. Factor analysis extracted four factors of loneliness (Intimate relationship contentment, Belonging to a family, Support from friends, Love longing), and four factors of family functioning (Communication, Cooperation, Flexibility, Cohesion). The domain of belonging to a family is greatly correlated to all of the indicators of family functioning. The domain of support from friends shows a statistically significant correlation with three of the indicators of family functioning not including cohesion, and so does the domain of love longing but only in a negative direction. Therefore, family functions of preventing the development of feelings of loneliness are directed towards cultivating open communication, mutual cooperation, patterns of well-mannered behaviour and flexibility in approaching various life situations.

Key words: *loneliness, family functioning, adolescents*

Introduction

It has become quite common nowadays to see many people living alone or spending extended periods of time without the comforting security that close and regular association with a community can bring (Rokach, & Sharon, 2014). As the serious consequences of loneliness are being documented and understood, researchers are attempting to understand the origins or risk factors for loneliness (Segrin et al., 2012). Families play an important role in promoting children's social and emotional development since parental characteristics, as well as their parenting styles, are closely related to their children's loneliness (Junttila et al., 2007). Lower levels of family cohesion and parental disagreement and quarrels are predictive of children's loneliness (Holahan et al, 2007). The agglomeration of loneliness within families suggests that many people may be predisposed to experience loneliness by factors inherent in their family of origin (Segrin et al., 2012). The aim of our study is to explore the relationship between loneliness and family functioning.

We chose adolescents as our target group for research. The relationship between age and loneliness is a curvilinear one, whereby the young and the old are especially prone to loneliness (Rokach, & Sharon, 2014), including adolescents (Heinrich & Gullone, 2006). The developmental

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task of adolescents is the achievement of psychological independence from parents but with a continued connectedness (Laghi et al., 2012). Adolescents' loneliness is predicted by an interparental conflict and a low family cohesion (Johnson et al., 2001). Besides the family influence, loneliness could emerge from a frustration related to struggles with peer rejection versus acceptance that reflect the collective liking versus disliking by the group of children or adolescents towards an individual member (Margalit, 2010). Although peers may become more important than parents in predicting loneliness in adolescence (Uruk & Demir, 2003), the quality of intrafamilial communication is the strongest correlate of an adolescent's self-esteem (Demo et al., 1987).

Loneliness has cognitive, affective, and behavioural components that reflect an unfulfilled desire to have closer contacts with people (Qualter et al., 2010). It represents a distressful affective state in which one holds the undesired perception of having few social relationships and being isolated from others (De Jong Gierveld, 1987). Loneliness can be divided into emotional (or intimate) loneliness and social loneliness (Weiss, 1987). Emotional loneliness primarily reflects a perceived lack of sufficient dyadic attachment relationships, typically leading to the feelings of emptiness and anxiety. Social loneliness represents a perceived disconnectedness from larger social networks that provide the individual with a sense of social integration, and generally gives rise to the feelings of marginality and alienation (Russell et al., 1984; Chipuer, 2001). Emotional loneliness is further divided into two subtypes: romantic loneliness and family loneliness (DiTommaso & Spinner, 1997). The Revised UCLA Loneliness Scale (Russell et al., 1980) was developed from the unidimensional perspective, while the Social and Emotional Loneliness Scale for Adults (SELSA) was developed from the multidimensional perspective (DiTommaso and Spinner, 1993). Because there are results that indicate the importance of differentiating among the different types of loneliness (Çeçen, 2007), we choose to use SELSA as an instrument for measuring loneliness.

A family consists of at least one parent and one child with grandparents and in-laws as extended members. While individuals within the family are unique, a family gives a sense of togetherness (Rokach, & Sharon, 2014). There are many models of whole-family functioning. Among the most popular are the Circumplex Model (Olson, Russell, & Sprenkle, 1989) and Beavers Systems Model (Beavers & Hampson, 1990).

Family functioning refers to the quality of interactions among family members. Cohesion, adaptability, and communication are the key dimensions along which family functioning is characterized by the Circumplex Model (Koutra et al., 2013). Cohesion or emotional bonding creates the conditions for identification with a basic primary group and enhances emotional, intellectual, and physical closeness. Adaptability shows, through its basic functioning, how a power structure can change and how role relationships can be formed and how they develop. A network of communication experiences helps the individual to learn the arts of speech, interaction, listening, and negotiation (Uruk & Demir, 2003). Family Adaptability and Cohesion Evaluation Scales IV (FACES IV) is the latest version of a family self-report assessment designed to assess cohesion and flexibility in family interactions (Koutra et al., 2013).

Family competence and family style are the two main dimensions of the Beavers Systems Model of Family Functioning (Beavers & Hampson, 2000). Family Competence indicates how well a family performs its necessary structural, communicative, affective, and problem-solving tasks (Lee & Stacks, 2001). When a family is not bound to rigid behaviour patterns and responses, it has more freedom to evolve and differentiate. Family Style looks at behaviours thought to reflect a family's tendency to bind or to expel its members. Self-Report Family Inventory: Version II (SFI II) was developed for measuring perceptions of family functioning in five areas: Health/Competence, Cohesion, Conflict, Leadership and Expressiveness (Beavers & Hampson, 2000).

The major whole-family self report instruments commonly measure three whole-family factors: Affective Expression, Behavioural Control, and Shared Activity (Gondoli & Jacob, 1993; Jacob & Windle, 1999). A linear relationship between cohesion and adaptability and positive family adjustment is inconsistent with the Circumplex model because families extremely low and extremely high in each of these dimensions are postulated to be poorly functioning (Baiocco, 2013). Since the number of truly extreme families in nonclinical samples is rather low, it has been proposed to treat the family adaptability and cohesion in a linear model (Roest et al., 2009). In our study, we combine items from FACES IV and SFI II in a linear model.

Method

Research has been conducted on a convenience sample of adolescents using questionnaires. The total sample consists of 211 respondents from 11 to 24 years of age, 90 of whom are male and 121 female. There are 73 primary school students, 69 secondary school students and 69 college students. Loneliness questionnaire is based on the SELSA questionnaire (DiTommaso and Spinner, 1993) and it consists of 36 items concerning three domains (friendship, family and intimate/emotional relationship). The questionnaire of family functioning consists of 45 items derived from two instruments: FACES IV (Olson & Gorall, 2006) and SFI II (Beavers & Hampson, 2000). The answers are measured by a 5-point Likert scale. Descriptive and multivariate statistics were used in data processing.

Results

Main component factor analysis was performed for each individual instrument. Four factors of loneliness were preserved (see Tables 1 through 4) and they cover 61,540% of variance (KMO=.788, Bartlett test=6412,377, $p<.001$). First of those factors covers 26,026%, second 17,083%, third 11,243%, and the fourth factor covers 7,188% of the variance. We have named the first factor „Intimate relationship contentment“, second „Support from friends“, third “Belonging to a family”, and the fourth is “Love longing”. Loneliness is present if the results of these factors are low, except for the fourth factor. In other words, names of these factors represent the opposite of loneliness in these domains. Our results show an additional factor because the items concerning the intimate/emotional relationship are divided into two factors: Intimate relationship contentment and Love longing.

Intimate relationship contentment (see Table 1) indicates the quality of an emotional relationship in which there is mutuality in providing support, exchanging intimate thoughts and feelings, in happiness, infatuation, fulfilling the need for closeness and other emotional needs.

Table 1. Items and Promax Rotated Factor Loadings for Intimate relationship contentment.

Intimate relationship contentment	
I have a romantic partner who gives me the support and encouragement I need.	0.927
I have a romantic partner to whose happiness I contribute.	0.921
I have a romantic partner with whom I share my most intimate thoughts and feelings.	0.878
I'm in love with someone who is in love with me.	0.866
There is someone who wants to share their life with me.	0.858
I have someone who fulfills my needs for intimacy.	0.837
I have someone who fulfills my emotional needs.	0.822
I am an important part of someone else's life.	0.643

Support from friends (see Table 2) indicates the quality of relationships with friends to whom a person belongs, whom he/she can ask for help, advice and share his/her thoughts and problems with. Those are the people one has a lot in common with, has mutual understanding and can share his/her opinions with.

Table 2. Items and Promax Rotated Factor Loadings for Support from friends.

Support from friends	
I have friends I can turn to for information.	0.797
I can depend upon my friends for help.	0.785
My friends understand my motives and reasoning.	0.752
I have a friend(s) with whom I can share my views.	0.741
I feel a part of a group of friends.	0.734
I have friends to whom I can talk about the pressures in my life.	0.686

I like the people I hang out with.	0.679
I don't have a friend(s) who understand me, but I wish I did.	-0.671
I feel "in tune" with others.	0.646
I don't have a friend(s) who share my views, but I wish I did.	-0.640
I do not feel satisfied with the friends that I have.	-0.594
I have a lot in common with the people I know.	0.453

Belonging to a family (see Table 3) indicates the feelings of belonging to a family, closeness with family members, perceived support from family and the feeling that the family takes care of the individual.

Table 3. Items and Promax Rotated Factor Loadings for Belonging to a family.

Belonging to a family	
There is no one in my family I feel close to, but I wish there were.	-0.886
I really belong in my family.	0.844
I feel close to my family.	0.840
I feel part of my family.	0.817
No one in my family really cares about me.	-0.782
There is no one in my family I can depend upon for support and encouragement, but I wish there were.	-0.766
My family really cares about me.	0.761
I feel alone when I'm with my family.	-0.703
My family is important to me.	0.612
I wish my family was more concerned about my welfare.	-0.588

Love longing (see Table 4) includes items concerning the longing for a person to be in love with, someone who would provide satisfaction and someone to share your life with.

Table 4. Items and Promax Rotated Factor Loadings for Love longing.

Love longing	
I find myself wishing for someone with whom to share my life.	0.850
I wish I could tell someone who I am in love with that I love them.	0.800
I have an unmet need for a close romantic relationship.	0.715
I wish I had a more satisfying romantic relationship.	0.534

Intercorrelation among the four factors goes from $r=.104$ to $r=.376$ (see Table 5). Love longing exhibits negative correlations with the other three factors. Reliability of loneliness scales are high for all four scales (Cronbach's Alpha=0,946; 0,916; 0,896; 0,813 respectively).

Table 5. Intercorrelation of principal components of loneliness.

	Intimate relationship contentment	Support from friends	Belonging to a family
Support from friends	.104		
Belonging to a family	.139(**)	.376(**)	
Love longing	-.319(**)	-.198(**)	-.251(**)

** statistically significant at 0.01

Four factors of family functioning have been extracted (see Tables 6 through 9) and they cover 47,446% of variance (KMO=.824, Bartlett's test=6092,498, $p<.001$), first of which covers 28,211%, second 9,259%, third 5,125%, and the fourth factor covers 4,851%. We have named the first factor „Communication“, the second „Cooperation“, third “Flexibility”, and the fourth “Cohesion”. Communication (see Table 6) indicates the quality of communication among family members. Opinions are being mutually acknowledged, problems, ideas, and beliefs are discussed peacefully, questions are answered honestly, others are being carefully listened to, true feelings are being expressed and there is a tendency for mutual understanding. Parents govern equally. Friends of family members are accepted. There is a feeling of being loved and satisfied with communication.

Table 6. Items and Promax Rotated Factor Loadings for Communication.

Communication	
We get honest answers to each others' questions.	0.911
We can discuss problems peacefully with each other.	0.823
We listen carefully to each other.	0.773
We talk to each other about our ideas and beliefs.	0.734
Family members acknowledge each other and each others' opinions.	0.610
We approve of each other's friends.	0.594
In our family the grownups leads equally.	0.581
We express our true feelings in front of each other.	0.577
When we are mad, we rarely talk against each other.	0.544
We are satisfied when we communicate with each others.	0.519
We make effort to understand the feelings of each other.	0.514
We all feel loved in our family.	0.490

Cooperation (see Table 7) includes items concerning following the rules, sharing responsibilities, and clearly defined roles in the family. Everyone has a right to express their own opinion, problems are solved by clubbing together, and there is a will to compromise and adjust when needed. Older members agree on making family related decisions. Closeness and care are easily expressed and the family is perceived as a source of happiness.

Table 7. Items and Promax Rotated Factor Loadings for Cooperation.

Cooperation	
It is very important to follow the rules in family.	0.807
We have clearly defined rules and roles in family.	0.770
We respect the division of household responsibilities.	0.636
Our happiest moments happen within the family.	0.622
We all have a right to express our opinion when making family related plans.	0.570
New ways of dealing with problems are sought within the family.	0.566
We would rather do things with our family members than with others.	0.536
Older members agree in making family related decisions.	0.490
Our family is capable for changes and adjustments when needed.	0.475
We are willing to compromise when solving problems.	0.418
We find it easy to express closeness and care for each other.	0.345

Flexibility (see Table 8) indicates the degree of independence in family members' conduct, the extent of sanctions against family members who break the rules, and the manner of communicating negative emotions. At the opposite end, there are strict rules, strict sanctions, humiliation of family

members, shame of showing closeness, feelings of guilt for wanting activities that don't include the family, blaming others for everything, and tendencies towards argument, sarcasm and irony.

Table 8. Items and Promax Rotated Factor Loadings for Flexibility.

Flexibility	
There are rules for almost every possible situation in our family.	0.744
Sanctions are quite strict if someone in the family breaks the rules.	0.593
Every member of the family takes responsibility for their actions.	-0.551
Members of my family humiliate each other.	0.542
There is a lot of competition among family members.	-0.534
Even when we feel the closeness, we are ashamed of showing it.	0.529
We feel guilt if some of us wants to spend time outside the family.	0.525
When things take a bad turn, the guilt is usually transferred to only one person.	0.518
We do not apologize when we are unjust to each other.	0.504
We argue a lot and we never solve problems.	0.457
We openly express our thoughts and feelings.	-0.447
Changes in our plans or routines cause nervousness among family members.	0.383
We address each other with sarcasm and irony.	0.381

Cohesion (see Table 9) tells us about the connections among family members, which reflects feelings of closeness, mutual support, dedication, investing in family members, helping each other and enjoying time spent together.

Table 9. Items and Promax Rotated Factor Loadings for Cohesion.

Cohesion	
We rarely do something together as a family.	-0.784
Family members go their own way most of the time.	-0.774
We support each other at hard times in life.	0.650
We feel very close when we are together.	0.641
We often avoid contact when we are in the house.	-0.637
We like spending some of our spare time together.	0.576
I get along with the people outside my family better than with my family members.	-0.521
When a member of our family has a problem, he/she solves it independently.	-0.498
Apart from our personal interests, we participate in family activities.	0.434

Intercorrelation among the four factors goes from $r=.275$ to $r=.616$ (see Table 10). Reliability of family functioning scales is high for all four scales (Cronbach's Alpha=0,908; 0,819; 0,822; 0,814 respectively).

Table 10. Intercorrelation of principal components of family functioning.

	Communication	Cooperation	Flexibility
Cooperation	.616(**)		
Flexibility	.563(**)	.311(**)	
Cohesion	.517(**)	.558(**)	.275(**)

** statistically significant at level 0.01

There are different sorts of correlations between the domains of loneliness and family functioning indicators (see Table 11). Intimate relationship contentment has no statistically significant correlations with family functioning indicators. Belonging to a family has statistically significant correlations with all indicators of family functioning. Support from friends and Love longing have statistically significant correlations with three of the indicators of family functioning, but none with Cohesion. All the correlations of Love longing and family functioning indicators are negative.

Table 11. Correlation between the domains of loneliness and family functioning indicators.

	F -Communication	F – Cooperation	F – Flexibility	F – Cohesion
L – Intimate relationship contentment	.057	-.017	.052	-.012
L – Support from friends	.396(**)	.246(**)	.337(**)	.079
L – Belonging to a family	.606(**)	.519(**)	.528(**)	.453(**)
L – Love longing	-.221(**)	-.177(**)	-.363(**)	-.134

** statistically significant at level 0.01

Table 12 displays average values of dimensions of loneliness and family functioning. The most important factor is the Support from friends, followed by Belonging to a family and Cohesion, respectively. Remaining three factors of family functioning (Communication, Cooperation, Flexibility) are in equally high positions. The lowest position is occupied by Love longing, while Intimate relationship contentment is second least.

Table 12. Arithmetic means of dimensions of loneliness and family functioning.

	M	SD
L – Intimate relationship contentment	3,29	1,32
L – Support from friends	4,36	0,60
L – Belonging to a family	3,91	0,68
L – Love longing	2,97	1,24
F – Communication	3,73	0,75
F – Cooperation	3,64	0,71
F – Flexibility	3,69	0,71
F – Cohesion	3,86	0,67

Discussion

In this paper, we have explored the correlations between the domains of loneliness and family functioning indicators on a convenience sample of adolescents in Belgrade, Serbia. We have found that the domains of loneliness are grouped into four instead of supposed three categories: Intimate relationship contentment, Support from friends, Belonging to a family and Love longing. Intimate relationship domain is divided into two factors: Intimate relationship contentment and Love longing. These results can be explained as an outcome of the differences between self-evaluation of relationships with real people and self-evaluation of relationships with imaginary persons. Items of the Love longing factor are directed towards an imaginary person while the rest of the items in the Loneliness questionnaire are directed towards self-evaluation of relationships with real people. We have decided to interpret the obtained factors concerning the content of items, and therefore the names of first three factors are positively directed and are indicating the opposite of loneliness. Love longing has a negative valence and thus has negative correlations with other three factors of loneliness. Although feelings of loneliness may be very unpleasant for the individual who experiences them they should not be considered as a disease in themselves (Kunst & van Bon-Martens, 2011). Love longing, most likely, may refer to feelings which could be related to the risk of mental illness.

Support from friends was the most prominent factor in our sample (see Table 12), followed by Belonging to a family, Intimate relationship contentment and Love longing. These results were expected due to the fact that we have a sample of adolescent and that during adolescent time period

peers are very significant, while intimate relationships are sporadic and brief. Satisfying one's need for friendship was more important in preventing loneliness than satisfying the need for a romantic partner (Cutrona, 1982). Also support from friends is the most consistent predictor of loneliness among college students (Pierce et al., 1991). On the other hand, relatively high results on Belonging to a family was present because the family provides basic functions during adolescence that are never fully replaced by the peer group (Olson et al., 1980).

Indicators of family functioning are grouped into four categories: Communication, Cooperation, Flexibility, and Cohesion. Cohesion is the most pronounced, followed by Communication, Flexibility, and Cooperation, respectively. Strongest of these factors suggests that the adolescents in our sample are close to their families and that family relations are an integral part of their lives. Found indicators of family functioning are mostly compatible with the initial theoretical models. Communication, Flexibility, and Cohesion match the key dimensions of the Circumplex Model: cohesion, adaptability and communication. In our research Cooperation emerges as the fourth factor. The question still remains whether Cooperation and Flexibility are factors which can be reduced to adaptability or there is justification for their separation. The opposite of Cooperation are individual and independent actions, while the opposite of Flexibility is rigid and uncultured behaviour. As seen from this perspective, Cooperation has common points with Shared Activity as the one of three whole-family factor measured by the major whole-family self report instruments, and Flexibility has common points with Behavioral Control (Gondoli & Jacob, 1993; Jacob & Windle, 1999). Factor Communication mostly corresponds the third whole-family factor Affective Expression. Three whole-family factors have been confirmed using the Beavers Model (Lee & Stacks, 2001). Our results indicate that the four factor model should be considered as a solution while interpreting family functioning based on the whole-family self report instruments.

Communication is a factor which has most high correlations with other factors of family functioning (see Table 10). These correlations confirm the hypothesis from the Circumplex Model that the communication dimension is a facilitating dimension that helps families alter their levels of cohesion and flexibility (Olson & Gorall, 2006). Cohesion and Cooperation have a similar level of correlation which means that cooperation among family members will be present in those families in which their relations contribute to the feeling of togetherness and vice versa. Correlations between Cooperation and Flexibility, as well as between Flexibility and Cohesion are less high which confirms the extrication of the fourth factor of family functioning.

Domains of loneliness have selective correlations with indicators of family functioning. Correlations between the Belonging to a family domain and all of the indicators of family functioning are the most prominent (see Table 11). This implies that family functioning is important in preventing emotional loneliness related to the family domain. On the other hand, absence of correlations between Intimate relationship contentment and indicators of family functioning implies that emotional loneliness related to the intimate relationships domains is independent from family functioning in the adolescent sample. Poor family functioning (the first three factors) is related to the appearance of Love longing as a specific form of loneliness in which one longs for an imaginary object of affection, while good family functioning is related to Support from friends and can be understood as an important factor in the prevention of social loneliness. People who are lonely often exhibit problems with social skills (Riggio & Kwong, 2009). The fact that Cohesion only correlates with the domain of Belonging to a family speaks of the specificity of this indicator, because it is a phenomenon only present within the family. Research shows that children in flexible but not cohesive families reported higher levels of personal strengths than the noncohesive rigid families, and their loneliness levels were not significantly different from those of the cohesive families (Sharabi et al., 2012).

Considering we had a convenience sample, the results of this research should be taken as indices of relations between domains of loneliness and family functioning indicators. The study relied only on self-report data from adolescents, with no information provided by family members, and thus may be subject to the standard criticism of self-report bias. Results obtained in this research coincide with the results of international research which is a good outcome that recognizes the importance of the family in preventing all forms of loneliness, especially the one related to the family domain. In the adolescent age there is no visible influence of the family to emotional loneliness which emerges from discontentment with the emotional relationship due to the fact that intimate relationships in that age are

sporadic and brief. The quality of communication within the family, cooperation and flexibility in accepting family roles and respecting the rules have a specific influence on loneliness.

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Rezime

Osećanje usamljenosti govori o nezadovoljstvu pojedinca interpersonalnim odnosima, osujećenoj potrebi za pripadanjem, izolovanosti i/ili bolnoj žudnji za drugim osobama. Cilj istraživanja je da se ispita postojanje i snaga povezanosti između domena usamljenosti (porodica, prijatelji, intimni partneri) i indikatora porodičnog funkcionisanja. Istraživanje je sprovedeno na prigodnom uzorku 211 adolescenta u Beogradu Upitnikom porodične funkcionalnosti sa 45 tvrdnji i Upitnikom usamljenosti sa 36 tvrdnji. Pouzdanost upitnika je visoka. Faktorska analiza je izdvojila četiri faktora usamljenosti (Zadovoljstvo intimnom vezom, Pripadanje porodici, Podrška prijatelja, Ljubavna čežnja) i četiri faktora porodične funkcionalnosti (Komunikacija, Saradnja, Fleksibilnost, Kohezivnost). Domen Pripadanje porodici je izraženije povezan sa svim indikatorima porodične funkcionalnosti. Domen Podrška prijatelja je statistički značajno povezan sa tri indikatora porodične funkcionalnosti izuzev Kohezivnosti, kao i domen Ljubavna čežnja samo u negativnom smeru. Dakle, funkcije porodice koje sprečavaju razvojne ishode povezane sa osećanjem usamljenosti su usmerene na negovanje otvorene komunikacije, međusobne saradnje, kulturnih obrazaca ponašanja i fleksibilnosti u pristupu različitim životnim situacijama.

Ključne reči: usamljenost, porodična funkcionalnost, adolescenti

INDIVIDUAL AND EDUCATIONAL ENVIRONMENT

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EMOTIONAL COMPETENCE AND SOCIAL SELF-EFFICIENCY AMONG STUDENTS WITH DIFFERENT ACADEMIC MAJORS

Abstract

This paper analyses the relation between the dimension of the social self-efficiency and that of the emotional competence among the students of the University of Niš. The sample is convenient, consisting of 441 student: 182 (41,3 %) males, 258 (58,7 %) females. Respondents study at the Faculties of Philosophy, Electronics, Medicine, Economics and Occupational Safety. The following measurements were used during the research: Perceived Social Self-efficiency Scale PSSE (Smith and Betz, 2000) and Emotional Competence Questionnaire UEK (Takšić, 2001). The obtained results prove that there exist statistically significant positive correlations of medium intensity between the dimension of the social self-efficiency and the dimensions of the emotional competence – the ability to perceive and understand emotions ($r = .367$), the ability to express and name emotions ($r = .431$), the ability to regulate and control emotions ($r = .446$). Males' scores on the PSSE scale are higher than females', while the case is quite the opposite on the scales measuring the abilities to perceive and understand emotions and express and name emotions. The scale measuring the ability to regulate and control emotions showed no significant differences between sexes. The scores obtained from the students of different faculties varied only in terms of the ability to express and name emotions, with the students of the Faculties of Philosophy and Electronics scoring the highest and lowest on the scale, respectively.

Keywords: *emotional competence, social self-efficiency, students*

Introduction

Considering the fact that the emotions define the significance of all interaction, as well as the fact that the level of one's own perception of self-efficiency influences initiation, development and maintaining of social contacts, the relation between the aforementioned dimensions is to be expected. People react emotionally, but at the same time strategically apply their knowledge of emotions and their emotional expressiveness in relations with other people.

The original Bandura's concept of Self-efficiency (Bandura, 1977) referred to a specific situational estimation of self-efficiency. He maintains that only measurements of self-efficiency offer a precise prediction of human behavior. Those measurements are consistently adjusted and narrowly limited to the field of psychological functioning which is being estimated. Self-efficiency strongly determines future behavior and determines the amount of effort which people will use in some specific situations. So, individuals who possess a higher level of self-efficiency make decisions to act more easily, they also make more effort to achieve some goals and are usually more persistent when unexpected problems arise. Beliefs about self-efficiency are based on various sources of information. The most important source is personal experience in similar situations. Successful past experiences build a strong sense of self-efficiency, while failures make it weak. Social self-efficiency is defined by Smith and Betz (2002.) as self-assessment of one's confidence in various social situations, more specifically as one's personal confidence in the feasibility of a social interaction-related task or action. Connolly (1989; in Pedović, 2011) lists the following skills as important for social self-efficiency: social courage, social group activity, friendly behaviour, receiving and providing help.

According to Saarni (1999), the emotional competence is personal efficiency displayed in social interactions including emotional exchange. When we say efficiency, we think of the ability of an individual to achieve goals. When this term is applied to social interactions which include emotions (emotional exchange), that means that people react emotionally, but still they strategically apply their knowledge about emotions and their emotional expressiveness. Although various authors have different lists of specific emotional competence, they all agree that the emotional competence is

an important phenomenon, because it represents the central ability for a successful interaction between peers. (Hubbard i Coie, 1994).

The emotional competence includes a set of behaviors unique to each individual. Goleman (1995) says that it consists of emotional self-estimation, self-confidence, self-trust, empathy and emotional control. There is a belief among experts that emotional intelligence, unlike IQ, can be developed, which is why many experts use some other terms determined by a set of skills and abilities, instead of the term intelligence. So, there are various techniques developed to improve and upgrade emotional intelligence in different social fields. Those fields can be educational, organizational and interpersonal. (Matthews, Zeidner & Roberts, 2002).

Studies show that training of life skills can improve social and also emotional competence. Jeffery (2002; toward Momeni et al. 2012) claims that training of life skills can reduce stress and anxiety. Instigators of the emotional intelligence theory (Salovey & Mayer, 1990) define it as “one’s ability to monitor their own feelings and emotions, and also feelings and emotions of others and use of such information in thinking and behavior.” The structure of emotional intelligence model which they developed includes:

- a) ability of individuals to perceive and understand their own emotions and feelings, and also others’ feelings and emotions
- b) ability to express and name their own and others’ emotions
- c) ability to regulate and control their own and others’ emotions.

Dimensions are described like this:

1. Ability to perceive and understand emotions – a person who has developed the ability to percieve and understand emotions can autodetect their own emotions and also feels a necessity to trust and be open, knows how and when to speak about emotions. This kind of person has the ability “read“ (predict) their own emotions and to understand the impact that those emotions have on the envorioment. Those people have developoed the capacity for empathy. They will be able to communicate with others – to talk about feelings with understanding. They will also become good listeners. This ability also includes recognizing other people’s emotions in daily contacts with people in their environment. Such a person can also percieve and understand their own emotions and feelings.
2. Ability to express and name emotions – this ability means that an individual will be able to recognize their own moods and emotions. An individual can name their emotions in most cases and will be able to express them in the right way. Such an individual will find a constructive way which will not hurt others if the emotion is adressed to them. That means that he or she will be able to understand feelings of another person or, stated differently, will be able to name the emotion of another individual. This person will have more succes in comunication with their envoriment because they will try to express their feelings in the right way, but also to understand others’ feelings.
3. Ability to regulate and control emotions – people who have developed this skill will be able to control their emotional states in various situations, because they are more capable of estimating the situation than other people. They study other people’s behavior with sucess, but are also aware of the consequences that their behavior causes to other people’s emotional life. They can control their emotions because they can understand what those emotions are based on. Even if it comes to unpleasent emotions, the person with a high level will accpet and learn to regulate them. At the same time, this person will know how to overcome those feelings by using techniques of relaxing or some other. This kind of people take full responsibility for their acts and reactions.

Aim of the study

This paper studies the relation between the dimensions of the emotional competence (scale of ability to perceive and understand emotions, scale of ability to express and name emotions and scale of ability to regulate and control emotions) and the social self efficiency. Furthermore, it attempts to determine the relation between the mentioned dimensions, as well as how they relate to the socio-demographic variables (gender, age, studies)

Method

Variables

Independent variables:

1. ability to perceive and understand emotions
2. ability to express and name emotions
3. ability to regulate and control emotions

Dependent variables: Social Self- Efficacy

Control variables: sex, age and faculty

Instruments

The Scale of Perceived Social Self-Efficacy (PSSE; Smith & Betz, 2000). This scale measures social self-efficiency defined as an individual assessment of the level of social self-efficiency and self-confidence in the field of social behavior. The scale consists of 25 items. The answers to each of the items are provided on the five-scale Likter type. Smith and Betz (2002) state that the reliability expressed with the Crombach alpha coefficient is .94. In this research, the Crombach alpha coefficient is .93.

Emotional Skills and Competences Questionnaire – (ESCQ; Takšić, 2001) has 45 items, distributed in 3 subscales:

- a) scale of ability to perceive and understand emotions – scale has 15 items; in various studies the reliability coefficient was between $\alpha=0,79$ do $\alpha=0,82$.
- b) scale of ability to express and name emotions – scale has 14 items, the reliability coefficient is between $\alpha= 0.79$ do $\alpha=0.82$.
- c) scale of ability to regulate and control emotions – this scale has 16 items and the reliability coefficient has values between $\alpha= 0,71$ do $\alpha=0,78$ (Takšić, 2001). In this study, the Likter five-point scale was used. In our research of the dimensions of the emotional competence, the reliability coefficient has values between 0.83 to 0.84.

Research Hypothesis

According to the general hypothesis, a statistically significant correlation between the dimensions of the emotional competence and dimension of social self-efficiency is expected.

Specific hypotheses:

1. It is expected that females will have higher scores for the dimensions of the social competence in comparison with male respondents.
2. It is expected that female respondents will achieve a higher level concerning the dimensions of the social self-efficiency
3. It is expected that the older the respondents are the higher the scores will be
4. It is expected that students studying social sciences and humanities will achieve higher scores in both dimensions in comparison with students of other faculties

Sample

The sample is convenient, consisting of 441 student, 182 (41,3%) males and 258 (58,7%) females. Subjects are the students of the following faculties: Faculty of Philosophy, Faculty of Electronic Engineering, Faculty of Medicine, Faculty of Economy and Faculty of Occupational Safety.

Results

Table 1. Descriptive statistics relating to the overall level of perceived social self-efficiency and components of the emotional competence

Variables	Mean	Standard deviation
Scale of perceived social self efficiency	3.5446	0.66436
Scale of ability to perceive and understand emotions	3.7891	0.63353

Scale of ability to express and name emotions	3.6774	0.71191
Scale of ability to regulate and control emotions	3.8251	0.54991

On the basis of the descriptive statistical measures, it can be observed that the arithmetic mean on the scale of the Perceived Social Self –Efficiency is 3.54 , and that the standard deviation is 0.66. On the Scale of emotional competence, the greatest arithmetic mean is noticed in the dimension of regulation and control of emotions (3,83), and the lowest value is seen in the dimension of expressing and naming emotions (3,68). The biggest deviation exists on the scale of the emotional competence, in the dimension of expressing and naming emotions (0,71), and the lowest value is in the dimension of regulating and controlling emotions (0,55).

Table 2. Correlations between all components

	Scale of ability to perceive and understand emotions	Scale of ability to express and name emotions	Scale of ability to regulate and control emotions
Scale of perceived social self efficiency	0.367**	0.431**	0.446**

** asymptotic significance at 0.001 level

Table 2 shows that there are statistically significant positive correlations of medium intensity between the dimension of the social self-efficiency and the dimensions of the emotional competence, and those are: the ability to perceive and understand emotions ($r = 0,367$), the ability to express and name emotions ($r = 0,431$) and the ability to regulate and control emotions($r = 0,446$).

Table 3. Mean ranks relating to overall level of perceived social self efficiency and components of emotional competence

Variables	Sex	Mean rank	Sum of ranks
Scale of perceived social self efficiency	Male	245.97	44767.00
	Female	203.45	52694.00
Scale of ability to perceive and understand emotions	Male	202.65	36882.50
	Female	233.89	60578.50
Scale of ability to express and name emotions	Male	195.87	35648.00
	Female	238.66	61813.00
Scale of ability to regulate and control emotions	Male	212.13	38607.00
	Female	227.24	58854.00

Table 4. Mann-Whitney test relating to overall level of perceived social self efficiency and components of emotional competence

	Scale of perceived social self efficiency	Scale of ability to perceive and understand emotions	Scale of ability to express and name emotions	Scale of ability to regulate and control emotions
Mann-Whitney U	19024.000	20229.500	18995.000	21954.000
Asymptotic significance	0.001	0.011	0.001	0.220

Male respondents score higher on the Scale of the perceived social self-efficiency than females, while the case is quite the opposite on the scales measuring the abilities to perceive and understand emotions and express and name emotions. The scale measuring the ability to regulate and control emotions showed no significant differences between the sexes.

Table 5. Correlations between age of subjects and all components

	Scale of perceived social self efficiency	Scale of ability to perceive and understand emotions	Scale of ability to express and name emotions	Scale of ability to regulate and control emotions
Age	0.040	0.008	0.003	0.039

Table 5 shows that there are no statistically significant correlations between the dimension of the social self-efficiency and the dimensions of the emotional competence with the subjects' age.

Table 6. Mean ranks relating to overall level of perceived social self efficiency and components of emotional competence

	Faculty	Number of subjects	Mean rank
Scale of ability to express and name emotions	Faculty of Philosophy	73	241.69
	Faculty of Medicine	71	240.24
	Faculty of Electronic Engineering	91	188.85
	Faculty of Economy	136	215.31
	Faculty of Occupational Safety	70	232.76

Table 7. Kruskal Wallis test relating to overall level of perceived social self efficiency and components of emotional competence

	Scale of perceived social self efficiency	Scale of ability to perceive and understand emotions	Scale of ability to express and name emotions	Scale of ability to regulate and control emotions
Chi-Square	7.576	5.827	10.213	1.128
Asymptotic significance	0.108	0.212	0.037	0.890

The examination of the differences in the range of expression of the social self-efficiency and emotional competence in comparison the profile of studies showed that there are statistically significant differences only in the dimension of the ability to express and name emotions. The highest scores in the mentioned dimension had the students at the Faculty of Philosophy, and the lowest scores had the students at the Faculty of Electronic Engineering.

Discussion

The results of the study show that there is a positive, statistically significant correlation between the dimensions of the emotional competence and social self-efficiency. This proves our assumption that the emotional competence growth is related to the growth of the social self-efficiency.

Emotional awareness regulates moods of behavior and makes synchronization easier. Individuals who have emotional awareness are skillful in emotional regulations and are able to increase their own moods as well as those of other people, and are able to manage the emotions and excitements in such a way as to excite and arouse others to obtain the most optimum result. Empathy relies on emotional awareness and is the basis for the communication skill. People who have more empathy pay more attention to slight social signals which indicate other people's needs or requests. The ability to understand other people's feelings, urges and interests results in a better and stronger communication. These abilities make relationships smoother and are essential for attracting other people, for social achievements and ever personal attraction.

Moir and Jessel (1984, Pešut, 1999; in Cvijetović, 2014) try to show in their study that there is a difference between the genders when it comes to emotional intelligence. They prove that women are on a higher level of emotional intelligence than men. They say that this difference is caused by

structural and morphologic brain differences between men and women. One explanation for those results is a different way of socialization of men and women. When it comes to children, socialization is the way of making opinions and building attitudes which are acceptable for men or women. Men are taught to be strong, brave, to act independently. So, the expression of emotions is considered weakness. Women, on the other hand, are taught to act in a caring and compassionate way, to perceive and analyze their own and other people's emotions and to act in accordance with them. This can be the cause for a general opinion that women have a more friendly attitude than men. Female respondents are on the higher level on the scale of the emotional competence, so they express and perceive emotions better (Sindik, Degen, Bakić - Tomić, 2012). The results show that male respondents are on the higher level on the scale of the social self-efficiency. This is explained in the following way: men, unlike women, overestimate their abilities (in a situation when their activities have a distinct quality). Previous studies showed a positive correlation between the growth and the dimensions of the emotional competence among respondents (Caruso, Mayer, Salovey, Sitarenios, 2001; Šćepović 2009); this was also the basis for our assumption. Studies have showed that there is no statistically significant correlation between the growth and the emotional competence and social self-efficiency, which is opposite to what is expected. Our results can be explained by the very nature of the sample that covered a narrow range of ages of respondents (19 – 31). A certain correlation would probably be noticeable if the sample was composed of respondents of a greater age variety.

When the differences among the students of different faculties are concerned, it can be speculated that the nature of the studies at the Faculty of Philosophy is more directed towards the understanding and expressing of emotions, while the lowest scores obtained at the Faculty of Electronic Engineering can be somewhat explained by the structure of the sample, with a prevalence of male subjects, who have lower scores in this dimension (ability of expressing and naming emotions) anyway.

Conclusion

We can say that the relation between the emotional competence and social self-efficiency is proved. Even though this is expected, this connection offers just the basis for a broader research of the topic of the emotional competence and social self-efficiency, especially when we consider the fact that numerous studies and researches have shown that the emotional competence is something that can be developed. The connection detected by this research provides an access into the fact that there are differences between sexes when it comes to the emotional competence and social self-efficiency. That confirms our assumption that this field should be studied further in the future, especially the issue of its practical significance and goals that are connected to the development of those skills and characteristics not only in children but also in adults.

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Rezime

U ovom radu ispitivana je povezanost dimenzije socijalne samoefikasnosti sa dimenzijama emocionalne kompetencije kod studenta različitih fakulteta Univerziteta u Nišu. Uzorak je prigodan i čini ga 441 student, od toga 182 (41,3%) muških i 258 (58,7%) ženskih ispitanika. Ispitanici su bili studenti sledećih fakulteta: Filozofski, Elektronski, Medicinski, Ekonomski i Fakultet zaštite na radu. Za potrebe istraživanja korišćeni su sledeći instrumenti: Skala opažene socijalne samoefikasnosti PSSE (Smith i Betz, 2000), i Upitnik za ispitivanje emocionalne kompetentnosti UEK 45 (Takšić, 2001). Dobijeni rezultati pokazuju da postoje statistički značajne, pozitivne korelacije, srednjeg intenziteta između dimeznije socijalne samoefikasnosti i svih dimenzija emocionalne kompetencije i to: sposobnosti uočavanja i razumevanja emocija ($r = .367$), sposobnosti izražavanja i imenovanja emocija ($r = .431$) i sposobnosti regulacije i upravljanja emocijama ($r = .446$). Muškarci ostvaruju više skorove na Skali opažene socijalne samoefikasnosti, dok žene ostvaruju više skorove na Skalama sposobnosti uočavanja i razumevanja emocija i sposobnosti izražavanja i imenovanja emocija. Na skali sposobnosti regulacije i upravljanje emocijama ne postoje statistički značajne razlike među polovima. U pogledu razlika među studentima različitih fakulteta, pokazalo se da samo na dimenziji sposobnosti izražavanja i imenovanja emocija postoji razlika, te da studenti Filozofskog fakulteta ostvaruju najviše skorove na ovoj dimenziji, dok najniže skorove imaju studenti Elektronskog fakulteta.

Ključne reči: *emocionalna kompetentnost, socijalna samoefikasnost, studenti*

UDC 37.091:373.3

371.14

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SOCIAL COMPETENCIES AND AUTHORITARIANISM OF THE CANDIDATES FOR THE PEDAGOGICAL FACULTY

Abstract

Social competencies represent a necessary factor of the professional competencies and an important criterion of suitability for the pedagogical profession. Authoritarianism is, on its side, connected to the lack of social intelligence, bad social perception and the general lack of social competencies. Starting from the realisation that the possibilities of the Faculty to influence the forming of the competencies defined by the standards for the profession of the teacher and educator will be bigger if it knows the real characteristics of the student, this research had the goal to examine the social competencies and the authoritarianism of the candidates for the Pedagogical Faculty. The sample was made of the candidates for the study groups teacher, the preschool educator and the internet educator at the Faculty for Pedagogical Sciences of the University of Kragujevac of the year 2012/13 (N=240). The expression of authoritarianism is measured with Mihić and associates' scale for the estimation of authoritarianism The Questionnaire for Authoritarianism. For the estimation of the social competencies of the candidates The Scale for Estimation of Social Competencies is used, which has been constructed for the needs of this research, and applied via an interview. The results are encouraging, considering that they show that 180 (75%) of the candidates are positively marked in both measuring. It is decided that the authoritarianism is bigger, the social competencies are smaller, namely between the percent of authoritarianism and the percent of the expressed social competencies in the situation of the interview, the negative connection is established ($p=-0.378$) ($p<0.01$). In the research sample 44 (18.33%) candidates are found with high and extremely high authoritarianism, low and extremely low social competencies 29 (12.08%) candidates and 13 (5.41%) candidates negatively marked in both measuring, which point to the necessity of the planned activity with the goal of strengthening their social competencies and lessening of authoritarianism during the studies at the Pedagogical Faculty.

Key words: *social competencies, authoritarianism, candidates, Pedagogical Faculty*

Introduction

“I’ve come to a frightening conclusion that I am the decisive element in the classroom. It’s my personal approach that creates the climate. As a teacher, I possess a tremendous power to make a child’s life miserable or joyous.

I can be a tool of torture or an instrument of inspiration.

I can humiliate or humour, hurt or heal.

In all situations, it is my response that decides whether a crisis will be escalated or de-escalated and a child humanized or dehumanized.” Haim Ginott (per Miller, 2001)

Modern psychological literature is dominated by the view that members of certain professions differ in personality traits that play an important role in the choice of profession and can be identified as early as the studenthood (Dimitrijević, Hanak, Milojević, 2011; Milovanović, Marinković, 2014). Personality traits are key determinants of behaviour, “stable, internal traits that cause behaviour and possess stability over time and across situations” and “determine common and distinctive behaviour of an individual” (Allport, 1966). Personality is that which permits “a prediction of what a person will do in a given situation” (Catell, 1978).

Educational work is conducted in a dynamic energy field of mutually intertwined interactions between teachers and students (Brophy, Good, 1974; Korać, 2012). Due to the fact that the nature of these interactions is asymmetrical, teacher personality has a multiple, profound and direct impact on students. Personality traits of teachers largely determine the nature of interactions and the educational style that has an essential, deep and comprehensive impact on the personality of students (Lalić-Vučetić, 2008). The quality of teaching, student activities, selection of educational methods, group or class climate, the quality of interaction within the group all depend on the educational style (Ševkušić, 2004; Joksimović, 2004; Avramović, 2010). Only a socially competent and democratic-minded teacher can create good emotional climate (Matanović, 2009). The study shows that democratic-minded teachers perform better than those autocratically oriented, and in work with students, teacher explainer achieves less success than the involver or the enabler (Mandić, 1980). In addition to having a significant influence on the efforts that students invest in learning, their interests and motivation (Cohen, 1994) “affection and acceptance influence the formation of healthy and safe personalities of students”, while unpleasant feelings such as anxiety, boredom, apathy threaten not only the intellectual development but also the mental health of students (Gage, 1956).

For its part, neuroscience suggests that environmental influences in the developmental period represent “fine tuners of neural structure” (Damasio, 2002). Developmental psychopathology emphasizes the importance of influence of “significant others”, figures such as parents, preschool and school teachers or school in general, on the creation and development of various forms of pathology in childhood and youth, as well as the disturbing effect that fear and other negative emotions can have on the course of personality development (Vlajković, 2003). Psychology of mental health within the concept of primary prevention refers to safeguards and promoters of mental health represented by the “key persons” that, in addition to parents, include preschool and school teachers. Within this concept, the “key persons” can be “relays of health” or “relays of mental illness and diseases” and their importance for mental health is significant (Caplan, 1987).

Study further indicates that, “maturity and stability of personality is the basis, the most important factor in performing educational work” (Chauchard, 1968) and that “without maturity and stability of personality all other efforts to form a good teacher remain futile” (Viher, 1971), that “emotional instability and immaturity is a barrier to the teaching profession” (Leman, 2002). The concept of mature and developed personality is a humanistic concept that appears in literature throughout numerous definitions and provisions. Freud, for example, believes that a mature person is the one that is able to love and work (Freud, 1981) while, Maslow, a humanistic-oriented psychologist, believes that only the person that has reached the level of self-actualization, that totally excludes “an authoritarian view of the world” can be considered a mature person (Maslow, 1943). The concept of mature personality implies attributes such as humanity, ethics, tolerance and respect for diversity, empathy, good emotional control, democratic orientation and lack of traits that are associated with the concept of authoritarianism (Hrnjica, 1992).

Social competencies, as mentioned earlier, are the foundation on which social relationships are built and individuals develop the perception of their own personality in a social context (Hargie & Dickson, 2004). Defined as “practical effectiveness of individuals within a social context” (McClelland, 1973), they depend on communication competencies but also on intentions, motives and personality as a whole, especially the maturity of personality (Cupach 1989; Momirovic, Kosek, 1997). The components of social competencies include knowledge of other people and their rights, knowledge of the rules of social interaction and social roles, types of social situations and social relationships, skills of interpreting social information, decision-making skills on how to act in a certain situation and communication skills or verbal and nonverbal behaviour in social interaction (Janet & Biermann, 2012.). The repertoire of socially competent individuals comprises socially acceptable and pro-social behaviours. These allow an individual to achieve constructive social interactions such as establishing contact with other people, perception of the state and the mood of others, understanding the perspective of others, obeying the rules, adjustment to others, providing support, group participation, cooperation, active listening, assertiveness, self-promotion, confrontation etc. (Andersen, 2007).

Authoritarianism, within the concept of authoritarian personality per Adorno et al. (Adorno, Frenkel-Brunswik, Levinson & Sanford, 1950), is a specific set of personality traits such as submissiveness, rigidity, aggression, egoism, conventionality, conservatism, cynicism, tendency

towards repression, excessive respect for authority, tendency towards order and “firm hand”. The authors attempted to prove that the syndrome of attitudes, which they named anti-democratic orientation, is determined by a specific personality trait, which they named - authoritarianism. Within this concept, the origin of authoritarianism was searched for within the family, in particular, the specific educational style characterized by parental strictness, inconsistency and emotional coldness. Per Altemeyer, the author who first conducted a serious revision of the concept of authoritarianism, it is not viewed as a personality trait, but as a set of attitudes, mainly three clusters of attitudes that mutually co-vary. These are as follows: authoritarian submissiveness, or submissiveness towards established authority of a certain society; authoritarian aggression, or aggression towards the subordinates; and conventionalism, seen as a rigid commitment to conventions accepted by society and authority (Altemeyer, 1996). Altemeyer explains the origin of authoritarianism through social learning theories, highlighting the primary role of family and the role of other factors in the framework of wider social environment (Altemeyer, 2003). Some studies indicate a possible dual nature of authoritarianism. For example, in a study that examined a new scale of authoritarianism, designed to combine the indicators of two dominant concepts of authoritarianism, the authors concluded that their scale “reflects the dual nature of authoritarianism: clusters of attitudes are associated with specific patterns of behaviour and emotional response, forming a coherent dimension of individual differences” (Mihić, Bodroža, Colović, 2009).

Out of all the qualities that define the authoritarian personality, aggression occurs in several of the nine elements that form authoritarianism in the original theory of Adorno et al.: authoritarian aggression, cynicism, destructiveness, rigour, focus on power, and even preference to projection. In a variety of studies, items of the “authoritarian aggression” cluster proved to be the best predictors of ethnic bias (Stone, Lederer&Christie, 1993). Results of numerous studies generally indicate a significant and direct association of authoritarianism with prejudice. Within the concept of social dominance that refers to preference of social hierarchy to equality and a high tendency to prejudice, authoritarianism occupies a central place (Sidanius & Prato, 1999). Per Altemeyer’s theory, authoritarian aggression also plays a central role. In addition to aggression, the most commonly referred to correlate of authoritarianism, in earlier as well as in recent studies, is rigidity. Viewed as a personality trait, rigidity is associated with unconditional acceptance of authority and represents a pivot of the entire social functioning of personality. Rigid people are conservative, find it difficult to adapt to any change, and are prone to pessimism and dissatisfaction (Janičić, Mihić, Šakotić-Kurbalija, 2005; Grahovac, 2011). The study conducted by Bojanović confirmed the significant association of authoritarianism with submissiveness, a weak ego, undeveloped individualism, low self-esteem, a tendency toward acceptance of manipulation, narcissism, destructiveness and helplessness (Bojanović, 2004).

Authoritarianism is generally associated with lack of social intelligence, poor social perception and general lack of social competencies (Van Hiel & De Clercq, 2009; Altemeyer & Hunsberger, 1992). In this context, it should be noted that according to documents on teacher competencies, a modern teacher should possess a range of competencies of which a significant number belongs to the category of social competencies (Pantić, 2005). Document by the Ministry of Education and Science from 2011, *Competency standards for the teaching profession and professional development of teachers* (IIE, 2011) defines teacher competencies as “a set of necessary knowledge, skills and evaluative attitudes of teachers”. These competencies are expressed through complex activities in educational work and, in addition to competencies in the field of teaching and learning, include competencies that support personality development of students and communication and collaboration competencies. Specific social competencies defined within these categories of competencies include criticism and self-criticism, adaptability to new situations, tendency towards teamwork, respect for diversity, ethics, empathy and flexibility, understanding the social context of education, encouraging the development of a system of values and positive traits of students, etc.

Authoritarianism defined as a concept of personality or a worldview implies, therefore, a number of traits, attitudes and values that are completely opposite to competencies expected and pursued in the system of modern education. Considering that personality develops throughout lifetime, “but reaches a rather stable level in adulthood” (Smederevac & Mitrović, 2009), a key question that arises here is whether, within the three to five years of study, the institution of higher education can influence the formation of competencies defined by the standards of the teaching

profession, without prior knowledge of the actual personality traits of students. Given Altemeyer's postulate that authoritarianism can be affected through reduction and the fact that social competencies can be developed, it is believed that these goals would be realized more easily, if the actual traits of students were familiar. Based on the above, examination of authoritarianism and its association with social competencies of candidates for the admission to the Faculty of Education seems to be a relevant undertaking.

Given the importance of social competencies in the context of professional competencies of teachers and educators, and the realization that authoritarianism is negatively associated with social competencies, the study is aimed to examine authoritarianism and social competencies of candidates for the course of study for teachers and educators.

Method

Sample and method. The study comprised candidates for admission to the Faculty of Education, University of Kragujevac (N=240). The data were collected through the entrance examination of the 2012/13 academic year. A three-member committee conducted an interview with candidates for assessment of social competencies, after which the candidates filled out a questionnaire for assessment of authoritarianism. Table 1 shows the structure of the sample by gender.

Table 1. The structure of the sample by gender

	f	%
Female	210	87.5
Male	30	12.5
Total	240	100

Instruments. For assessment of authoritarianism of candidates the scale for the assessment of authoritarianism was used, known as Mihić et al.'s *AutoritarNoSt (AuthoritariaNiSm) Questionnaire*, developed by merging the scale with indicators of authoritarian personality per Adorno et al., and the scale based on the concept of authoritarianism as a syndrome of attitudes, consisting of 47 claims. Factor analysis showed that it consists of three factors, which altogether explain a little under 34% of the variance, and this structure was taken based on the Scree plot, which clearly distinguishes three factors: authoritarian submissiveness, authoritarian aggression and authoritarian rigidity. The creators of the test, Mihić et al., indicate that the reliability of the test proved to be excellent and that Cronbach's alpha was 0.92 in the entire sample. In addition, the results of all studies proved excellent validity of the instrument given the high correlation to Adorno's scale of authoritarianism and other constructs that correlate with authoritarianism (Biro, Smederevac, Novović, 2009).

For assessment of social competencies, the *Assessment of Social Competence Scale* was used, developed for assessing social competencies of candidates in the entrance exam, which is an integral part of the new concept of the entrance exam at this faculty. The scale included semi-standardized interviews with candidates led by a three-member committee. In an interview situation, that required quick adaptation of candidates to new social context, establishing contact, fast decoding of received verbal and nonverbal messages, quick selection of responses, anxiety control, personal promotion, etc., the three-member committee assessed and evaluated four aspects of social competencies of candidates, as follows: verbal fluency, communication style, control of emotional expression and pro-social orientation. The mean score obtained by three independent observers formed the final score of social competencies. The inter-subjective compliance of assessors was examined using the *Friedman* test for testing the difference between assessments of different assessors, and inter-subjective compliance of three independent assessors was established in assessment of social competencies for 78% of the candidates.

Methods of analysis. Descriptive models included the computational (measures of central tendency, measures of variability) and graphical (grouping and tabulation of data and graphical display using a line diagram) model. Analytical models included *Spearman's* rank correlation coefficient test and the *Friedman* test for testing the difference between assessments of different assessors.

Results

Assessment of authoritarianism of candidates was conducted by comparing their scores to scale norms and sorting candidates into appropriate categories of authoritarianism according to the instructions provided with the scale (Table 2).

Table 2. Distribution of scores by categories of authoritarianism in the total sample

	f	%
Extremely low authoritarianism	0	0
Low authoritarianism	8	3.33
Average expressed authoritarianism	188	78.33
Highly expressed authoritarianism	39	16.25
Extremely high authoritarianism	5	2.08
Total	240	100

Table 2 shows that the highest percentage of candidates achieved the score that places them in the category of average expressed authoritarianism. Candidates with scores that place them in the category of highly expressed authoritarianism are in the second place, while extremely high authoritarianism occurs in the smallest percentage of candidates. A small percentage of candidates has achieved scores in the category of low authoritarianism while no candidates achieved scores for the category of extremely low authoritarianism. Scores that place them in the category of high and extremely high authoritarianism were achieved by a total of 44 (18.33%) candidates.

Table 3 shows the distribution of scores by categories of authoritarianism in relation to gender.

Table 3. Distribution of scores by categories of authoritarianism in relation to gender

	Male		Female	
	f	%	f	%
Extremely low authoritarianism	0	0	0	0
Low authoritarianism	3	1.25	5	2.08
Average expressed authoritarianism	22	9.16	166	69.16
Highly expressed authoritarianism	5	2.08	34	14.16
Extremely high authoritarianism	0	0	5	2.08
Total	30	12.48	210	88.32

The highest percentage belongs to the category of average expressed authoritarianism in both genders. However, in the category of highly expressed authoritarianism the highest percentage of the total sample belongs to the female and only 2.08% to the male gender

Out of the total number of the study sample in the categories of high and extremely high authoritarianism, the highest percentage of candidates belongs to the female gender, Table 4.

Table 4. Distribution of candidates by gender in the categories of high and extremely high authoritarianism

	Male		Female	
	f	%	f	%
Highly expressed authoritarianism	5	2.08	34	14.16
Extremely high authoritarianism	0	0	5	2.08
Total	5	2.08	39	16.24

Table 5 shows the distribution of candidates by categories of social competencies.

Table 5. Distribution of candidates by categories of social competencies

	f	%
Extremely low social competencies (mean score of 0 to 2.50)	2	0.83
Low social competencies (mean score of 2.51 to 4.50)	27	11.25
Average social competencies (mean score of 4.51 to 6.50)	42	17.50
High social competencies (mean score of 6.51 to 8.50)	89	37.08
Extremely high social competencies (mean score of 8.51 to 10)	80	33.33
Total	240	100

The table shows that the highest percentage of candidates belongs to categories of average, high and extremely high social competencies (87.92%). Only 29 candidates (12.08%) displayed low and extremely low social competencies.

Distribution of candidates in the categories of social competencies by gender is shown in Table 6.

Table 6. Distribution of candidates in the categories of social competencies in relation to gender

	Male		Female	
	f	%	f	%
Extremely low social competencies	2	0.83	0	0
Low social competencies	3	1.25	24	10
Average social competencies	19	7.91	23	9.58
High social competencies	4	1.66	85	35.41
Extremely high social competencies	2	0.83	78	32.50
Total	30	12.48	210	87.49

As shown in Table 6, the highest number of candidates of both genders belongs to the category of average social competencies. In the category of low social competencies and in the categories of high and extremely high social competencies, the highest number of candidates belongs to the female gender. In the category of extremely low social competencies, there are no female candidates.

Table 7 presents a comparative review of the distribution of candidates in relation to the categories of authoritarianism and social competencies.

Table 7. Comparative review of the distribution of candidates by categories of authoritarianism and social competencies

	Extremely low s.c.	Low s.c.	Average s.c.	High s.c.	Extremely high s.c.	Total f (%)
	f (%)	f (%)	f (%)	f (%)	f (%)	
Extremely low authoritarianism						
Low authoritarianism				2 (0.83)	6 (2.50)	8 (3.33)
Average authoritarianism	2 (0.83)	14 (5.83)	30 (12.5)	72 (30)	70 (29.16)	188(78.33)
High authoritarianism		9(3.75)	12(5)	14(5.83)	4(1.66)	39 (16.25)
Extremely high authoritarianism		4(1.66)		1(0.41)		5(2.08)
Total	2 (0.83)	27 (11.25)	42(17.5)	89(37.08)	80(33.33)	240

Table 7 shows that all candidates from the category of low authoritarianism were assessed to possess high or extremely high social competencies. Candidates from the category of average authoritarianism in most cases were assessed to possess average, high or extremely high social competencies (172 or 71.66%). From the category of average authoritarianism, 16 candidates (6.66%) were assessed to possess low and extremely low social competencies.

Distribution of candidates in the categories of high and extremely high authoritarianism and their social competencies is shown in Table 8.

Table 8. Comparative review of the distribution of candidates in the categories of high and extremely high authoritarianism and their social competencies

	Extremely low s. c.	Low s. c.	Average s. c.	High s. c.	Extremely high s. c.	Total
High authoritarianism		9	12	14	4	39
Extremely high authoritarianism		4	/	1	/	5
<i>Total</i>		13	12	15	4	44 (18.33%)

Out of the 44 candidates from the categories of high and extremely high authoritarianism, 19 candidates were assessed to possess high and very high social competencies (7.91%) and 12 (5%) to possess average social competencies. From these categories of authoritarianism, 13 (5.41%) candidates were assessed to possess low social competencies (this percentage of candidates received negative scores in both measurements).

The assumption of a negative correlation of authoritarianism and social competencies was tested using Spearman's correlation coefficient (the Spearman's rho). Table 9 shows the coefficient of correlation between the measures of authoritarianism and social competencies of the studied sample.

Table 9. The coefficient of correlation between the measures of authoritarianism and social competencies in the total sample (Spearman's Correlation Coefficient)

	Authoritarianism	Social competencies	
Authoritarianism	Correlation	1.000	-0.378**
	Sig. (2-tailed)		.000
Social competencies	Correlation	-.378**	1.000
	Sig. (2-tailed)	.000	

** p<0.01

The value of Spearman's correlation coefficient ($\rho = -0.378$; $p < 0.01$) indicates that there is a statistically significant negative correlation of low intensity between the two measurements (authoritarianism and social competencies of candidates).

Discussion

Given the importance of the personality of candidates in the context of providing quality education of teachers and educators, the results of the presented study can be characterized as encouraging. Candidates, as future teachers and educators, have displayed good results in measurements of those aspects of personality that may be essential to their future profession.

On the Scale of assessment of social competencies that was implemented by three independent observers and through interviews, out of 240 candidates that constituted the total sample, the highest percentage of candidates belongs to the categories of average, high and extremely high social competencies (87.92%). Only 29 candidates (12.08%) were assessed to possess low and extremely low social competencies. According to the achieved results, candidates, future teachers and educators, possess adequate communication style (open, involved, active, immediate, spontaneous, energetic, motivated, flexible), good emotional control, stability, balance and appropriate pro-social orientation (willingness to cooperate and care about each other, social responsibility and empathy). These results show some agreement with the results of other studies. For example, based on the results of the study

that examined the psychological profile of students, future teachers, Brković et al. describe future teachers as open to positive emotions, modest, caring for others, moderately anxious and moderately impulsive (Brković, Bjekić and Zlatić, 2006).

On Mihić et al.'s scale of authoritarianism, the highest percentage of candidates (81.66%) achieved the score that places them in the category of average and low expressed authoritarianism (average 78.33% and low 3.33%). Scores that place them into the category of high and extremely high authoritarianism were achieved by a total of 44 (18.33%) candidates. According to the results, the vast majority of candidates is not aggressive, rigid, or prone to blind obedience, they are flexible, empathetic and show respect for diversity, which is a good basis for the establishment of a cooperative relationship with other people, an active and constructive relationship with the social environment and good adaptation to change and environment. Thus, in some sense, the results can be viewed as an indicator of social competencies of candidates. Since the description of the authoritarian personality states that such a person expresses a generally negative attitude towards people, the achieved results of these candidates look like a good basis for education at the Faculty of Education. Based on the scores achieved by the candidates, it can be concluded that the results of this study are largely in line with the results of other studies that find a higher expression of authoritarianism in subjects pursuing helping professions. Exploring authoritarianism, as far back as 1981 (Jovančević, 2010), Pantić found that authoritarianism is the least common among humanistic intelligence 23% compared to other professions where it ranges from 41% among managers and up to 68% among farmers. It should be noted that in the sample used in this study, 18.33% of candidates received scores that place them in the category of high and very high authoritarianism.

A particular issue in this context is the manner in which social competencies of candidates were assessed through certain categories of authoritarianism. Comparison of the obtained scores indicates that all of the candidates from the category of low authoritarianism were assessed to possess high or extremely high social competencies. Candidates from the category of average authoritarianism in most cases were assessed to possess average, high or extremely high social competencies (172 or 71.66%). From the category of average authoritarianism, 16 candidates (6.66%) were assessed to possess low and extremely low social competencies. Out of the 44 candidates from the categories of high and extremely high authoritarianism, 19 candidates were assessed to possess high and extremely high social competencies (7.91%) and 12 (5%) to possess average social competencies. From these categories of authoritarianism, 13 (5.41%) candidates were assessed to possess low social competencies (this percentage of candidates received negative scores in both measurements).

Particularly important is the fact that 180 (75%) candidates were positively rated in both measurements. The analysis shows that the higher the authoritarianism, the lower the social competencies, i.e. the negative correlation between the level of authoritarianism and the level of social competencies was found in the interview situation ($p = -.378$, $p < .01$). Given that the study implemented one objective (standardized test of authoritarianism) and one subjective measure (scale for assessment of social competencies in an interview situation) the obtained correlation can be seen as an indicator of the validity of the scale of social competencies.

Based on the results of this study, one cannot refer to gender differences in authoritarianism and social competencies, as the number of men compared to the number of women (30 young men against 210 girls) in the sample is not negligible.

Limitations of this study relate primarily to the question of validity of the assessment of social competencies in the interview situation and the fact that the examination of candidates was conducted during the entrance exam, which includes their attempt to present themselves in the best possible light. Nonetheless, the results can have important pedagogical implications, primarily in examining the feasibility of including the assessment of social competencies in the selection of candidates in the entrance exam. In addition, this and similar studies could help set the course of action during the university studies in order to support and enhance the potential of future educators and teachers. Strong personality traits of students of educational faculties could be further refined during their studies, while special attention could be paid to their weaknesses through a system of practical exercises, supervision and mentoring. Self-control, empathy, cooperation, support, conducting interviews, listening, confrontation and other aspects of social competencies, would become real skills, not only concepts the definition of which should be learnt by students.

Conclusion

Given the fact that the choice of occupation may be associated with personality traits, that personality determines the common and the distinctive behaviour of an individual, that social competencies related to personality traits are a necessary ingredient of professional competencies and an important eligibility criteria for pedagogical profession, that authoritarianism is associated with a lack of social intelligence, poor social perception and a general lack of social skills, the presented study aimed to examine social competencies and authoritarianism of candidates for admission to the Faculty of Education, future teachers and educators. The results are encouraging due to the fact that the majority of candidates displayed moderate or low authoritarianism and average or high social competencies. It was found that the higher the authoritarianism, the lower the social competencies, specifically, a significant negative correlation between the level of authoritarianism and the level of social competencies was manifested in the interview situation. Given that in the studied sample a number of candidates achieved scores that place them in the categories of high and extremely high authoritarianism, low and extremely low social competencies, it is necessary to plan activities to strengthen their social competencies and reduce the authoritarianism during their studies at the Faculty of Education.

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Rezime

Socijalne kompetencije predstavljaju neophodan činiac profesionalnih kompetencija i važan kriterijum podobnosti za pedagošku profesiju. Autoritarnost se, sa svoje strane, povezuje sa nedostatkom socijalne inteligencije, lošom socijalnom percepcijom i opštim nedostatkom socijalnih kompetencija. Polazeći od shvatanja da je za formiranje kompetencija definisanih standardima za profesije učitelja i vaspitača neophodno poznavanje realnih karakteristika studenata, istraživanja je imalo za cilj da ispita socijalne kompetencije i autoritarnost kandidata za Pedagoški fakultet. Uzorak su činili kandidati za studijske grupe učitelj, predškolski vaspitač i domski vaspitač na Fakultetu pedagoških nauka Univerziteta u Kragujevcu 2012/13. godine (N=240). Izraženost autoritarnosti merena je skalom za procenu autoritarnosti *Uпитnik AutoritarNoSt* Mihić i sar. Za procenu socijalnih kompetencija kandidata korišćena je *Skala procene socijalnih kmpetencija* konstruisana za potrebe ovog istraživanja, primenjena putem intervjua. Rezultati su ohrabrujući s obzirom da pokazuju da je 180 (75%) kandidata pozitivno ocenjeno u oba merenja. Utvrđeno je da je autoritarnost veća što su socijalne kompetencije manje, tj. između stepena autoritarnosti i stepena ispoljenih socijalnih kompetencija u intervju situaciji utvrđena je negativna povezanost ($\rho = -.378$; ($p < .01$)). U ispitivanom uzorku je nađeno i 44 (18.33%) kandidata sa visokom i izrazito visokom autoritarnošću, niskim i izrazito niskim socijalnim kompetencijama 29 kandidata (12,08%) i 13 (5,41%) kandidata negativno procenjenih u oba merenja, što ukazuje na neophodnost planske aktivnosti u pravcu jačanja njihovih socijalnih kompetencija i smanjenja autoritarnosti u toku studija na pedagoškom fakultetu.

Ključne reči: *socijalne kompetencije, autoritarnost, kandidati, Pedagoški fakultet*

THE IMPACT OF MOTHERS' PERSONALITY TRAITS ON THE SENSE OF BELONGING TO SCHOOL OF CHILDREN WITH DEVELOPMENTAL DISABILITIES

Abstract

The aim of this research is to examine empathy, self-esteem, anxiety, attitudes towards inclusion and social distance of mothers of children from typical population and mothers of children with developmental disabilities, as well as the impact of these variables on the sense of belonging to school of children with developmental disabilities. The total sample is comprised of 111 mothers and 56 children with cerebral palsy and mild intellectual disability who attend the fourth grade and higher grades of regular primary schools in Pirot. A battery of tests has been o- the IRI scale (Davis, 1980), the RSES scale (Rosenberg, 1965); the STAI-Y scale (Spielberger, 1983), and for the purposes of examining attitudes towards inclusion the Inclusive practice survey tool (Booth, Ainscow, 2002) and the Social Distance Scale (Bogardus, 1925). A sense of belonging to school has been examined by the Belonging Scale (Gudenov, Frederickson et al, 2007). Traits that have been recognised as predictors of a positive sense of belonging to school are as follows: empathy - lower values on the Fantasy subscale of the IRI questionnaires of mothers of children with developmental disabilities, higher values on a Perspective Taking of the IRI questionnaires of mothers of children from typical population, anxiety - lower state and trait anxiety of mothers of children with developmental disabilities and a positive attitude towards inclusion of mothers of children with developmental disabilities. The research has shown that the social model of inclusion brings parents, i.e. mothers, into focus, since they represent significant factors within educational inclusion whose competences in (quality) parenting should be developed with the help and support of experts.

Key words: *mothers, children with developmental disabilities, sense of belonging to school, inclusion*

Introduction

„You will never forget those words. As long as you live, whether times are happy or sad, those words will come back to you. Those first words from the doctor telling you that there is something wrong with your child. The manner in which you accept them and the manner in which you start dealing with the situation are reflected precisely in the moment when you hear those first words“ (Davis, 1995).

Family is an influential and important factor which affects a child. It is mainly a small group in which emotional relationships are intensive, interactions are long-lasting and diverse, and mutual dependence and influence are immense. Various definitions of a family place its social character and relationships with other social factors in the limelight. Family prescribes closeness, development, care, sense of belonging and altruism as dominant modes of relationship with others. Parenting is learned. No one is born with ready-made and predefined parenting constructs. Every parent needs help at some point of a child's development. Parental *implicit pedagogy*, i.e. inherited modes of behaviour and relationships with children are not sufficient, especially at the times of crises, whether they be developmental, familial or social. Regarding the quality of a child's life, in the first year of his/her life, his/her disability affects the family and parents more than the child itself. Until about eight years of age, a child of preserved intellectual capacities observes its disadvantages in the same manner as its parents do. The family faces their most traumatic moments when they face with the child's diagnosis – as much as 90% of the families change their habits (Lorenčić, according to Tadić at al, 2004). Family is seriously destabilised by the birth of a disabled child. Hrnjica (2011) states in his paper that 20% of parents of children with mental retardation and 19% of parents of children with

hearing impairment consider their marital relationships to be disturbed. To be a parent to a child with developmental disabilities leads to a number of unknown situations, stresses and strains, fears of the future. A child's diagnosis of developmental disability changes parents' ideas about themselves, about parenting, children, and illness. Furthermore, low self-esteem, insecurity, limited social contacts, doubting one's own competence, as well as family and financial problems often lead to depression and anxiety (Dejvis, 1995, Hrnjica, 1997; Mitić, 2011).

The research by Mitić (1997) regarding the families of children with cerebral palsy six months after facing the child's diagnosis testifies to deeply disturbed relationships between the child's parents and to their different attitudes towards parenting. Mothers and fathers have different assessments of the situation and relationships in the family and its functioning. Fathers believe that family is cohesive, while mothers assess family cohesiveness to be below average and even talk about its disunity. Both parents agree with respect to their assessment of the family flexibility aspect. Both mother and father assess that the levels of adjusting to family rules and roles, as well as to new circumstances are low. The author of this paper interprets the rigidity of parents as a manner of defence against the devastating situation in which they found themselves. The known and well-established rules offer a sense of family continuity and safety, although they represent an impediment to the development and survival of the family in new, changed conditions.

In the research regarding the cohesion of families with children with developmental disabilities Milić – Babić (2012) stated that parents who experience higher parental stress resulting from a feeling of dissatisfaction with their marriage and social support also exhibit a lower level of family cohesion, while parents who are satisfied with their marriage and social support in their direct environment perceive family cohesion as higher.

The research regarding the traits and attitudes of parents of children with developmental disabilities still do not sufficiently include fathers – only 10,5% of research included both mothers and fathers, and it has been stated that the main reason for this is insufficient interest of fathers to participate in the research or their work overload (Martinović – Dorčić, 2008). This fact states eloquently that mothers carry the heaviest burden of practical concern for and emotional engagement with a child. One should also keep in mind the fact that most traditional concepts marginalise the role of fathers and focus on the role of mothers (Čudina-Obradović & Obradović, 2006).

In the families with children with developmental disabilities mothers either stay at home or leave their jobs to take care of their children. They are the ones who spend the largest amount of time with children, who care about their developmental needs, as well as about their academic achievements. The Mitić research (1997) shows that within the test sample of parents of children with developmental disabilities only 51,7% of parents work, and those are mostly fathers. The dynamics of marital relationships is seriously disturbed. As a result, mother and child often form a dyad which is usually separated from the father when important things and decisions are concerned. If understood as a subjective parental feeling, motherhood is the most important source of personal identity to women, a lot stronger than marital status or a career (Walker, according to Kondić and Vidanović, 2011). The role of a mother is pivotal to a woman and it is a measure of her femininity. According to Arendel (Čudina-Obradović and Obradović, 2006), women-mothers express their experience regarding the meaning of life far more frequently than women who are not mothers. Though a basis of personal fulfillment, development and satisfaction, motherhood can also be burdened with the sense of anxiety and depression, which are even more conspicuous in mothers of children with developmental disabilities.

Maternal practice primarily implies child care imbued with a deep and simple emotional relationship, which is the root of all other emotional relationships of her child and the basis for the development of personal safety, as well as for social and cognitive development of the child. First and foremost, a mother influences a child's ability to regulate one's emotions and thus one's development of social competence regarding interpersonal relationships, which facilitates a child's adjustment to a pre-school institution and influences his/her later academic achievements. Children who perceive their mothers as caring and warm run low risk of becoming delinquents (Mac, according to Čudina – Obradović and Obradović, 2006). The Keresteš research (2001) showed that a typical behaviour of mothers is a high emotional acceptance followed by a strong psychological supervision of a child, while the Vulić – Prtorić research (2002) presents emotional acceptance as the basis of a harmonious emotional development, while rejection can lead to conduct disorder.

Personality traits and attitudes towards inclusion

This paper investigates empathy, self-esteem, anxiety and mothers' attitudes towards inclusion, as well as personality traits and correlates of good parenting, both regarding the upbringing of children from typical population, and even more so of children with developmental disabilities.

Empathy – compassion for others - is the basis of social functioning and effective interaction in one's social environment. It enables one to harmonise one's feelings and thoughts with others, understand their intentions and predict their behaviour. Likewise, it is a glue of the social world. It stimulates the caring behaviour and prevents one from hurting others. Empathy requires both sensitivity and the ability to meet someone's needs. Empathy is not merely an intrapersonal phenomenon which includes cognition, emotions and motivation, but it can also be observed as an interpersonal phenomenon, wherein a person shows care for others.

Hoffman (2003) studied a specific emotional reaction – empathic embarrassment or anxiety – as an aversive affect which an observer experiences when he/she sees a person who needs help. A sense that someone needs help arouses an empathic feeling of discomfort in the observer which makes the latter offer help to the person in trouble. The function of empathy is to mediate between the perception on someone's needs and someone else's discomfort and prosocial behaviour. Empathy is a mediator between one's cognitive assessment that someone needs help and one's action which should correspond with suitable behaviour. According to Hoffman, empathy is a precondition of prosocial and moral behaviour. Baron-Cohen confirmed that women are statistically more empathic than men (Baron-Cohen and Wheelwright, 2004). With respect to gender, Joksimović and Vasović (according to Stojiljković, 1997) established that girls express their prosocial orientation through empathy, care for others, humanitarian interests and humanitarian value orientation.

Self-esteem implies the level of a person's assurance about one's own abilities, importance, success and value – „an evaluative segment of one's own image of oneself, which is expressed through positive and negative feelings for oneself and it indicates a degree in which a person believes that he/she is significant and valuable (Coopersmith, according to Todorović, 2005: 87). „High self-esteem is a very important precondition of a successful functioning of an individual, unlike low self-esteem, which is connected with different social and emotional problems“ (Joksimović and Janjetović, 2008: 291). Self-esteem can represent a risk factor which influences social functioning, as well as cause problems in interpersonal relationships. However, it can also represent a protective factor which prevents psychological problems and contributes to the general well-being of the community. Self-esteem is a concept which is very important for a subjective experience of pleasure, for relationships between two people, for the success in different fields, as well as for the experience of stress and strategy to overcome it. The level of parents' self-esteem influences the entire development of a child's personality. Parents with high self-esteem provide their children with a realistic image of the world outside and the relationships within it, and give good examples of coping with life situations, which also influences personality traits of their children and their attitudes towards those who are different from them, as well as the strategies of coping with stress – illness, disability, etc. Coopersmith (1967) in his research confirms that, with respect to children, there is a connection between high self-esteem, assertiveness, creativity and independence (according to Todorović, 2005).

Raising children is often connected with parents' anxiety, which is present both in parents of children from typical population, and even more so in parents of children with developmental disabilities. Spielberger (1983) makes a conceptual difference between trait and state anxiety. Trait anxiety is a propensity for certain modes of behaviour acquired in early childhood and it implies that a person perceives objectively harmless situations as threatening, and their reactions are most of the time more violent than what the situation calls for. State anxiety can be induced both from the inside and outside, and it is „a subjectively and consciously perceived state of fear and trepidation which is followed by an increased vigilance of the autonomic nervous system“ (Anđelković, 2008).

Kolarić (2004) examined the connection between mothers' anxiety and their concern for children's development. She examined the mothers of pre-school children of non-clinical population. She used the PEDS questionnaire – Parents' Evaluation of Developmental Status, and Spielberger's State-Trait Anxiety Inventory – STAI. Parental anxiety is one of the very important determinants of parents' expression of their concern for the development of their children, which can influence the parents' behaviour in two ways: the need to eliminate the concern (by visiting a doctor or a

psychologist), or to resort to „status quo“ by overprotecting their children (Glasko, 2002, according to Kolarić, 2010). The results of this research showed that there is a connection between a higher level of anxiety on the S-scale (which measures anxiety as a state), and the appearance of one or more significant situations of concern in mothers. Likewise, the author concludes that with mothers who express a middle level of either state or trait anxiety their concern for children does not depend on the level of their anxiety. Thus, regardless of their affective status, they can be more objective in assessing their children.

Mental health and stimulation of children's development is immensely influenced by the attitudes of the community, primarily the significant others – family, teachers and peers. Attitudes are formed gradually on the basis of experience. They are constructs of social interactions and, as such, they are considered to be the best predictors of behaviour (Milačić-Vidojević, Glumbić, Kaljača, 2010, Rot, 1987). Social distance implies „self-evaluation of a person's (un)willingness to become involved in interactions and activities with the persons from the milieu which is being tested“ (Nišević et al, 2011; p. 127). It is a measure which points to the quality of relationships with different social groups. When inconsiderable, social distance testifies to the acceptance of a certain population, while considerable social distance points to non-acceptance and discrimination of a certain group or population.

Parents are important link in the process of education, as well as crucial models who shape the attitudes of their own children. Sadly, parents of children from typical population often express perplexity, doubts and resistance towards inclusion. The source of discrimination lies in financial difficulties, unemployment, continuous history of latent and open conflicts, as well as in the lack of an adequate strategy of education which would advocate tolerance towards marginalised groups and, among them, towards children with developmental disabilities. Discrimination against, isolation and intolerance of peers towards children with developmental disabilities are a direct result of mistakes in parental modes of upbringing. Resistance to inclusion is also shown by the parents of children with developmental disabilities, because they fail to understand the essence of inclusion, because they fear how their children will manage in the company of their peers from typical population and because they suffer from learned helplessness.

The Vujačić research (2003), which examined the opinions of parents of children from typical population who attend inclusive kindergartens, speaks of positive improvements - 92% of parents believe that children with disabilities should be included in regular kindergartens, 75% of them believe that their children were not neglected by pre-school teachers due to inclusion of children with disabilities, 43% of them believe that inclusion is useful for their children, and 85% believe that inclusion is useful for children with developmental disabilities. However, one should bear in mind that the opinions of children and parents change with children's age. Schools require academic knowledge and the atmosphere in schools is competitive, which changes altruistic attitudes, primarily of parents of children from typical population.

In the research „The attitudes of parents, teachers and children towards persons with disabilities“ Mičević (2005), among other findings, states that adult respondents in the framework of general negative attitude towards persons with disabilities maintain the following: isolation (18%), disability (17,3%), their sadness (7,7%), incapability (4,9%). When asked „What would you change in persons with disabilities?“ the largest number of respondents state isolation (27,4%), disability (15,7%), pessimism (6,3%), etc. Neither parents nor teachers are aware that they reproach persons with disabilities with the secondary consequences of their disabilities which are the result of the negative attitudes of the community.

When considering social distance, the results of the researches so far testify to the biggest distance in those social situations which imply the closest social relationships – marriage, a child's marriage, intimate relations (Mičević, 2005).

The research on the social distance of typical population from blind persons testifies to significant social distance: 74% of the respondents would never wed a blind person, 41% of them do not want blind persons as their immediate superiors, 25% believe that the blind should live in specialised institutions, and 25% believe that blind persons should not work, but receive social welfare (Stanimirović, 1986).

The research conducted by Gavrilović and associates (2011) examined social distance of students of the Faculty of Philosophy and Medical Faculty towards homosexuals, patients with AIDS

and invalids, and they reached a conclusion that the students of Medical Faculty have a larger social distance with respect to all three categories. Regarding the persons with disabilities, the largest social distance is from a potential marriage with a disabled person, the second most conspicuous is the social distance from the possibility of having a disabled person for an immediate superior at work.

The sense of belonging to a group, either school or community, is an important aspect of a personal identity and it is necessary to encourage it in children with developmental disabilities. Furnham (Furnham, 1998, according to Frederickson et al, 2007) states that „the sense of community“ does not exist until its members feel the sense of belonging, confidence and safety with respect to the others. Focusing on the sense of community as the central characteristic of inclusion has been supported by Booth and Ainscow (2002) who identify the sense of belonging to the community as the basic aspect which is often neglected.

Frederickson and associates (Frederickson et al, 2007) examined the sense of belonging to school among 397 pupils with developmental disabilities age 8 to 11. The sample was comprised of three subsamples – children of typical population, children with developmental disabilities in regular schools and students who had been transferred from specialised to regular schools. The sense of belonging was measured by means of Gudinov's Sense of Belonging Scale (1993). Regarding the sense of belonging, the students of typical population did not differ from the students with developmental disabilities who attended regular schools from the beginning, while those students who had been transferred from specialised schools show a lower level of the sense of belonging to school. Likewise, the students of typical population evaluated these students as less independent, less cooperative and more demanding in the sense that they ask for help more frequently. They are also in danger of becoming the victims of maltreatment (p. 112).

The research was conducted by Stanković-Đorđević (2010) on the students of the fifth and eighth grades. The research used the Sense of Belonging Scale (Gudenov, 1993) and The Rosenberg Self-esteem Scale (1965) with the aim of examining how children with slight disabilities see themselves through the attitudes of belonging to school. The sample was comprised of 50 students with developmental disabilities from regular schools and 50 students with developmental disabilities from a specialised school in Pirot. The students of the specialised school have a stronger sense of belonging to school in comparison with the students of regular schools (the correlation is 0,32, statistical significance 0,01), while both samples exhibited a low level of self-esteem, bearing in mind that there is a statistically significant correlation between gender and the level of global self-esteem – girls have a higher level of global self-esteem in comparison to boys. (correlation is 0,25, statistical significance 0,05).

The aim of the research

The main aim of the research was to establish to which extent the sense of belonging to school of children with cerebral palsy and mild mental retardation is encouraged by personality traits – empathy, self-esteem, anxiety, attitudes towards inclusion and social distance – of mothers of children from typical population and of mothers of children with developmental disabilities.

The research hypothesis

All examined parameters contribute to certain extent to the sense of belonging to school of children with developmental disabilities. However, it is expected that the attitudes towards inclusion of mothers of children with developmental disabilities and social distance of mothers of children from typical population contribute to a greater extent to the sense of belonging to school of children with developmental disabilities.

Method

Sample description

The subsample of mothers was comprised of 111 mothers, 56 mothers of children with developmental disabilities and 55 mothers of children from typical population; 85,58% of them were married, 59, 50% were between ages 36 and 45; the largest number of them graduated from high school – 74,77%, while regarding their profession, most of them were workers, technicians, clerks, engaged in caring professions, and a certain number of them were housewives.

The research included 56 children of responding mothers, who are diagnosed with cerebral palsy and intellectual disability who attended the fourth grade and higher grades of primary schools.

Instruments

A battery of several scales was used in the research. For older respondents – mothers of children with developmental disabilities and mothers of children from typical population – the following scales were used:

- Davis' Interpersonal Reactivity Index for measuring levels of empathy (IRI, Davis, 1980);
- The Rosenberg Self-Esteem Scale RSES (Rosenberg, 1965);
- Spielberger's State – Trait Anxiety Inventory, STAI – Y (Spielberger, 1983)
- Bogardus' Social Distance Scale adjusted to the needs of the research (SDS, Bogardus, 1925);
- Questionnaire *Inclusive practice in schools*, which is adjusted on the basis of Booth, Ainscow – Inclusion index, (CSIE, 2002) and
- Questionnaire containing the data regarding socio-demographic characteristics of the respondents: age, marital status, number of children, level of education, work experience, profession; these have been added to the battery of tests

For children with developmental disabilities the researchers applied the Sense of Belonging Scale (BS, Gudenov, Frederickson et al, 2007), as well as a short questionnaire on socio-demographic characteristics: sex, grade that they attend.

Statistical analysis

Aside from the measures of descriptive statistics (M, SD), the t-test was used for the purposes of examining differences regarding the level of presence of dependent variable. For the purposes of examining the contribution of a composite of predictor variables to the criterion variable regression analysis was used. The applied scales show a satisfactory level of reliability: Cronbach's Alpha for the IRI is 0,78; the RSES - 0,68; the STAI-Y - 0,70; the Inclusive practice survey tool - 0,80, the SDS - 0,79 and the BS - 0,80.

The results

The comparison of theoretical values of arithmetic means of the instrumentarium applied in the research and the obtained empirical values offers an interesting picture. Theoretical arithmetic means for the IRI subscale is 21, for the Scale of Self-esteem 30, for Spielberger's State-Trait Anxiety Inventory – for adult women – anxiety as a state - 35,20, and as a trait 34,79. Arithmetic means on the scale Inclusive practice in Schools is 6, on Social Distance Scale is 3, and on the Scale of Belonging is 6.

Empirical arithmetic means on the IRI scale for the Fantasy subscale is 21,80; Perspective taking 23,77; Empathic care 25,57 and for Personal discomfort 21,45. Although these values are not significantly different from the theoretical ones, they do testify to an increased empathy directed towards the others through Perspective taking (PT) and Empathic care (EC) subscales, which is a characteristic of female sex and persons who work in caring professions.

Mothers of children from typical population and of children with developmental disabilities

Table 1. Characteristics – empathy, self-esteem, anxiety, attitudes towards inclusion and social distance of mothers

	Mothers of children with disabilities		Mothers of children from typical population	
	AS	SD	AS	SD
Empathy Fantasy	21.75	4.336	21.84	5.058
Empathy Perspective taking	23.76	3.436	23.78	3.381
Empathy Empathic care	25.56	3.665	25.57	4.255

Empathy	22.28	5.465	20.64	4.805
Personal discomfort				
Self-esteem	29.04	2.795	28.57	2.231
Anxiety-state	48.02	9.166	38.75	8.838
Anxiety-trait	41.56	9.331	34.33	7.872
Attitudes towards incl.	6.87	2.729	7.27	2.914
Social distance	2.16	1.653	2.20	1.432

Table 2. Differences between the subsample of mothers with respect to state anxiety

State anxiety	AS	SD	T-rest	sig
Mothers of children with developmental disabilities	48.02	9.166	5.140	.000
Mothers of children from typical population	38.75	8.838		

Table 3. Differences between the subsamples of mothers regarding trait anxiety

Trait anxiety	AS	SD	T-rest	sig
Mothers of children with developmental disabilities	41.56	9.331	4.136	.000
Mothers of children from typical population	34.33	7.872		

Between mothers of children with developmental disabilities and mothers of children from typical population there are no statistically significant differences regarding all four aspects of empathy, self-esteem, attitudes towards inclusion and social distance from children with developmental disabilities. Statistically significant differences can be traced in the levels of state and trait anxiety – mothers of children with developmental disabilities show significantly higher levels of both state and trait anxiety.

Table 4. Significance of the obtained regression models for the sense of belonging

Model	R	R ²	F	sig
1 – predictor: state anxiety of mothers of children with SEN*	.443	.197	6.360	.018
2 – predictors: state anxiety of mothers of children with SEN and attitudes towards inclusion of mothers of children with SEN	.608	.370	7.337	.003
3 – predictors: state anxiety of mothers of children with SEN, the attitudes towards inclusion of mothers of children with SEN and the Fantasy (the IRI subscale) of mothers of children with SEN	.713	.508	8.264	.001
4 - predictors: state anxiety of mothers of children with SEN, the attitudes towards inclusion of mothers of children with SEN and the Fantasy of mothers of children with SEN and the Perspective Taking (the IRI subscale) of mothers of children from typical population	.782	.611	9.046	.000
5 - predictors: state anxiety of mothers of children with SEN, the attitudes towards inclusion of mothers of children with SEN and the Fantasy of mothers of children with SEN and the Perspective Taking (the IRI subscale) of mothers of children within regular population and trait anxiety of mothers of children with SEN	.823	.678	9.252	.000

*children with special educational needs

By introducing new predictors the models improved, which is confirmed by the coefficient of determination (R²). The fifth model is the best because it explains 67.8 % of the variance in the criterion variable – sense of belonging to school of children with developmental disabilities.

Of all the examined traits the following have stood out as predictors of the sense of belonging to school:

- Empathy
 - lower values on the Fantasy subscale (FS) of the IRI questionnaire of mothers of children with developmental disabilities
 - higher values on the Perspective taking subscale (PU) of the IRI questionnaire of mothers of children from typical population
- Anxiety
 - lower state anxiety of mothers of children with SEN,
 - lower trait anxiety of mothers of children with SEN
- Positive attitude towards inclusion of mothers of children with developmental disabilities.

Discussion

The research has confirmed the significance and function of mothers with regard to the success of educational inclusion – their empathy, emotional stability, low state anxiety, attitudes towards inclusion – are predictors of the success of inclusion, not only in the system of education, but in a much wider context. From the moment the children are born, mothers of children with developmental disabilities spend most of their time with them and they carry the heaviest load of raising their children, secure the necessary care which the disability requires, actively participate in their treatment, co-operate with the professionals and their engagement is of the utmost importance for the children's development. The leading roles taken over by mothers sometimes result in the exclusion of fathers and other family members. On the other hand, in a patriarchal environment such as ours, it can occur that a child with developmental disability is rejected. Most often the father is the one who cannot change his constructs about parenting and children, which in a large number of cases leads to a divorce and this additionally complicates the situation in which the child lives. The lack of partner's support in emergency situations, such as birth of and life with a child with developmental disabilities, can represent a serious source of stress for the mother in psychological, financial and practical sense of the word.

Dorđević (1985) examined the importance of family factors for the development of children with developmental disabilities and she concluded that a child's development depends to a great extent on family atmosphere, rather than on the seriousness of the disability. A good prognosis regarding a child's development is expected in the following cases:

- when mother organises the family, adjusting family activities to new situations, taking care of a positive relationship with family members;
- when there are conditions for a child's rehabilitation and the family grasps the opportunity
- when personality traits of both parents influence favourably the creation of an atmosphere of tolerance and understanding in the family

A poor prognosis regarding the child's development is expected in the following cases:

- when the dynamics of family relationships is disturbed, or when the relationships had already been disturbed, in which case the birth of a child with developmental disabilities is only a trigger for new family difficulties.
- If a child was separated from parents for a long time for the purposes of treatment or rehabilitation;
- If the disability is exaggerated by the family
- When in the local community there are no suitable institutions intended for help and support of the family and child, or when parents are not ready to accept their help

Perspective taking dimension is a cognitive aspect of empathy which is acquired through life and it is supposedly more pronounced in women/mothers as a result of the fact that they think about others more often and that they learn the roles of wives and mothers. In accordance with their roles of mothers, they tend to do decent more easily. Although most empathic situations are spontaneous and unwilling, empathy can be practiced, and that is the strategy of parents which is very important in the process of upbringing (Hoffman, 2003).

Empathic care is an emotional aspect of empathy. It is related to caring, emotional warmth, to perceived emotional expressions of others which represents feelings „directed towards others“. Arithmetic means of the Empathic care subscale of our respondents is increased in this research –

both mothers of children with developmental disabilities and mother of children from typical population exhibit a high level of caring and emotional warmth as feelings „directed towards others“. These results are explained by „familial subjectivity“ and „subjectivity here and now“. Empathic care, obviously, is not a subject to cognitive censure. It is present and emphasised in both mothers of children with developmental disabilities and mothers of children from typical population.

What is specific about this research is a lower level of global self-esteem of the respondents (mothers of both categories). The arithmetic means for mothers of children with developmental disabilities is 29,04, and for mothers of children from typical population is 28,57; which does not significantly deviate from the theoretical means of 30, but it is indicative of this sample. Lower self-esteem of our respondents can be connected with female sex. A number of researches show that girls and women have lower self-esteem (Tomori, Zalar i Plesnikar, 2000, according to Slunjski, 2006; Rozenberg and Simons, 1975). Women self-esteem is interpersonally directed. They link their self-esteem to mutual dependence from others and attach greater importance to the reactions of others to their behaviour, which seems to have influenced the manner of responding and the evaluation of our respondents' self-esteem.

Regarding the level of anxiety, the research results are rather expected. Empirical arithmetic means for both categories of mothers either for state (43,57) or trait (38,02) anxiety are significantly higher in comparison with the theoretical ones (35,20 and 34,79, Spielberger, 1983).

When one compares mothers of children with developmental disabilities and mothers of children from typical population there is a statistically significant difference in favour of mothers of children with developmental disabilities. Mothers of children with developmental disabilities exhibit a significantly higher level of both state and trait anxiety in comparison with mothers of children from typical population.

Various researches show that parents of children with disabilities show higher levels of anxiety than the children themselves (Dejvis, 1995; Denona, 1999; Hrnjica, 2011; Kolarić, 2004; Leutar i Štambuk, 2007). Parents' sense of guilt and self-recrimination are linked to depression, helplessness, hopelessness and low self-esteem. A sense of guilt, anxiety and depression of parents impede a healthy family life, mutual relationships between parents, the ability of parents to take care of their own needs, which results in the violation of the parents' relationship with the child and in problems regarding child's development and upbringing.

Raising a child with developmental disabilities implies the necessity of redefining a series of built constructs – regarding one's own personality, one's own success, marriage and marital relationships, and children. A number of parents adapt to the life with a child with developmental disabilities, while others permanently exhibit low self-esteem, remain insecure, have limited social contacts, which along with family and financial issues often leads to depression and anxiety. The anxiety of mothers of children with developmental disabilities influences psychological and health status of mothers, the quality of their parenting, their relationships with their children and their spouse, as well as the manners in which anxiety can be overcome.

Mothers of children with developmental disabilities face problems and difficulties from the moment they learn about the child's diagnosis, and very often from the moment of the child's birth. Stressful experiences accumulate as children grow: the uncertainty of rehabilitation, difficulties in education, problems with interpersonal communication, financial issues, etc. They often fight their battles for their children without partners, which additionally complicates a child's life. Although not initially anxious, the years of upbringing a child with developmental disabilities make mothers of children with developmental disabilities exhibit both state and trait anxiety. Likewise, mothers of children with developmental disabilities show a higher level of state anxiety. An important component of anxiety is the feeling of vulnerability of one's system of values which has no foundation in reality, as well as prediction of future unspecified events, situations or relationships which a person sees as endangering, and precisely these aspects of anxiety are present in mothers of children with developmental disabilities. Frequent unpleasant and painful situations in which they and their children find themselves keep them on constant alert. They constantly measure outcomes of events and situations in which they are or could be found, and very often they see the outcome as negative, which makes them additionally sensitive to new uncertain situations.

Though not statistically significant (7,07), mothers show a more positive attitude towards inclusion in schools when compared to theoretical arithmetic means in the questionnaire Inclusive

practice in schools. Mothers of children with developmental disabilities are personally interested in inclusion, and mothers of children from typical population do not have direct personal experiences with children with developmental disabilities, but it is socially desirable to express a positive attitude.

Social distance of the responding mothers from persons (children) with developmental disabilities is also lower in comparison with the theoretical one (2,18 in comparison with 3). The current campaign „for inclusion“ promotes equal rights for all children, and it advocates differences as a possibility and potential, especially in schools. Thus, mothers of children with developmental disabilities are acquainted with inclusive principles and they support them, nominally at least.

Factors which mostly contribute to the sense of belonging to school of children with developmental disabilities

The author obtained five significant regression models which explain different percentages of variance. From all examined characteristics as predictors of the sense of belonging to school one can emphasise the following:

The predictor *state anxiety of mothers of children with developmental disabilities* has been singled out as the best in predicting the sense of acceptance of children with developmental disabilities. Low state anxiety of mothers of children with developmental disabilities influences the higher level of the sense of belonging to school of children with developmental disabilities.

According to its quality, the second predictor *attitude towards inclusion of mothers of children with developmental disabilities* shows that a positive attitude towards inclusion is a predictor of the sense of belonging. Positive attitude towards inclusion of mothers of children with developmental disabilities is a part of a general positive attitude towards school, teachers and everybody who either directly or indirectly influences the education and upbringing of their children and it influences the children's sense of belonging to school.

The Fantasy predictor as an aspect of empathy oriented towards itself and a cognitive part of empathy (FS) of *mothers of children with developmental disabilities* is in a negative correlation with the sense of belonging to school – lower level of the fantasy of mothers makes the children with developmental disabilities feel accepted. Mothers with lower level of fantasy are more realistic, providing their children with a realistic image of the world and relationships in their community, which influences their self-esteem and sense of belonging.

Perspective taking (PT), as a cognitive, towards others oriented aspect of empathy of mothers of children from typical population is in a positive correlation with the sense of belonging to school. A more pronounced PT of *mothers of children with developmental disabilities* increases the sense of belonging to school. These mothers, owing to their developed ability of perspective taking, are in the position of better understanding the social relationships and situations, thus providing their children with a more objective image of the world and interpersonal relationships and democratic principles, which are the basis of inclusion.

When the predictor *state anxiety of mothers of children with developmental disabilities* is lower, the sense of belonging to school is more pronounced. These mothers are more self-assured and they raise their children accordingly, instilling into them a higher level of self-esteem and sense of being accepted by others, even by the school and peers.

The result of this research is a higher coefficient of determination 67,8%, which states that the examined predictor variables connected with the traits of mothers really cover the variability of the criterion variable – the sense of belonging to school of children with developmental disabilities. One would suppose that the other 32% of the variability should be sought in some additional mediating variables such as other traits, as well as in the stereotype behaviour of the participants in the process of inclusion of children with developmental disabilities. Directions of further research would lead precisely towards examining these traits and their contribution to educational inclusion.

There are different insights into the issue of how families with a child with developmental disabilities adjust. A certain number of authors state that families recover, they get along with their lives and function normally, while some other theorists state that a child's disability permanently affects the functioning of the family (Dejvis, 1995; Drotra, 1995, Olhanski, 1962, according to Leutar i Šambuk, 2006). A good adjustment implies accepting the diagnosis, understanding the development of a child and the relationships in the family which provide the child with warmth and security, encouraging self-respect and initiative with regard to undertaken treatment and keeping a good

relationship with the professionals who work with the child. The most stressful moment for mothers of children with physical disabilities is the concern for the possibility of their children leading a normal life, for possible medical issues (regarding the child and themselves), the care about family problems. Denona (1999) conducted a research on parents of children with cerebral palsy and established that both for mothers and fathers the biggest mental burden comes from worrying for child's health and future. One number of parents stays „nailed“ to a child's problem, they are chronically sad, unable to cope with the stress and they keep returning to negative emotional reactions throughout child's development.

By examining differences between mothers and fathers of children with cerebral palsy, risky and protective factors and manners of adjustment, Martinović-Dorčić (2008) shows that the total intensity of parental stress is higher for both parents, but parents differ in the source of stress. To mothers, a major cause of stress is the lack of support and limitations and requirements of their parental role, while fathers experience bigger stress due to being burdened by other life roles (the business role most often). As a protective factor mothers have a higher level of using emotions directed towards coping. The feeling of discomfort and anxiety occurs more frequently in mothers, than in fathers. (Martinović-Dorčić, 2008). Mothers and fathers differ with respect to emotional states – mothers show a higher level of depression and anxiety, and they use evasion as a strategy of overcoming, which is considered a less efficient strategy (Denona, 1999).

Conclusion

The results of the research speak eloquently about the importance of family, primarily mothers, for the sense of belonging to school of children with developmental disabilities and for the success of educational inclusion. Mothers' personality traits imposed themselves as significant predictor variables, which points to a decisive role of mothers and families in the forming of a child's personality. Mothers who are stable persons, who exhibit low state and trait anxiety, mothers who are empathic (in which case a cognitive aspect of towards others oriented empathy is more important, the so-called perspective taking), and mothers who have a positive attitude towards inclusion, raise their children (with or without disabilities) in the spirit of respecting differences. Thus, the children from typical population do not have a large social distance from the children with developmental disabilities and, even more importantly, children with developmental disabilities do not suffer from secondary consequences of their disabilities, i.e. they have a strong sense of belonging to school and to wider community. Mothers are bearers of the process of upbringing, they form the personality of their children to the largest extent. Hence, both mothers of children with developmental disabilities and mothers in general should be supported for the purposes of encouraging „good parenting“. According to this research, the success of educational inclusion appears to rely mostly on mothers. Mothers are an important pillar of the process of inclusion, though one should not neglect the social and cultural context in which inclusion takes place.

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Rezime

Cilj istraživanja je ispitivanje empatičnosti, samopoštovanja, anksioznosti, stavova prema inkluziji i socijalne distance majki dece tipične populacije i majki dece sa razvojnim smetnjama i doprinosa ovih varijabli doživljaju pripadanja školi dece sa razvojnim smetnjama. Ukupan uzorak čini 111 majki i 56 dece sa Cerebralnom paralizom i Lakom mentalnom retardacijom koja pohađaju IV razred i više razrede redovnih OŠ u Pirotu. Primenjena je baterija testova – IRI (Davis, 1980), RSES (Rosenberg, 1965); STAI – Y (Spielberger, 1983), upitnik Inkluzivna praksa škole (Booth, Ainscow, 2002) i Skala Socijalne distance (Bogardus, 1925). Doživljaj pripadanja školi je ispitivan Skalom pripadnosti (Gudenov, Frederickson et al., 2007). Kao prediktori pozitivnog doživljaja pripadanja školi su se izdvojili Empatija - niže vrednosti na subskali Fantazija IRI upitnika majki dece sa razvojnom smetnjom, više vrednosti na subskali Preuzimanje uloga IRI upitnika majki deca redovne populacije, anksioznost - niža trenutna i opšta anksioznost majki dece sa razvojnim smetnjama i pozitivan stav prema inkluziji majki dece sa razvojnim smetnjama. Istraživanje je pokazalo da socijalni model inkluzije stavlja u fokus roditelje, pre svega majke, kao značajne činioce uspešne obrazovne inkluzije, čije kompetencije za (kvalitetno) roditeljstvo treba razvijati uz stručnu pomoć i podršku.

Ključne reči: *majke, deca sa razvojnim smetnjama, doživljaj pripadanja školi, inkluzija*

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SCHOOL ENVIRONMENT AND SOCIO-EMOTIONAL DEVELOPMENT OF STUDENTS WITH SPECIFIC LEARNING DISABILITIES/DYSLEXIA⁹

Abstract

In addition to low academic achievement, specific learning disabilities (SLD) are commonly associated with low self-esteem, deficits of social skills, behavioural disorders, and (sometimes) psychiatric disorders. Inclusive education, which involves altering and adapting the school environment in order to support and accept all community members, regardless of their diversities, certainly has to deal with this category of difficulties, because the students with SLD are a large part of the student population. The review of researches of the characteristics of their cognitive, emotional and behavioural functioning, connections between specificities and instructional environment changes, adaptation of curriculum and supporting the potential compensatory learning strategy development, is presented. The effects of adapted environment on development of students with SLD are analyzed and some educational directions are suggested in the paper. The focus of educational implications is on the possibilities to make school more “dyslexia friendly”.

Key words: *specific learning disabilities/difficulties (SLD), educational inclusion, school environment, socio-emotional development*

Introduction

According to the conceptual framework of the inclusion¹⁰ as the process of community changing and adaptation to support and accept all community members, regardless of their diversity, the adaptation of school environment based on the student individual needs and possibilities is necessary.

Some categories of diversity are in the focus (or they should be in the focus) of the educational inclusion. The students with specific learning disabilities (SLD) represent a great part of the population. The expansion of research interest in recent decades is based on the fact that cognitive and neurological basis of SLD have practical implications for school, work and social life (Frith, 1999; Gibson & Kendall, 2010; McLoughlin et al., 2002; Obradović, 2010). Poor academic achievement, low self-esteem, deficits in social skills, behavioural disorders, and sometimes psychiatric disorders are commonly associated with SLD (Zakopoulou et al, 2011). Knowing and exploring their cognitive, emotional and behavioural functioning are an imperative and pre-conditions for effective changing of instructional environment, curricula adaptation and development of potentially compensatory learning strategies. It is based on a very important goal: to realize the students' abilities at the maximum level.

At the same time, adapted school environment can play a crucial role in the social and emotional development of the students with SLD, and it can contribute to the social and emotional development of the other peers in the school (Katz & Miranda, 2002a, 2002b).

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¹⁰“Inclusion is seen as a process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures and strategies, with a common vision which covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children.” (UNESCO, 2005: 13).

Specific learning disabilities

The term “specific learning disabilities” or “specific learning difficulties” (SLD) includes developmental disorders with one basic characteristic: specific and significant disorder of learning to read, write and calculate. It is a heterogeneous group of difficulties which can be manifested separately or jointly. These developmental disorders (dyslexia, dysgraphia and dyscalculia) are classified in Serbia as three separate specific learning disabilities, but in the most Western European countries (including Greece) these disorders are identified with the concept of dyslexia - the concept “dyslexia” includes dysgraphia and dyscalculia.

There are some different definitions of dyslexia (generally meaning specific learning disabilities, modified to the contexts). Classical definition of SLD is based on the excluding criteria: a common manifestation of these disorders is the difficulty in learning basic school skills, in the absence of cognitive retardation, psychiatric, sociocultural, neurological and sensory disorders (Obradović, 2010; Obradović et al., 2011; Rutter et al., 2006). “Specific Learning Disorder” is the term that includes reading, mathematics and written expression disorders in the updated DSM-5 (diagnostic code 315.00; 315.1.; 315.2.) The DSM-IV previously classified these as separate diagnoses. Instead, these disorders are now housed under one diagnosis with added specifiers (e.g., specific learning disorder with impaired reading skill). A key feature is that the individual’s performance in a particular area is well below average for age.

However, researchers and practitioners have recently tried to redefine the concept of SLD. Some authors insist on a new dimensional approach to SLD and suggest replacement of the old behavioural definition of SLD with the new definition based on the cognitive specificities of people with dyslexia (Rose, 2009). British Dyslexia Association (BDA) changed classical approach and use the following definition: “Dyslexia is a specific learning difficulty which is neurobiological in origin and persists across the lifespan. It is characterized by difficulties with phonological processing, rapid naming, working memory, processing speed and the automatic development of skills that are unexpected in relation to the other individual’s cognitive abilities” (BDA, 2007). Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organization, but these are not, by themselves, markers of dyslexia (Rose, 2009).

There are not universal symptoms of SLD. Idiosyncratic combination of symptoms vary from person to person, but their academic achievement is disproportional to the engagement and real capabilities; it causes their emotional instability, low self-confidence, negative self-concept etc.

Mental health and socio-emotional characteristics of students with dyslexia

Although the SLD is associated with the attention disorders, sometimes with hyperactivity, behavioural and/or emotional problems in the practice (Pauc, 2005), the prevention of mental health of the individuals with SLD as developmental disorders is not well known. “Comorbid reading disorder may be a marker for a group of children with ADHD with more severe cognitive deficits, and a worse neuropsychological, academic, and behavioural outcomes” (Landgren et al, 1996: 891).

SLD is also connected with the wide range of psychological and psychiatric disorders and emotional maladjustment (Salyer et al, 1991; Silver, 1989; Rutter et al, 2006). There is a high incidence of serious emotional problems. “Significant disturbances in object relations, defense effectiveness, and reality testing were found. disruption in these areas of ego functioning may effect significantly on the students with SLD motivation and ability to use the school experience for cognitive development” (Salyer et al, 1991: 238).

The mechanism of starting an individual’s psychopathological changes is not known, either. However, researchers agree that SLD students manifest more difficulties in all stages of psychosocial development than the typical population (Silver, 1989): they have psychological, peer, and family problems. The manifestation of the behavioural disorders of adolescents with SLD is connected with school failure, school dropout, socioeconomic status, emotional instability and impulsivity. People with SLD describe themselves as weak, incompetent, ineffective, their self-images are negative. They frequently have low self-esteem, and, linked with this, low academic achievement (Gisbon & Kendall, 2010), low level of self-confidence; they are discouraged and depressed. They are less accepted and popular in the school environment (Μαρκοβίτης & Τζουριάδου, 1991). The peers sometimes ridicule and humiliate them. Then, students with SLD have two typical reactions: they are closing, avoiding

social contact, or developing extremely provocative, potentially delinquent behaviour (Cantwell & Baker, 1991).

There are similarities between the profile of the persons with behavioural disorders and profile of the persons with SLD (Rutter et al, 2006). Goldston et al (2007) emphasize that “adolescents with poor reading skills evidenced higher rates of current ADHD, affective, and anxiety disorders, particularly social phobia and generalized anxiety disorder; anxiety disorders but not affective disorders were related to reading status after controlling for ADHD; adolescents with poor reading evidenced more functional impairment across multiple areas than youths with typical reading skills, even after considering the presence of comorbid ADHD”. According to them “the increased psychiatric morbidity and functional impairment of adolescents with reading problems highlight the importance of developing interventions that help these youths address reading deficits and associated vulnerabilities during the last years of secondary school” (Goldston et al, 2007: 25).

The SLD students are more likely to experience suicidal ideation or attempts and more likely to drop out of school than youth with typical reading, even after controlling for sociodemographic and psychiatric variables (Daniel et al, 2006). The association between suicidality and school dropout is strong. Prevention efforts should focus on better understanding the relationship between these outcomes, as well as on the developmental paths leading up to these behaviours among youth with SLD (Daniel et al, 2006).

Willcutt and Pennington (2000) explored the association between reading disability and internalizing and externalizing psychopathology and found that individuals with SLD exhibited significantly higher rates of all internalizing and externalizing disorders than typical population. However, reading disorders were not significantly associated with symptoms of aggression, delinquency, oppositional defiant disorder, or conduct disorder after controlling for the significant relation between reading disorders and ADHD. In contrast, the relations between reading disorders and symptoms of anxiety and depression remained significant even after controlling for comorbid ADHD, suggesting that internalizing difficulties may be specifically associated with reading disorders.

The clinical experience suggested that some children with reading disorders develop physical symptoms such as headaches or stomach aches in response to the stress of academic work. Willcutt and Pennington (2000) developed an approach that the psychiatric problems of the individuals with SLD are the consequences of the low academic achievement and school failure, that cause low self-confidence, emotional problems, and, then, behavioural disorders. Depression disorder is also connected with SLD: it is seven times more often in the group of individuals with SLD compared to general population – 33% vs. 4.7% (Fristad et al., 1992).

The numerous investigations confirmed the positive effect of inclusive education on the development of the students with SLD and the other difficulties in educational context (Bjekić & Zlatic, 2014; Katz & Mirenda, 2002a, 2002b; Westhues et al., 2001).

One-to-one mentoring has beneficial effects on the development of children who experienced some form of disadvantage in childhood (Westhues et al., 2001). Outcomes measured involved levels of self-esteem, empathy, family and peer relationships, problem-solving skills, and self-advocacy skills. Significant changes occurred in the level of self-esteem, and less in other areas, such as design, problem solving, creative skills, interactive skills and oral skills. Peer-tutoring and non-intensive group support is formative context for students with SLD.

Also, Katz & Mirenda (2002a, 2002b) examined the educational and social outcomes of inclusion for students with and without SLD in the early grades, including studies that have measured both traditional academic outcomes (e.g. literacy, mathematics, etc.) and non-academic skill development (e.g. communication, motor skills, functional life skills). SLD students' communication and social skill development in inclusive classrooms are more intensive than the development of these skills in segregated classrooms. The academic benefits for students with disabilities in the inclusive classrooms are based on the instructional adaptation and instructional re-arrangement, cooperative learning and peer-tutoring, collaborative planning, community-based instruction, and friendship network. So, Katz and Mirenda (2002a) made the systematization of the advantages of the social interaction of students with and without developmental and learning difficulties: improvement of social skills and reciprocal interaction, improvement of achievement, positive expectations and

attitudes, development of friendships and social support network, improvement of all students behaviour.

Support: development of SLD/dyslexia friendly school

School and health professionals should carefully assess school children and adolescents with SLD/dyslexia for behavioural and emotional symptoms and provide services when indicated (Arnold et al., 2005). Prevention of mental disorder of people with SLD/dyslexia is closely connected with their environment. Then, one of the goals of inclusive education is empowerment and support to the people with SLD/dyslexia, both of their socio-emotional and academic development. This is the reason why early diagnosis and timely and properly organized school interventions are crucial (Glazzard, 2010; Obradović et al., 2013). Properly adapted school environment is known as dyslexia “friendly” school.

According to Peer and Reid (2001), “in dyslexia friendly school weak basic skills are not a barrier to achievement”. Formatting of “friendly” school environment, the environment with positive impact on the people with SLD consists of two forms of support:

1. Facilitating the learning process and creating the conditions for realization some academic achievements, which support improvement of individual self-confidence.
2. Creating positive atmosphere and mutual respect.

The first group of the interventions for students with SLD in school environment is directed to the facilitation of their learning and creation of the conditions for their academic improvement as formative factors to increase their self-confidence. It includes: alternative instructional methods, compensatory learning strategies, selection of educational fields (the athletics, arts, mechanics are the fields of extraordinary results of students with SLD), multisensory teaching approach, e-learning, universal design for learning (model of UDL, Jimenez et al., 2007).

Although the students with SLD tend to be resistant to conventional teaching methods, instructional effect can be mitigated by appropriate specific interventions, including the application of information technology and supportive counselling. Their difficulties to learn using standard teaching methods can be reduced by individual intervention programmes combined with the counselling, special computer programmes and equipment.

Multisensory teaching approach is very suitable for students with SLD. E-learning as educational technology uses different sensory channels simultaneously (visual-auditory-tactile perception). In accordance with preferable channel of stimulus reception, the individuals with SLD develop compensatory learning strategies. Teachers and school staff can help these students using different mnemonics techniques and adapted teaching materials. Some forms of teaching material adaptation are as follows (Obradović et al., 2011): using visual and illustrated instructional materials, changing fonts and letter size, support with voice, etc. Creative activities, visual presentations, project-based learning, and school experiments, which are based on the student’s engagement and activities, are suggested to the students with SLD. The changes of the curricula and assessment methods are the part of the instruction adaptation.

Integration of e-learning/e-teaching as supported technologies in teaching students with SLD is useful. E-learning should be designed to promote students’ participation, allowing all students to take part in all subjects and activities, enhancing cooperative learning, offering powerful opportunities. The most creative e-learning solutions, content and processes are in this field (Bjekić et al. 2014: 130). The major benefits of developing e-learning courses for SEN students, especially for SLD students, and positive effects of e-learning and education in e-environment on them and accessibility are (Klomp, 2004, ETTAD, according to Bjekić et al., 2014: 130-131): peer support by using computer mediated communication tools, and possibilities for peer-to-peer collaboration and for avoiding social isolation; possibility to avoid direct comparisons with other students and possible failure; web-based education enables users–students with disabilities to be proactive and self-reliant rather than reactive and dependent; controllability of learning; flexibility in time and space afforded by distance education modalities can address students’ special educational needs - it allows students to progress at their own pace; multimodal communication - wide range of e-learning communication tools allows presentation of information in the way adaptable to specific disability; individual student-teacher communication can take place efficiently and easily; asynchronous communication is the

benefit for students with disabilities; the ability to work at home and to arrange physical environment; hardware devices and software are adapted to the special needs of students with disabilities, etc.

One of the important international projects regarding dyslexia in recent years in the education field in the region has been TEMPUS project *Identification and Support in Higher Education for Dyslexic Students*. Many useful products that are available online emerged from this project, such as Guidelines for teaching students with dyslexia and design for e-course for students with dyslexia using Moodle e-learning platform (Sekovanović & Podbojec, 2012).

The second form of support to students with SLD is creating positive school atmosphere and respect between students with SLD, their peers and teachers (Peer & Reid, 2001). Teaching staff should be educated to strengthen students' engagement. One of the forms of teachers' acceptance of diversity and efficiency support is implementation of a pyramidal concept of self-perceptions (Laird, 2007). Based on this model of self-perception, feelings do not cause behaviour but rather are caused by behaviour. So, teachers should interpret academic failure to students with SLD as partial, just as a part of some work; at the same time, they can accentuate the student's success in other fields (academic or other) as a means or tools to strike balanced self-perception of student with SLD and avoid general experience of failure, subsequent frustration, anger and disappointment. Peer cooperative groups are suitable support for learning and project activities. School skills of students with SLD and their self-esteem are improved in these groups. In the collaborative groups they have creative tasks to make models, design, pictures, photographs, graphics, etc.

Comparative view of support to students with SLD in Serbia and Greece

What has happened with two forms of support to students with SLD in the Serbian school system and in the Greek school system?

The first step for implementing some forms of support to SLD students in Serbia does not exist: many students with SLD are not recognized in school system – diagnostic system is nonexistent. However, educational policy is focused on empowering school staff to recognize SLD and develop actions with students with SLD (there are some programmes of in-service education of school psychologists, pedagogues, teachers in this field).

Comparing the Serbian and Greek educational systems, we can recognize some advantages of the Greek educational system. The diagnosis system of SLD is developed. The first form of support to SLD students – facilitating learning process – is also very developed. There are numerous forms of teaching programmes adaptation, teaching materials adaptation, especially at primary and lower secondary school levels. The changes have not yet achieved the same level in higher secondary schools and university education in Greece. In the recent years, modification of teaching process has been intensive, additional teacher education being in focus. The students with SLD diagnosis in Greece have conveniences regulated by the law at all educational levels. Some of the conveniences are: release of written exams, additional time for testing, assessment according to individualized goals, the right to have support from special educator in the school, etc.

The second form of friendly environment for students with SLD (creating positive school atmosphere) is neglected in the Serbian school system.

This form of support in Greece has not been realized in a satisfactory manner. There are two important reasons for that: (1) insufficient teacher education for creating positive school environment for SLD students; (2) complete absence of psychological-pedagogical services in the mainstream schools. School psychologists exist only in the special education institutions and diagnostic centres (KEDDY)¹¹. The project of changing special school to resource centres is a burning issue in Greece currently. It represents one of the attempts to overcome this problem.

On the other side, the Serbian school system has an advantage comparing to the Greek school system if the human resources are used in the right way: there are psychological-pedagogical services in every school in Serbia.

¹¹KEDDY centres provide and coordinate services for children with special educational needs (SEN) at the local level, operating as decentralised units of the Ministry of Education. They are the main body responsible for: providing diagnoses for the purpose of determining special educational needs, recommending the placement of SEN students in the appropriate school, providing advisory services and guidance to pupils, parents and teachers, providing special pedagogical support at home (in special cases), and early intervention services.

Generally, in both educational systems adequate teaching staff education is the crucial factor for developing friendly school environment for students with SLD; improvement of teaching communication is one of the first steps (Obradović et al., 2012). According to Rose (2009), every teacher should expect to teach children and adolescents with learning disabilities, and they need to be equipped with the skills to perform this process effectively.

Conclusion

The risk of psychopathological changes of school children and adolescents with SLD is not in the focus of school system. However, based on the evidence that development of the “friendly” school environment has positive effects both on typical and SEN students, it is necessary to work systematically on changing and adapting school society.

Some directions for the adequate curricula changes and modification of teaching material presentation for the students with SLD are presented in the paper. Implementation of e-learning is maybe one of the most effective forms of the support, so it is necessary to teach future teachers to apply specialized platforms, software and equipment.

Psychological factors of development of “friendly” school environment for SLD students depend a great deal on teachers’ personal engagement and competence, their organized cooperation with psychological-pedagogical services, multidisciplinary cooperation, and adequate pre-service and in-service teacher education.

Finally, it is time to change goals of teaching process and remove focus from the acquisition of encyclopedic knowledge to development of student’s personality and competence. Development of “friendly” school environment plays a crucial role in the prevention of socio-emotional disorders of all students, especially of the SLD students.

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Rezime

Sa specifičnim smetnjama u učenju najčešće se povezuju, osim lošeg akademskog postignuća, i nisko samopouzdanje, deficiti u socijalnim veštinama, bihevioralni poremećaji, a ponekad i psihijatrijske smetnje. Inkluzivno obrazovanje, koje podrazumeva menjanje i prilagođavanje školske sredine, s ciljem podržavanja i prihvatanja svih njenih članova, bez obzira na njihovu različitost, svakako se mora pozabaviti ovom kategorijom poremećaja, jer su učenici sa specifičnim smetnjama u učenju veliki deo učeničke populacije. U radu je dat pregled rezultata istraživanja specifičnosti kognitivnog, emocionalnog i bihevioralnog funkcionisanja učenika sa specifičnim smetnjama u učenju, povezanost sa izmenama nastavne sredine, adaptacijama kurikuluma i podsticanjem razvoja potencijalnih kompenzatornih strategija učenja. Pošto prilagođeno školsko okruženje može imati presudnu ulogu u socijalnom i emocionalnom razvoju učenika sa specifičnim smetnjama u učenju, u radu su analizirani i efekti prilagođenog okruženja na razvoj ovih učenika i date praktične smernice za razvoj školskog prilagođenog učenika sa specifičnim teškoćama u učenju.

Ključne reči: *specifične teškoće u učenju, obrazovna inkluzija, školsko okruženje.*

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THE RELATIONSHIP BETWEEN TEACHERS' WORK ORIENTATIONS AND WELL-BEING: MEDIATING EFFECTS OF WORK MEANINGFULNESS AND OCCUPATIONAL IDENTIFICATION

Abstract

Recent studies in the field of positive psychology suggest that there is a connection between the teachers' well-being and the performance of their students. Since the well-being of teachers is obviously an important factor for their effectiveness, it would be worth finding out what contributes to the teachers' well-being. Following this line of thought, the aim of this study was to assess the relationship between teachers' work orientations (job, career and calling orientation) and their well-being (life satisfaction, flourishing and job satisfaction), with possible mediating effects of work meaningfulness and occupational identification. The following measures were administered to 249 primary school teachers in the Zagreb region: *Work-life questionnaire* (Wrzesniewski et al., 1997), *Work Meaningfulness scale* (Bunderson & Thompson, 2009), *Occupational Identification scale* (Mael & Ashforth, 1992), *Flourishing Scale – FS* (Diener, et al. 2010), *The Satisfaction with Life Scale* (Diener et al., 1985) with the addition of a one-item assessment of job satisfaction. The structural equations modeling was used to analyze the data. The results suggested that the calling orientation was directly positively and job orientation directly negatively linked to well-being. The career orientation was not linked to the well-being in any way. In addition to that, the mediation analysis performed with bootstrapping method showed that meaningfulness of work and occupational identification were significant mediators between work orientations and well-being. The relationship between the calling orientation and well-being was completely mediated by afore mentioned variables, while the relationship between the job orientation and well-being was partially mediated by these variables. It was concluded that the calling orientation can lead to higher levels of work meaningfulness and occupational identification which in turn positively affects well-being. On the other hand, job orientation (work as a mean of financial security) leads to lower levels of work meaningfulness and occupational identification, and consequently to lower levels of well-being.

Key words: *work orientations, work meaningfulness, occupational identification, well-being*

Introduction

I touch the future. I teach.
Christa McAuliffe

Touching the future or touching the hell?

When asked about the sources of positive emotions in their work, teachers usually list the progress made by their students, the positive impact on students' behavior and attitudes, recognition they get for their work, personal and professional development, good relationships with students, parents and colleagues (Golby, 1996; Hargreaves, 2000; Miljković & Rijavec, 2007). On the other hand, negative emotions are most frequently caused by bad relationships with superiors, (too) large classes, the lack of teaching materials and resources, students' misbehaviors, disrespect by students and parents and a low social status of the teaching profession (Hargreaves, 2000; Lasky, 2000; Miljković & Rijavec, 2007). The field of primary education can be very demanding and teachers often experience high levels of job stress (Borg & Falzon, 1993; Brkić & Rijavec, 2011) that might have a negative impact on their well-being.

But why bother about teachers' well-being at all? It is already known that certain characteristics of teachers such as a skillful communication with students (Darling-Hammond, 2000; Wayne & Youngs, 2003) or teaching experience within early years of teaching (Rice, 2003) are predictors of their students' academic achievements. New insights in the area of a teacher's effectiveness come from the side of the positive psychology research. For example, there is evidence that grit and life

satisfaction may be significant contributors to teachers' effectiveness (Briner & Dewberry, 2007; Duckworth et al., 2009). In other words, the happier and more satisfied the teachers are, the more successful are their students in terms of academic achievement. The positive relationship between happiness and success at work has already been documented (for review see Lyubomirsky et al., 2005). Happy people are more often in a good mood and tend to actively work on achieving their goals acquiring new knowledge and skills in the process. With this relationship between well-being and success in mind, it would be worth finding out what influences teachers' well-being.

Work orientations and well-being

A lot of research suggests that people tend to frame their relationship to work in three different ways (known as work orientations) that determine their experience of work and its accompanying thoughts, feelings, and behaviors (for review see Pratt & Ashforth, 2003; Wrzesniewski, 2003). Each orientation describes a different type of meaning people seek from their work and represents the interplay between the person and the job. For employees with *job orientation*, work is simply a means to acquire necessary financial resources which allow them to enjoy time while not working. Work is about extrinsic rewards and is not a central part of their identity. Next is *career orientation*. For employees with *career orientation*, work is important because of the rewards that come from advancement including increased pay, promotion, and status (Bellah et al., 1985). Finally, those with *calling orientations* work for the fulfillment that doing the job brings; the work is an end in itself and is intrinsically rewarding.

Research in this field has revealed that people with calling orientation spend more time at work (even when this time is not compensated) and report a higher job and life satisfaction than those with job or career orientation (Peterson et al., 2009; Wrzesniewski et al., 1997).

Mediation of work orientations – well-being relations

Despite the fact that positive relationships have been established between calling orientation and well-being, and negative between job/career orientation and well-being, research addressing the reasons for these relationships is still scarce. The interest in work orientations is growing, but our understanding of how these orientations relate to well-being is still incomplete. More recently, research has begun to examine the underlying processes that can explain the positive relationship between calling and various psychological outcomes including well-being (Duffy et al., 2012). By extending these previous studies, the present study investigated the possibility that the relationship between work orientations and well-being is mediated by work meaningfulness and occupational identification.

Work meaningfulness

Work meaningfulness can be defined as the amount of significance and purpose people see in their work (Rosso et al., 2010; Shamir, 1991). Workers who perceive their work as meaningful experience more often their work as a calling (Berg et al., 2009; Wrzesniewski et al., 1997). Although calling and work meaningfulness are related, they are theoretically distinct concepts. People can perceive their work as meaningful due to certain job characteristics (e.g., feedback, task clarity; for a review see Humphrey et al., 2007) even if they do not see it as a calling. However, studies suggest that individuals who perceive their work as a calling usually report greater life and work meaning (e.g., Bunderson & Thompson, 2009; Steger et al., 2010). They are psychologically and physically healthier (Arnold et al. 2007; Treadgold 1999) and less stressed (Knoop, 1994).

Occupational identification

According to social identity theories, individuals hold multiple identities on the basis of various referent groups. For example, on an organizational level, an individual can identify themselves with the organization as a whole or with some groups within the organization (Riketta & Van Dick, 2005; Ullrich et al., 2007). Additionally, individuals may identify with work-related groups outside organizations such as occupations or professions (Johnson et al., 2006). Research findings show that there is usually a positive connection between the organizational identification and occupational identification, and the occupational identification is usually stronger than the organizational one (Bartels et al., 2010).

According to Van Maanen and Barley (1984), the occupational identification refers to the extent to which individuals define themselves in terms of the work they do and the typical characteristics of those who do that kind of work. Individuals in any occupation develop a set of beliefs about the importance of their work to society (Trice, 1993; Van Maanen & Barley, 1984), as well as the beliefs that clarify and justify that importance.

Proposed hypothetical model

Theoretically, calling orientation should be regarded as preceding work meaningfulness because it brings individuals a sense of meaning and purpose in their work (Rosso et al., 2010; Wrzesniewski, 2003), thus resulting in increased work meaningfulness. In turn, perceiving one's work as meaningful should enhance the occupational identification and lead to a greater well-being. Despite the limited research on mediators of the calling and well-being link, work meaningfulness and occupational identification appear to be possible factors for explaining the mechanisms through which having a calling is associated with beneficial outcomes. On the basis of these arguments, the following hypothesis were formulated:

Hypothesis

- H1. Calling orientation will be directly and indirectly positively linked to teachers' well-being.
- H2. Job and career orientation will be directly and indirectly negatively linked to teachers' well-being.
- H3. Calling orientation will be positively linked to work meaningfulness.
- H4. Job and career orientation will be negatively linked to work meaningfulness.
- H5. Work meaningfulness will be positively linked to occupational identification.
- H6. Occupational identification will be positively linked to well being.
- H7. Work meaningfulness and occupation identification will mediate the relationship between work orientations and well-being.

Method

Subjects and Procedure

The participants were 249 elementary school teachers (grades 1st to 4th) from the Zagreb area. According to the years of work experience, the sample comprised 25,9% of the teachers with up to 10 years of work experience, 25,6% from 10 to 19 years, 36,8% from 20 to 30 years, and 11,7% with more than 30 years of work experience in school.

The research was conducted during the professional meeting of primary school teachers at the national level and lasted for approximately 20 minutes. The participation in the study was anonymous and voluntary.

Instruments

In the present study, six self-report instruments were used:

Work-life questionnaire (Wrzesniewski et al., 1997) is a three-item questionnaire measuring the attitude towards work as a job, career, and calling. Participants were provided with three brief scenarios describing individuals who approached work as a job, a profession, or a calling. For each scenario, they used a 1–4 scale to indicate how much they were like the person described, from 1 - not at all like me through 4 - very much like me. Here are excerpts from each scenario:

Person A works primarily to earn enough money to support her life outside of her job. If she was financially secure, she would no longer continue with her current line of work, but would really rather do something else instead... (job orientation).

Person B basically enjoys her work, but does not expect to be in her current job 5 years from now. Instead, she plans to move on to a better, higher level job... (career orientation).

Person C's work is one of the most important parts of her life. She is very pleased that she is in this line of work. Because what she does for a living is a vital part of who she is, it is one of the first things she tells people about herself ... (calling orientation).

Work Meaningfulness scale (Bunderson & Thompson, 2009) measures perceived meaning at work with the five-item scale (e.g., *I have a meaningful job*). Individuals respond to each item on a five-point Likert scale, from 1 - not at all through 5 - completely. Higher overall (average) score

indicates greater work meaningfulness. In this study, Cronbach's alpha coefficient of reliability was .91.

Occupational Identification scale (Mael & Ashforth, 1992) measures the extent to which one defines him or herself in terms of the occupation or job he or she does. This six-item scale was slightly modified for the teaching profession (e.g., *When someone praises teaching profession, it feels like a personal compliment*). Individuals respond to each item on a five-point Likert scale, from 1 – strongly disagree through 5 – completely agree. Higher overall (average) score indicates stronger occupational identification. In this study, Cronbach's alpha coefficient of reliability was .76.

Flourishing Scale (Diener et al., 2010) measure the respondents' perceptions of how they are flourishing in major areas such as social relationships, optimism, purpose, and self-esteem with the eight-item scale (e.g., *I actively contribute to the happiness and well-being of others*). Individuals respond to each item on a five-point Likert scale, from 1 – strongly disagree through 5 – completely agree. The scale provides a single psychological well-being score. A high average score represents a person with many psychological resources and strengths. In this study, Cronbach's alpha coefficient of reliability was .83.

Satisfaction with life scale (Diener et al., 1985) measures the cognitive component of subjective well-being. Five items measure the individual's evaluation of satisfaction with life in general (e.g., *The conditions of my life are excellent*). Individuals respond to each item on 5-point Likert scales from 1 - strongly disagree through 5 - strongly agree. Higher overall (average) score is indicative of greater life satisfaction. In this study, Cronbach's alpha coefficient of reliability was .73.

Global Job Satisfaction is single-item measure regarding respondents' overall job satisfaction (*All and all, how satisfied would you say you are with your job?*).

Results

Descriptive statistics

Descriptive statistics and inter-correlations of all measured variables are presented in Table 1.

As expected, the associations between the calling orientation and both mediating variables were positive, as well as the associations between calling orientation and measures of well-being. Associations between the job orientation and both mediating variables were negative, as well as the associations between the job orientation and measures of well-being. Unexpectedly, associations between the career orientation and both mediating variables were statistically insignificant, as well as the associations between the career orientation and measures of well-being. Finally, both mediating variables also yielded positive associations with measures of well-being.

Table 1. Means, Standard Deviations and Correlations of measures of Work Orientations (job, career, and calling), Work Meaningfulness, Occupational Identification, and measures of Well-being (flourishing, life satisfaction and job satisfaction)

	Correlations							
	1.	2.	3.	4.	5.	6.	7.	8.
1. Job	-	.23**	-.27**	-.32**	-.20**	-.32**	-.18**	-.31**
2. Career		-	-.21**	-.10	-.01	-.09	-.03	-.08
3. Calling			-	.32**	.25**	.34**	.21**	.26**
4. Work Meaningfulness				-	.51**	.62**	.32**	.49**
5. Occupational Identification					-	.45**	.27**	.44**
6. Flourishing						-	.48**	.42**
7. Life Satisfaction							-	.28**
8. Job Satisfaction								-
	Descriptive Statistics							
M	1,35	2,09	3,45	4,51	4,18	4,13	3,59	4,10
SD	0,73	0,90	0,74	0,54	0,54	0,47	0,60	0,59

** Correlation is significant at the 0.01 level (2-tailed).

Note: only measures of work orientations (job, career and calling) were rated on scale from 1 to 4, other variables were on scale from 1 to 5.

Structural Equations Modeling

To verify how well the data fit the hypothesis that the relationship between work orientations and well-being may be mediated by work meaningfulness and occupational identification (Figure 1), a structural equation modeling (SEM) was conducted using the IBM SPSS Amos Version 19. Well-being as a latent variable was represented by the three directly observable variables: flourishing, life satisfaction and job satisfaction. Work meaningfulness and occupational identification as latent constructs were represented by individual scale items. Work orientations (job, career and calling) were included as manifest variables.

The variance-covariance matrix was analyzed using the maximum-likelihood estimation. Multiple indices of a model fit were used including the Chi-Square statistic (χ^2 ; CMIN/DF), the Comparative fit index (CFI) and the Root mean square error of approximation (RMSEA). The chi-square value should not be significant if there is a good model fit, while a significant chi-square indicates a lack of satisfactory model fit (Kline, 1998). The relative chi-square (CMIN/DF) should be less than 3 (Kline, 1998). For CFI values greater than .90 are considered acceptable, while higher than .95 indicates good fit (Hu & Bentler, 1999). For RMSEA a value of .06 or less reflects good fit (Hu & Bentler, 1999). The values obtained were $\chi^2=42.68$, $p=.03$; CMIN/DF=1.59; CFI=.98; RMSEA=.05. Although the highly significant chi-square measure for the model indicates a poor fit, given a sample size larger than 200, it would be incorrect to conclude a poor fit based on the significance of the chi-square index only (Brown, 2006). To address this limitation, we also used CMIN/DF as a chi-square value corrected for the sample size which indicated a good fit. Overall, the results indicated a very good fit by most indices.

The results suggested that the calling orientation was directly positively linked to well-being ($\beta=.34$, $p<.001$) and job orientation directly negatively linked to well-being ($\beta=-.32$, $p<.001$). The career orientation was not directly linked to well-being ($\beta=.04$, $p>.05$).

In order to assess the significance of a mediation effect, a Monte-Carlo (bootstrapping) approximation was obtained by constructing a bias-corrected percentile method (2000 samples; confidence interval of 95). Three mediation models were tested.

The first model tested work meaningfulness as a mediator between work orientations (job and calling orientation) and occupational identification. The results revealed a full mediation effect of work meaningfulness in the relationship between the calling orientation ($\beta=.29$, $p<.001$) and occupational identification ($\beta=.68$, $p<.001$). In addition to that, a full mediation effect of work meaningfulness in the relationship between the job orientation ($\beta=-.28$, $p<.001$) and occupational identification ($\beta=.68$, $p<.001$) was also confirmed.

The second model tested the occupational identification as a mediator variable between work meaningfulness and well-being. The results revealed a partial mediation effect. The model supported the positive influence of work meaningfulness on the occupational identification ($\beta=.66$, $p<.001$), which was in turn positively linked to well-being ($\beta=.53$, $p<.001$). Also, work meaningfulness had a direct positive influence on well-being ($\beta=.68$, $p<.001$).

Finally, the third model used all variables in the equation. The mediation analysis showed that work meaningfulness and occupational identity were significant mediators between work orientations and well-being (Figure 1).

The relationship between the calling orientation and well-being was completely mediated by aforementioned variables. The model supported the positive influence of the calling orientation on work meaningfulness ($\beta=.30$, $p<.001$), which was positively linked to the occupational identification ($\beta=.83$, $p<.001$), and in turn, also with well-being ($\beta=.88$, $p<.001$). The relationship between the job orientation and well-being was partially mediated by work meaningfulness and occupational identification. The job orientation negatively influenced work meaningfulness ($\beta=-.27$, $p<.001$), which was positively linked to the occupational identification ($\beta=.83$, $p<.001$), and in turn, also with well-being ($\beta=.88$, $p<.001$). On the other hand, the model also suggested the statistically significant direct negative effect of job orientation on well-being ($\beta=-.14$, $p<.05$).

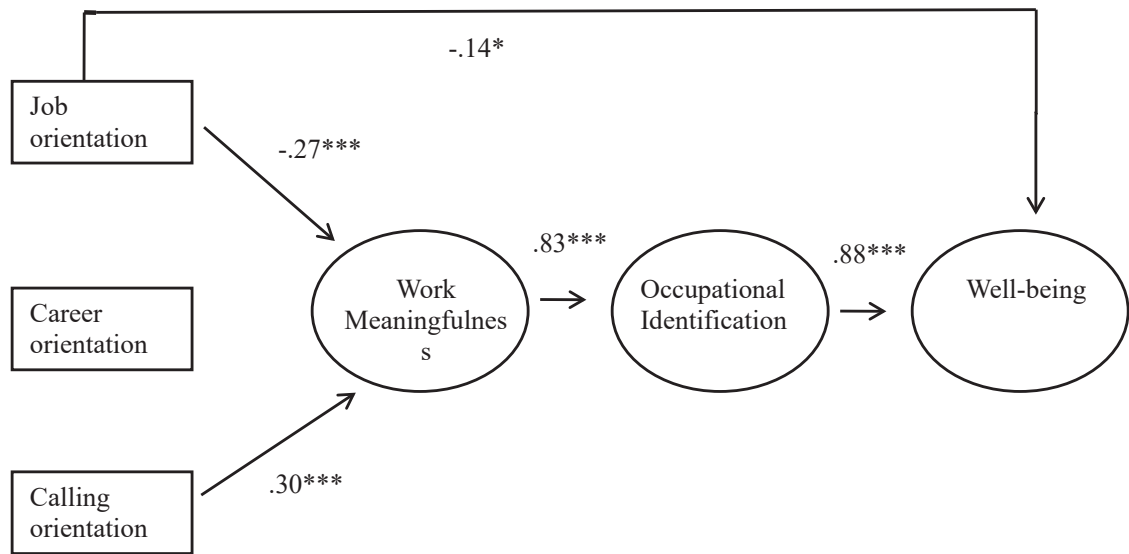


Figure 1. Work Meaningfulness and Occupational Identification as Mediators of the Relationship between Work Orientations and Well-being (only significant relationships are presented)

Discussion

In this study a model linking work orientations of teachers (job, career and calling orientation) with their well-being was proposed and tested.

Work orientations – job and calling orientation – were related to well-being in an expected direction. The calling orientation was positively linked to well-being while there was a negative relationship between the job orientation and well-being. These findings support the results of previous research with other professions showing a positive relationship between the calling orientation and well-being (Claes & Ruiz Quintanilla, 1994; Duffy & Sedlacek, 2010; Wrzesniewski et al., 1997) and a negative relationship between the job orientation and well-being (Wrzesniewski et al., 1997). Contrary to the expectations, the career orientation was not related to teachers' well-being.

This study contributes further to this literature by indicating a mediating role of work meaningfulness and occupational identification in the relationship between work-orientations and well-being. The mediation analysis revealed that the calling orientation has only indirect effects on well-being. Viewing one's job as a calling increases work meaningfulness, which leads then to a higher occupational identification and in turn to higher levels of well-being.

This is in line with theoretical assumptions about the positive link between a calling orientation and meaningful work (Dobrow & Tosti-Kharas, 2011; Duffy et al., 2012; Rosso et al., 2010). Several authors suggested that callings are an important factor in understanding what makes work meaningful (Rosso et al., 2010; Steger & Dik, 2010; Wrzesniewski, 2003). Empirical evidence confirmed that the presence of a calling predicts meaningful work (Duffy et al., 2012; Steger & Dik, 2009). In our study, work meaningfulness was a mediator between the calling orientation and occupational identification. This is in line with the previous work suggesting that meaningful work is associated with a series of desirable consequences for organizations, including the occupational identification (Bunderson & Thompson 2009). Specifically, in our study, teachers who approach their work as a calling perceive their work as more meaningful, which in turn makes them prone to identify more with a teaching profession.

In the present study, the occupational identification is a mediator between meaningful work and well-being. Teachers who perceive their work as more meaningful identify themselves more with the teaching profession, which in turn positively influences their well-being. Sivanathan et al. (2004) suggest that the occupational identification, by enhancing our positive self-concept, may promote happiness. According to a study conducted by Van Dick and Wagner (2002), teachers who identify themselves more strongly with the occupational group teachers report more happiness.

On the other hand, the job orientation has both direct and indirect effects on well-being. It seems that viewing one's job solely as a source of financial security directly decreases teachers' well-being. However, in addition to that direct effect, there is a mediating effect of work meaningfulness and occupational identification. Teachers who approach their job only as a means of financial benefits, perceive their work as less meaningful, which prevents them to identify with the teaching profession and decreases their levels of well-being. The studies relating the job orientation to meaningful work are scarce but confirm a negative relationship between these two constructs (Steger et al., 2012).

Our results support the theoretical model that the calling orientation has a positive influence on well-being because it brings a sense of meaningfulness at work and helps teachers develop the occupational identification. This contributes to our understanding of how work orientations are positively related to well-being. It seems that perceiving *one's work* as meaningful and important may lead teachers to perceive *their work* as meaningful and important and helps build the occupational identification. As suggested by the findings, these factors contribute to teachers' well-being. The opposite was true for the job orientation, while the career orientation was irrelevant for teachers' well-being.

Practical implications

This study has several practical implications. First, calling is important to address in career counseling because of its potential influence both on individuals' career development and on their well-being, as well. From this study, it is obvious that teachers with a calling orientation have higher well-being than those with a job or career orientation. Individuals who plan to become teachers should be aware of beneficial outcomes of the calling orientation, and potential harmful effects of the job orientation.

Many people who already work, including teachers, often try to find more meaning in their work. For those who wish to approach their work as a calling, strategies to help bring meaning and purpose to their work were developed by several authors (Dik et al., 2009; Thompson & Feldman, 2010).

In addition to helping clients find their calling, this study suggests that it is possible to directly increase teachers' sense of work meaningfulness and occupational identification in order to enhance the well-being even of those who do not see their work as a calling. In order to increase the sense of work meaningfulness, a number of suggestions have been proposed. It has been shown that individuals perceive their work as more meaningful if they have rewarding interpersonal relationships with colleagues (Mohan & Uys, 2006), if they are respected and appreciated for their work contributions and if they feel useful and valuable for the organization (Olivier & Rothmann, 2007). The occupational identification could probably be enhanced by providing some status-related rewards to teachers as the occupational group in order to improve their occupational prestige.

Limitations and future directions

This study has several limitations. The first limitation is a cross sectional design that does not allow tests of causality. In addition to that, the sample comprised only elementary school class teachers (mainly females) and it is unclear whether the findings would generalize to other teachers. A future research should include longitudinal studies with various groups of teachers.

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Rezime

Novije studije iz oblasti pozitivne psihologije ukazuju da postoji veza između psihološkog blagostanja nastavnika i uspeha njihovih učenika. Pošto je psihološko blagostanje nastavnika očigledno važan faktor u njihovoj delotvornosti, bilo bi vredno saznati šta doprinosi tom blagostanju. Sledeći tu ideju, cilj ovog rada je bio da se proceni odnos između radnih usmerenja nastavnika (posao, karijera i poziv) i blagostanja (zadovoljstvo životom, psihološki procvat i zadovoljstvo poslom), sa mogućim medijacijskim efektima smislenosti posla i profesionalne identifikacije. Na ukupno 249 nastavnika osnovnih škola iz zagrebačkog regiona primenjeni su sledeći instrumenti: Upitnik rad - život (*Work-life questionnaire*, Vrzesniewski i sar. 1997), Skala smislenosti posla (*Work Meaningfulness scale*, Bunderson i Tompson, 2009), Skala profesionalne identifikacije (*Occupational Identification scale*, Mael i Ashforth, 1992), Skala psihološkog procvata - FS (*Flourishing Scale*, Diener i sar., 2010), Skala zadovoljstva životom (*The Satisfaction with Life Scale*, Diener i sar., 1985) te jedno pitanje za procenu zadovoljstva poslom. Podaci su analizirani metodom strukturalnog modeliranja. Rezultati ukazuju da je usmerenje na poziv direktno pozitivno, a usmerenje na posao direktno negativno povezano sa blagostanjem. Usmerenje na karijeru nije bilo povezano sa blagostanjem na bilo koji način. Pored toga, medijacijska analiza izvedena Bootstrap metodom pokazala je da su smislenost posla i profesionalna identifikacija bili značajni posrednici između radnih usmerenja i blagostanja. Odnos između usmerenja na poziv i blagostanja je kompletno posredovan navedenim varijablama, dok je odnos između usmerenja na posao i blagostanja bio posredovan samo delimično. Zaključeno je da usmerenje na poziv može da dovede do viših nivoa smislenosti posla i veće profesionalne identifikacije što onda zauzvrat pozitivno utiče na psihološko blagostanje. Sa druge strane, usmerenje na posao (posao kao sredstvo finansijskog obezbeđenja) dovodi do nižih nivoa smislenosti posla i profesionalne identifikacije, a samim tim i do nižih nivoa psihološkog blagostanja.

Ključne reči: radna usmerenja, smislenost posla, profesionalna identifikacija, psihološko blagostanje

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QUALITATIVE ANALYSIS OF PEDAGOGICAL-EDUCATIONAL GOALS IN THE WRITTEN SCENARIOS OF CLASS TEACHERS' AND SUBJECT TEACHERS' CLASSES

Abstract

This paper presents the analysis of pedagogical-educational goals in the written scenarios of class teachers' and specialist subject teachers' classes with the aim to perceive the level of respect for theoretically based recommendations when defining the goals of learning. The criteria used for the analysis are: the commonality of goals, respect for the standard format and the target group, representation of various domains of revised Bloom's taxonomy of educational goals and representation of various levels of cognitive processing. A hundred and two educational goals were analyzed which had been stated in twenty-three written scenarios of class and specialist subject teachers. The analysis results showed that in written scenarios, according to the generality criterion, global goals are more present (referring to the goals of subjects) than the teaching goals referring to a concrete class. A formulation of educational goals usually lacks respect for the standard format, which corresponds with its structure to the organization of an effective learning process, as well as respect for the goal clarity for students of a certain age. Pedagogical-educational goals are most often defined at the level of knowledge and understanding, and very rarely in higher domains of Bloom's taxonomy. A predicted level of cognitive processing is often at the level of low mental processes. Obtained results were considered from the position of constructivism, the current paradigms in considering developmental and educational changes.

Key words: *class scenario, pedagogical-educational goals, Bloom's taxonomy of pedagogical-educational goals.*

Introduction

Psychology of teaching has been oriented in the past decades to a higher degree of operationalization of teaching with the aim to realize the idea of effective education of young people who will be able to respond to challenges of modern time. The essence of such an orientation is to provide teaching where the process of learning essentially happens (Zlatković, 2014). Out of this orientation comes the need for a research of the existing educational practice on the basis of theoretical recommendations, identification of elements consistent with theoretical concepts, but also the identification of oversights and mistakes that need to be corrected. An insight in the current situation creates a possibility for taking concrete measures that could make the educational process more efficient.

The endeavour to make education more efficient necessarily imposes the issue of the way in which to organize the teaching process and other forms of pedagogical-educational activities. If the request for efficiency is shifted from global to a more concrete plan and is perceived within the teaching process, a question will be necessarily raised: "What kind of teaching do we consider effective?" The answer to this question directs us to the intention, purpose and goals of teaching, i.e. what we want to achieve with teaching, what changes are expected from learners. If conceiving the teaching process happens without clearly set goals, if teaching goals are focused on a narrow segment of changes expected to take place in students, in a way which engages only some abilities of the students, it is reasonable to ask whether we can expect effective education. On the other hand, when defining goals it is necessary to take care of their formulation since they are sometimes written as a purpose of teaching, and sometimes they are expressed as expected learning, i.e. goals are either related to the approach oriented to the teacher or to the approach based on learning outcomes (Moon, 2002). Justification for defining goals from the position of learning outcomes, i.e. measurable behavior originating in the learning process, is obvious (Bjekić and associates, 2006).

The greatest contribution to emphasizing the importance of pedagogical-educational goals, as preconditions for an effective education in the 20th century, was made by Benjamin Bloom and his associates (1981), according to whom goals are "explicit formulations of the way in which we expect the students will change during educational process". That means that teaching takes place when a teacher provides conditions for an expected change to happen in students as a result of learning. If there occurs no change in students, it means that the teacher wasted his/her time on some teaching activities, which cannot be considered either the teaching (Anderson, 2013) or the learning process. There is a greater possibility that teaching will be effective if a teacher creates students' activities in classes according to well-set pedagogical-educational goals. Goals are the starting point for a teacher in creating other elements of the teaching/learning process, and he/she does this with the tendency to improve students' knowledge, opinions, attitudes, values and/or behavior. Teaching takes place when the teacher creates conditions for the expected change to happen in students (Anderson, 2013), which means that the teacher has provided the learning process within teaching.

Inefficient teaching can be a result of a teacher's misunderstanding of what changes are needed to be achieved in students during the class. The teacher can be oriented to students' mastering the content prescribed by the curriculum, and we cannot expect such an endeavor to make changes in students which would help in the formation of attitudes and critical thinking. The achieved outcome would be that the students are now able to reproduce the content that they have learned, but nothing more than that. This is the reason the learning goals are considered an instrument of effective teaching, without which teaching is not directed and learning might just accidentally happen (Marzano, 2009).

Planning teaching as an active process of student's learning requires a preparation of a class scenario. The phrase class scenario is used instead of the phrase class preparation, where the difference between the two phrases is not only technical, but also essential since it points to various ways of understanding of the nature of the teaching/learning process. A written class preparation is based upon a concept of school learning where the emphasis is on the school program, contents and teacher's roles, i.e. the teaching process. As regards a class scenario, the emphasis is put on the learning process, i.e. students' activities in pedagogically precisely defined conditions and outcomes of the learning process (Ivic, 2001).

A recognition of the importance of well-formulated goals that a teacher follows in organizing the process of teaching is the subject matter of numerous reviews and research. The efficiency of the learning process after well-set goals stems from the fact that students know what to learn then, how well to learn it and how to demonstrate their knowledge (Moss & Brookhart, 2009). There is an ascertainment as well that the energy invested in making the teaching goals clear will collect dividends in the outcomes of learning (Stiggins, 1994). If teachers are not sure about goals, their instructions will not be focused, and non-focused instructions will not create a possibility for the process of learning to take place (Marzano, 2009).

Learning goals can be considered from different aspects, some of which are: generality of goals, accuracy, i.e. clarity of goals, focus on various domains of expected changes and different levels of cognitive engagement of students.

Taking generality into consideration, goals can be: global (broad) goals– their purpose is to create the vision of what and how a certain subject can contribute to students' education, educational (medium) goals – goals of teaching topics within a subject, and the teaching goals or class goals - narrow and specific, the most useful in planning teaching units. When planning teaching, it is necessary to set subject goals first if a mutual consistency of class goals is to be achieved during their planning (Janevski, 2013). From every global subject goal, medium i.e. thematic goals can be derived and from them, or directly from global goals, specific teaching goals can be derived. A further operationalization of the scenario preparation comprises a choice of learning methods and predicting students' activities that can help in achieving the set goals, i.e. achieving a desired outcome.

A teacher addresses different interest groups with formulated goals, and if they are to be understandable it is necessary to write them in a standard format, using a precise language. By formulating goals in a grammatical form, subject-predicate-object, a change which we want to happen in students is clearly expressed, and at the same time, a clear instruction about what activity is expected in students comes out of them. Precision can be additionally improved if two additional components are specified in the formulation of goals: conditions that describe the circumstances in

which activities related to goals are to be performed, and the criteria on the basis of which we determine whether the goal is realized.

If we want the educational system to provide versatile students, it is necessary to plan goals in different domains. While Bloom (1981) emphasized three domains, cognitive, affective and psychomotor, it is evident that a social domain has been added during the past decades (Marzano, 2009). A set of mutually connected goals from various domains provides a more detailed description of a global goal than an individual goal or a group of goals in only one domain (Janevski, 2013). Within certain domains, especially cognitive, it is necessary to provide different levels of students' engagement.

Teachers' competences are mostly described in literature and they are included in practice. Very rarely, they are empirically checked, especially when the problem overcomes the application of a statistic approach and requires a more subtle quality overview. In practice, certain unsteadiness has been noticed when defining pedagogical-educational goals; therefore, communication with other actors in the process of education, primarily with students, but also with other teachers, parents and carriers of the educational policy, has become more difficult, as well. The greatest problem of the lack of communication through learning goals is related to students. Unless the goals are clearly explained to students, they will not understand the meaning of class activities, they will not direct their efforts in an adequate way and they will not have the opportunity to follow their progress to the goal. Thus, the possibility of a conscious, directed students' activity is decreased, as well as taking responsibility for their progress. An inadequate formulation of goals can make a choice and organization of learning activities more difficult, as well as the choice of adequate resources for learning and designing appropriate ways of assessment. Obviously, educational practice must necessarily be explored with the intention of correcting spotted omissions and improving its efficiency. Learning goals, as the first component of teaching, are in the focus of researchers' attention with reason.

The basic issue of this research is whether learning goals in the written scenarios for class teachers' and specialist subject teachers' classes are written as explicit formulations of the ways in which we expect a change to happen in students in the course of the educational process, i.e. whether they are formulated in accordance with basic recommendations for the goals formulation. The recommendations are derived from theoretical consideration of the learning goals (Ivić and associates, 2001; Marzano, 2009; Anderson, 2013; Janevski, 2013).

Research methodology

Sample

The research sample consists of pedagogical-educational goals stated in the written scenarios for class teachers' and subject teachers' classes. A hundred and two pedagogical-educational goals have been stated within twenty-three written class scenarios.

Data analysis methods

Pedagogical-educational goals were analyzed qualitatively according to the established criteria. Criteria used in the analysis are:

- Goals generality,
- Goals clarity – following standard format,
- Representation of various domains of pedagogical-educational goals and
- Representation of various levels of cognitive processing.

Based on the conducted analysis, the goals are grouped into subcategories within the applied criteria, which enabled a quantitative overview of the representation of the goals in frequencies and percentages.

Analysis procedure

Class teachers and subject teachers prepared the written class scenario in accordance with the request to follow the principles of effective teaching. Every teacher prepared one written class scenario of the subject that he/she taught (class teachers prepared a class scenario for one subject of their own choice). Collected scenarios were from different teaching subjects: mathematics, Serbian language, biology, chemistry, history, French, IT education, nature).

Two valuator analyzed every stated pedagogical-educational goal according to the predicted criteria. In order to categorize a certain goal, it was necessary for the valuator to harmonize their assessments.

After the assessments had been made, a quantitative overview of goals by categories was given.

Qualitative analysis procedure according to the generality of the goals

The valuator compare every single goal from the analyzed scenarios to given formulations of goals on three generality levels (Anderson, Kratwol, et al, 2001, according to Janevski, 2013) and categorize it in the following way:

- Global (broad) goals – the purpose is to set the vision of what and how a certain subject is supposed to contribute to students' education. These goals include a wide area, and such is the terminology in which they are formulated (for example "new knowledge", "scientific phenomenon" etc.). Global goals are not directly connected to the practical purpose of teaching and learning. The valuator were given an example of a global goal in bolded words that indicate broadly set goals.

Example: Students are supposed to identify adequate scientific problems, gain new scientific knowledge, explain scientific phenomena and be able to deduce specific scientific problems on the basis of certain data.

- Educational (medium) goals – related to goals of the teaching topics within subjects. The content of educational goals is more specific than that of global goals (for example "cells", "life circle", "interdependence", etc.). Teaching topics are not necessarily present in the curriculum, but they provide a useful organizational "middle point", a connection between subjects and lessons (Janevski, 2013).

Example: Students will understand the relationship between the structure and function of a cell and its organelles.

- Teaching goals or class goals are the narrowest in scope and the most specific of all three levels of goals. They are the most useful ones for planning teaching units; therefore, they are called class goals.

Example: Student will have to compare the phases of meiosis and mitosis.

A qualitative analysis procedure according to the criteria of the clarity of the goals, i.e. respect for the standard format

The valuator compare every single goal from the analyzed scenarios to the standard format of the formulation of the goals. The Goals' precision increases if conditions describing the circumstances under which activities related to the goals are going to be performed are added to the standard format, as well as the criteria on the basis of which it is determined whether the goal is achieved.

The standard format is comprised of: subject, predicate and object.

Example: A student will describe how cells communicate.

A qualitative analysis procedure according to the representation of various domains

The valuator categorize every single goal from the analyzed scenarios into one of the four domains according to their contents.

- Cognitive domain implies the goals directed towards knowledge, understanding, mental processes of a higher level, intellectual skills and abilities.

Example: Students will be able to make a reasonable and logically organized plan of an oral announcement about the importance of keeping the environment clear.

- Affective domain is related to the emotional aspect of the reaction in the process of learning, as well as the attitudes, interests, values and self-respect.

Example: Students will be able to make oral announcements which will make the listeners interested in the topic.

- Psychomotor domain is related to the motor skills, using machines, tools and objects in the process of learning.

Example: Students will be able to demonstrate different football shots (for example passing, attack).

- Social domain indicates the goals directed to the development of empathy, respect, team work, managing conflicts.

Example: Students will be able to tolerate attitudes and opinions different from theirs.

A qualitative analysis procedure according to the level of cognitive processing

The valuator categorize every single goal from the analyzed scenarios into one of the six levels of the cognitive domain of the revised Bloom's taxonomy on the basis of the verbs used in the goals' formulation. The verbs according to which the valuator categorize goals into certain levels of cognitive processing are given in Table 1 (Janevski, 2013). The left column in the table includes six common verbs: remember, understand, analyze, evaluate and create. The next column contains specific verbs related to each of the six common verbs. Specific verbs are given because of the need for a higher precision; they additionally improve the meaning of common verbs. Specific verbs denote different cognitive processes, i.e. mental operations within the same category, which students can perform on the given content or with the given content.

Table 1. Verbs classification system

Common verbs	Specific verbs	Synonyms
Remember	recognize, recall	Identify, state, repeat
Understand	interpret, give an example, classify, summarize, conclude, compare, explain	paraphrase, translate, illustrate, subsume
Apply	perform, implement	conduct, use
Analyze	differentiate, organize, ascribe (meanings, explanations)	select, find connections, integrate, sketch, structure
Evaluate	check, criticize	coordinate, detect, follow, weigh
Create	originate, generate, plan, produce	assume, project, construct

Research results

Goals distribution according to the generality criterion

Broad	Medium	Specific	Total
45	17	39	102
45.10%	16,67%	38.23%	100.00%

Goals distribution according to the criterion of goals' clarity, i.e. following the standard format

Clear	Not clear enough	Total
44	58	102
43.14%	56.86%	100.00%

Goals distribution according to the domains

Domain	f	%
Cognitive	69	67.65
Affective	13	12.74
Psychomotor	0	0.00
Social	2	1.96
Imprecise	18	17.64
Total	102	100.00

Goals distribution according to the levels of cognitive processing

Cognitive processing level	f	%
Remember	23	22.55
Understand	24	23.53
Apply	7	6.86
Analyze	8	7.84
Evaluate	3	2.95
Create	4	3.92
Total in cognitive domain	69	67.65
Other	33	32.35
Total	102	100.00

Discussion of the results

An orientation towards improving the quality of teaching implies the analysis of every single scenario according to the given criteria, spotting flaws and their correction before the class. However, with the intention of determining the prevailing orientations in the analyzed adequate sample of pedagogical-educational goals, we resorted to their grouping and quantification. Results of the conducted analysis of the written class scenarios point to a certain degree at the prevailing orientation of our teachers in defining class goals in the process of teaching preparation.

The established distribution of the goals according to the generality criterion indicates that common goals are the most frequent (45.10%) in the analyzed scenarios. Starting from the ascertainment that learning goals are the instrument of effective teaching that contribute to a clear orientation of teaching/learning, developing specific learning goals is a necessary teachers' activity in organizing and teaching a particular class. Research in this area has proved that specific goals are more important for students' achievements than common goals (Marzano, 2009); therefore, the results obtained on the goals' generality criterion cannot be accepted as a desired orientation in the preparation of particular classes. There is a danger that starting from common goals we cannot predict specific students' activities that can help in their realization; therefore, they are often only declaratively set but not realized in the particular class.

The analysis of the goals' distribution according to the criterion of the goals' clarity, i.e. respect for the standard format, implies that this criterion is not met. More than half of the analyzed goals (56.86%) are not formulated according to the standard format: subject-predicate-object. Thus defined goals do not express clearly enough the change we want to happen in students. An insufficient clarity in the formulation of the goals may result in not determining specific students' activities, which creates the risk that activities that lead to change fail.

An orientation of education towards a comprehensive students' development can be perceived through the goals' distribution in certain domains. The presence of the academic (cognitive) goals in the teaching process is clear, but the students' overall development can be achieved only if enough attention is paid to non-cognitive goals as well. Non-cognitive goals are important for the students' overall development, and on the other hand, their influence is reflected on students' achievements in the cognitive domain. The resulting distribution of goals by domains in our research indicates a pronounced orientation towards the cognitive domain (67.65%), which makes other areas of the students' development neglected. The recommended orientation towards the development of attitudes, values, social skills and psychomotor abilities of students in the analyzed scenarios is, by obtained results, least respected or completely missing in some domains.

The goals' distribution by levels of cognitive processing indicates the orientation which does not contribute enough to the development of those abilities of students which are expected to help in achieving a greater efficiency in the further course of education and later, in an overall functioning of students. Out of 67.75% of the objectives in the cognitive domain, near half of them (46.08%) are directed towards remembering and understanding. The prevailing representation of lower levels of cognitive processing, and therefore a low representation of the goals directed towards the application of knowledge (6.86%), to the analytical approach of what is being learned (7.84%), critical

consideration (3.92%) and creating something new (3.92%), indicates the presence of an insufficiently demanding and productive intellectual engagement of students.

If we take into account that we analyzed planned pedagogical-educational goals in the written class scenarios, and there is no confirmation of their real achievement, there is a danger of getting a less desirable image of our education by measuring the achieved outcomes. The analyzed situation concerns only teachers' intentions of what they want to achieve in students during the class. Since a teacher's activity is managed by what he/she wants to achieve, there is an open question: supposing his/her expectations were low, could there be achieved more than what was planned in the process of the realization of teaching? Also, there is a reasonable fear that a teacher will achieve what has been planned in a particular class.

The analysis conducted on pedagogical-educational goals in the written class scenarios of teachers' and subject teacher's classes indicate that this is an area in which a professional preparation and professional training of teachers should be given a greater importance. A significant step in the operationalization of the learning/teaching process is a transformation of the common goals into specific declarative or procedural goals in such a way as to make them "challenging", but at the same time "achievable" for students. In this way, a possibility for changing usual learning/teaching methods and creating possibilities for students to critically consider contents and find new meanings is provided (Martinez & McGree, 2000). However, the initial disclaiming students' abilities to deal with higher levels of cognitive processing, contained in the orientation towards lower levels of the cognitive domain, leaves them at the level of remembering what they learn, with a reproduction that can be mechanical or, in the best case, with understanding. Generally, a determined orientation in defining pedagogical-educational goals for class is undesirable from the position of students' interests; therefore, by applying certain strategies, it is desirable to overcome it.

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Rezime

U radu je prikazana analiza vaspitno-obrazovnih ciljeva u pisanim scenarijima za čas nastavnika razredne i predmetne nastave sa ciljem sagledavanja stepena poštovanja teorijski zasnovanih preporuka pri definisanju ciljeva učenja (Ivić i sar, 2005; Anderson, 2014; Janevski, 2014). Korišćeni kriterijumi za analizu su: opštost ciljeva, poštovanje standardnog formata i ciljne grupe, zastupljenost različitih domena revidirane Blumove

taksonomije vaspitno-obrazovnih ciljeva i zastupljenost različitih nivoa kognitivne obrade. Analizirano je 102 vaspitno-obrazovna cilja koji su navedeni u okviru 23 pisana scenarija za čas nastavnika predmetne i razredne nastave. Rezultati analize su pokazali da se u pisanim scenarijima, po kriterijumu opštosti, zastupljeniji globalni ciljevi (odnose se na ciljeve predmeta) nego nastavni ciljevi koji se vezuju za konkretan čas. U formulaciji vaspitno obrazovnih ciljeva uglavnom izostaje poštovanje standardnog formata, koji po svojoj strukturi odgovara organizaciji efikasnog procesa učenja, kao i uvažavanje jasnosti cilja za učenike određenog uzrasta. Vaspitno obrazovni ciljevi su najčešće definisani na nivou znanja i razumevanja, ređe na višim domenima Blumove taksonomije. Predviđeni stepen kognitivne obrade je najčešće na nivou nižih mentalnih procesa. Dobijeni rezultati razmatrani su iz pozicije konstruktivizma, važeće paradigme u razmatranju razvojnih i obrazovnih promena.

Ključne reči: *scenario za čas, vaspitno-obrazovni ciljevi, Blumova taksonomija vaspitno-obrazovnih ciljeva.*

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TALENT AND TALENTED CHILDREN AS PERCEIVED BY TEACHERS

Abstract

In order for the talent of lower-grade primary school students to be recognized on time and adequately encouraged, it is essential that all stakeholders in the educational process develop competences related to their roles. Prior to this, it is important to identify the opinions of teachers as direct promoters of this process in the class. This research was aimed at finding out how teachers define the concept of talent and a talented child, and to get insight into the methods of work applied by the teacher, as well as finding out any additional recommendations for work with talented children. The research was conducted as a poll survey on a sample of 162 teachers from the Srem region. When identifying special characteristics inherent to talented children, over 60% of teachers opted for the description referring to intellectual characteristics (quick understanding and ability to identify relations, curiosity, outstanding memory) and motivation (more active than their peers, persistent, interested in learning). Even though 82.7% of teachers estimate that in their class there is at least one talented child, only 50.6% administer some special form of extra support for the gifted. Teachers recommend the education of talented children within regular grades by setting up interim parallel groups with special contents (37%), as well as special classes for the talented (34.6%). The lack of curriculum is identified as a major impediment for additional work with gifted children (25.9%). The results indicate the need for further training of teachers that will strengthen their capacities for identifying talented children in the field of socio-affective characteristics and more specific personality traits. It is assumed that teachers would feel more influential in working with talented children if they had programs of work that require the participation of professional associates, parents and other important individuals who would create such programs in cooperation with teachers.

Key words: *talented child, teacher, additional support*

Introduction

It is not easy to give unambiguous answers to numerous questions on giftedness: who do we label as gifted children, what distinguishes them or how can we recognize them? The fact that these children show significantly higher levels of skills and behavior when compared to the expected level of skills and behavior for their age represents one of the primary or first indicators.

Giftedness can be defined as a diverse set of skills that ensures a high level of achievement in a particular activity or successful achievement of complex forms of activity. In other words, gifted children are those whose achievements are consistently significant in any potentially valuable area of human activity (Djordjevic, 1987).

According to Passow (1991), the gifted are highly motivated and strive for self-improvement. They often possess unusual emotional depth and strength, show a desire to have higher self-concept and a stronger ego-strength; they tend to take greater risks and to be more sensitive to the expectations and feelings of others; they often express their idealism and sense of justice; they tend to be more independent, more powerful and they like to compete. They have an unusual capacity for intellectual initiative, creativity, critical thinking, social responsibility and empathy, combined with the ability to lead.

Other **personality traits**, such as self-confidence, intellectual and moral independence, emotional stability, tolerance and willingness to take risks are also necessary for the gifted in order to achieve success.

Theoretical conceptions of giftedness and characteristics of the gifted

Gagné (1997, as cited in Maksić, 2006) based his conception of giftedness on the difference between the concepts of giftedness and talent. According to him, giftedness is inherited, whereas talent is a product of synergy interactions of a genetic predisposition with home, school, physical and social environment of a child. Sternberg introduces a multi-dimensional concept of giftedness and distinguishes three types of intellectual giftedness: analytical, creative and practical (Sternberg & Grigorenko, 2002). In their concept, Renzulli and Reis (Renzulli, 2005) consider giftedness to be a suitable combination of at least three factors: ability, creativity and personal traits. According to Tanenbaum (1986), a mutual effect of five psychological and social factors is necessary in order for potential giftedness of a child to be developed into a manifested talent of an adult. These factors are: the general ability, special abilities, non-intellectual facilitators (achievement motivation, appropriate self-concept and mental health status), environmental influences (family, peer group, school and community, economic, social, legal and political institutions), and factors of chance (luck). At the beginning of the 20th century, Russian authors emphasized the qualitative approach to the giftedness research that focused on the general and holistic (Dorfman, 2000). They advocate the approach to the giftedness due to the products of work. Gardner (1994) emphasizes that people can be "smart" or gifted in many ways. The theory of multiple intelligences means that some individuals do not have to achieve high scores on IQ tests, but may have special abilities that Gardner classified into several groups: linguistic, musical, logical-mathematical, spatial-artistic, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic.

Various authors have tried to classify the characteristics of gifted children in particular categories. Stojanović (2000, as cited in Grandić and Letić, 2009) introduces six areas of gifted traits: physical characteristics, intellectual, educational, speech and language, reading and written expression. Some authors (Torrance, 1979, as cited in Čudina-Obradović, 1990, Witty, 1958, as cited in Djordjević, 2005), apply a list of indicators to help parents and teachers to identify gifted children. The gifted can be recognized by curiosity, rich vocabulary, good memory, use of appropriate language phrases at an early age, an early development of reading skills, use of previously acquired knowledge in new situations, good observation, interest in books and encyclopedias, independent learning ability, good concentration, skills in drawing, music and other art forms.

More elaborate features of giftedness are given through the areas that are presented by Wagner (1984) and Nagel (1986). These are **the characteristics of learning** (a child has a lot of knowledge and information in various fields and unusually rich vocabulary for its age, its speech is expressive, fluent and concise...), **creativity** (a child creates a large number of ideas and solutions to given problems, often offers unusual, original and smart answers...), **motivational** (a child is truly committed to the assigned task, it is dissatisfied with the routine, non-inspiring tasks, it is not satisfied with its own pace and progress in the execution of tasks ...) and **social characteristics** (cooperates well with peers as well as with adults, does not accept the rules of the majority at all costs ...) (as cited in Koren, 1990).

The importance of identifying giftedness and gifted children

Numerous people justify the lack of sufficient support to the gifted claiming that people who are really talented would be able to show their gift sooner or later in one or more areas of human activities. The results of contemporary researches refute this opinion. In his classic study of talent development, Blum et al. (as cited in Božin, 2007) find out that none of 120 outstanding individuals in the field of science, art or sport, has reached the highest achievements by themselves, but due to support, especially the support of family and teachers. Therefore, it is important to note that certain features of cognitive, emotional and social functioning indicate a gifted child who has the potential to grow into a talented adult, but this will happen only if all aspects of its development are recognized and adequately encouraged. Regardless of different opinions on the issue of an early identification of giftedness, Gojkov and Stojanović (2000) argue that an early identification is important, otherwise there is a danger that these children will not be adequately encouraged and their giftedness will therefore not reach the highest point of development. Encouraging and supporting individuals with such dispositions represent priorities of each society that wants to maintain and enhance personal well-being (Božin, 2007). At the same time, the right to **personal development** is often cited as one of the most important achievements of modern civilization in the field of upbringing and education. This

means that each society must ensure conditions that would enable optimal development of child's dispositions, providing special support to its development.

This paper seeks the answer to the question how teachers who teach primary school children in lower grades of primary school "perceive" a gifted child and how they define the notion of a gifted child, which is the initial step in providing a systematic support to gifted children in the early years of primary school education.

Method

Aim

The aim of the research was to provide an insight into how teachers define the concept of giftedness and gifted child and which skills and characteristics they attribute to a gifted child.

The aim of the research was to draw conclusions about the types of work that are applied within institutional education, with potentially gifted and gifted children who attend lower grades of primary school and to obtain teachers' recommendations on more adequate approaches to gifted children within the primary school system. Therefore, in this study, we try to address two research problems:

1. To explore the definition of the concept of giftedness and a gifted child from the perspective of teachers;
2. To identify the current and recommended forms of work with gifted children within the primary school system

Research instruments

A questionnaire designed for the research purposes, which partly represents a modified instrument that was used in a previous research of the concept of giftedness (Grandić and Letić, 2009), was applied. The questionnaire contained questions which were intended for gathering of basic socio-demographic information about the examinees (gender, age, employment period ...), the open-ended, closed-ended and combined questions. According to the list of the characteristics of giftedness that were grouped into four categories (*Intellectual abilities and creativity, Socio-emotional characteristics, Motivation and learning, Personality traits*) which included six characteristics each, the examinees were asked to identify characteristics which gifted children possess. Their perception of a gifted child was elicited by the answer to the next open-ended question: "If you worked with a gifted child, describe his or her characteristics". When answering the next open-ended question, the examinees should state what teaching method they applied while working with a gifted child. Closed-ended questions of multiple choice were designed to elicit the reasons why examinees did not apply a special teaching method while working with gifted children, as well as what recommended teaching methods would be.

The sample

The final sample included 162 female primary school teachers who teach in primary schools in the Srem District. The age of examinees ranged from 29 to 57 (AM = 46.94, SD = 6.598). The length of period of employment ranged from 1 to 32 years (AM = 19.74, SD = 7.954). The sample consisted of primary school teachers who teach grades I-IV (the number of teachers per class is shown in Table 1). An average number of children in each class is 24.

Table 1. Distribution of examinees by grade which they teach

Grade	f	Percentage (%)
I	31	19,1
II	36	22,2
III	44	27,2
IV	51	31,5
Total	162	100

Procedure

The research was conducted from December 2013 to March 2014. The survey method was applied on a suitable sample. The results presented in this paper represent the segment of a larger research of giftedness at a preschool and early school age.

Data processing

Results were analyzed by descriptive statistics (frequencies and percentages). A qualitative analysis of answers to open-ended questions was conducted, too.

Results and Discussion

In order to define the concepts of giftedness and a gifted child, the examinees opted for one or more of the offered characteristics that, according to them, represented the best description of a gifted child. The results are shown in Table 2.

Table 2. List of the characteristics of giftedness and percentage of giftedness characteristics chosen by teachers

Giftedness categories	The List of the Characteristics of Giftedness	% answers
Intellectual abilities and creativity	Quickly understands and connects ideas	92,6
	Child is interested in variety of things	75,3
	Has a rich vocabulary for his age	58,0
	Has a good memory	74,1
	Curious child	85,2
	Arts ability (Drawing, music...)	44,4
Socio-emotional characteristics	Has a need for change	43,2
	Has high self-demands	34,6
	Can deal with the obstacles	39,5
	Child is loved by friends	33,3
	Has a need to dominate	18,5
	Highly communicative	45,7
Motivation and Learning	Child is more active than its peers	67,9
	Child gets bored by routine tasks	56,8
	Child is a good organizer	35,8
	Likes to learn	61,7
	Child is persistent when learning and working	63,0
	Child is responsible	59,3
Personal characteristics	Child is funny	32,1
	Child is energetic	38,3
	Child is mature	49,4
	Child is self-confident	51,9
	Child is self-disciplined	42,0
	Child is charismatic (idol, star...)	21,0

Based on the data presented in Table 2, it can be concluded that primary school teachers mostly chose some of the characteristics of *Intellectual abilities and Creativity categories*. The largest number of primary school teachers opted for the following characteristics: quickly understands and connects ideas, curiosity, interest and a good memory. The least chosen characteristic of this category is the characteristic that refers to a specific artistic talent. Since teachers mostly opted for characteristics that are related to intellectual superiority of children, it can be concluded that such children are usually recognized and singled out as gifted or potentially gifted children.

The next category of giftedness chosen by teachers was Motivation and Learning category, i.e. characteristics such as: the child is more active than its peers, it shows persistence when learning and working, it likes to learn. Therefore, teachers identify motivation to work and study as a characteristic of giftedness, in addition to intellectual characteristics.

Categories *Socio-emotional characteristics* and *Personality traits*, as well as characteristic descriptions within these categories, were not so often chosen by primary school teachers (with the exception of self-confidence and maturity of a child), which indicates that primary school teachers do not perceive characteristics of socio-emotional status of a child and its personal traits as significant indicators of its giftedness.

Having evaluated the giftedness within this list of the given characteristics, the teachers were asked to evaluate whether they could identify one or more gifted students in their class, as well as to name the characteristics of giftedness that they evaluated. The results are presented in the table 3.

Table 3. Identified gifted students by teachers within the class

The number of gifted students in the class	Number of teachers	Percentage (%)
More students	97	59,9
Only one	37	22,8
None	14	17,3
Total	162	100

A large part of the sample, 134 primary school teachers (88.7%), declared that there was at least one gifted child, or more of them in their class. They also specified the characteristics of students that they identified as gifted ones: the field of music (38), mathematical abilities (31), and the field of fine arts (29), physical and motor skills (27), rich vocabulary and verbal expression (26). In addition to these characteristics, primary school teachers identified the following characteristics as characteristics of gifted students: personality traits (23), the ability to acquire new knowledge (18), as well as a good understanding and reasoning (14).

If we compare these results with the results in Table 2 (characteristics of giftedness according to categories), it can be noticed that although teachers single out the ability of grasping and connecting ideas as a giftedness, the lowest number of primary school teachers name these characteristics when describing students that they identify as gifted. They tend to assess students' giftedness on the basis of products in the field of arts (music and fine arts), or according to mathematical, physical or speech and language skills rather than according to more general characteristics of understanding and reasoning.

The next goal of this research was to gain an insight into what types of teaching of gifted and potentially gifted children are applied in schools included in the research. In the further course of the research, examinees were asked whether they applied a special form of work with gifted children and, if they implemented it, to describe how they did it. The results are shown in Table 4.

Table 4: A special form of working with gifted children in the classroom

	N of teachers	Percentage (%)
Yes	82	50,6
No	80	49,4
Total	162	100

The results indicate that more than 50% of the sample of primary school teachers implement a special approach when working with gifted children. A comparison of the results presented in Tables 3 and 4 shows the difference between the number of teachers who have at least one gifted child in their class and the number of teachers who apply a different approach and teaching methods with gifted children in their class. Almost 40% percent of teachers do not implement a different type of method although there is at least one gifted child in their class. Teachers who declared that they organized a special form of teaching with gifted students stated that they organized additional classes with students (53) and applied individualization (16). A larger number of teachers said that students developed their talents within the music school due to other activities not related to school and sports clubs.

In the further course of the research, primary school teachers were asked to state the reasons that prevented them from applying some of the special forms of teaching with gifted children. The results are shown in Table 5.

Table 5. Reasons for not applying a special form of teaching with gifted students

	N of teachers	Percent (%)
The lack of space	23	14,2
The lack of adequate equipment	20	12,3
The lack of time	24	14,8
There is no special programme	47	29,0
There is no system for rewarding the teachers	25	15,4
Large number of children in the class	20	12,3
Primary school teachers are not trained enough	27	17,2

Organizational, material-technical barriers and lack of training were identified by 20 of 27 teachers, whereas 47 teachers stated that the reason for not applying a special form of teaching was the fact that there was not a special programme of work with gifted children. This information suggests that primary school teachers think that there should be programmes for gifted children, they could apply, according to the established practice of planning and programming of educational work on the basis of defined outcomes. However, it is important to perceive what teachers consider to be recommended forms of teaching when teaching gifted students. The results are shown in Table 6.

Table 6. Recommended forms of teaching

	N of teachers	Percent (%)
Regular classes with expanded programme	24	14,8
Special classes for gifted students	56	34,6
Mentorial work with students	45	27,8
Regular classes with additional activities for gifted	48	29,6
Special programmes with the possibility of acceleration	23	14,2
Regular classes and occasional parallel groups with special contents for the gifted	61	37,7

Regarding teachers' recommendations for further work with students who are gifted in different areas, the recommendation which implies that these students attend regular classes, with occasional gathering of students with similar interests in specific groups, where their needs will be met, is emphasized. This type of work greatly resembles the former additional classes that were organized in our schools. Primary school teachers also recommend segregation, regular classes with additional activities for the gifted, but also mentorial work with students.

Conclusion

Providing a systematic support to individuals who can contribute to the progress and development of modern society due to high capacities they possess, but at the same time have the right to personal development that is consistent with their needs, should result in a tendency for this target group to get an adequate support in the field of education. Timely recognition and identification of gifted individuals is a basic precondition for providing a systematic support, both within the family and the institutional education. Besides parents and the immediate family, preschool teachers and primary school teachers represent an important source of information about the child, its behavior, or personality and talent.

Therefore, this research attempts to determine how teachers define the concept of a gifted child and giftedness, which characteristics they consider in estimating that a child is gifted, how they teach gifted children, what makes it difficult to provide an adequate support to these children and what teaching forms are recommended when these children are taught.

The research results indicate that primary school teachers included in this sample identify giftedness on the basis of *Intellectual characteristics* such as: a child quickly understands and connects ideas, it is curious, it is interested in specific issue and has a good memory. Giftedness is associated with the activity, perseverance and desire for acquiring new knowledge and learning, which belongs to the *Motivation and learning* category. *Socio-emotional characteristics* and *Personality traits* have

very rarely been recognized as the characteristics of giftedness. These results correspond to the results of the research on teachers' attitudes towards gifted children, conducted by Grandić and Letić (2009). According to the theory of multiple intelligence by Howard Gardner, which states that children can be gifted in many ways and in many domains, it can be observed that the teachers primarily identified linguistic and logical-mathematical skills as the characteristics of giftedness, while the interpersonal and intrapersonal skills were neglected. When asked to describe a gifted child they identified in their classroom, teachers predominantly opted for giftedness in music, mathematics, arts, physical abilities and speech and language abilities, which corresponds more to the assessment related to the outcomes of school subjects than to the general reasoning ability, comprehension and logical thinking, as the characteristics of giftedness.

Does this mean that teachers are more focused on manifestations of giftedness than on the gifted potential, when assessing giftedness? Does the fact that the current system of education highly evaluates only an already finished product and neglects dispositions which should be recognized, encouraged and developed into preferred gifted behaviour and talent, represent a problem? The identification of giftedness with gifted behavior and the products of work leads to the risk that individuals who have high general skills that are not compatible with the demands of the school system, or social skills that may predispose them to be successful leaders, remain unidentified as potentially gifted. Therefore, it is recommended that primary school teachers, teachers and all who work with children should be educated and trained to recognize all kinds of giftedness, in order to be able to encourage and develop them in the further educational process.

Based on the research findings, another problem that should be in the focus of attention has been detected. Namely, only a certain number of teachers apply different forms of teaching with gifted children, mostly by individualization of regular classes and organization of additional classes. The results of the research conducted by Grandić and Letić (2009) show that additional classes represent the most common form that is applied when gifted children are taught. The examinees name the lack of already written programmes as one of the main reasons of not applying particular forms of teaching that would meet the needs of a gifted child. Does this mean that teachers expect outcomes and achievement standards within particular subjects to be defined for gifted children, which is basically opposite to the statement about a specific development of each child, and a gifted child, too? Creating special programmes for teaching gifted children appears to be a task for which teachers are not trained enough and where they need support, assistance or additional education. The research done by Grandić and Letić (2009) shows that the lack of time, space and equipment represent significant obstacles when working with gifted children, considering the programme, the lack of motivation due to an unfavourable financial situation and insufficient training of teachers.

When they were asked to recommend a preferred form of teaching, primary school teachers who teach lower grades opted for partially homogenized grouping of gifted in the context of the specific activity rather than expressing willingness to apply individualization within regular classes. Although individual teaching has been analyzed by experts in recent decades, it seems that it is more declaratively accepted than the participants in the educational process are prepared (and possibly trained?) for its practical implementation. However, preschool teachers who teach higher grades prefer teaching during regular classes and implementing additional activities and expanding the programme. Primary school teachers de facto need the support of experts and other individuals from different educational areas in order to strengthen in terms of planning and implementation of teaching gifted students.

A research in focus groups of teachers, which should take place after this research, will be aimed at shedding light on the problem of the realization of individualization in teaching gifted students and problems in writing an individual educational plan (IEP), which, we assume, exists in practice since the informal interviews in several primary schools in the Srem and Macva districts show that there are no IEP-s for gifted children in any of these schools. If we add the fact that there are no clearly defined competences of the interdepartmental commission when it comes to gifted children (or teachers possess no knowledge about it), it is obvious that the Law that specifies that gifted children belong to children with special needs has not yet found its implementation in educational practice.

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Rezime

Kako bi darovitost deteta nižeg osnovnoškolskog uzrasta bila pravovremeno prepoznata i adekvatno podsticana, nužno je da svi akteri obrazovno-vaspitnog procesa razviju kompetencije u skladu sa svojim ulogama. Pre toga, značajno je identifikovati stavove i mišljenja neposrednih nosioca ovog procesa u razredu – učitelja. Ciljevi ovog istraživanja su bili da se utvrdi kako učitelji definišu pojam darovitosti i darovitog deteta i da se stekne uvid koje oblike rada učitelji primenjuju, a šta dodatno preporučuju u radu sa darovitim decom. Istraživanje je sprovedeno metodom anketiranja na uzorku od 162 učitelja sa teritorije Sremskog okruga. Preko 60% učitelja u ovom uzorku se pri odabiru karakteristika koje su svojstvene darovitom detetu, opredelili za opise koji se odnose na intelektualne karakteristike (brzo shvata i povezuje, radoznalo je, zainteresovano, ima dobro

pamćenje) i karakteristike iz domena motivacije i učenja (aktivnije od vršnjaka, istrajno, voli da uči). Iako 82,7% učitelja procenjuje da u svom razredu ima bar jednog darovitog učenika, samo 50,6% primenjuje neki poseban oblik dodatne podrške darovitoj deci. Učitelji preporučuju obrazovanje darovite dece u okviru redovnih razreda uz organizovanje povremenih paralelnih grupa sa posebnim sadržajima u koje bi ovi učenici odlazili u toku redovne nastave (37%) kao i posebne razrede za darovite (34,6%). Kao najveću prepreku za dodatni rad sa darovitom decom navode nepostojanje programa rada (25,9%). Rezultati ukazuju da je potrebno dodatno edukovati učitelje da darovite učenike prepoznaju i u sferi socio-afektivnih karakteristika i užih svojstava ličnosti. Pretpostavka je da bi se učitelji osećali osnaženiji u radu sa darovitom decom kada bi imali programe rada, za šta je neophodno veće participiranje stručnih saradnika, roditelja i drugih važnih pojedinaca koji bi zajedno sa učiteljima kreirali ovakve programe.

Ključne reči: *darovito dete, učitelji, dodatna podrška*

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TEACHERS' ATTITUDES TOWARD PERSONS WITH PHYSICAL DISABILITIES

Abstract

Teachers, as the key actors in the educational process, have a major role in providing a quality of teaching and learning in general, which implies individualization and inclusiveness. To be able to do so, teachers need to reexamine their values and attitudes towards other actors in the educational process and among them are persons with physical disabilities. The aim of the study was to examine the attitudes of teachers in primary and secondary schools towards persons with physical disabilities (PPD), which may represent a potential source of obstacles to an inclusive approach to the education of children with physical disabilities. Two dimensions of cognitive components of attitudes were measured: implications of deviant characteristics and segregation of people with physical disabilities and tragic perception of these people, and one affective dimension - discomfort to interact with these persons. The sample consisted of 89 teachers from Novi Sad and Belgrade. Applied instruments were scales KKS and AKS by authors Pedisić and Vulić-Prtorić. Analyzing the responses of the surveyed teachers, it can be concluded that most of them have a positive attitude towards people with physical disabilities, both in cognitive and affective dimensions of the attitude. More experienced teachers tend to agree more with implications of deviant characteristics and segregation of PPD. Other variables were found insignificant.

Key words: *inclusion, teachers' attitudes, people with disabilities*

Introduction

World Health Organization (WHO) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (Dijkers et al, 2000). Health is not the goal of life, it is a means or resource to enable one to have control over life (Tengland, 2008).

International Classification of Functioning, Disability and Health (ICF) defines the context in which a person lives and considers relevance in defining one's adaptation to disability (WHO, 2001). The context is the complex of personal and environmental factors. The environment includes socio-cultural factors, physical-architectural space, the services available to persons with disabilities and access to health care. Disability is not a characteristic of a person, but rather the result of the failure of the person to successfully interact with the environment (Eubank, 2010).

There is a socio-political definition of disability. According to this definition, disability is a consequence of a disabling environment rather than the organic limitations of the disease process (Hahn, 1997). People with disabilities may be invisible to the politically powerful. The oppression of people with disabilities results from paternalistic and charitable sentiments that reflect sympathy and pity (Shapiro, 1993). One form of oppression is marginalization, which refers to being excluded from participation. Individuals with physical disabilities state that health care professionals are part of the problem regarding their opportunities for participation (Kielhofner, 2004).

There are several categories of different sources of negative attitudes towards individuals with a disabling condition. Those attitudes can be determined by psychodynamic, situational, sociocultural and historical factors (Raskin, 1956, in Livneh, 1982.). The prejudicial roots can be in correlation with social customs and norms, child-rearing practices, recrudescence of neurotic childhood fears in frustrating and anxiety-provoking situations, and discrimination-provoking behavior by persons with disabilities (Gellman, 1959).

Pervasive social and cultural norms, standards and expectations often lead to the creation of negative attitudes towards the disabled population. There are some contributing factors: a concept of a beautiful body, personal productiveness and achievement, prevailing socioeconomic level, status

degradation attached to disability and society's delineation of the "sick role" phenomenon (Livneh, 1982).

A social model that implies an equal participation of people with disabilities in all spheres of society is based primarily on the theories of social constructivism, systemic and ecological approach. Also, this model is based on the UN Declaration of Human Rights (1948) and the Convention on the Rights of Persons with Disabilities (2007). In relation to that, the modern definition of social work with people with disability includes the principle of service and the primary goal is to help people in need to address social problems and social justice. Also, the term self-determination is very important and indicates the autonomy and respect of one's experiences and suggests one's behavior resulting from one's own wishes, choices and decisions (National Association of Social Workers, 1999).

Researches of attitudes towards people with physical disabilities have their practical importance, which is reflected in learning about the attitudes of those who are in direct contact with people with disabilities, especially if working with mixed groups, consisting of both persons with and without disabilities, such as may be found in schools, or are working on providing care and rehabilitation to people with disabilities. The importance of knowing these attitudes is seen also by the policy-makers dealing with the issues that could have impact on people with disabilities (Pedišić & Vulić-Prtorić, 2002).

Recent examinations of attitudes towards persons with physical disabilities are mostly multidimensional and consider three components: cognitive, affective and behavioral (Olson & Zanna, 1993; Pedišić & Vulić-Prtorić, 2002). The affective component represents the emotional portion of an attitude, whereas the cognitive component refers to ideas, beliefs and opinions (Grames & Leverentz, 2010). The behavioral component defines a person's willingness to interact with the subject at hand and manner in which they do so (Cook, 1992, in Grames & Leverentz, 2010). The components of attitudes should help predict behavior towards persons with disabilities, but the relationship between behavior and attitudes is complex, so the attitudes account for a small part of behavior (Grames & Leverentz, 2010).

The concept of social stigma can be applied to a variety of groups, including persons with disabilities. Social stigmatization and discrimination can induce a person with disability to withdraw from their participation in social life which may ultimately lead to poor life satisfaction. This approach to stigma is called the socio-cognitive model. Findings of comparative studies show that the attitudes towards individuals with physical disabilities are more favorable (Corrigan et al., 2000) when compared to those to people with emotional or social disabilities.

Results of some studies (Grand et al., 1982) show that a disability attitude research can be categorized into three major areas: 1) assessing attitudes of persons without disabilities towards persons with disabilities; 2) personal and demographic correlates (age, sex, occupation, etc) of attitudes toward persons with disabilities and 3) strategies for changing unfavorable attitudes toward persons with disabilities (Grames & Leverentz, 2010). Most studies have measured attitudes toward a single disability (Hartlage et al., 1971) or towards a general concept of disability (Gellman, 1959).

The results of the British Social Attitudes Survey (BSAS, 2009) show that the attitudes towards disabled people have improved since 2005 and that there is a smaller proportion of people saying that they thought of disabled people as getting in the way or as causing them some discomfort. People were also more likely to think of disabled people as the same as everybody else. Most of the respondents (80%) felt that there is either a lot of or a little prejudice towards disabled people. The respondents were least comfortable with people with learning disabilities or mental health conditions in situations where disabled people were in positions of authority, such as being a Member of Parliament or a boss at work. Also, the respondents felt least comfortable in respect to people with physical or sensory impairments. A majority of both disabled and non-disabled people feel that attitudes and barriers in society play some part in preventing disabled people from living a full life. The level of comfort people reported in interfacing with disabled people varied depending on both the impairment type and the scenario in which the interaction would take place. Prejudice towards people with mental health conditions and learning disabilities was considerably higher and varied more depending on the scenario in which the respondents would interact with the disabled person. There is no clear relationship between age and prejudice. In general, it was people in the youngest (18-24) and oldest (65+) age groups that were least likely to feel comfortable with interacting with disabled people. Also,

the respondents with higher levels of education and those with higher incomes had more positive attitudes towards disabled people (BSAS, 2009).

American students' attitudes towards persons with disabilities were compared to the Chinese students' attitudes. The results of this study indicate that the type of disability (congenital physical, acquired physical and psychiatric) significantly affects attitudes towards persons with disabilities. Societal attitudes towards persons with disabilities are largely negative. Also, Chinese students reported more favorable attitudes towards persons with disabilities and congenital physical disabilities were most accepted by them (Grames & Leverentz, 2010).

The attitudes of professionals who may be in the position to interact with people with disability (i.e., social workers, health professionals, teachers...) require a special attention, considering the social model. Professionals are a part of social environment for people with disability. Putting a social model to practice in contemporary education means individualization and an inclusive approach to children with needs for some additional educational support – among them, children with physical disabilities. Teachers, as the key actors in the educational process, have the major role in providing not only individualization and inclusiveness, as the factors of quality of teaching and learning in general. To be able to do so, teachers need to reexamine their values and attitudes not only towards teaching and learning, but also towards other actors in the educational process - pupils and parents are the most important ones. In some cases, those values and attitudes can be a crucial factor of a teacher's good or bad decision and behavior, ranging from a basic classroom management to ensuring learning of every child in the classroom.

Previous studies on teachers' attitudes towards people with disabilities are rare, but there are a number of researches done on teachers' attitudes towards inclusive education of children with disabilities. A review of the literature by de Boer, Pijl & Minnaert (2010) examined 26 studies from different countries that were done in the period from 1999 to 2008. The review of the studies shows that the majority of teachers hold neutral (19 studies) or negative attitudes (7 studies) towards the inclusion of pupils with special needs. This should be interpreted having in mind a "bar" that authors set in order to consider a study result as a "positive attitude" – study outcomes were counted as positive when the percentage of positive scores was above 70% or when the mean score was above 3,5 (and the reverse holds for negative scores). Scores were counted as neutral if the percentage was between 30% and 70% or if the mean score was between 2,5 and 3,5. Among them, a study on Serbian primary school teachers' attitudes by Kalyva, Gojković and Tskakiris was reviewed. Neutral attitudes of teachers were also established in this study, and no differences were observed in teachers' attitudes towards inclusion in relation to the years of their teaching experience (Kalyva et al, 2007).

There are also other studies in Serbia from the previous decade that investigated readiness and attitudes of teachers towards inclusion of children with disabilities in their classrooms (Arsenović-Pavlović et al, 2006; Ćuk, 2006; Đević, 2009; Galović et al, 2014; Hrnjica and Sretenov, 2003; Kalyva et al, 2007; Karić, 2004; Karić et al, 2014). In most of those studies, general positive attitudes towards the philosophy of inclusive education were found, but teachers were more reluctant when it came to concrete disabilities. This is shown in Đević's study (2009) - general positive attitudes of teachers towards inclusion were found, but more than half of the teachers considered a selective approach towards the kind and the level of the disability as necessary. Negative attitudes of teachers were established towards the inclusion of pupils with sensory and mental disabilities, especially with aggressive and hyperactive behavior, and more positive attitudes and readiness to accept them were established towards pupils with physical disabilities and chronic diseases (see in Đević, 2009). The teachers who had previous positive experiences in work with children with disabilities reported more positive attitudes towards inclusive education than the teachers with a negative previous experience (Galović et al, 2014; Karić et al, 2014).

Method

The aim of our study was to examine the attitudes of teachers in primary and secondary schools towards persons with physical disabilities (PPD). Two dimensions of cognitive components of attitudes were measured: KKS1 - Implications of deviant characteristics and segregation of people with physical disabilities and KKS2 - Tragic perception of these people. Another factor measured was the affective component of the attitude - Discomfort to interact with these persons (AKS). Applied instruments were five-grade Likert type scales KKS and AKS by authors Pedisić and Vulic-Prtorić

(2002). The sample consisted of 89 primary and secondary school teachers from Novi Sad and Belgrade.

The sample consisted of 82% of women and 18% of men. Considering working experience, 25% of the teachers in the sample had been teaching for less than ten years, 54% of them had eleven to twenty years of experience and 21% had more than twenty years of experience.

Results

Cognitive and affective dimensions of teachers' attitudes towards PPD

As can be seen from Table 1, in two dimensions of the cognitive factor (KKS), the mean is considerably below the theoretic mean - the teachers mostly disagree with negatively formulated items on the scale that implies that people with disabilities are less competent and more deviant. A similar result was obtained for the affective dimension (AKS) – they tend not to agree with the items that imply discomfort in a direct contact and interaction with people with disabilities.

Table 1. Mean and standard deviation of teachers' responses in KKS1, KKS2 and AKS

	Mean	SD	Min	Max	Theoretic Mean	Theoretic Min	Theoretic Max
KKS1 Implication of deviant characteristic and segregation of PPD	15.62	5.06	9.00	27.00	22	9.00	45.00
KKS2 Tragic perception of PPD	21.76	6.24	10.00	37.00	30	10.00	50.00
AKS Discomfort in interaction	11.39	4.32	6.00	26.00	13	6.00	35.00

The majority of teachers disagree with the attitudes expressed on the KKS1, KKS2 and AKS scale, which means that teachers tend to express more positive attitudes towards persons with disabilities in comparison to the theoretical mean. The following graph (Fig. 1) shows that a high percentage of teachers responded to the dimensions of attitudes below the theoretical mean.

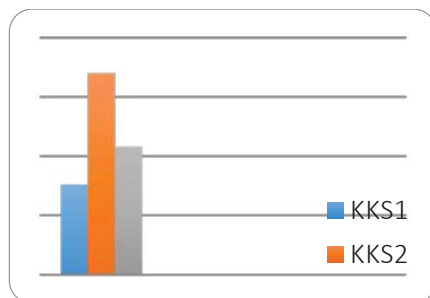


Figure 1. Percentage of teachers below the theoretical mean on KKS1, KKS2 and AKS scale

On KKS1 (Implications of deviant characteristic and segregation of PPD), the majority of the teachers (87,6%) mostly disagree with the items on the scale that implies that people with disabilities are less competent and more deviant. On KKS2 (Tragic perception of the PPD), a great majority of the teachers (97%) disagree with this sort of perception. Considering the affective dimension (AKS), teachers, also in majority (90%), disagree with the items of discomfort in a direct contact and interaction. This would mean that the teachers in our study (applying de Boer, Pijl and Minnaert's (2010) criteria of more than 70% of positive scores in order to conclude a positive attitude) have a positive attitude towards people with physical disabilities.

Attitude dimensions and socio-demographic factors

Correlations between the three attitude dimensions (KKS1, KKS2 and AKS) and type of school where a teacher is employed, as well as the length of working experience, were tested. Correlations are given in Table 2.

Table 2. Correlations (Spearman's rho) between cognitive (KKS1, KKS2) and affective (AKS) dimensions of attitude towards PPD and socio-demographic variables (type of school and working experience)

		Type of school	Working experience
KKS1 Implication of deviant characteristic and segregation of PPD	Correlation Coefficient	-.099	.260*
	Sig. (2-tailed)	.368	.017
	N	85	83
KKS2 Tragic perception of PPD	Correlation Coefficient	.003	.123
	Sig. (2-tailed)	.979	.268
	N	85	83
AKS Discomfort in interaction	Correlation Coefficient	.105	.212
	Sig. (2-tailed)	.343	.056
	N	83	82

A significant difference between groups (ANOVA $F(2,80) = 3.373, p < 0.05$) was found only concerning the years of working experience and score on the KKS1 (Implication of deviant characteristic and segregation). A post-hoc analysis (LSD $p < 0.01$) shows that the teachers with more than 20 years of experience ($M=18.41$; $Std=5.44$) significantly differ from the colleagues with less than 10 years of experience ($M=14.19$; $Std=4.6$), and 11 to 20 years' group ($M=15.17$; $Std= 4.89$) - the most experienced group of teachers agree more with the implications of deviant characteristics and segregation (Fig.2).

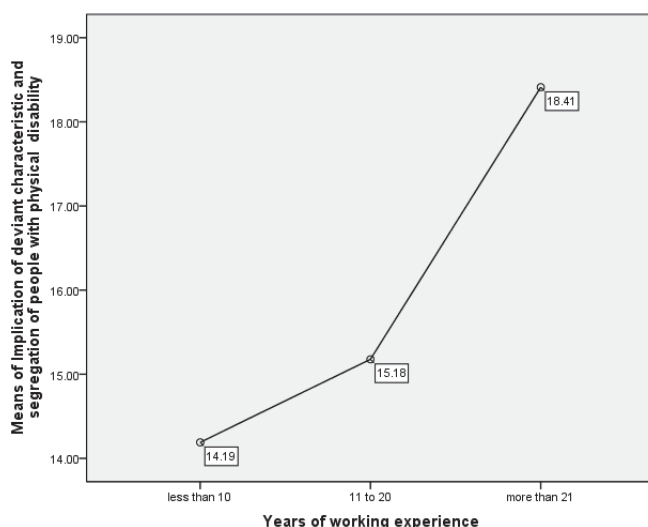


Figure 2. Mean on KKS1 and years of working experience

Discussion and conclusion

Analyzing the responses of the surveyed teachers, it can be concluded that most of them have a positive attitude towards people with physical disabilities. They generally believe that these people are able to make ethical decisions, that they are just as intelligent as other people, and that their work and creativity do not necessarily require a separate place of work, but that they are able to do their work together with other people. Their social life, in the opinion of the majority of the teachers, can be normal and they are expecting the same thing from other people.

When meeting these people, most do not avoid such contacts and do not feel uncomfortable. Teachers mostly know how to act while communicating with them and do not express hesitation in visual and verbal communication, and behavior in general.

According to these findings, there are no cognitive or affective bases for a discriminatory treatment of children with physical disability in the class; therefore, it could be expected that the teachers do not discriminate those children in everyday practice – which could be, of course, examined further. The attitudes account for a small part of behavior (Grames & Leverentz, 2010), but the attitudes could help, to some extent, in predicting behavior toward persons with disabilities.

The results of our study could be compared with the similar investigations of attitudes of professionals, both international and in Serbia. For example, the study of the attitudes of the Dutch nursing students towards people with physical or intellectual disabilities showed that nursing students were more positive towards physically disabled people than their peers, and more strongly endorsed empowerment and similarity of intellectually disabled people. These attitudinal differences generally remained statistically significant after the multivariate adjustment to the demographic variables and experience and contact with individuals with disabilities. An important independent determinant of a positive attitude towards physically disabled people in the total sample was having a relative or friends with a physical disability (Ten Klooster et al., 2009). Another study indicated that teachers who had contact with physically disabled persons were more favorable in their attitudes than those who had had no previous contact (Gosse & Sheppard, 2012). A similar result was found in Serbian teachers: the teachers with experience in teaching children with disabilities held more positive attitudes towards inclusion, compared to teachers with no such experience (Đević 2009; Galović et al, 2014; Kalyva et al, 2007; Karić et al, 2014). Several studies established the effect of the length of professional experience (Sretenov, 2000, Vujačić, 2003, Vukajlović, 2004 - all in Karić et al., 2014) on attitudes towards inclusion, but in some other studies no such effect was found. In Kalyva et al (2007), no differences were observed in teachers' attitudes towards inclusion in relation to the years of teaching experience.

In our research, a significant effect of the years of working experience on negative attitudes towards people with physical disabilities was established, while other socio-demographic variables were found insignificant. The teachers with more years of experience tend to agree more with the implications of deviant characteristics and segregation of PPD, which is an "anti-inclusive" attitude. As found in some previous studies, older teachers with many years of teaching experience can often be characterized by a lack of enthusiasm, fatigue, and conservatism in their views regarding teaching children with disabilities (Center & Ward, 1987 in Kalyva et al, 2007). The explanation for this age difference could also be found in the fact that formal and non-formal training for work with children with disabilities was almost non-existent more than ten years ago, while nowadays, with the legal obligation of inclusive education (Law on the Basis of Education System, 2009), there are more inclusive education contents in the initial and in-service teacher training. Changes in social values, pre-service education, as well as a proclaimed and normative focus on inclusive education in the last decade in the Serbian educational system have prepared younger teachers for inclusive work earlier in their careers; therefore, their attitudes could be formed as more positive. The legal framework for inclusive education appears to be an important factor that promotes positive attitudes towards inclusion, as a UNESCO research in 14 countries from 1986 suggests: in the countries which had a law requiring integration, teachers expressed more favorable views (ranging from 47 to 93 per cent) (Avramidis & Norwich, 2002).

Some implication for teacher training and education could be drawn from these results which imply that education and personal contact have a significant effect on developing positive attitudes towards people with disability. We could recommend that the students of teachers' faculties and teachers - participants in an in-service teacher training should be ensured with an opportunity not only to learn about but also to learn from and to interact with people with different types of disability through various modes of their professional development in order to first develop and then sustain a positive attitude needed for inclusive and high-quality education for all. That is relevant for the experienced teachers, too, since the personal attitudes should be reexamined in the light of constant developments in the policy and practice of teaching.

Some restrictions of this study are a small sample and a self-assessment method which is usually biased (respondents tend to choose more socially accepted responses), so the recommendations

for further investigations could be to compare the results from the self-assessment methods with the observation data of teachers' behavior in the class with children with PPD. That comparison could perhaps discover and point out some unconscious and unintentional negative (cognitive or affective) dimensions of attitudes, and it could also describe some observable behavior in everyday interaction with people with physical disabilities. Since the findings of the comparative study have shown that the attitudes towards individuals with physical disabilities are more favorable (Corrigan et al., 2000) when compared to those to people with emotional or social disabilities, it would be important to investigate and compare also the attitudes of Serbian teachers towards people with different kinds of disabilities and the need for some additional educational support, such as intellectual and emotional disabilities, or social deprivation.

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Rezime

Nastavnici, kao ključni akteri u procesu obrazovanja, imaju glavnu ulogu u obezbeđivanju kvaliteta nastave i učenja uopšte, što podrazumeva individualizaciju i inkluzivnost u nastavi. Da bi to postigli, nastavnici bi trebalo da preispitaju svoje vrednosti i stavove prema drugim akterima u obrazovnom procesu, a među njima su osobe sa telesnim invaliditetom. Cilj istraživanja bio je ispitati stavove nastavnika u osnovnim i srednjim školama prema osobama sa telesnim invaliditetom, što može da predstavlja potencijalni izvor prepreka inkluzivnom pristupu u obrazovanju dece sa telesnim invaliditetom. Merene su dve dimenzije kognitivnih komponenti stava: implikacije devijantnih karakteristika i segregacije osoba sa invaliditetom i tragična percepcija tih ljudi, kao i jedna afektivna dimenzija – nelagodnost u interakciji sa ovim osobama. Uzorak je činilo 89 nastavnika iz Novog Sada i Beograda. Primenjeni instrumenti su skale KKS i AKS, autorki Pedisić i Vulić – Prtorić. Analizirajući odgovore anketiranih nastavnika, može se zaključiti da većina njih ima pozitivan stav prema osobama sa telesnim invaliditetom, kako u kognitivnim, tako i u afektivnoj dimenziji stava. Nastavnici sa više godina radnog staža imaju tendenciju da se više slažu sa implikacijama devijantnih karakteristika i segregacijom osoba sa telesnim invaliditetom. Nisu utvrđene značajne korelacije sa ostalim demografskim varijablama.

Ključne reči: inkluzija, stavovi nastavnika, osobe sa teškoćama

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RELATIONSHIP OF LOCUS OF CONTROL AND ACADEMIC ACHIEVEMENT WITH TEST ANXIETY

Abstract

Test anxiety is usually defined as an emotional state experienced during a test situation, and consists of feelings of anxiety, fear and worry, which are associated with physiological arousal that occurs by activation of the autonomic nervous system. The aim of the present study was to examine whether students differ in the level of anxiety that was measured on two occasions – in the neutral situation and just before the exam. Also the purpose was to determine the correlation between the level of pre-exam anxiety and locus of control, as well as between subjective and objective achievement. Participants were 50 psychology students at the State University of Novi Pazar. The measures included Beck Anxiety Inventory and Externality Scale. The results show that the levels of anxiety in students were significantly higher in pre-exam situation ($F=8.945$; $p<.05$). The first-year students showed more pronounced symptoms of anxiety in comparison with the second and third-year students ($F=8.016$; $p<.01$). The results of the study also indicate that higher levels of anxiety measured in neutral situation accompany high levels of externalization; $r=0.483$; $p<.01$) and that there is no correlation between test anxiety and measures of subjective and objective students' academic achievement.

Key words: *test anxiety, locus of control, academic achievement*

Introduction

During education students are often exposed to situations of evaluation, testing of skills and knowledge, on which partially their future depends. In such a situation some of them may develop test anxiety. Test anxiety is often described as a factor that has a number of adverse consequences for pupils and students, such as poor cognitive performance, school failure, psychological stress, and somatic diseases (Zeidner, 2007). In the literature, except for the term test anxiety, this condition is also labeled as fear of examination, anticipatory, situational or evaluation anxiety.

There are many definitions of test anxiety, but not a single one is generally accepted. Spielberger & Vagg (1995) define test anxiety as an emotional state that a person experiences during a test situation, and that consists of feelings of anxiety, fear, and worry, which are associated with physiological arousal that occurs by activation of the autonomic nervous system (Yager, 2008). It can also be defined as a set of phenomenological, physiological and behavioral responses to a group of stimuli, which are in the experience associated with the assessment or examination, and usually occur due to concern over possible failure (Erceg-Jugović & Lauri-Korajlija, 2012). Thus, it is seen as a physiological condition in which people experience extreme stress, and discomfort during and/or before taking a test.

Arambašić and Krizmanić (1986; according to: Erceg, 2007) define it as a state of emotional arousal and cognitive distress that occurs in test situations or in anticipation of these situations, and can be manifested in different ways (arousal, discomfort, increased heart palpitations, sweating, anxiety after questioning, thinking about irrelevant matters, etc.). A recent definition is proposed by Karatas et al. (2013) which considers test anxiety as subjective emotional state experienced before or during a specific evaluation relating to the act of completing the evaluation itself, the threat of failing and the perceived negative consequences.

In schools, the incidence of test anxiety is common (Onyekuru & Ibegunam, 2014). Researchers reported that between 25 to 40 percent of students experience test anxiety in one period of their education (Cassady & Johnson, 2002). Disabled students and students in gifted classes are more

likely to experience higher rates of test anxiety and students who experience test anxiety tend to be easily distracted during a test, experience difficulty in comprehending relatively simple instructions and have trouble organizing or recalling relevant information (Zeidner, 1998). According to Nicaise (1995), test anxiety that has harmful consequences affects 10-30 percent of all students with a disproportionately higher prevalence in learning for disabled and minority students. Twenty percent of test-anxious students quit school before graduating because of repeated academic failures (Tobias, 1979).

Previous research has showed that pre-exam anxiety is correlated with low self-esteem, poor reading and mathematics achievement, failing grades, disruptive classroom behaviours, negative attitudes towards school, and unpleasant feelings of nervousness and concern that arise from an intense fear of failure (Hembree, 1988), negative perfectionism (Erceg, 2007) and general academic achievement (Erceg-Jugović & Lauri-Korajlija, 2012). Sena et al. (2007) found that students with higher test anxiety obtain lower marks in examination. Chapell et al. (2005) found a significant negative correlation between test anxiety and grade point average among the students. After conducting additional analyses, their results indicate that undergraduate students classified as low test anxious averaged a B+ (GPA = 3.30–3.33), whereas those classified as high test anxious averaged a B (GPA = 3.00), which is a difference of one third of a letter grade.

Academic achievement is often operationally defined as success on standardized achievement tests, and commonly used measure of its assessment are Grade Point Average or success on certain tests (Mohorić, 2008). In addition, there is a subjective measure of academic achievement, which refers to a personal assessment of self-satisfaction as a student. The results of most studies indicate that there are statistically significant, but low negative correlation between examination anxiety and academic achievement (Erceg, 2007).

Locus of control is a construct that refers to the extent to which people believe they can control the events in their lives, and what factors they attribute to the success or failure of any significant activity (Havelka, 1992). Kirkpatrick et al. (2008) define it as a dimensional construct representing the degree to which individuals perceive reinforcing events in their lives to be the result of their own actions or fate.

Locus of control can be internal or external. In psychology it is described as part of the attribution theories, and it includes a dimension that relates to where is the factor that controls the outcome of an event (Havelka, 1992). According to these theories, the cause of success/failure can be internal, in the person and our dispositions or external, in the situation and circumstances. Individuals with internal locus of control believe that the outcomes of their actions are results of their own abilities. They believe that hard work leads to positive outcomes. Rotter (1975) deems they have high motivation for achievement and low outer directedness. On the other hand, externally oriented consider their outcomes beyond their control and attribute them to the external circumstances. They blame others rather than themselves for any negative outcome.

In his model of anxious apprehension Barlow (2002) stated that individuals who feel they have no control over external events that cause anxiety or feel they have no control over their emotional or physical reaction to the stressors tend to have anxiety problems. Anxious apprehension refers to a future-oriented mood state in which one becomes ready or prepared to attempt to cope with upcoming negative events (Brown et al., 2001). Research has shown that students with intensive pre-exam anxiety have an external locus of control (Robinson, 2008), or that the external attributions are significant predictor of test anxiety. However, there are findings that attributions of success and failure have minimal contribution to the interpretation of test anxiety (Živčić-Bećirević et al., 2009) and this relationship needs to be explored further.

Internal attributions are associated with higher academic self-efficacy, and thus the greater achievements (Živčić-Bećirević et al., 2009). Students who have internal attribution and positive expectations will invest more effort and achieve better results. On the other hand, those who attribute success to external factors will be more prone to express intensive test anxiety and avoid task, and therefore will have lower achievement.

Test anxiety is not necessarily bad. In fact, a low level of test anxiety is normal and necessary among the students in order to maintain focus and to motivate them to develop action strategies that will ensure most positive success in the examinations (Onyekuru & Ibegbunam, 2014). It is needed to motivate and help the students to stay mentally and physically alert (Birjandi & Alemi, 2010).

However, high level of test anxiety is dangerous and can result in emotional or physical distress, concentration difficulties and emotional worries. It interferes with students' ability to prepare for and perform on tests.

Method

Research problem and objectives

In previously conducted research it has been found that there is a correlation between test anxiety and external locus of control. On the other hand, attributions of success and failure have minimal contribution to the interpretation of test anxiety, and there is a need for additional research of that connection. Also, it is necessary to examine the connection between test anxiety and subjective and objective measures of students' academic achievement. It follows that the main problem of this study is specified as whether locus of control and academic achievement are correlated with the level of pre-exam anxiety. We also attempted to determine whether the participants differ in the level of test anxiety that was measured on two occasions – in neutral situation and immediately before the exam.

From the set of problems arises that specific research objectives are as follows:

- to determine whether there are statistically significant differences between the levels of test anxiety in neutral situation and just before the exam;
- to determine whether there are statistically significant differences in the levels of test anxiety between comparative groups (students of the first, second and third year);
- to determine whether there is a statistically significant correlation between the level of test anxiety and locus of control;
- to determine whether there is a statistically significant correlation between the level of test anxiety and objective measures of academic achievement (Grade Point Average);
- to determine whether there is a statistically significant correlation between the level of test anxiety and subjective measures of academic achievement (self-satisfaction as a student);
- to determine whether there is a statistically significant correlation between test anxiety with the importance of evaluation and faculty choice satisfaction.

Hypothesis

Hypotheses of the research are:

1. there is a statistically significant difference between the level of test anxiety in the neutral situation and exam situation;
2. there are statistically significant differences between levels of test anxiety in students of the 1st, 2nd and 3rd year;
3. there is a statistically significant positive correlation between the level of test anxiety and external locus of control;
4. there is a statistically significant negative correlation between the level of test anxiety and objective measures of academic achievement;
5. there is a statistically significant negative correlation between the level of test anxiety measures and subjective measures of academic achievement;
6. there is no statistically significant correlation between test anxiety and the importance of evaluation, as well as faculty choice satisfaction.

Variables

The variables in this research are the levels of test anxiety, locus of control, self-satisfaction as a student (subjective indicator of academic achievement), satisfaction with the choice of faculty and importance of grade obtained in the exam. The control variables are year of study and Grade Point Average (objective indicator of academic achievement).

Sample

Participants were psychology students of the 1st, 2nd and 3rd year of the State University of Novi Pazar (18% male and 82% females; mean age 21.22 years). The total number of the originally surveyed students was 82. Of those, 53 responded the second testing, and final sample consisted of 9

men (18%) and 41 (82%) female, average age $M=21.22$; $SD=1.993$. Out of these, 30% were from the first year, 34% of second and 36% the third year students. Sample description is given in Table 1.

Table 1. Socio-demographic characteristics of the sample

Characteristic	n	%	Characteristic	Min	Max	M	SD
Gender	male	9	18.0				
	female	41	82.0				
Year of study	first	15	30.0	Age	19	32	21.22
	second	17	34.0				
	third	18	36.0				
Total	50						

Instruments

The following instruments were used in the research. We made a short General Data Questionnaire for the purposes of the study. The following variables were investigated: gender, age, grade point average during their study. Grade Point Average, which is an objective indicator of academic achievement) grades from 6 (sufficient) to 10 (outstanding). Also, the respondents were asked to range how important is the grade they get at the exam and how self-satisfied they are as a student (1 – "not at all"; 4 – "very") and how satisfied are with faculty choice, that is a subjective indicator of academic achievement (1 – "I am satisfied, I'm studying the best I can"; 4 – "I am not satisfied, I try so hard, but the success isn't there").

Beck Anxiety Inventory (BAI; Beck et al., 1988) is used for measuring the severity of anxiety symptoms. This questionnaire consists of 21 statements in 4-point Likert scale format relating to the various symptoms of anxiety and measures global anxiety. Respondents are asked to report the extent to which they have been bothered by each of the 21 symptoms in the week preceding (including the day of) their completion of the BAI (0: "not at all"; 3: "severely – it bothered me a lot"). The values for each item are summed yielding an overall or total score for all 21 symptoms that can range between 0 and 63 points. (Malić et al., 2008). Internal consistency (Cronbach's alpha) ranges from .92 to .94 for adults and test-retest (one week interval) reliability is .75.

Externality scale (Bezinović, 1990) assesses the degree of externalization in the attribution of control. Thus, externality determines that one sees its own behavior as it is influenced by events that are completely beyond its control. The scale consists of 10 items and the respondent should report on Likert five-point scale the extent to which he agrees or disagrees with a particular statement or as much content claims for it is true or false (1: completely incorrect; 5: completely true). Content of items indicates fatalistic orientation of a person for which only external factors, such as luck and fate, determine what will happen to the person and the outcome will be. The scale assesses the tendency of an individual to attribute the outcomes of their behavior to forces outside itself, ie. that its behavior is seen as it is influenced by events that are completely beyond its control, and the result of such factors as luck, coincidence, fate and authority. The total score is obtained by adding the estimates for each statement, with a higher score on the scale indicates external orientation or external locus of control. The result varies from a minimum of 10 to a maximum of 50. The coefficient of reliability was $\alpha = .81$ (Sekulić, 2012).

Research procedure

The study was designed as a follow-up research and testing had been conducted in two situations, during classes and prior to exam. Data have been collected during April 2013. In neutral situation (Time 1), students filled in all the instruments. Just before the exam (Time 2), which took place during spring examination period, students filled in only BAI. All participants were informed with the purpose of research. Examiners also explained the answering mode, guaranteeing the anonymity of collected data. Subjects who gave their consent to participate filled in the questionnaires in the presence of examiners.

Results

Obtained descriptive data of variables measured in the research are presented in following tables. Descriptive indicators for Grade Point Average of all participants are shown in Table 2.

Table 2. Grade Point Average

	Min	Max	M	SD
Grade Point Average (range from 6.00 to 10.00)	6.30	9.50	7.75	0.755

Considering the importance of grade obtained in the exam, 2% of students stated that the grade they get is not important to them, and 8% that is little important. For the majority of students (54%) mark has moderate importance, while for 36% of students it is very important (Table 3).

Table 3. Importance of the grade obtained in the exam

Category	n	%	M	SD
Not at all	1	2.0		
A little	4	8.0		
Moderately	27	54.0	3.24	0.687
Very	18	36.0		
Total	50	100.0		

In terms of assessment of satisfaction with faculty choice, most of the respondents declared themselves to be very satisfied (68%) and medium satisfied (30%), while only 2% stated that they weren't satisfied with their choice (Table 4).

Table 4. Satisfaction with the choice of faculty

Category	n	%	M	SD
Not at all	1	2.0		
A little	0	0.0		
Moderately	15	30.0	3.64	0.598
Very	34	68.0		
Total	50	100.0		

Estimation of self-satisfaction as a student has been used as the subjective measure of the academic achievement. Most of the participants (66%) were partially satisfied as a student and think they could do better, while 26% of students believe they are studying the best they can, though they are satisfied. Dissatisfaction with himself as a student expresses 8% of subjects, of which for the most part because of the effort that doesn't bring success (6%), and a smaller number because of a lack of motivation for better success (2%). Results are shown in Table 5.

Table 5. Estimated self-satisfaction as a student

Category	n	%	M	SD
I am satisfied, I'm studying the best I can.	13	26,0		
I am partially satisfied, I could do better.	33	66,0		
I am not satisfied, but I do not have the will to do better than that.	1	2,0	1.88	0.718
I am not satisfied, I try so hard, but the success isn't there.	3	6,0		

To test possible differences in anxiety scores (obtained by Beck Anxiety Inventory) repeated measures ANOVA has been computed. Thus, students' mean scores from neutral situation (Time 1) and prior to exam (Time 2) have been compared. As can be seen from Table 7, a significant influence

of time has been determined ($F(2,47) = 8.945, p < .05$), which suggests that during these two time periods the anxiety level in students has changed and raised.

Table 6. Results of repeated measures ANOVA for anxiety scores in neutral and exam situation

	N	M	SD	F	p
Time 1	50	19.02	13.28	8.945	.004
Time 2	50	25.94	17.06		

In order to determine whether there are statistically significant differences in the expression of anxiety in the situation just before the exam among groups of subjects of different years of study, One way ANOVA was conducted (Table 7). The obtained results indicate a significant difference in the expression of anxiety in the situation just before the exam among groups of subjects of different years of study ($F(2,47) = 8.016, p < .05$). Individual differences between the groups were tested by Tukey HSD post hoc test and conclusion is that the first year students had significantly higher levels of anxiety ($M = 38.53$) in comparison with the second ($M = 23.18$) and third year students ($M = 18.06$). The levels of anxiety in neutral situation were not significantly different among students of the 1st, 2nd and 3rd year of study (from this reason, only results of the second measurement are presented).

Table 7. Results of One way ANOVA – differences in anxiety scores just before the exam among groups of subjects of different years of study

Year of study	n	M	SD	F	p (F)	Mean difference	p	
1 st	15	38.53	16.27	8.016	.001	1st and 2nd year	15.36	.016
2 nd	17	23.18	13.24			2nd and 3rd year	5.12	.576
3 rd	18	18.06	15.57			2nd and 3rd year	20.48	.001

Relationship between externality and anxiety measured in neutral and exam situation was investigated by Pearson linear correlation coefficient (Table 8). There was a significant medium positive correlation between anxiety measured in neutral situation and externality ($r = .483; p < .001$), with high levels of externality associated with high levels of anxiety. No significant correlation was found between anxiety measured in pre-exam situation and externality ($r = .125; p > .05$)

Table 8. Pearson correlation coefficients between externality and anxiety measured in neutral and pre-exam situation

	Externality	p
Anxiety level – Time 1	.483	.000
Anxiety level – Time 2	.125	.389

In order to determine relation between anxiety measured in both situations and objective indicator of academic achievement (GPA), Pearson correlation coefficients have been calculated (Table 9). The results show that there were no significant correlations between anxiety measured in two situations and GPA ($p > .05$).

Table 9. Pearson coefficient correlation between objective measure of academic achievement and anxiety measured in neutral and pre-exam situation

	GPA	p
Anxiety level – Time 1	.050	.730
Anxiety level – Time 2	-.010	.944

The relationship between self-satisfaction as a student (subjective indicator of academic achievement), the importance of grade and selection of faculty satisfaction (all presented by range

values), Spearman correlation coefficients have been calculated (Table 10). The results show that there were no significant correlations between anxiety measured in two situations and mentioned variables ($p > .05$).

Table 10. Spearman correlation coefficients between subjective measure of academic achievement, the importance of grade and faculty choice satisfaction and anxiety measured in neutral and pre-exam situation

	Anxiety level – Time 1		Anxiety level – Time 2	
	r	p	r	p
Importance of grade	-.036	.803	-.095	.510
Self-satisfaction as a student	-.025	.866	-.029	.843
Faculty choice satisfaction	.051	.726	.033	.818

Discussion

Since the consequences of a large number of exams may significantly affect the lives of individuals, there is usually a lot of pressure in test situations and the feeling "must be successful". This pressure can lead to the appearance of examination anxiety (Mohorić, 2008). According to the results obtained in this study, there is a statistically significant difference in the levels of anxiety in a neutral situation and the situation prior to exam. Therefore, students showed significantly higher levels of anxiety in a pre-exam situation compared to neutral. These findings are consistent with the transaction model suggested by Spielberger and Văgg (Zeidner, 1998). The situation of exam itself, as a specific kind of situation of the assessment, is marked by transitory emotional state, that causes emotional reactions in individuals who perceive this situation as threatening or potentially threatening. The model assumes that in such case unpleasant emotions of fear, tension and worry would be detected, which are accompanied by the activation of the autonomic nervous system and physiological events.

The complexity of teaching content as well as the seriousness of the social consequences of a breakdown in education is growing (Erceg, 2007). Studying is a specific period in life where an individual has to face different requirements in comparison to the previous education. On the one hand, there is a lack of security, structure and predictability of high school, but on the other, one gets a large amount of freedom in organizing time and commitments, which in any case requires good organization skills and self-discipline of students. The results of this research showed that the students of different years of study differ by the level of anxiety measured immediately before the exam. Significant differences were found between the students of the first and second, and the first and third year of study, which is in line with the hypothesised. Significantly higher scores on the Beck Anxiety Inventory achieved the first-year students, compared to the students of the second and third year. This can be attributed to the lack of experience in dealing with the specific situation of assessment, i.e. test. Besides, most of them have had only one examination period before the time of conducting the research. Therefore, they own less effective or insufficiently developed mechanisms for coping with stress than older students, which led to the occurrence of a greater number of anxiety symptoms and/or their greater intensity.

Contrary to previous findings and the hypotheses, the significant correlation between test anxiety and external locus of control hasn't been found, but it was significant in neutral situation. It is understandable that those students who believe that there is nothing they can do in order to achieve the desired success and believe that it mainly depends on various circumstances (eg. the type of tasks, expectations and teacher's mood, etc.) experience a greater level of test anxiety as a result of perception of inability to control stressful situations. Consequently, they are unlikely to invest the effort needed to prepare themselves for the exam, which can result in lower achievements, and thus reinforce similar attributions and similar behavior in future situations. In this way the "vicious" circle of anxiety and failure is closed.

Contrary to expectations, there was no correlation between anxiety symptoms and subjective and objective measures of academic achievement (satisfaction as a student, and grade point average). Based on the findings of previous research, a low negative correlation had been expected, although the results in this area are not entirely consistent. One explanation for such a connection would be that it is

more difficult for more anxious students to recall the relevant information, or that they are less self-satisfied as a student in relation to students who are less anxious (Erceg, 2007). In our study this was not confirmed. It is possible that different way of measuring these variables would result in more reliable findings.

The results also showed that there was no significant correlation between anxiety and importance of the grade and faculty choice satisfaction, which is consistent to the expectations. In terms of the importance of the grade obtained in the exam, these findings can be attributed to the fact that the fear of failure underlying anxiety, as well as the motive for its avoidance. Individuals with more anxiety symptoms primarily tend to avoid failure, whereby they are not so much concerned about the success they achieve (Erceg, 2007). As presumed, the satisfaction with the choice of the faculty and anxiety are not connected. However, this finding can be explained by the fact that the largest number of respondents (98%) stated that are moderately or very satisfied with their faculty choice, which could affect the results. As we didn't explore reasons for satisfaction/dissatisfaction, it can only be presumed that psychology students are generally intrinsically motivated for their study.

We should pay attention to several important disadvantages of this study. First, limitations in the interpretation of the results derives from a small sample size, so findings cannot be generalized to the entire student population. In the future research it should be involved more participants and from different faculties. Considering anxiety measures, we used inventory that is designed for clinical use and it is still question if test anxiety is a clinically significant phenomenon. During the revision of the DSM-IV, test anxiety was considered for inclusion as a form of Social Anxiety Disorder or Social Phobia (Bögels et al., 2010). Even though test anxiety has clearly identifiable characteristics, its prevalence has not yet been established in community samples (van der Pas, 2012). LeBeau et al. (2010) therefore propose that the term "test anxiety" is retained to an anxiety trait that is experienced across different disorders. Test anxiety could be placed under SAD, if the core issue would be fear of negative evaluation by others. In this regard, it is also recommended for future research to consider test anxiety as two component phenomenon – trait and state, as it is divided by Spielberger (1975).

The main contribution of this research is that it is first one conducted among students in area of the south-west Serbia. It is important for identifying students with high levels of anxiety and distinguishing its correlates which can lead to developing efficient control strategies.

Conclusion

On the basis of the foregoing it can be concluded that the levels of anxiety in students differ significantly in the neutral situation and immediately before the exam, as well as that the first-year students showed significantly higher levels of anxiety than their older counterparts. There is also found a positive correlation between external locus of control and anxiety measured in neutral situation, with high levels of externality associated with high levels of anxiety.

Accordingly with these results it can be said that it is possible to focus the mechanisms of action at the right time and help students with high levels of pre-exam anxiety. Through counseling or psychotherapy, those would be aimed at developing and strengthening mechanisms to cope with stressful situations and situations that cause tension and anxiety (i.e. the test). The purpose of such interventions would be alleviating examination anxiety and improving academic achievement.

Although the arousal that follows examination is integral part of the studying and can not be completely eliminated, it is important to point to factors that predispose an increase of anxiety symptoms that may facilitate students to use effective strategies of control of examination anxiety and thus improve academic achievement.

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Rezime

Predispitna anksioznost se definiše kao emocionalno stanje koje osoba doživljava tokom ispitnih situacija, a sastoji se od osećanja napetosti, strahovanja, uznemirenosti i zabrinutosti, koji su povezani sa fiziološkim uzbuđenjem nastalim aktivacijom autonomnog nervnog sistema. Cilj ovog istraživanja bio je ispitati da li se studenti razlikuju po nivou anksioznosti merene u dva navrata – u neutralnoj situaciji i neposredno pre ispita. Takođe, ispitivana je povezanost između nivoa anksioznosti i lokusa kontrole, kao i mera subjektivnog i objektivnog postignuća. Uzorak je činilo 50 studenata psihologije na Državnom univerzitetu u Novom Pazaru. U istraživanju su primenjeni opšti upitnik, Bekov inventar anksioznosti i Skala eksternalnosti. Rezultati istraživanja pokazuju da su nivoi anksioznosti merene u predispitnoj situaciji značajno viši u odnosu na neutralnu ($F = 8,945$; $p < 0,05$). Studenti prve godine pokazali su izraženije simptome anksioznosti u poređenju sa studentima druge i treće godine ($F = 8,016$; $p < 0,01$). Utvrđena je i pozitivna povezanost predispitne anksioznosti merene u neutralnoj situaciji i spoljašnjeg lokusa kontrole ($r = 0,483$; $p < 0,01$), kao i da između predispitne anksioznosti i mera subjektivnog i objektivnog postignuća studenata ne postoji povezanost.

Ključne reči: *akademsko postignuće, lokus kontrole, predispitna anksioznost*

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OPTIMISM, PESSIMISM AND SELF-EFFICACY AS PREDICTORS OF ACADEMIC ACHIEVEMENT

Abstract

The goal of this study is to examine the correlation between optimism, pessimism, self-efficacy and academic achievement and whether these variables can be regarded as significant predictors of academic success. The sample is comprised of 120 students of the fourth year of study at the Faculty of Philosophy in Nis (60 males and 60 females). The used instruments are The Optimism – Pessimism Scale (Penezic, 2002); General Self-efficacy Scale (Ivanov & Penezic, 2002). A questionnaire constructed for the purposes of this study to measure the academic achievement was also used, by which the data on the average grade, duration of study and subjective experience of the success in studying, as well as on the control variables were gathered. The study has indicated that optimism, pessimism and self-efficacy do not manifest as significant predictors of academic achievement. Examining the correlation between all investigated variables, we found a statistically significant correlation between self-efficacy, optimism and pessimism and also between academic achievement and satisfaction and the achieved success during the studies. A correlation between the investigated variables and the academic achievement or the subjective experience of success has not been found.

Keywords: optimism, pessimism, self-efficacy, academic achievement, students

Theoretical framework

Understanding of the educational achievements requires consideration of a large number of factors arising from the complexity of human nature and the diversity of conditions in which the educational process is implemented. In the etiology of success prediction in education, from the framework of personal characteristics, certain periods could be roughly extracted depending on which dimension, considered as a predictor, a primacy is being given. In the initial considerations of factors of educational achievements, the great importance has been given to the intellectual abilities. Studies have indicated that personality and motivational factors are important to achieve significant educational achievement. During the last decades of 20th century, considering correlates of educational achievement, an increasing importance is placed on self-concept, i.e. the way in which people observe themselves.

Research on educational achievement suggests two major groups of related factors (Zlatković, 2007): internal (abilities, personality characteristics, motivation, affective factors, attention, habits, attitudes) and external (physical conditions, school environment, family environment, general socio-economic and political relations). Although some studies draw attention to the great importance of environmental factors (Biro et al., 2009; Bradley & Corwyn, 2002; according to Đigić, 2012), it can be said that the most important are the psychological conditions, because in the process of learning all other factors are becoming psychological conditions of learning, since the pupil reacts to them (Stevanović, 1990, according to Đigić, 2012).

Lecky (1945; according to Hamachek, 1995) first pointed out that the level of achievement of students could be associated with the perception that they have of themselves as learners. This idea suggests that academic achievement may not be a simple expression of students' abilities, but can greatly depend on the students' perception of their abilities.

Bandura (1977; according to Zlatković, 2007) believes that self-efficacy is a better predictor of a student's cognitive effectiveness than self-evaluation. He shows that the belief in personal efficiency significantly contributes to the degree of motivation and achievement itself and that it is a strong predictor of academic success.

Optimism - pessimism

Positive psychology is a new research area that can be broadly defined as a scientific study of optimal, healthy and adaptive human functioning, as well as the study of the positive aspects of human life. Seligman (2008), one of the founders of positive psychology, examined the concepts of optimism and pessimism almost three decades ago. At the core of the occurrence of pessimism, there is another phenomenon - helplessness. A situation where our activities do not affect what happens to us leads to a feeling of helplessness. Learned helplessness is a reaction of withdrawal, leaving response that follows from the belief that there is no help whatever we do. A concept that is closely related to the concept of learned helplessness is the explanatory style. This is the way we usually explain why something happened. It largely shapes the learned helplessness. The optimistic style of explaining stops the helplessness, while the pessimistic style strengthens it (Seligman, 2008).

The optimistic or pessimistic style of explanation is observed and measured across three dimensions: permanence (durability - temporary/permanent), pervasiveness (comprehensiveness - specific/universal), personalisation (internal/external). The optimistic style of explaining bad events highlights the external, temporary and specific causes of events. The reverse case of this picture is the optimistic style of explaining the good events. The style of explaining that mostly puts a person at risk of feeling helpless and ill-adapted is the one that emphasizes the internal, stable and global causes of bad events. This is a pessimistic style of explanation (Seligman, 2008).

The person's style of explaining represents the habit of thinking learned in the childhood and the adolescence and directly comes from looking at their own place in the world - whether they think that they are valuable and meritorious or worthless and appalled. That marks a person as an optimist or a pessimist (Seligman, 2008).

Optimists believe that failure is only temporarily foiled and that the roots are confined exclusively to the event. They do not consider themselves guilty of failure. Certain circumstances, bad luck or other people are the ones responsible. When confronted with the problem they perceive it as a challenge and begin to invest more effort. Optimists are better at school, college and at work and are of better health than pessimists (Seligman, 2008).

The defining characteristic of pessimists is that they believe that the unfavourable events will last long, that they will affect everything they do and that everything is their fault (Seligman, 2008). In the mild form, pessimism serves to refrain us from risky exaggerations of our optimism; however, pessimism in a stronger form has detrimental consequences on every aspect of life.

Optimism and pessimism are understood as the generalized positive or negative expectations of the outcome of an action, and in this determination, relatively separate and stable personality characteristics are expressed (Scheier & Carver, 1985; according to Penezić, 2002). These are two separate dimensions that are negatively correlated to each other and that are primarily related to a generalized expectation which is directed towards the future. Some authors are trying to define this concept as a broader, positive or negative view of the world, which is not directed only to future events, but also includes current events and situations (Penezić, 2002).

For contemporary views of optimism as a personality characteristic, Scheier and Carver's research (1992; according to Ivanković & Rijavec, 2012) is the most important. The role of optimism in regulating our own behaviour comes to the fore when one distinguishes between the goals they are striving to achieve and their current position in relation to these objectives. Optimists, who are characterized by the expectation of positive outcomes, will persevere in order to reduce the difference that separates them from achieving goals, while pessimists, who expect bad outcomes to a greater extent, will exhibit passive reactions and quit the attainment of their goals (Scheier & Carver, 1992; according to Ivanković & Rijavec, 2012).

The scores on the scales of optimism are positively correlated to the scores on the scales of self-esteem and life satisfaction (Penezić, 2002). The research of Todorovic et al. (2009) shows that there is a correlation between pessimism and perfectionism, i.e. a correlation of the negative aspects of perfectionism and depression within the students themselves.

Self-efficacy

Self-efficacy is a concept associated with optimism, developed by Albert Bandura in the seventies. The concept of self-efficacy refers to the belief that we have, that we can act in a manner necessary to achieve the desired outcome. Self-efficacy also refers to the confidence that we have in our own ability to perform actions necessary to achieve a specific outcome (Larsen & Buss, 2008). Bandura (1997) defines self-efficacy as an assessment of an individual of their own capabilities for organizing and executing the actions needed to achieve a certain, superior type of activity. The actual abilities, although necessary, are not sufficient to a person to perform some action or perform a specific task. For a successful functioning, it is necessary to have a belief that the existing abilities can be used effectively. Bežinović warns that in real life many capable people do not try to actualize themselves because of the belief in their incompetence. He believes that an intervention in terms of raising their belief in their own abilities could make them more efficient persons (Bežinović, 1988; according to Lacković-Grgin, 1994).

Beliefs regarding self-efficacy are constructed from four sources of information (Smederevac & Mitrović, 2006): personal experience, learning by model, "social pressure", physical and emotional state of a person. Self-efficacy is done through estimates of the size, generality and strength of belief in the successful performance of the task or the success in a situation (Penezić, 2002). Estimates of efficiency vary according to the type of activity with regard to the specific situation in which the assessment is being done. Bandura (1999; according to Smederevac & Mitrović, 2006) emphasizes the importance of self-efficacy as a mediator of a cognitive activity. People who have a strong sense of self-efficacy attribute their failure to an insufficient investment of effort and are more inclined to invest even greater efforts in overcoming difficulties. They are manifesting a higher cognitive ingeniousness, flexible strategy and efficiency in handling the external environment. They also recognize the opportunities and visualize a successful scenario that leads to a positive dismissal. People who doubt their own effectiveness in confronting difficulties reduce the invested effort and give up easily. They visualize a failure scenario that influences the behaviour leading to poor outcomes.

Studies have shown that self-efficacy is positively associated with optimism, satisfaction, success, study and life, and negatively with pessimism and perfectionism (Ivanov et al., 1998; according to Ivanov & Penezić, 2002).

Research methodology

Problem and purpose

The problem of this study was to examine the association between optimism, pessimism, self-efficacy and academic success, or whether these variables could be significant predictors of the academic success of students. It is also the aim of the research. In addition, we wanted to examine whether there were differences in the degree of severity of the studied variables with respect to the control variables (gender, age, parents' education, place of residence).

The theoretical significance of the research is to attempt to clarify the influence of optimism, pessimism and self-efficacy on the academic success. The practical significance of this research is the application of knowledge gained in the field of educational practice.

The sample

The study was conducted on a convenient sample. The sample consisted of 120 students of the IV year of study at the Faculty of Philosophy in Nis, 60 male and 60 female subjects. The ages of the subjects ranged from 21 to 26 years of age. The survey was conducted in December 2013.

Variables and instruments

The independent variables in this study are optimism, pessimism and self-efficacy, while **the dependent variable** is the academic success of students. The academic success of students is examined through:

- The average grade during the studies and the length of study and is calculated using the following formula (*number of years* refers to the number of years provided for a specific study program):

$$\text{Academic achievement} = \frac{(\text{Average grade} \times 20 \times \text{Number of years})}{\text{Duration of study (in months)}}$$

- Subjective experience of success, which is defined by the 5-point scale (1- Not satisfied at all; 5- Completely satisfied).

Control variables: gender, age, education of father and mother, place of residence.

The instruments used in this study are:

1. **General Self-efficacy Scale** (Ivanov & Penezić, 2002). General self-efficacy scale was created by Schwarzer and it measures a general and stable sense of efficacy in dealing with a variety of stressful situations (Schwarzer, 1997; according to Ivanov & Penezić, 2002). The scale has 10 items, and examples are: "I can solve most problems if I invest enough effort," "It is easy to stick to the set goals and achieve them" and so on. The range of possible scores is from 10 to 50. Lower scores indicate that the subjects estimate themselves less efficient and higher scores that the subjects evaluate themselves more efficient.
2. **The Optimism – Pessimism Scale** (Penezić, 2002). The scale of optimism-pessimism contains 14 items with the Likert-type response. The range of possible scores is from 6 to 30, and for pessimism from 8 to 40. Lower scores indicate that the subject exhibits a lower level of optimism / pessimism, and higher scores indicate that the subject exhibits a higher level of optimism / pessimism. In this scale, optimism and pessimism are understood as a generalized positive or negative expectation of the outcome of the action. These are two separate dimensions that are negatively correlated with each other, and not one extra dimension with two poles. Dimensions of optimism and pessimism are dimensions that are primarily related to a generalized expectation which is directed towards the future, but some authors define this concept as a broader view of the world that relates to current events (Penezić, 2002). There is a strong negative correlation between optimism and pessimism scales.

A questionnaire constructed for the purposes of this research was also used to measure academic success, which was used for gathering the data about the average grade, duration of study and subjective experience of success in studies, as well as about control variables.

The reliability of the scales was tested through the method of internal consistency of the scale. The height of the established reliability coefficients (Cronbach alpha) is given in Table 1. The reliability of all three scales was satisfactory, especially if we take into account a relatively small number of items for each scale.

Table 1. Reliability of the scale of self-efficacy, optimism and pessimism

SCALE	Number of items	Cronbach Alpha
Self-efficacy	10	0,864
Pessimism	8	0,795
Optimism	6	0,756

Results and discussion

Guided by the works of many authors that have emphasized the importance of optimism and self-efficacy in academic achievement and warned of the adverse consequences of pessimism for academic success, the authors of this paper want to verify the relationship between these variables and whether they can be regarded as significant predictors of academic success. Also, this study, with the exception of the objective measures of academic success expressed by the average grade of the length of study, aims to examine the performance and subjective experience during the subjects' studies, or the extent to which students are satisfied with the achieved success.

Examining the correlation between all variables, a statistically significant correlation has been obtained between self-efficacy and optimism and pessimism (Table 2), and also between academic success and satisfaction with the achieved success during the study ($r = 0.423$, $p < .001$), i.e. students with higher academic success are more satisfied with it.

Table2. Correlation between self-efficacy, optimism and pessimism

		Self-efficacy	Optimism
Optimism	correlation coefficient	0,567**	1
	p	0,000	
	n	120	120
Pessimism	correlation coefficient	-0,338**	-0,562**
	p	0,000	0,000
	n	120	120

**Correlation is significant at the 0.01 level

*Correlation is significant at the 0.05 level

A positive correlation between self-efficacy and optimism ($r = 0.567$, $p < .001$) and a negative correlation between self-efficacy and pessimism ($r = -0.338$, $p < .001$) show that people with high levels of self-efficacy exhibit a high degree of optimism and low pessimism, while people with low self-efficacy exhibit a low level of optimism and a high degree of pessimism, which was confirmed in earlier researches (Ivanov et al., 1998, Penezić et al., 1998). These correlations are expected due to the fact that these constructs affect future behaviour, i.e. that they play a role in the self-regulation of behaviour, and that high self-efficacy involves the expectation of positive outcomes, which is imbedded in optimism. A person with a high degree of optimism and self-efficacy in dealing with the problem begins to invest more effort. Pessimism is characterized by the expectation of negative outcomes and correlates with a negative assessment of their own abilities, causing inertness and abandonment of the objectives in dealing with difficulties or in a case of failure. So, people who have low levels of self-efficacy exhibit a high degree of pessimism followed by a negative perception of failure and it is generalised to all aspects of life with the anticipation of future adverse outcomes, primarily in the same situations, and then in all others. Pessimism can lead to depression, and depression on the other hand, as a source of lower self-efficacy, can be interpreted as a sign of diminished capacity. The negative correlation between optimism and pessimism ($r = -0.562$, $p < .001$) confirms the fact that we are talking about two separate dimensions that are negatively correlated to each other.

In our sample, there is no statistically significant correlation between optimism, pessimism and self-efficacy and academic success, as well as with the subjective impression of the performance.

The empirical findings do not confirm the predictive value of any of the studied variables, i.e. optimism, pessimism and self-efficacy have not been shown to be significant predictors of academic performance (Table 3).

Table3. Multiple regression of self-efficacy, optimism and pessimism with regard to academic success

Models	Predictors	Beta	t	p	
1	Self-efficacy	0,033	0,821	0,413	$R=0,075$ $R^2=0,006$
2	Self-efficacy	0,046	0,938	0,350	$R=0,087$
	Optimism	-0,034	-0,466	0,642	$R^2=0,008$
3	Self-efficacy	0,046	0,939	0,350	$R=0,088$
	Optimism	-0,027	-0,330	0,742	$R^2=0,088$
	Pessimism	0,008	0,165	0,870	

Predictors: self-efficacy, optimism, pessimism

Selection criteria: academic success

These results do not support our initial expectations, nor do they agree with the results of previous studies. Some of these studies are the following. Seligman (2008) says that there can be a significant relationship between optimism and school success, because optimists invest more effort, while pessimism inhibits the action and productivity and causes sluggishness. Studies in which he studies the sense of competence and perceived self-efficacy show that children who see themselves as successful at school are more motivated for success, determined to work and much more willing to seek more challenging tasks and problems (Boggiano, Main & Katz, 1988, Harter, in 1988. , Harter & Connell, 1984, Schunk, 1984; according to Vasta, Haith & Miller, 1995). Earlier studies have

confirmed the positive correlation between self-efficacy and the pleasure with success (Ivanov et al., 1998, Penezić et al., 1998; according to Ivanov & Penezić, 2002).

Bandura believes that high self-efficacy increases the investment of effort and perseverance with facing the difficulties and that it is a predictor of academic success. Our result with respect to self-efficacy perhaps can be explained by the fact that many students assess their skills very highly and they know which activities are necessary for the successful outcome of the action or task, but they are still not engaging themselves in their performance, probably due to the lack of motivation. From this it follows that the positive assessment of their abilities on its own is not sufficient enough for high academic achievement, but it also includes many other factors which should be taken into account when planning any future research. In addition to the fact that some of the students positively assess their real existing capabilities, and do not approach the action that leads to successful outcomes, some researches show that there is a students' tendency to overrate their own abilities, so it happens that they are not sufficiently involved in school activities and duties, and therefore less successful (Milošević, 2004; according to Milošević & Ševkušić, 2005).

From everyday experience we know that there is a tendency of students to expect a positive outcome of the exam without a sufficient engagement, so this may be one of the possible explanations why the connection between optimism and academic success has not been obtained.

On the account of the control variables, the ones that stand out as particularly important are the father's education and the age of the subjects, while the education of mothers is not shown as relevant for the expression of the differences in the level of expression of any of the studied variables. This may be a consequence of the fact that in our society patriarchy still partly rules, where the father is an important figure that children look up to.

Statistically significant differences in the level of academic achievement are gained in relation to the variables gender ($p = 0.004$) and age of the subjects ($p = 0.000$).

According to the results, the female subjects ($M = 12.35$) are showing better academic performance compared with male subjects ($M = 11.08$). Our results are consistent with the results of many studies that have proved that women are more successful in university studies. In explaining the educational attainment of the female sample, behavioural patterns which they apply are more significant. Female students have a significantly higher extent of school attendance and regular performance of the duties specified, and both measures are significantly correlated to the success in exams (McCrum, 1996; according to Zlatković, 2007). A difference is also established in the persistency in achieving goals and achieving goals as a source of pleasure. The realization of the objective is seen more as a source of satisfaction within the female student population than within the male student population and they are willing to accept the delayed reinforcement to a greater extent than the male students. Women are also more likely to face a conflict of personal and business roles, they are in a position to more largely build resistance to frustration. The persistence in achieving goals requires a higher level of frustration tolerance (Franceško et al., 2002; according to Zlatković, 2007). The observations of these authors can be used in interpreting the results obtained in our study. Younger subjects (21-22 years old, $M_y = 12.83$) show a better academic performance than the older ones (23-26 years, $M_o = 9.02$), but this is probably a consequence of the manner of calculating the scores of academic success that takes into account the length of study.

Statistically significant differences in the degree of satisfaction with the success during the study (subjective experience of success) are obtained in relation to the variables age ($M_y = 3.65$, $M_o = 3.28$, $p = 0.030$), place of residence ($p = 0.006$) and father's education ($p = 0.005$). The results show that students who live in the city ($M = 3.65$) are more satisfied with their success during the study than the students who live in the country ($M = 3.12$). This may be explained by the fact that students with the backgrounds whose education and general cultural level is lower and who thus receive less intellectual stimulation are under more pressure when they find themselves in a new environment and meet the students who live in socially favourable conditions for the acquisition of knowledge and education. Comparing themselves with them, they often perceive their inferiority and sometimes they are insecure in their attempts to minimize the effects of the educational and cultural deprivation and, therefore, likely to evaluate their success incomplete and are less satisfied with it.

There are statistically significant differences in the degree of satisfaction with success during their studies regarding the father's education ($p = 0.005$). The results show that the subjects whose fathers have a university degree, master's degree or a specialization exhibit the highest level of

satisfaction with success during their studies ($M = 3.96$), while the subjects whose fathers have completed primary school or a three-year high school exhibit the lowest level of satisfaction ($M = 3.09$). The post hoc test shows that between these two groups there is a statistically significant difference ($p = 0.004$), as well as between those whose fathers have completed two years of post secondary school ($M = 3.20$) and those whose fathers are university graduates and have some higher education ($p = 0.003$) – the respondents whose fathers have completed two years of post secondary school show a significantly lower level of satisfaction with success during their studies compared to those with fathers with higher education. Many studies point to the importance that parents have when the education and academic success of their children are concerned. According to Bandura's theory, they serve as models from which children learn and to which often manage. Since all people, especially the young, are in need of a positive evaluation by others, especially significant others, parents' expectations and their support and incentives are imposed as important for a subjective satisfaction with success.

A statistically significant difference is obtained in the level of expression of pessimism with regard to the formal level of education of the fathers of the subjects ($p = 0.020$). The subjects whose fathers have completed primary school and three years of secondary school ($M = 20.7$) show the highest degree of pessimism, and the respondents whose fathers have obtained university degrees, specialization or master's degree ($M = 15.36$), the lowest level of pessimism. The post hoc test shows that the two groups differ significantly ($p = 0.005$).

Conclusion

These findings do not confirm the initial hypothesis of our study, i.e. optimism, pessimism and self-efficacy do not confirm themselves as being significant predictors of academic performance. From this it follows that the positive assessment of our own abilities and optimism are not sufficient for high academic achievement, but it also includes many other factors which should be taken into account when planning any future research with the inclusion of other variables and instruments, for example, achievement motivation and conscientiousness dimension (The Big Five Inventory) to distinguish between the subjects who highly estimate their abilities (high degree of self-efficacy) which are responsibly approaching while carrying out their duties and obligations and those who do not. The sample can be expanded by including students of II and III year of study, as well as students from other faculties.

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Rezime

U ovom istraživanju smo želeli da ispitamo povezanost optimizma, pesimizma, samoeфикаsnosti i akademskog uspeha i da li se ove varijable mogu smatrati značajnim prediktorima akademskog uspeha. Uzorak čini 120 studenata IV godine Filozofskog fakulteta u Nišu (60 muških i 60 ženskih ispitanika). Primenjeni instrumenti su: Skala optimizma – pesimizma (Penezić, 2002); Skala opšte samoeфикаsnosti (Ivanov i Penezić, 2002). Takođe je korišćen upitnik, konstruisan za potrebe ovog istraživanja, radi merenja akademskog uspeha, kojim su prikupljeni podaci o prosečnoj oceni, dužini studiranja i subjektivnom doživljaju uspešnosti na studijama, kao i o kontrolnim varijablama. U ovom istraživanju optimizam, pesimizam i samoeфикаsnost nisu se pokazali kao značajni prediktori akademskog uspeha. Ispitujući povezanost između svih varijabli, statistički značajna povezanost dobijena je između samoeфикаsnosti i optimizma i pesimizma, a takođe i između akademskog uspeha i zadovoljstva postignutim uspehom tokom studija. Nije nađena povezanost ispitivanih varijabli sa akademskim uspehom, kao ni sa subjektivnim doživljajem uspešnosti.

Кljučне речи: *optimizam, pesimizam, samoeфикаsnost, akademski uspeh, studenti*

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TIME PERSPECTIVE AS A PREDICTOR OF PROCRASTINATION AMONG HIGH SCHOOL STUDENTS

Abstract

The purpose of this research is to determine the degree to which different types of time perspective orientations (past-negative, past-positive, present-hedonistic, present-fatalistic and future) can be important predictors of the procrastination among high school students. The time perspective refers to the unconscious process whereby the continual flows of personal and social experience are assigned to temporal categories or time frame that help to give order, coherence and meaning to those events. The procrastination refers to the phenomenon of delaying the execution of the task which one intends to commit. This research was conducted at a sample of 86 high school students (43 males and 43 females) from Skopje, Macedonia. All of the high school students were 16 years of age. The instruments used in the research were: Tuckman Procrastinate Scale (Tuckman, B. W., 1991) and Zimbardo Time Perspective Inventory (Zimbardo, P. & Boyd, J., 1999). The data were processed by the multiple linear regression procedure and t-test for independent samples. The results show that the multiple regression coefficient $R=0.60$ is significant at the level 0.01. Significant predictors of procrastination are the following factors: past-positive perspective, past-negative perspective and future perspective. The factor future perspective stands out as the most significant predictor ($\beta=-0.48$; $p>0.01$). Significant predictors are also the factors past-negative perspective ($\beta=0.47$; $p>0.01$) and past-positive perspective ($\beta=0.21$, $p>0.05$). The other types of time perspective (present-hedonistic and present-fatalistic) were not proved to be significant predictors of procrastination. These findings indicate that the past and the future time perspective are important indicators for individual differences in procrastination among high school students. The results demonstrate significant gender differences in procrastination ($t=-2.04$; $p<0.05$). It can be concluded that the males, compared with females, have higher level of procrastination. Significant gender differences were not found in any of the types of time perspective.

Keywords: *time perspective, procrastination, predictors of procrastination, differences in procrastination, multiple linear regression*

Introduction

The time perspective orientation

The historical time the people live in has influence on the development of one's personality. At the same time, the personal history plays an important role in the personal life. It is not only the personal history, but also the personal experience of the present and the personal view and expectations of the future have a significant influence on one's psychological life. Although people do not have a specific sense of time and are not able to perceive it, time plays a significant role in people's everyday life. Even the founders of psychology, Wilhelm Wundt and William James, have recognized the significant role of time on psychological life. Two main contemporary researches of psychology of time, authors of the concept of different time perspectives, are Philip Zimbardo and John Boyd. Those authors explain how time reflects one's attitudes, beliefs and values, as well as one's thoughts, feelings and behaviors. The concept of time perspective refers to the unconscious process whereby the continual flows of personal and social experience are assigned to temporal categories or time frame that help to give order, coherence and meaning to those events (Zimbardo & Boyd, 1999, p. 51). Time plays an important role in the development of the personal sense of coherence and continuity. The personal Self is constructed by the way people align their own experiences along the

personal psychological time line (Shmotkin & Eyal, 2003). Time plays an important role in the way people give meaning to separate manifestations in order to construct coherence and continuity.

There are many factors that play a significant role in developing the different time perspectives: culture that people belong to, family, education, peers, school, religion, economic status and important life events. According to the theory of time perspective, there are five different time perspective orientations (past-negative, past-positive, present-hedonistic, present-fatalistic and future). The *past-positive* (PP) perspective captures attitudes toward the past, not an objective record of good and bad events (Zimbardo & Boyd, 1999). Positive attitudes toward the past may reflect positive events that people actually experienced, or a positive mindset that allows individuals to make the best of very different situations. Psychologically, what the individuals believe happened in the past influence their present thoughts, feelings and behavior more than what did happen. The past-positive orientation reflects a warm, pleasurable, often sentimental and nostalgic view of one's past with maintaining relationships with family and friends. The *past-negative* (PN) perspective assesses the attitude about the events that occurred in the past. Negative attitudes may be due to the actual experience of negative events or to the current negative reconstruction of earlier events that may have been benign. The past-negative perspective refers to the personal unpleasant, aversive or traumatic experiences. The time perspective toward present can be either positive or negative: present-hedonistic and present-fatalistic. *Present-hedonistic* (PH) time perspective refers to living in the moment, now and there, pleasure seeking, enjoying, high intensity activities, seeking thrills and new sensations, openness to adventure. *Present-fatalistic* (PF) time perspective refers to the belief that the future is controlled by the outside forces, like government or spiritual forces. Hence, this perspective is associated with hopelessness and helplessness. *Future* (F) time-perspective reflects the orientation toward future goals, rewards, plans for the future and it is characterized with a high level of delaying gratifications and avoiding time wasting temptations.

Procrastination

The importance of time in psychological life can be connected with the positive, as well as with the negative aspect of the psychological functioning. One of the most common and, at the same time, most often underestimated problems today is the problem of procrastination. The procrastination is an overspread problem: it is present at school, at university, at work, in the interpersonal relationships within the family and among friends. The consequences of procrastination can be grouped in two groups: intrinsic and extrinsic. The first group, the intrinsic consequences, refers to the regret, despair and self-blame. The extrinsic consequences include low academic and work achievement, missed opportunities and disturbed interpersonal relationships (Haycock et al, 1998). The longitudinal studies demonstrated that the people who often procrastinate have a higher level of stress and have health problems. Their performance is also weak and the level of anxiousness is high.

The word procrastination has a Latin origin (pro=for and cras=tomorrow). Although this phenomenon has been familiar since antiquity, it became a subject of a psychological research during the seventies of the last century. There are many definitions for procrastination and all of them have two common points (Горієвiк, 2012). First, procrastination is a concept connected with postponing of the beginning or the ending of a task. Second, there is always a gap between the will and the action. In this research, the procrastination refers to the phenomenon of delaying the execution of the tasks intended to be committed (Steel, 2010). This means that there is intention to commit a task, but the task is not committed because of the presence of some other more attractive task.

The procrastination can be motivated by three reasons: a) fear and avoidance, b) seek for excitement and c) indecision. The fear from failure is one of the basic motives for procrastination, namely, postponing the situations in which the self-confidence can be undermined. For example, the students who have a low level of self-confidence tend to avoid those situations in which their knowledge and abilities could be estimated in comparison to others. The tasks that are still not finished cannot be estimated. In this way, the person protects themselves from failure and from the possibility to reduce their self-confidence. It is a way of expressing the inner conflicts and the protection of the fragile self-confidence (Burka & Yuen, 2008). The fear of failure can also result from a low self-esteem or perfectionism (Solomon & Rothblum, 1984). The second motive, namely the excitement seeking is quite opposite to the fear of failure and avoidance. The situations that bring a high level of excitement and pressure are positively experienced by some people. Those people have a higher level

of motivation, successful performance and greater pleasure from their work when they have a chance to work under time pressure. Because of those reasons, they deliberately postpone the fulfillment of the tasks which they intend to finish. The third motive for procrastination is the indecision. The people procrastinate as a consequence of the uncertainty of making decisions.

Relevant studies

Studies that have examined the relationship between time-perspective orientations and procrastination show that the future time perspective is connected to the low level of procrastination among students, whereas the past-negative time-perspective orientation is positively connected to the procrastination (Bosato, 2001; Kostić & Nedeljković, 2013). Studies have shown that time-perspectives which are present oriented may relate to the completion of tasks as close to a deadline as possible. It is a strategy that may energize the individual to work quickly, especially if the task is unattractive or not challenging (Van Eerde, 2003).

Method

The purpose of this research is to determine the degree to which different types of time perspective orientations (past-negative, past-positive, present-hedonistic, present-fatalistic and future), if any, can be important predictors of the procrastination among high school students. This research has also an aim to identify whether there are significant differences in the time-perspective orientations and in the level of procrastination between male and female high school students.

According to the literature review of the theory and the research studies of this topic (Bosato, 2001; Van Eerde, 2003, Kostić & Nedeljković, 2013), it was assumed that the high school students with a high level of present positive and future time-perspective orientation would have a low level of procrastination and the high school student with a high level of past-negative and present-fatalistic time-perspective orientation would have a high level of procrastination. It was also hypothesized that the female high school students tended to procrastinate less than male high school students.

This research was conducted at a sample of 86 high school students (43 males and 43 females) from Skopje, Macedonia. All of the high school students were at the age of 16. They were given two instruments: *Tuckman Procrastinate Scale* (Tuckman, B. W., 1991), 35-item instrument, designed to measure tendencies of procrastination, and *Zimbardo Time Perspective Inventory* (ZTPI, Zimbardo, P. & Boyd, J., 1999), composed of 54 items, including 5 subscales measuring 5 factors of time-perspective: Past-positive, Past-negative, Present-hedonistic, Present-fatalistic and Future.

The data were processed by multiple linear regression and t-test for independent samples.

Results

In Table 1 are presented the coefficients from multiple linear regression analysis of various types of time-perspective orientations predicting procrastination

Table 1. Multiple linear regression predicting procrastination from time perspective factors

<i>Model</i>	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>
Past Positive	0.45	0.23	0.21	1.99	0.05*
Past Negative	0.78	0.20	0.47	3.93	0.00**
Present Hedonistic	- 0.23	0.17	- 0.14	-1.35	0.18
Present-Fatalistic	0.15	0.24	0.07	0.64	0.53
Future	- 0.82	0.16	- 0.48	-5.01	0.00**

R=0.61 R²=0.37 F=9.35 p<0.01

The results from the linear regression analysis show that significant predictors of procrastination are the factors: past-positive perspective ($\beta=0.21$, $p>0.05$), past-negative perspective ($\beta=0.47$, $p>0.01$) and future perspective ($\beta=-0.48$, $p>0.01$), explaining 37.0% of the variance ($R=0.61$; $R^2=0.37$). The factor future perspective stands out as the most significant predictor. The other types of time perspective (present-hedonistic and present-fatalistic) were not proved to be significant predictors of procrastination.

In Table 2 are presented the results form t-test for independent samples.

Table 2. T-test for independent samples for time-perspective orientations and procrastination between high school students

	Females		Males		t	p
	M	SD	M	SD		
Past Positive	3.60	0.54	3.58	0.62	0.18	0.85
Past Negative	2.98	0.81	3.13	0.75	-0.85	0.39
Present Hedonistic	3.69	0.46	3.62	0.49	0.73	0.47
Present-Fatalistic	3.20	0.58	3.24	0.66	-0.29	0.77
Future	3.54	0.53	3.49	0.51	0.45	0.66
Procrastination	80,6	10,07	85,6	12,29	-2.04	0.04*

The results form the t-test for independent samples for time-perspective orientations and procrastination between high school students, demonstrate significant gender differences only in procrastination ($t=-2.04$, $p<0.05$). No significant gender differences were found for the different types of time-perspective orientations.

Discussion and conclusion

Procrastination, as a widespread contemporary problem, is connected with the experience, estimation and management of time. In this research, we aimed to answer the questions which of the different time-perspective orientations, if any, could predict procrastination among high school students and if there were significant differences in the time-perspective orientations and in the level of procrastination between male and female high school students.

The results of this research demonstrate that the **past positive**, **past negative** and the **future** time perspective are significant predictors of individual differences in procrastination among high school students. It is also shown that the high school students who are more oriented towards future procrastinate rarely in comparison to high school students who are dominantly oriented toward their past. The results demonstrate significant gender differences in procrastination. It can be concluded that the males, compared with females, have a higher level of procrastination. Significant gender differences were not found in any of the types of time perspective.

The high school students oriented dominantly towards the future have clearly defined goals for the future, have a higher motivation towards achievement and have a medium or high level of self-confidence. Their level of self-regulation is higher, hence they often have no problems to resist the present temptations in order to achieve the future goals. They are able to organize their time well. All of these characteristics lead them to fulfill the tasks they intend to fulfill right on time, without postponement. That is why they procrastinate rarely.

The next factor that significantly predicts procrastination, as assumed, is the past-negative time-perspective orientation. High school students oriented dominantly towards their negative past are emotionally unstable, they have negative perception of their own Self. Hence, they have a low level of self-confidence and self-esteem. Their level of self-control is low. They are not successful in resisting the temptations and in the fulfillment of their plans. They do not even make great plans for themselves, their level of achievement motivation is low. From these characteristics, it is expected that they would procrastinate often. When they procrastinate, they are dissatisfied with themselves, which is a reinforcement of their negative perception of themselves. They behave in a manner of a person that is not able to succeed. They do not want to make a mistake again, that is why they postpone the activities in which their vulnerable self can be estimated negatively.

The results form this research identified also the past-positive time-perspective orientation as a significant procrastination predictor. This was not assumed. The reason for this result can be found in a positive self-view that high school students with dominant past-positive time-perspective orientation have. They have had an experience of success that have helped them to build such a high level of self-confidence that they do not want to lose it. The are motivated for procrastination in order not to make

a mistake. They tend to avoid the situations which can result in a failure. Another reason for their procrastination is the overestimation of the time they need to fulfill their task. They probably had a positive experience of success in their past. Hence, they overestimate the time and effort they need for finishing their plans. They tend to neglect their previous experience, particularly failures.

The results from this research show that males have a higher level of procrastination in comparison with the females. This result is coherent with the results from other researches (Deters, Engberding & Rist, 2003; Optiz & Patzelt, 2003). This can occur due to the differences in the raising process between girls and boys. Girls are raised to be more responsible and to fulfill their tasks on time in comparison with boys.

The results from this research can be applied to the field of education and counseling. The high school students should be stimulated to create a positive attitude towards their future, to make plans for their future and to make future goals for their life. They should be reinforced to become aware of their psychological power to fulfill their intention and to learn how to use this paper.

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Rezime

Cilj ovog istraživanja je da utvrdi stepen do kog različite vremenske perspektive (pozitivna prošlost, negativna prošlost, hedonistička sadašnjost, fatalistička sadašnjost i budućnost) mogu da budu značajni prediktori prokrastinacije kod srednješkolaca. Pod vremenskom perspektivom se podrazumeva nesvesni proces u kome se kontinuiranom toku ličnih i socijalnih doživljaja pripisuje kategorija vremena. Ovaj proces ima za cilj da pomogne osobi da podredi i usaglasi navedene doživljaje i da im da značenje. Prokrastinacija se odnosi na fenomen odlaganja izvršenja zadataka koje ličnost namerava da završi. Istraživanje je sprovedeno na uzorku od 86 srednješkolca (43 muških i 43 ženskih) iz Skoplja, Makedonija. Svi srednješkolci su uzrasta 16 godina. Dva instrumenata su upotrebljena u istraživanju: Tukmanova Skala Prokrastinacije (Tuckman, B. W., 1991) i Zimbardov Inventar Vremenske Perspektive (Zimbardo & Boyd, 1999). Podaci su obrađeni pomoću t-testa za

nezavisne uzorke i multiple linearne regresije. Rezultati iz multiple regresije pokazuju da je koeficijent multiple regresije $R=0.60$ značajan na nivou 0.01. Značajni prediktori prokrastinacije su sledeći faktori: pozitivna prošlost, negativna prošlost i budućnost. Faktor budućnost izdvaja se kao najznačajniji prediktor prokrastinacije ($\beta=-0.48$, $p>0.01$). Značajni prediktori prokrastinacije su još i negativna prošlost ($\beta=0.47$, $p>0.01$) i pozitivna prošlost ($\beta=0.21$, $p>0.05$). Ostali tipovi vremenske perspektive (hedonistička sadašnjost, fatalistička sadašnjost) nisu se pokazali kao značajni prediktori prokrastinacije. Ovi nalazi su pokazali da su prošlost i budućnost važni indikatori za individualne razlike u prokrastinaciji kod srednjoškolaca. Kod srednjoškolaca muškog pola nivo prokrastinacije je veći u poređenju sa srednjoškolcima ženskog pola. Značajne polne razlike nisu nađene ni na jednom tipu vremenske perspektive.

Ključne reči: *vremenska perspektiva, prokrastinacija, prediktori prokrastinacije, razlike u prokrastinacije, multipla linearna regresija*

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STUDENTS' SATISFACTION WITH THEIR PSYCHOLOGY STUDIES

Abstract

Problem: Employee satisfaction is an important area of research in psychology of work, because the results contribute to the explanation of work behavior variance and the development of human resource management strategy. In the academic environment, it is important to know the satisfaction of students, in order to improve the education system. In this study, we focused on the satisfaction of students studying psychology at the University of Belgrade, in order to check the reliability of the instrument and compare the level of satisfaction between years of study and some socio-demographic variables. **Method:** The study included 204 students, N = 53 in the first year, N = 56 in the second, in the third N = 56, and in the fourth year N = 39 students. The study was carried out during the breaks between classes and the exercise of the case - Fundamentals of psychology of work, through group and direct distribution of the questionnaire with 20 items, which the authors have constructed for this research. **Results:** The mean value of satisfaction with the studies on the total sample ranges slightly above the theoretical average (M = 64.60), or expressed on a scale of 1-5 M = 3.23. The highest level of satisfaction is expressed by students of the first year (M = 78.02, SD = 6.78), and fourth year students (M = 60.51, SD = 13.22), while the mean value for the second year (M = 59.53; SD = 12.28) and third year students (M = 59.78, SD = 9.20) are very similar, with a slightly lower level of satisfaction. ANOVA showed the significant difference between the groups at the 0.01 level. Reliability of the applied instrument (Cronbach alpha) is high - 0.909. Factor analysis showed that we can speak of a general factor of satisfaction with the studies, which explains 37.248% of variance. Students were most satisfied with the feeling of pride to study exactly what they wanted (M = 4.40), the relations and cooperation with colleagues (M = 4.02), Teaching and competence of teachers (M = 3.78), the physical conditions of space (M = 3.77), a sense of achievement in exams (M = 3.66), the knowledge you gain in college (M = 3.63) and the chance to be someone of importance after college and in the community (M = 3.54). Examined socio-demographic variables did not show significance, probably due to the structure of the sample.

Keywords: *academic environment, students, satisfaction, studies of psychology*

Introduction

Aside from life and personal satisfaction, job satisfaction also plays an important role in the life of an individual. Research actually shows that personal satisfaction depends greatly upon job satisfaction (Pajević, 2006). According to Guzina, work satisfaction is “a generalized attitude that consists of three components: the cognitive component, which refers to the worker’s opinion about his/her job; the affective component, that refers to the emotional devotion towards work; and the conative component, which includes the readiness to devote oneself to work, and the desire to keep or change the job” (Guzina, 1980). There is other evidence in literature that states that there are three types of job satisfaction (Pajević, 2006). One is the intrinsic satisfaction that emerges from the nature of the work itself. Therefore, that is the type of satisfaction that we feel when we have an interest for our job, when we enjoy it because it gives us an opportunity for free and creative expression, etc. The next type is the extrinsic one, which is the result of secondary gains that the workers get at work, such as wages and other material benefits, work advancements, social reputation, etc. Lastly, there is a third type of satisfaction – the general satisfaction – that is determined by the intrinsic and extrinsic satisfactions. Some researchers (Katz & Kahn, 1978; Spector, 1997) were investigating the structure of job satisfaction, and they have shown that there are several different dimensions that can be covered by a general job satisfaction factor. That way, some individual factors have been extracted, and these factors refer to individual aspects of work, such as reward-giving, stability, working conditions, interpersonal relationships, etc. (Pajević, 2006).

It has been determined that workers' productivity and success, as well as those of a company, can vary significantly depending on the level of workers' job satisfaction. If someone is more satisfied with their job, it is assumed that they will be more involved in their work, and more productive, thus their work will have more quality. And, the other way around: if someone is less satisfied, their work will be less according to the expected standards. Hence, in the field of psychology of work, work satisfaction presents an important research subject. By knowing the level of job satisfaction of his workers, the employer can explain some variance of working behavior. Consequently, that data should give a detailed insight into which kind of HRM strategies the employer should develop, as well as to which steps he should take to create an adequate and favorable work setting, in which the workers will be satisfied. This, in return, should affect and increase motivation and work devotion, and moreover, workers' productivity and quality of their work.

However, today, in order to get a job and do something that a person loves, it is important that he/she gains certain knowledge, skills, habits, attitudes and values, that is, professional qualifications and competences, which is more often acquired through continual schooling and studying, and confirmed by gaining a diploma, or other professional certificates, at adequate educational institutions. Because there are more and more complex work requests and accelerated changes in the work market (Madouros, 2006; Bolčić, 2003), the higher education is more and more insisted upon, and so it is important to pay attention to students' satisfaction with the studies that they have chosen as an academic preparation for their future calling. Thanks to the reformations that our high education went (and is still going) through (the so-called Bologna Process), studies should more and more resemble the working obligations of the workers. Similarly as in the working context, the feeling of satisfaction is also important in the academic surroundings, because it is assumed that the higher level of satisfaction with the studies will lead to the higher motivation for learning and advancing through the course of the studies. Moreover, an insight into the factors and level of students' satisfaction gives an opportunity to the management of educational and scientific institutions to enhance the educational system in accordance with the students' expectations and needs, but also with the requests of the work market and social values that are changing fast under the influence of the globalization process and expansion of the informational technologies (Čabarkapa i Bojanović-Đurišić, 2013).

Since we believe that the satisfaction with the studies is a significant aspect of students' general satisfaction, this research focuses on the students' satisfaction with their psychology studies at the Faculty of Philosophy in Belgrade, as a preliminary research of students' satisfaction in general, which should point to the andragogical, pedagogical and psychological significance of this problem, as well as to the methodological abilities and limitations of the applied instrument, which was constructed for the purpose of this study, and future studies of student's satisfaction in general. The first problem, therefore, relates to the level of perceived satisfaction with the studies, while the second one relates to the validity and reliability of the measuring instrument. In accordance to this, the main goals and tasks of this study are to obtain a general image of students' satisfaction with their psychology studies, and satisfaction level at different years of study, as well as to investigate the reliability and factor structure of the measuring instrument which was constructed for the purpose of this study.

We hypothesize that the general students' satisfaction with the psychology studies would be higher than the average, according to the measurement scale. In other words, we assume that students will, overall, be more satisfied with their studies due to the already-mentioned higher education reform that evenly balance the students' duties through the semesters. We also hypothesize that there will be significant differences between the levels of satisfaction across different years of study, because of different levels of adaptation to this higher education setting, and because of different levels at which students' expectation about their studies are developed.

Method

Instrument

Satisfaction with the studies, as well as job satisfaction, can be measured in many different ways, but the use of questionnaires is the fastest and most economic way to achieve that. That is why, in the process of constructing our questionnaire, we relied on the existing inventories designed for measuring job satisfaction, more specifically on MSQ - *Minnesota Satisfaction Questionnaire*, from

which we selected a few items and added some new ones, in order to adapt them to the academic context.

Minnesota Satisfaction Questionnaire (MSQ), which was the basis for the construction of our inventory, used in this study, was devised by Weiss et al. in 1967 (Weiss et al., 1967). The questionnaire is available in its original version that consists of a 100 items, as well as in its short form that has only 20 items, whereby both versions have a 5-point Likert scale for the participants' answers. For the purpose of this study, the short form was used as basis (20 items in total), that were adapted to fit the academic context. Some items couldn't be adapted at all; therefore completely new ones were created. We selected some important areas related to the academic context (i.e. the amount of obligatory literature, assessment criteria, form of the exams, etc.), and then created statements that measure satisfaction with those aspects of the studies. There were five such newly-created items.

The intention was also to get an instrument that is as economical and enough reliable as possible, which would be based on a holistic approach in researching students' satisfaction with their psychology studies, though the items were formulated in a way that they can also be used for students at different departments and faculties. (The adapted questionnaire is available from the authors).

Sample and Research Procedure

The research sample consisted of 204 psychology students at the Faculty of Philosophy, at the University of Belgrade (at first, a total of 218 students participated, but 14 were excluded from the analysis because of missing data). The general sample structure is shown in Table 1.

Table 1. Sample Structure by Gender and Year of Study

		Year Of Study			
		First	Second	Third	Fourth
Gender	Male	7	6	7	8
	Female	46	50	49	31
Total		53	56	56	39

As it can be noted from the previous table, female students dominate the sample, which is in accordance with the local trend that psychology is still a field that is mostly studied by females.

The research was conducted by giving out the questionnaires to the students in smaller groups during the winter semester of 2014, during the students' classes in certain subjects, as well as during the breaks between them, in order to collect as many respondents. Participants' task was simple – to fill in the questionnaire by estimating the level of their satisfaction on each item, by circling one grade on the scale that ranges from 1 – I am very dissatisfied, to 5 – I am very satisfied. Overall students' satisfaction was expressed as an average score of all 20 items and results were in a range from 20 (minimum) to 100 (maximum) satisfaction points.

Results

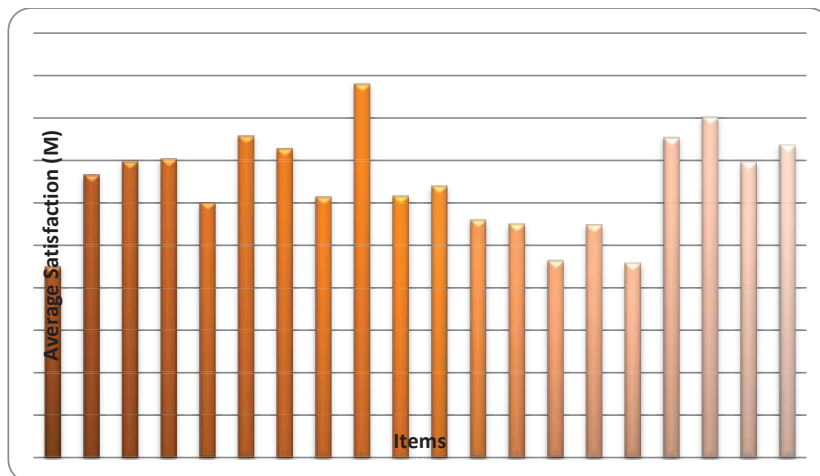
The analysis of general satisfaction level on the entire sample shows an average value of 64.60, somewhat above the theoretical mean value. Expressed on a 1 to 5 scale, the average value is 3.23. Table 2 shows the mean satisfaction with the studies on each year of studies. As it can be noted, first year students are most satisfied with their studies, then, fourth year students, and lastly, second and third year students, whose levels of satisfaction are really similar.

Table 2. Average Satisfaction of Students by Year of Study

	Year Of Study			
	First	Second	Third	Fourth
Mean Satisfaction	78.02	59.53	59.78	60.51
Standard Deviation	6.78	12.28	9.2	13.22

One-factor analysis of variance showed that the differences in the level of satisfaction between students at different years of studies are significant: $F(3, 200)=39.20$; $p<.001$.

When we pay attention to individual factors of satisfaction, expressed through instrument items (Graph 1; description of items is given below the graph), we can notice that students are most satisfied with collegiality and cooperation with their colleagues, then with the way of teaching and the competence of professors, as well as with the physical conditions for studying at the university. These results also show that students have a high sense of pride to be studying exactly what they want, as well as a high sense of achievement in the advancement through the studies. On the other hand, students are the least satisfied with the obligation to spend a lot of time at the university, the lack of practical training, and lack of opportunity for them to influence the quality (method and content) of the studies.

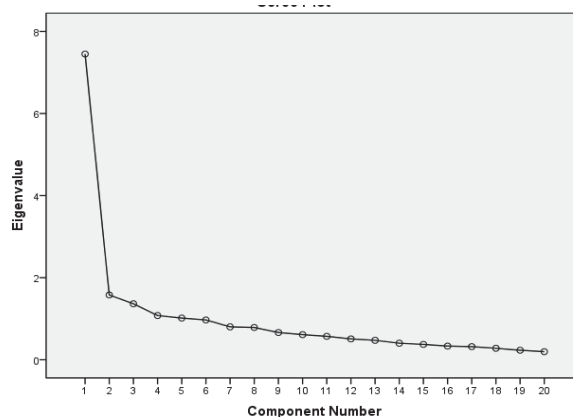


Graph 1. Average Satisfaction On Each Item

Description of items n1-n20:

- n1- Obligation to spend the entire day at the Faculty
- n2- The chance to choose the nature of semester assignments individually
- n3- The chance to study what interests you
- n4- The chance to be “somebody” in the community after college
- n5- The relationship between you and the school faculty
- n6- The way the school program is conducted, and the competence of professors
- n7- Knowledge that is gained
- n8- The opportunity of getting employed after getting the degree
- n9- Sense of pride that you are studying exactly what you wanted
- n10- The amount and available literature
- n11- The chance to make use of my abilities during the studies
- n12- The way Faculty policies are put into practice
- n13- Amount of assignments and tasks during the studies
- n14- The chance to get an internship during the studies
- n15- Freedom and chance to choose different activities at school
- n16- The chance to make an influence on the program of the studies
- n17- The physical conditions at the Faculty
- n18- The way students get along
- n19- Assessment criteria for assignments and exams
- n20- Sense of accomplishment achieved on the exams, and the advancement through the studies

Reliability analysis of the instrument shows a high reliability ($\alpha = .909$), while the factor analysis shows that one factor that explains 37.25% of variance is extracted, which we can name the general satisfaction with the studies (Graph 2).



Graph 2. *General Satisfaction with the Studies Factor*

Discussion

In the analysis of the students' satisfaction with their psychology studies, we start from a known fact that there is a large interest among high school students to study psychology, and this trend seems to be dominant during a longer time period. Besides that, this is a program that mainly excellent and very good students enroll in, so a high successfulness rate and mobility during the studies are expected. It should be mentioned that psychology students have a high level of empathy and determination to help others, which can influence their satisfaction with studies (Dimitrijević, Hanak, Milojević, 2011).

Taking into account the fact that during the enrollment to the psychology program, students go through a strict selection, and considering the goals of this research, we assume that the previously gained knowledge and general abilities of psychology students are fairly homogeneous, and so our primary focus isn't on these abilities and previously gained knowledge, but on the satisfaction with the studies, which is viewed as a psychological variable that can potentially significantly influence the motivation, devotion and general success of the students. Naturally, according to the methodological draft of this study, the success criteria isn't defined here, nor did we check how much the satisfaction with the studies actually contributes to the motivation and success during the studies; rather, we wanted to get a general descriptive-phenomenological image of satisfaction, that is, to identify factors of dissatisfaction, and most importantly, factors that influence it, as well as to check if our questionnaire is informative and reliable enough, so that we can conduct more researches of students' satisfaction with their chosen studies at different faculties and universities in Serbia in the future.

As some studies show (Filak & Sheldon, 2003), students' satisfaction presents a predicting variable of positive evaluations of the work of professors and degree programs. In other words, collection of these data gives feedback about the quality of the studies program, for which adequate changes can be made. Aitken (1982) suggested a theoretical model according to which a student's decision to stay at a certain faculty depends directly on several factors, including academic and life satisfactions. While the academic satisfaction is a function of factors that concern the content and quality of the program, the way of teaching, and student's personality, the life satisfaction presents the function of the factors that refer to the interpersonal contacts in the academic surroundings, and the way of managing the entire institution (Aitken, 1982). The questionnaire that was used in this research essentially involves similar aspects of satisfaction with the studies, so we can interpret obtained data in the accordance with the mentioned model.

The results of this study show that the overall satisfaction of psychology students is average and somewhat above the mean ($M=3.23$), which can be interpreted as a reflection of correspondence between students' personal dispositions and faculty's characteristics. What's more, it can be considered that there are significant similarities between students who study at the same faculty, when it comes to their personalities and attitudes toward certain aspects of the studies (Morstain, 1977). Previous research (Morstain, 1977) has shown that among students at the same faculty, those, whose personalities and personal attitudes are more congruent, are more satisfied compared to students whose

personalities and attitudes are less congruent. Moreover, the same author notes that students who aren't satisfied with their degree program show a different attitude towards education, as opposed to students who are satisfied with the program. Furthermore, the attitude towards education of dissatisfied students is a lot less in agreement with faculty's general orientation in terms of its educational approach, than it is the case with the satisfied students. In other words, we might draw a conclusion that the personality and attitudes towards education of psychology students at the Faculty of Philosophy quite agree with the general atmosphere and education approach that dominates in the Department of Psychology. On the other hand, we might expect that a different level of satisfaction with the degree programs is present at the other departments of this faculty, considering the fact that every department has a certain degree of autonomy.

The obtained differences in the level of satisfaction among different years of study are not surprising. The results show that first year students are the most satisfied with their studies program, which could intuitively be interpreted as a result of the fact that these students have just enrolled in the program which they want to study. Also, since the study was conducted at the end of the winter semester and at the beginning of the spring semester, it is highly likely that first year students still haven't managed to obtain a complete picture and feeling of what it means to be a student and study several years in a row; therefore their satisfaction level remains high. Similarly, the finding that fourth year students are next in line following the order of their satisfaction level, might be a result of the fact that psychology students at the Faculty of Philosophy in Belgrade choose one out of four modules at the end of their third year. Consequently, the level of satisfaction with the studies increases because the students devote themselves to those kinds of subjects and contents that interest them, which is opposite to findings that showed the satisfaction and empathy declined during the years of study (Konrath, 2011).

The finding that there are no statistically significant differences in satisfaction levels between male and female students might reflect the fact that both genders have chosen to study what they wanted, and that they perceive and experience their studies in the same way. However, in this case, we cannot neglect the fact that female students dominate at the Department of Psychology, which can be confirmed by examining the statistics of the relation between the number of male and female students, not only in the overall sample, but in different years of study as well (Table 1). Actually, it can also be said that the relatively small sample of males ($n=28$) at the Department of Psychology is insufficient for the differences in the levels of satisfaction with the studies to be expressed and "caught". Other studies (Harton & Lyons, 2003) demonstrated highly empathic students choose psychology studies, and that women outnumber men in students preferring psychology because they show higher level of empathy than men.

Another important finding is related to the analysis of the instrument (questionnaire) that was used in researching students' satisfaction with their psychology studies. The statistical analysis of reliability and the factor analysis show that a reliable and economic instrument, which measures students' satisfaction with their studies, expressed through one score, is obtained. As seen from Graph 2, one factor stands out, which could explain that 37.25% of variance is extracted, and this factor presents the general satisfaction with the study program. Detailed analysis of structure of satisfaction (Graph 1) indicated that there could be two-factor solution – motivating factors versus hygiene factors, which corresponds to Herzbergs' theory of motivation (Herzberg, 1964).

This short questionnaire allows monitoring the structure and dynamics of students' general satisfaction during the course of the studies, which has both a practical and academic significance for the promotion of higher educational system.

However, while examining individual items, we can gain insight into what the students are most and least satisfied with, which is very simple since the questionnaire contains only 20 items. As it can be noted based on the graphical presentation of the results in the previous chapter (Graph 1), the highest level of satisfaction is contributed to the following items: 6, 7, 9, 17, 18 and 20 – in which case the values move above the average, and refer to the satisfaction with the teaching methods and teachers' competences; then to the satisfaction with the fact that they gain good-quality knowledge; satisfaction with their sense of pride that they study exactly what they want, as well as the satisfaction with the physical conditions of the setting in which they study at the faculty; collegiality and cooperation with their colleagues, and the sense of achievement on the exams. In this study, psychology students were the least satisfied with those aspects of the studies covered by the items 1,

14 and 16 – in which case the values move under the average, and refer to the obligation to spend almost an entire day at the faculty, opportunities to have internships which the faculty offers, and the opportunities to influence the methods and content of the study program. We can interpret these results in the light of Herzberg's theory of work motivation (Herzberg et al., 1959), because it is obvious that psychology students are mainly satisfied with the intrinsic factors of their studies (the so-called *motivating factors* or *satisfiers*), while they attribute the lower satisfaction, or dissatisfaction, to the *hygiene factors* which, in this case, refer to loaded schedules, absence of practical classes (internship), and decreased opportunity for personal control and influence on the content and the way the program is conducted.

Some might argue that the satisfaction with the studies has nothing to do with later job satisfaction. However, even though the satisfaction with the studies doesn't necessarily mean that an individual will later be satisfied with his/her job, it is still of great importance because it influences the development of one's personality, not only in the academic context, but in everyday life as well. The assumption is that a satisfied person, who has invested effort in the advancement and enrichment of his/her studies and academic life, will be more fulfilled, and will engage in further job search with a lot more enthusiasm; hence, the result of all that will be a job with which that person can be satisfied. In other words, even though there are doubtlessly many factors that affect one's professional life, if a person is truly satisfied with its previous and present life and academic development that will greatly increase the possibility of later job satisfaction. On the other hand, it can also be disputed that there is a possibility that the lower level of satisfaction will actually provoke and encourage someone to "fight" intensively for a better-quality education and for a job that will later fulfill them, and therefore, make them satisfied. Whichever the case, the general conclusion that can be drawn from the results of this study refers to the fact that the quality of study programs, no matter how attractive certain studies are, must be evaluated and adapted over and over again, because that way, the work of high education institutions is enhanced, students' satisfaction is influenced, and the quality of their preparation for their future on the work market is increased.

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Rezime

Problem: Zadovoljstvo zaposlenih je važna oblast istraživanja u psihologiji rada, jer dobijeni rezultati doprinose objašnjenju varijanse radnog ponašanja i razvijanju strategija upravljanja ljudskim resursima. U akademskoj sredini važno je poznavati zadovoljstvo studenata, kako bi se unapredio obrazovni sistem. U ovom istraživanju fokusirali smo se na zadovoljstvo studenata studijama psihologije na Filozofskom fakultetu u Beogradu, sa ciljem da proverimo pouzdanost instrumenta i uporedimo stepen zadovoljstva po godinama studija i nekim socio-demografskim varijablama. **Metod:** Ukupno je ispitano 204 studenta, od toga na prvoj godini N=53, na drugoj N= 56, na trećoj N=56 i na četvrtoj godini N=39 studenata. Ispitivanje je izvršeno u pauzama između časova i na vežbama iz predmeta – Osnovi psihologije rada, putem grupnog i neposrednog zadavanja upitnika sa 20 ajtema, koji su autori konstruisali za potrebe ovog istraživanja. **Rezultati:** Srednja vrednost zadovoljstva studijama na ukupnom uzorku kreće se nešto malo iznad teorijskog proseka (M=64,60), ili izraženo na skali od 1-5 M=3,23. Najveći stepen zadovoljstva izražavaju studenti prve godine (M=78,02; SD=6,78), zatim studenti četvrte godine (M=60,51; SD=13,22), dok su studenti druge (M=59,53; SD=12,28) i treće godine (M=59,78; SD=9,20) veoma slični, sa nešto nižim stepenom zadovoljstva. ANOVA je pokazala da su razlike među grupama značajne na nivou 0,01. Pouzdanost primenjenog instrumenta (Cronbach-alpha) je visoka i iznosi 0.909. Faktorska analiza je pokazala da se može govoriti o jednom opštem faktoru zadovoljstva studijama koji objašnjava 37,248% varijanse. Studenti su najviše zadovoljni osećanjem ponosa što studiraju upravo ono što su želeli (M=4,40), zatim odnosom i saradnjom sa kolegama (M=4.02), načinom izvođenja nastave i kompetentnošću profesora (M=3,78), fizičkim uslovima prostora (M=3,77), osećanjem postignuća na ispitima (M=3,66), znanjem koje dobijaju na fakultetu (M= 3,63) i šansom da posle fakulteta budu neko i nešto u zajednici (M=3,54). Ispitivane socio-demografske varijable nisu se pokazale značajne, verovatno zbog strukture uzorka.

Ključne reči: *akademska sredina, studenti, zadovoljstvo, studije psihologije*

INDIVIDUAL AND WORKING ENVIRONMENT

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DIFFICULTIES AND PROGRESS IN CAREER DECISION-MAKING PROCESS AT DIFFERENT LEVELS OF CAREER CERTAINTY

Abstract

A career decision-making process occurs in successive phases. A student's progress in this process might be burdened by many difficulties and challenges. Accordingly, the purpose of this study was to explore the relationship between the career decision-making (CDM) difficulties and the career decision-making (CDM) phases at two distinct levels of a career certainty. The study was conducted with 227 secondary school senior students and prior to the higher education transition (i.e. a choice of the academic study programme/future occupation). The following data collection techniques were used: the Career Decision-Making Difficulties Questionnaire with 2 questions related to a career certainty and 34 statements that assessed 3 types of CDM difficulties (Gati, Krausz & Osipow, 1996), as well as the one-item measuring technique with 4 alternatives developed on the basis of the Occupational Alternative Question (Zener & Schnula, 1972, as cited in Kleiman et al., 2004) in order to assess the CDM phases. The series of two-way ANOVA's were performed. The students surveyed in various CDM phases and at distinct levels of a career certainty showed no difference concerning the lack of the career choice readiness. The career certainty moderates the relationship of the lack of information and inconsistent information to CDM phases. Simple effects analyses revealed that the participants in the latest CDM phase who were certain about their career options experienced a lower degree of the lack of information and inconsistent information as compared to the participants in the same CDM phase who were uncertain about their career alternatives. These findings represent a substantial contribution to the reference materials on the CDM process, as well as to the career counseling process.

Key words: *CDM difficulties, CDM phases, career certainty, secondary school students*

Introduction

Donald Super's statement that the choice of a career is a process of decision-making rather than a one-time act is cited by Savickas (2002) as one of the utmost benefits of vocational psychology. According to the same author (Savickas, 2005), the choice of a career actually poses two questions: what career (occupation) an individual wants to choose and how they choose the career (occupation). The second issue relates to the above stated view of a career choice as a process while the first question refers to the content of the choice.

This paper examines a career choice as a decision-making process, focusing on a career indecision or barriers that may hinder it, the phases in the career decision-making process as indicators of the position that an individual occupies in that process and confidence in making career decisions during the transition from secondary to higher education.

Career choice as a decision-making process

Generally, a decision represents a choice made out of several alternatives, while decision-making is a process of evaluation of the alternatives. Similarly, a career decision-making denotes a process which individuals experience when considering career alternatives they have to compare and finally choose one of them (Gati & Asher, 2001). The progress in this process is defined as a degree of achieved decidedness or a degree to which a number of career alternatives is reduced (Kleiman, Gati, Sampson, Reardon & Lenz, 2004).

According to normative theories of decision-making, people attempt to make the best possible decision based on detailed information and mathematical precision. Seeking to overcome the

limitations of the normative approach when applied in everyday life situations, Gati and Asher (2001) stressed the need for a wider prescriptive model which will give a more precise explanation of decision-making in the field of career and which will take into account the understanding that people develop a tendency to making satisfactory or, at least, good decisions. It is a so-called PIC (pre-screening, in-depth exploration, choice) model that explains the process of deciding on a career. It is most appropriate for describing the choice of study (higher or secondary education) and the choice of occupation. The model is based on the key characteristics of a decision-making process, which are: an individual has to make a decision; she/he needs to choose among several alternatives; and, she/he should apply certain criteria when comparing alternatives in order to select the most suitable one.

The first phase in a career decision-making includes the identification of important aspects of the considered occupations and bringing them in line with one's own values, skills and interests. Then, there follow their prioritization or ranking. The final step is the elimination process, starting from the least important alternative, i.e. a sequential elimination of alternatives (Gati, 1986). The individual selects the relevant alternatives in the second phase after a thorough consideration. Moreover, the possibilities of their implementation should be taken into account. A decision-making process is completed in the third phase when the most acceptable alternative is selected, followed by a choice realization.

Hirschi & Läge (2007) distinguished six phases in the career decision making process: 1) awareness of a career decision-making; 2) identification of the alternatives related to the interests, skills and values, which implies self-exploration and exploration of the environment; 3) reducing the number of alternatives in order to allow a more detailed inspection of the relevant choices; 4) making selection out of several alternatives; 5) confirmation of the choice; 6) reaching a final decision and being committed to that choice/selected occupation. Therefore, the first phase precedes the decision-making process, while the sixth phase takes place after its completion. As the aforementioned authors stated, awareness of a career decision-making is an important condition with which to start the process, whereas the last phase is a confirmation that the decision-making has been completed and that the choice is final. Similar models for a career decision-making process are proposed by other authors (e.g. Germeijs & Verschueren, 2006; Van Esbroeck, Tibos & Zaman, 2005).

Career certainty

Due to its complexity, a decision-making process can be followed with some uncertainty. This is especially evident when other factors or conditions are present in the decision making process, such as a large number of alternatives (colleges, faculties, study groups), vocational opportunities (occupations, jobs, employers or organizations), a wide range of information about alternatives, as well as family members or peers who are, explicitly or implicitly, involved in the process (Gati & Asher, 2001). Namely, a career certainty indicates a degree to which individuals feel confident about their occupational plans (Hartung, 1995).

This concept is part of the PIC model where its attainment is explained by considering not only the optimal but also the acceptable level of the important aspects of the alternatives, by requesting some additional, career related information and by considering the second most suitable alternative as an option. This indicates that the congruity between the characteristics of the person and the characteristics of the occupation is crucial in the process of a career decision-making, but that the choice realization is important, as well.

Career indecision

The choice of a career is a complex task which can often lead to discomfort, anxiety and confusion (Ospow, Walsh & Tosi, 1980, as cited in Gati & Asher, 2001). While some people make decisions without any apparent difficulty, others face difficulties (Gati, Krautz & Osipow, 1996). Career indecision in the broadest sense is defined as the difficulties that people face when they need to make career decisions (Chartrand, Rose, Elliot, Marmarosh & Caldwell, 1993; Gati et al., 1996; Leong & Chervinko, 1996, as cited in Hijazi, Tatar & Gati, 2004; Osipow, Carney & Barak, 1976, as cited in Saka, Gati & Kelly, 2008). It refers to any problem or barrier (Fuqua, Blum & Hartman, 1988) that can occur before, during or after the career decision-making process (Saka et al., 2008).

Many authors, using the Career Decision Scale, identified four dimensions of career indecision: diffusion, support, approach and external barriers (Schimizu et al., 1988; Vondracek et al., 1990, as

cited in Schimizu, Vondracek & Schulenberg, 1994). But, there are authors who stated that career indecision was a unidimensional construct (Martin et al., 1991, as cited in Guay, Ratelle, Senécal, Larose & Deschênes, 2006), or more precisely, that CDS measured general indecision concerning a career choice.

On the other hand, the Career Factor Inventory is designed to measure career indecision as a multidimensional construct that assumes the existence of four well-defined, stable and reliable dimensions: choice anxiety, generalized indecision, need for career information and need for self-knowledge (Chartrand et al., 1990, as cited in Ferreira & Lima, 2010).

Gati et al., (1996) using the existing theories of decision-making and the theories of information processing, on the one hand, and the empirical research on the characteristics, dimensions and sources of career indecision (eg. Kleiman et al., 2004), on the other, developed a taxonomy of difficulties in the career decision-making process. The proposed taxonomy includes two main groups of career decision-making difficulties, depending on whether they occur prior to the beginning or during the career decision-making process. The next level difficulties are divided in two groups, the first group denoting the difficulties recognized as a lack of a career choice readiness (willingness of an individual to engage into a career decision-making), and the second group consisting of two types of difficulties – a lack of information about an individual's personal characteristics, occupations and a career decision-making process, and inconsistent information (about the self and occupations, internal and external conflicts).

Prior findings

Kleiman et al. (2004) reported that individuals who were in the advanced career decision-making phase (i.e., have the first choice, with or without alternatives) experienced a lower level of career indecision as compared to those who considered more alternatives, or were not yet engaged in the choice of occupation. A study on difficulties of emotional and developmental nature, conducted by Gati et al., (2011), emphasized that the respondents with highly expressed difficulties in career decision-making were partly decided or undecided about the choice of a career. In contrast, the respondents with a lower degree of career difficulties were in the advanced phase of deciding on a career. Hirchi & Läge's (2007) research demonstrated that a career choice readiness among secondary school students was higher in the later phases. More precisely, the authors reported that students who were in the first and second phase did not differ in their career choice readiness, while those in other adjacent phases (3 vs. 4, 4 vs 5, 5 vs 6) differed in their willingness to make a choice of occupation. Another study suggested that the career decision-making progress (decidedness) was positively related to a career planning and a career exploration (Hirschi, Niles & Akos, 2011). It was found that a career exploration was positively associated with a career certainty, as well (Esters, 2008).

The aim of the present study

According to what was mentioned above, being in the most advanced career decision-making phase or selecting one alternative (faculty, occupation) do not indicate a high level of certainty about that career choice and, consequently, a low degree of career indecision. On the other hand, a review of referential materials showed that the relatedness between career indecision and career certainty was not investigated.

Therefore, the aim of this study is to explore the relationship between the career decision-making (CDM) difficulties (career choice readiness, lack of information and inconsistent information) and the career decision making (CDM) phases at two distinct levels of a career certainty and to gather the relevant empirical data about a career choice (choice of study programme or faculty) among secondary school students in the Macedonian context.

A review of relevant reference materials generated the following hypotheses:

H₁: The students who are in a later CDM phase have a higher degree of career choice readiness, more information about the CDM process, their own personality and occupations and more consistent information compared to the students who are in an earlier CDM phase (main effect of CDM phases).

H₂: The students who are certain about their career choices have a higher degree of their career choice readiness, more information about the CDM process, their personality and occupations

and more consistent information compared to the students who are uncertain about their career choices (main effect of career certainty).

H₃: The students who are in a later CDM phase and are certain about their career choices have a higher degree of their career choice readiness, more information about the CDM process, their personality and occupations and more consistent information compared to the students who are in a later CDM phase and are uncertain about their career choices (interaction effect of CDM phases and career certainty).

Method

Sample and procedure

The sample consisted of 227 students (124 female, 103 male) from eight secondary schools in Skopje, the capital of Macedonia. They attended the fourth/final grade of study (the period before a transition from high to higher education), aged from 17 to 19 years.

The survey was conducted during regular classes with a prior permission from the school principals. It was explained to the students that the participation in the study was voluntary and anonymous, and that the results would be used for the research purposes only, processed individually, but also together with the results of all other respondents. The questionnaires were filled in 25 minutes.

Measures

The Career Decision-Making Difficulties Questionnaire (CDDLQ; Gati et al., 1996), a short form with 34 items, was used to assess career indecision. The stability of the questionnaire across cultures was reported by many authors (e.g. Di Fabbio, Palazzeschi, Asulin-Perez & Gati, 2013; Gati, Osipow, Krautz & Saka, 2000; Mau, 2001).

The statements were organized in three parts: lack of a career choice readiness (10 items, $\alpha=.49$), lack of information (12 items, $\alpha=.91$) and inconsistent information (10 items, $\alpha=.82$). The responses were given on a 5-point Likert scale, ranging from 1=not at all true of me to 5=completely true of me. A higher score indicated a higher degree of career decision-making difficulties. The scale consisted 2 “lay” items.

The career decision-making progress was measured on the basis of the career alternatives reduction. Namely, 4 statements formulated on the basis of *Occupational Alternatives Question* (Zener & Schnula, 1972, Slaney, 1980, as cited in Kleiman et al., 2004) were employed: 1. *I know what to choose – I have one choice* - referred to 4th -latest or the most advanced phase (higher level of decidedness); 2. *I know what I want to choose – but, I have one-two alternatives as a reserve* - denoted 3rd phase (high level of decidedness); 3. *I'm considering a few equally preferred alternatives, but I'm not sure which to choose* - indicated 2nd phase (relatively low level of decidedness); 4. *I'm considering many alternatives, but I don't know what I want to choose* - referred to 1st phase – earlier phase (the lowest level of decidedness).

Similar measures were used by Gati et al, 2011; Hirschi & Läge, 2007; Hirschi et al, 2011).

Career certainty was assessed with a one-item measure, part of the Career Decision-Making Questionnaire, scored on a five-point scale (1=not confident at all; 5=very confident). The participants were categorized into two groups considering the median score: 1. *certain about career choice* and 2. *uncertain about career choice*.

Data analysis

Three separate two-way ANOVA's were performed for data analyzing (each for the CDM phases and career certainty on the one hand, and the CDM difficulties – career choice readiness, lack of information and inconsistent information, on the other hand). One-way ANOVA's and Tuckey HSD post-hoc test were conducted for simple effect analyses (the relationship between the CDM phases and the CDM difficulties at each level of career certainty).

Results

Two-way ANOVA revealed that surveyed students in various CDM phases ($F(3, 219)=2.16$; $p>.05$) and at distinct level of career certainty ($F(1, 219)=1.76$; $p>.05$) did not differ in the lack of

career choice readiness (Table 1). The interaction effect of the CDM phases and career certainty on the career choice readiness was not statistically significant ($F(3, 219)=1.03$; $p>.05$). Accordingly, Hypothesis 1 was not confirmed.

Table 1. Descriptive statistics for career choice readiness in various CDM phases and at different level of career certainty

Career certainty	CDM phases	Mean	SD	N
Uncertain about career choice	4 th -the latest	2,99	,52	13
	3th	2,81	,57	33
	2nd	2,82	,45	21
	1 st -the earliest	3,15	,57	19
	Total	2,91	,55	86
Certain about career choice	4 th -the latest	2,64	,50	56
	3th	2,78	,66	57
	2nd	2,85	,51	16
	1 st -the earliest	3,03	,39	12
	Total	2,75	,57	141
Total	4 th -the latest	2,70	,52	69
	3th	2,79	,62	90
	2nd	2,83	,47	37
	1 st -the earliest	3,10	,50	31
	Total	2,81	,56	227

As can be seen from Table 2, the participants in more advanced CDM phases ($F(3, 219)=7.23$; $p<.001$) and the participants who were certain about career alternatives ($F(3, 219)=4.23$; $p<.01$) were faced with a lower degree of the lack of information about a career choice process compared to the participants in earlier CDM phases and the participants who were uncertain about career alternatives. Career certainty moderates the relationship between the lack of information and the CDM phases ($F(3, 219)=6.10$; $p<.01$). Simple effects analyses revealed that the students in the latest CDM phase who were certain about career options experienced a lower degree of the lack of information about themselves, occupations and decision-making in comparison to the students in the same CDM phase who were uncertain about career alternatives ($M_1=1.68$ vs. $M_2=2.85$; $p<.001$). Thus, Hypothesis 2 was confirmed.

The results presented in Table 3. showed that the respondents in later CDM phases reported a lower degree of inconsistent information about the career choice process compared to the respondents in earlier CDM phases ($F(3, 219)=6.84$; $p<.001$). The students who were certain about career options did not differ in the degree of inconsistent information from the students who were uncertain about career alternatives ($F(1, 219)=1.87$; $p>.05$). The results indicated that the career certainty moderates the relationship between inconsistent information and the CDM phases ($F(3, 219)=6.37$; $p<.001$). Simple effects analyses indicated that the participants in the latest CDM phase who were certain about career options experienced a lower degree of inconsistent information in comparison to the participants in the same CDM phase who were uncertain about career alternatives ($M_1=1.74$ vs. $M_2=2.78$; $p<.001$). Consequently, Hypothesis 3 was confirmed.

Table 2. Descriptive statistics for lack of information in various CDM phases and at different level of carer certainty

Career certainty	CDM phases	Mean	SD	N
Uncertain about career choice	4 th -the latest	2,84	,78	13
	3th	2,49	,79	33
	2nd	2,62	,66	21
	1 st -the earliest	2,85	,73	19

	Total	2,65	,75	86
Certain about career choice	4 th -the latest	1,67	,79	56
	3th	2,12	,77	57
	2nd	2,55	,82	16
	1 st -the earliest	3,17	,83	12
	Total	2,08	,89	141
Total	4 th -the latest	1,89	,91	69
	3th	2,26	,79	90
	2nd	2,59	,73	37
	1 st -the earliest	2,97	,77	31
	Total	2,30	,89	227

Table 3. Descriptive statistics for inconsistent information in various CDM phases and at different level of career certainty

Career certainty	CDM phases	Mean	SD	N
Uncertain about career choice	4 th -the latest	2,78	,81	13
	3th	2,32	,66	33
	2nd	2,39	,61	21
	1 st -the earliest	2,79	,84	19
	Total	2,51	,73	86
Certain about career choice	4 th -the latest	1,74	,73	56
	3th	2,18	,80	57
	2nd	2,62	,87	16
	1 st -the earliest	3,09	,77	12
	Total	2,13	,87	141
Total	4 th -the latest	1,93	,84	69
	3th	2,23	,75	90
	2nd	2,49	,73	37
	1 st -the earliest	2,91	,81	31
	Total	2,27	,84	227

Discussion

The aim of this study was to explore the relationship between the career decision-making (CDM) difficulties (career choice readiness, lack of information and inconsistent information) and the career decision-making (CDM) phases at two distinct levels of career certainty and to gather the empirical data about a career choice (choice of study or faculty) among secondary school students in the Macedonian context.

The results of the study demonstrated that most of the participants were in the third CDM phase which could be expected because the time span between making a definite career choice and starting higher education was 6 months. The degree of career choice readiness, the CDM information and inconsistent information were moderate. The career choice readiness (i.e. the lack of career readiness), as was found, was not significantly associated with the CDM progress and certainty. These results are not consistent with Hirschi and Läge's (2007) findings. However, the inconsistency in the results could be explained by the participants' age. In this study, they were older and in the period preceding the transition from secondary to higher education that probably contributed to their higher willingness to engage in the career choice regardless of the career decidedness.

The study findings suggested that the surveyed students in the earlier CDM phases were less informed about the career decision-making process. Namely, they needed more information about their interests and abilities, about occupations and decision-making in order to progress in the career

decision-making process. The respondents in the more advanced CDM phase demonstrated a lower level of inconsistent information (unreliable, confusing information, internal and external conflicts), which implies that crystalization of preferences, clear information/knowledge about occupations and study opportunities, as well as the support from family members, are important since they contribute to the reduction of career alternatives and to raising choice confidence.

On the other hand, the conducted analyses revealed that the degree of career indecision (lack of information and inconsistent information) among students with one choice depended on career certainty. This implies that the circumscription of career opportunities should be made carefully in line with preferences and environmental conditions, as well (Gottfredson, 2005), and in accordance with Gati and Asher's (2001) suggestions.

Future studies should investigate the role of social support in career certainty and the CDM progress, as well as a broader cultural context.

The present study demonstrated that career decision-making among secondary school students should be improved by an implementation of short career courses or organization of workshops aimed at increasing self-knowledge and knowledge of prospect occupations and enhancing career decision-making skills.

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Rezime

Proces odlučivanja u vezi karijere se javlja u uzastopnim fazama. Mnoge teškoće i izazovi interreferiraju u napretku učenika u tom procesu. Shodno tome, cilj ove studije bio je da se istraži povezanost teškoća u procesu donošenja karijerne odluke (CDM) za napredak u tom procesu i to u uslovima dva različita nivoa sigurnosti/poverenja u karijerne odluke. Učesnici istraživanja su 227 učenika četvrte (završne) godine srednjeg obrazovanja, pre tranzicije ka visokom obrazovanju (tj izbora fakulteta / budućeg zanimanja). Upotrebljena su dva merna instrumenta za prikupljanje podataka: Upitnik za poteškoće u donošenju karijernih odluka sa dva pitanja koja se odnose na sigurnost/poverenje u karijerne odluke i 34 izjave koje procenjuju 3 vrste CDM poteškoća: nespremnost za izbor karijere, nedostatak informacija i nekonzistentne informacije o CDM procesu (Gati, Krausz & Osipov, 1996), kao i jedno-ajtemska mera sa 4 alternative u cilju procene CDM faze. Za obradu podataka primenjena je dvofaktorska ANOVA. Utvrđeno je da se ispitanici srednjoškolski koji se nalaze u različitim fazama karijernog odlučivanja i na različitom nivou karijerne sigurnosti, ne razlikuju u nespremnosti za izbor karijere. Nađeno je da stepen poverenja u karijerne odluke moderira odnos nedostatka informacija i nedosledne informacije o karijernom odlučivanju. Analiza jednostavnih efekata je pokazala da su učesnici u zadnjoj fazi u procesu donošenja odluke o karijeri koji su bili sigurni u opcije u vezi karijere, izjavili da imaju više informacija za proces karijernog odlučivanja i da su percipirali niži stepen nedoslednosti informacija vezanih za izbor karijere u odnosu na učesnike u istoj fazi karijernog odlučivanja koji su bili nesigurni u vezi karijernih opcija.

Ključne reči: teškoće u procesu donošenja karijerne odluke, faze u procesu donošenja karijerne odluke, poverenje u karijerne odluke, srednjoškolski

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CAREER MOTIVATIONAL TYPES IN BULGARIA

Abstract

The Career Motivational Types Questionnaire based on Moses (2003) typology of major career motivators was used in 2013 in a Bulgarian sample of 132 respondents (workers, unemployed people and students). The results were compared with the findings from a study of the major Bulgarian career motivational types in 2007 ($N=517$). The career motivational types of Personal developers and Authenticity seekers have been among the major career motivators in Bulgaria since 2007, and the career motivational type of Career builders has remained relatively consistent over the years. There is a trend for Stability seekers to increase in importance as a leading career motivator, and Lifestylers to decrease as a leading career motivator. No significant gender differences were found in career motivational types in Bulgaria in 2013, but in 2007 males were more often Personal developers, whilst women were more often Sociability seekers. University graduates were more often Novelty seekers in both 2007 and 2013. In Bulgaria in 2007, there were not any significant differences between the single and married respondents in their motivation for work, but in Bulgaria in 2013 married and single people were more often Sociability seekers than cohabitating and divorced subjects. In Bulgaria in 2007, Authenticity seekers and Sociability seekers were more frequent career motivators with the advance of age, but in 2013 Novelty seekers were already a more frequent type with the advance of age. There were no significant differences between workers and unemployed people in Bulgaria in 2007 in their career motivational types, but in 2013 unemployed people were more often Stability seekers, Career builders, Sociability seekers, and Novelty seekers than workers. Career builders as a motivational type correlated with the biggest number of other career motivational types in 2007 and 2013. The striving to be at the top of hierarchy is supported by the motives for being independent, getting well with the other people at work, implementing innovations and finding harmony between work and personal life.

Key words: *motives, career motivation, cohort study*

Introduction

The study of career motivation could contribute to enhancing motivation and improving work conditions.

Motivation is the drive for action and goal setting (Heckhausen, 1986, p.34).

Career motivation includes attitudes toward a career, along with commitment (Agbor-Baiyee, 1997). It is influenced by one's interests, expectations, some personality traits (Nauta, 2004), and internal locus of control (Sheldon et al., 2004).

Moses (2003, pp. 27-55) identified eight career motivational types:

- A Sociability seeker loves working closely in group environments maintaining good relationships with co-workers and clients.
- Career builders strive for advance in the organisational hierarchy.
- An Authenticity seeker needs to express his or her own personality and values.
- Personal developers strive for honing skills and acquiring new ones.
- Autonomy seekers want to be independent from authority in work.
- A Novelty seeker is constantly changing the tasks and the jobs.
- Stability seekers enjoy following established routines in work. They prefer feeling secure.
- Lifestylers spend time in leisure pursuits. They put their personal life before work.

Several other authors divide career motivation into motivation for autonomy, relational motivation and financial motivation (Wilson, Marlino & Kickul, 2004). Social interests in Holland's occupational types (Holland, 1973) correspond to Sociability seekers' career motivation.

Autonomy seekers and Personal developers could have higher intrinsic motivation, because supporting autonomy and promoting a person's own competence increase intrinsic motivation (Deci & Ryan, 1985). People are attracted to professions in which they have proficiency and receive financial stability (Laosebikan-Buggs, 2009) that is related to Personal developers and Stability seekers as leading career motivators.

The study of the leading career motivational types over the years could contribute to improving working conditions and to offer more possibilities for work engagement.

From 1997 to 1999, the results from some value surveys indicated that 80% of Bulgarians valued security and stability at work (related to Stability seekers' career motivation); 76% of Bulgarians valued work relevant to their abilities and 61% valued interesting work (related to Authenticity seekers and Personal developers career motivation); 64% of Bulgarians valued good relationships with their colleagues at work and 56% valued the possibilities for new acquaintances at the workplace (related to Sociability seekers' career motivation); 44% valued the possibilities for career advance and 53% valued having a respected position in the organization (related to Career builders motivation) (Minkov, 2007). Bulgarians value Mastery and Autonomy (Papazova et al., 2008, p.49) that could be related to Personal developers and Autonomy seekers as career motivational types.

The hypothesis was about consistency in major career motivators between 2007 and 2013 measured in Bulgaria.

Materials and Methods

Sample

In 2007, there were 517 respondents in Bulgaria (Slavchov & Stoyanova, 2007). 213 were men, 299 were women, and 5 did not indicate their gender. They were from 14 to 84 years old and came from central Bulgaria (N=37), south-western Bulgaria (N=265), north Bulgaria (N=83), the region of Sofia (N=63), and from Sofia (N=51). 18 did not indicate their place of living.

In 2013, 132 subjects were studied in Bulgaria. They came from south-western Bulgaria (N = 106), Sofia (N = 19), and from the North-West of the country (N = 7). There were 46 (34.8%) males and 86 (65.2%) females. Their age varied between 20 and 60 years old. The mean age was 26 (SD = 6.5). They had different family status – 23 were married (17.4%), 57 were single (43.2%), 2 were divorced (1.5%), 20 cohabitated (15.2%), and 30 (22.7%) did not give any information regarding their family status. Most of them had secondary education (N=98; 74.2%). The others were university graduates (N=32; 24.3%). Only 2 (1.5%) had just primary education. Most were students (N = 68; 51.5%) in psychology (N = 51), law (N = 10) and public administration (N = 7) in their finals years of study. There were 21 workers (15.9%) and they had different occupations, mainly administrative ones. There were 42 unemployed respondents (31.8%). One was a pensioner (0.8%). More than half of the respondents did not have any work experience (N = 62; 47%). The others had different work experience – from 7 months to 38 years. Their average work experience was 6 years (SD = 6 years). The majority had work experience of less than 7 years (N = 50).

Method

A questionnaire created by Slavchov & Stoyanova (2007) measuring career motivational types according to Moses' typology (2003) was used in 2013. Each career motivational type included 8 items and the scale Lie included 9 items. The answers were given on a 5-point scale from "Not at all"-1 to "A lot"-5.

The results from the standardization of this questionnaire in the Bulgarian sample in 2007 indicated: $\alpha = .8122$ for Authenticity seekers; $\alpha = .7556$ for the scale Lie (social desirability); $\alpha = .7526$ for the scale Career builders; $\alpha = 0.7462$ for the scale Novelty seekers; $\alpha = .7183$ for the scale Personal developers; $\alpha = 0.7096$ for Stability seekers; $\alpha = .7016$ for Autonomy seekers; $\alpha = .6995$ for Sociability seekers; and $\alpha = 0.6472$ for the scale Lifestylers (Slavchov & Stoyanova, 2007).

The data were statistically processed by means of SPSS 16 using Pearson correlations, the non-parametric Kruskal Wallis Test (for comparisons between more than two social groups), the Independent Samples T Test (for gender comparisons and for comparisons of career motivational types between years 2007 and 2013), and the Linear Regression equation (for age differences).

Results

The major career motivators in Bulgaria in 2007 and 2013 are presented in Table 1.

Table 1. Leading (major) career motivational types in Bulgaria in 2007 and 2013

Major career motivator	% in 2007	% in 2013
Personal developers	25.2	22.0
Stability seekers	2.5	15.2
Authenticity seekers	17.4	20.5
Autonomy seekers	6.6	9.8
Career builders	11.4	9.1
Lifestylers	19.8	5.3
Novelty seekers	4.4	4.5
Sociability seekers	14.1	3.8

In 2013, 10.1% of the respondents had more than one major motivator (equal scores on two or three career motivators).

No significant gender differences were found in career motivational types in Bulgaria in 2013 (for Authenticity seekers $t_{130}=1.207$; $p=.23$; for Personal developers $t_{130}=0.23$; $p=.982$; for Stability seekers $t_{130}=0.286$; $p=.775$; for Lifestylers $t_{130}=1.339$; $p=.183$; for Career seekers $t_{130}=.479$; $p=.663$; for Sociability seekers $t_{130}=.462$; $p=.645$; for Novelty seekers $t_{130}=0.106$; $p=.916$; for Autonomy seekers $t_{130}=0.293$; $p=.77$), but in 2007 males were more often Personal developers ($t_{510}=0.505$; $p=.614$), whilst women were more often Sociability seekers ($t_{510}=0.747$; $p=.455$) (Slavchov & Stoyanova, 2007).

In Bulgaria in 2007, there were no significant differences (see Slavchov & Stoyanova, 2007) between the single and married respondents in their career motivational types, but in 2013 married and single Bulgarians were more often (Kruskal Wallis = 10.631; $df = 3$; $p = .014$; Mean Rank $_{divorced} = 10.5$; Mean Rank $_{cohabitation} = 37.85$; Mean Rank $_{single} = 54.22$; Mean Rank $_{married} = 60.2$) Sociability seekers than cohabitating and divorced subjects.

University graduates were more often Novelty seekers in 2007 (see Slavchov & Stoyanova, 2007) and in 2013 (Kruskal Wallis = 12.336; $df = 2$; $p = .002$; Mean Rank $_{basic} = 88.5$; Mean Rank $_{secondary} = 59.63$; Mean Rank $_{university} = 86.17$).

In Bulgaria in 2007, Authenticity seekers and Sociability seekers were more frequent career motivators with age advance (see Slavchov & Stoyanova, 2007), but in 2013 Novelty seekers were already a more frequent type with age advance (Linear regression model; $R = .174$; $R^2 = .03$; $F_{1, 130} = 4.073$; $p = .046$; $B = .15$; $t = 2.018$; $p = .046$).

There were no significant differences between workers and unemployed people in Bulgaria in 2007 in their career motivational types (see Slavchov & Stoyanova, 2007), but in 2013 unemployed individuals were more often Stability seekers, Career builders, Sociability seekers, and Novelty seekers (see Table 2) than the other occupational groups (workers and students).

Table 2. The significant differences between social groups of students, workers and unemployed people in their career motivational types in Bulgaria in 2013

Career motivational types	Mean Rank workers	Mean Rank unemployed	Mean Rank students	Kruskal Wallis	df	p
Stability seekers	34.71	85.94	64.56	25.853	3	< .001
Career builders	56.45	85.58	58.63	16.959	3	.001
Sociability seekers	70.76	83.36	54.74	14.915	3	.002
Novelty seekers	79.62	83.01	52.24	19.83	3	< .001

Career builders as a motivational type correlated with the biggest number of other career motivational types in 2007 – Personal developers ($r=.352$), Novelty seekers ($r=.317$). Personal developers also correlated significantly with Novelty seekers ($r=.526$) in 2007 (see Figure 1).

Career builders as a motivational type also correlated with the biggest number of other career motivational types – Sociability seekers ($r=.473$), Autonomy seekers ($r=.423$), Novelty seekers ($r=.347$) and Lifestylers ($r=.315$) in 2013 (see Figure 2).

These findings revealed a consistent tendency and strong links between the career motivators.

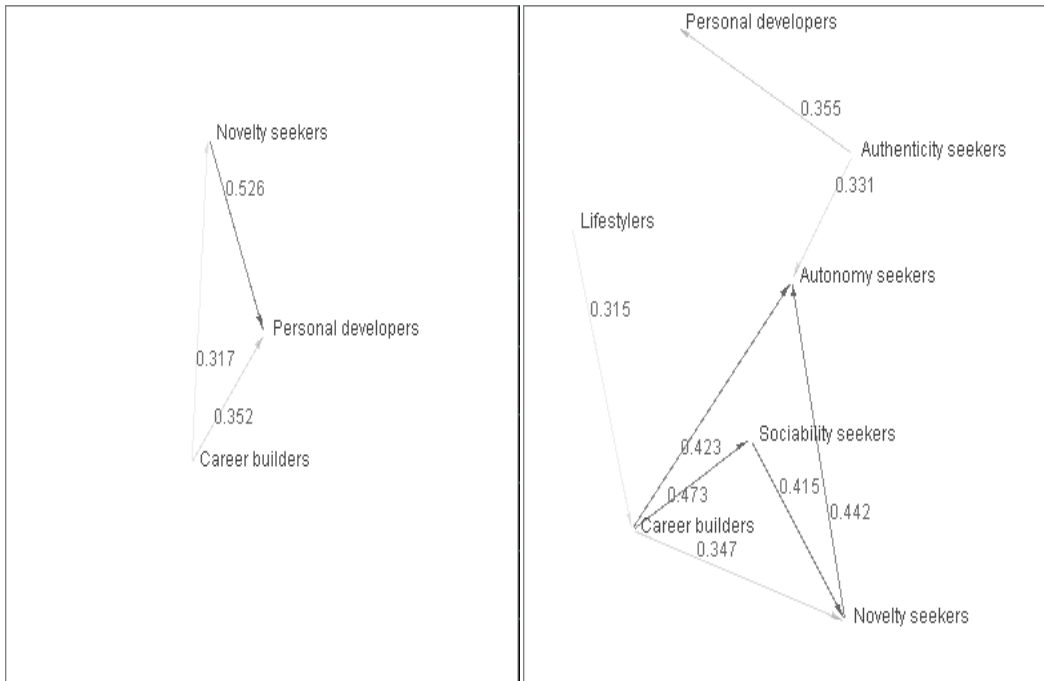


Figure 1 Strong correlations between career motivational types in 2007

Figure 2 Strong correlations between career motivational types in 2013

Strong correlations between career motivational types in Bulgaria were strengthened in 2013 compared to 2007.

The average scores on career motivational types were compared for 2007 and 2013 in Bulgaria (see Table 3).

Table 3. Differences between career motivational types in Bulgaria in 2007 and 2013

	year	<i>N</i>	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Personal developers	2007	517	28.6	4.94	3.547	647	<.001
	2013	132	30.33	5.25			
Career builders	2007	517	27.69	5.41	0.407	647	.684
	2013	132	27.91	5.4			
Novelty seekers	2007	517	27.43	5.12	2.394	647	.017
	2013	132	26.21	5.55			
Lifestylers	2007	517	29.69	5.01	4.902	647	<.001
	2013	132	27.33	4.56			
Autonomy seekers	2007	517	29.8	4.54	3.93	647	<.001
	2013	132	28.01	5.19			
Stability seekers	2007	517	27.49	4.93	1.94	647	.053
	2013	132	28.43	5.18			
Sociability seekers	2007	517	29.56	3.93	4.223	180	<.001
	2013	132	27.67	4.73			
Authenticity seekers	2007	517	30.95	3.44	0.991	647	.322
	2013	132	30.61	3.81			

Lifestylers, Autonomy seekers and Sociability seekers have diminished their importance as career motivators over the years, whilst Personal developers and Novelty seekers have increased their importance as career motivators from 2007 to 2013. The other three career motivational types (Career builders, Stability seekers and Authenticity seekers) remained consistent during the years. These results differed from the results in Table 1, because the results in Table 1 concerned only one major (leading) career motivator per participant that the respondents had the highest score on, but the results in Table 3 compared all individual scores on all career motivational types.

Discussion

There are no other relevant surveys in Bulgaria using the same methodology based on Moses (2003) career motivational types. A study in Greece indicated that Personal developers, Stability seekers and Authenticity seekers were the major career motivators in 2013 (Giannouli & Stoyanova, 2014), like in Bulgaria in 2013. Working people from different parts of the world more often declared publicly the motives for their career development related to their personal development than to career building (Winter & Brammar, 2014).

The hypothesis about consistency in major career motivators between 2007 and 2013 measuring in Bulgaria was partly supported. The career motivational types of Career builders, Stability seekers and Authenticity seekers remained consistent during these years, but there is a trend for Stability seekers to increase in importance as a leading career motivator during these years, related to higher insecurity in the social situation in the country, including the increased number of unemployed people.

The career motivational types of Personal developers has been among the leading (major) career motivators in Bulgaria since 1997 (Minkov, 2007; Slavchov & Stoyanova, 2007; Giannouli & Stoyanova, 2014). More recent data indicate that the career motivational type of Authenticity seekers has been among the leading career motivators in Bulgaria since 2007 (Stoyanova and Slavchov, 2007). The other major career motivators differed in Bulgaria in 2013 compared with 2007.

The diminished significance of Lifestylers as a leading career motivator also could be related to the socio-economic situation in Bulgaria, the market and work competition. The diminished importance of Sociability seekers means lower trust and confidence in co-workers that could be investigated more in relation to the family. Lower levels of satisfaction with support from colleagues and satisfaction with trust in colleagues in 2013 in Bulgaria were more frequent than their previous higher levels (Stanoeva, 2015).

The questionnaire measuring career motivational types could be used in career consulting for revealing personal career motivators and finding the appropriate job according to the human needs. The results from this questionnaire could be used for improvement of work motivation by means of clarifying the individual strengths and weaknesses of each career motivational type and better self-knowledge.

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Rezime

Upitnik karijernih motivacionih tipova zasnovan na Mozesovoj (Moses, 2003) tipologiji glavnih karijernih podsticaja, primenjen je 2013. godine na bugarskom uzorku od 132 ispitanika (zaposlenih, nezaposlenih i studenata). Rezultati su upoređeni sa nalazima studije o glavnim karijernim motivacionim tipovima, sprovedene u Bugarskoj 2007. godine na uzorku od 517 ispitanika. Karijerni motivacioni tipovi Ličnog razvoja i Traganja za autentičnošću bili su među glavnim karijernim pokretačima u Bugarskoj od 2007. godine, dok je karijerni motivacioni tip Izgradnje karijere ostao relativno dosledan tokom godina. Uočava se trend da stil Traganja za stabilnošću dobija na značaju kao vodeći karijerni pokretač, dok Stilizovanje života gubi na značaju kao vodeći karijerni pokretač. U studiji iz 2013. godine nisu pronađene polne razlike u pogledu karijernih motivacionih stilova, dok su 2007. godine muškarci češće pripadali tipu Ličnog razvoja, dok su žene češće pripadale stilu Traganja za socijalnošću. Diplomirani studenti su češće pripadali tipu Traganja za novinom i 2007. i 2013. godine. U Bugarskoj 2007. godine nije bilo značajnih razlika u radnoj motivaciji između samaca i ispitanika koji su bili u braku, dok su 2013. godine osobe u braku i samci češće pripadali stilu Traganja za socijalnošću nego osobe u divljem braku ili razvedeni. U studiji 2007. godine su stilovi Traganja za autentičnošću i Traganja za socijalnošću bili učestaliji karijerni pokretači sa porastom uzrasta, dok je 2013. godine stil Traganja za novinom učestaliji sa porastom uzrasta. Nije bilo značajnih razlika u pogledu karijernih motivacionih tipova između zaposlenih i nezaposlenih u studiji iz 2007. godine, dok su 2013. godine nezaposleni češće nego zaposleni pripadali tipovima Traganja za stabilnošću, Izgradnje karijere, Traganja za socijalnošću i Traganja za novinom. Izgradnja karijere kao motivacioni tip korelira sa najvećim brojem drugih karijernih motivacionih tipova i u studiji iz 2007. i u studiji iz 2013. godine. Nastojanje da se bude na vrhu hijerarhije podržano je potrebom za nezavisnošću, da se bude u dobrim odnosima sa drugima na poslu, da se primenjuju inovacije i da se nađe sklad između posla i ličnog života.

Ključne reči: *motivi, karijerna motivacija, studija kohorte*

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THE ASSESSMENT OF EMPLOYABILITY: A PILOT STUDY ON THE COMPETENCE-BASED MEASURE OF EMPLOYABILITY

Abstract

In the light of the current global economic crisis which has inevitably led to a higher level of unemployment, career paths are less predictable. Therefore, students should be equipped with a set of skills that will enable them to maintain employment and/or obtain a new one. Van der Heijde and Van der Heijden (2003) defined employability as the continuously fulfilling, acquiring or creating work through the optimal use of competences. They developed a multi-dimensional instrument of employability, the Competence-based Measure of Employability (Cb_ME), which contributes to the career construction during the university studies. This study examined the psychometric properties of the instrument (adapted version for students) in an Italian sample. 375 (M = 76, F = 299, $M_{age} = 21,94$) University students completed the following questionnaire: socio-demographic data, Self-Perceived Employability Scale for Students, Competence-Based Measurement of Employability, Employability Activities Scale. Correlational and confirmatory factor analyses were performed on the instruments. The obtained results provided an acceptable support for the multidimensional structure of Cb_ME with the acceptable fit indexes: $\chi^2_{(80)} = 207.06, p < .000$; CFI = .94; SRMR = .046; RMSEA = .065, I.C. 90% = .054 - .076, $p = .012$. An acceptable internal consistency was found (Cronbach's alpha values ranged from .67 to .92). The correlations between the scales were positive and significant ($p < .01$). The findings confirm the validity of Cb_ME adapted for students.

Keywords: *employability, competences, university students.*

Introduction

Traditionally, careers were considered to be developing along a straight line, usually within one or two companies over the course of individuals' work lives. An employee seemed to be guided by the extrinsic rewards of getting a job with an established company with annual pay raises and promotions (Hall, 1976; Rosenbaum, 1979). The relationship between a company and an employee was based on the implicit agreement, or the psychological contract, that the company would guarantee a secure job in exchange for that employee's loyalty (Rousseau, 1989). This psychological contract was generally defined as the mutual expectations that both the company and the employee had about an individual's career management (Thijssen, Van der Heijden, & Rocco, 2008).

In the early 1990s, companies required a more versatile workforce to stay competitive. This need for flexibility led them to offer training and development programs in order to retain highly educated and versatile employees. Thus, the traditional relationship between the employee and the company evolved to a non-linear and more personal development notion in which individuals were engaged in a more proactive and self-directed vocational behaviour. Consequently, enhancing one's overall employability became a major focus for many individuals and companies (Thijssen, Van der Heijden, & Rocco, 2008).

The term 'employability' was introduced by William Beveridge (1909) in his exploration of the reasons for unemployment in the UK: the unemployed were the individuals in need of help, such as the elderly, who were distinct, above all in the USA, from the employable individuals, i.e., the

individuals looking for work (Gazier, 1998). Over the years, the term has assumed a wide range of interpretations and goals. Broadly defined, employability refers to an individual's ability to find a job, maintain a job, move between jobs and/or industries, should the need arise (Brown, George-Curran, & Smith, 2003; Sanders & de Grip, 2004). Specifically, employability focuses on the relationship between individual characteristics and behavioural/cognitive adaptation to a workplace (Fugate, 2006). Recently, it has been defined as "the perceived ability to attain sustainable employment appropriate to one's qualification level" (Rothwell, Jewell, & Hardie, 2009, p. 154). This definition underlines the emergence of the new psychological contract. As Garavan highlights, employability as "opposed to employment security is now considered the new form of psychological contract between employers and employees" (Garavan, 1999, p. 1). He emphasises a mutual obligation and responsibility for developing and maintaining "advanced general skills" and notes that "the new way of work is for employees to think of themselves as self-employed even though they are employed by an organisation" (Garavan, 1999, p. 1).

Generally speaking, concepts of employability vary in the way they focus on the current employability radius of a person, on employability skills or personal qualifications, and on contextual factors (Thijssen, Van der Heijden, & Rocco, 2008).

As for the present study, in accordance with the ideas presented by Van der Heijde and Van der Heijden, employability has been considered to be a "continuous fulfilling, acquiring or creating of work through the optimal use of competencies" (van der Heijde and van der Heijden, 2006, p. 453). Regarding the fact that such an interpretation emphasises competencies, attention has been paid to university students that should be equipped with a set of skills that will enable them to gain and retain employment, and to obtain new competences, if required. A great number of career-oriented students invest a lot in the improvement of their employment prospects throughout their university education, without considering that the achievement of good academic qualifications does no more suffice to secure employment (Yorke & Knight, 2007). As a matter of fact, modern complex societies are demanding specific competencies that individuals can obtain through experience, training or more informal means (Helyer, 2011). In the light of the aforementioned approach, Van der Heijde and Van der Heijden developed a multi-dimensional instrument of employability based on competencies, whose importance lies in the fact that its application to university students may be functional and helpful to their career construction. The Competence-based measurement of employability consists of five dimensions: 1. Occupational expertise; 2. Anticipation and optimisation; 3. Personal flexibility; 4. Corporate sense; 5. Balance. *Occupational expertise* refers to professional and meta-cognitive knowledge and skills; *Anticipation and optimisation* involve the preparation for future work changes in a personal and creative manner; *Personal flexibility* encompasses adapting easily to all kinds of changes in the internal and external labor market; *Corporate sense* concerns participation and performance in different workgroups (department, organisation, working teams, occupational community, and other networks); *Balance* means implies a compromise between opposing employers' interests as well as one's own opposing work, career, and private interests (employee) and between employers' and employees' interests.

With the premise that the only existing instrument that assesses students' employability is the Self-perceived Employability for students (Rothwell et al. 2007), the purpose of the present study was to examine the psychometric properties of the Cb_ME in an Italian sample of university students. Factor structure was analysed through Confirmatory Factor Analyses, whereas bivariate correlations between the dimensions of Cb_ME, Self-Perceived Employability Scale for Students, and Employability activities scale were computed to analyse the convergent validity.

Method

Participants

A convenience sample of 375 university students was recruited (Females = 79.7%; Males = 20.3%; $M_{age} = 21,94$, $SD = 3,85$). At the time of data collection, 48% of the participants were enrolled in the first year, 10,7% in the second year, and 27,5% in the third year of the first level degree course; whereas 4,5% of the subjects attended the first year, and 9,3% attended the second year of the master's degree course.

Measures

The questionnaire consisted of the following sections:

- a) *Socio-anagraphic section*. It included the information about gender, age, university, degree course, year attended.
- b) *Self-perceived Employability Scale for Students (SPES-S; Rothwell et al., 2007)*. The Italian version of the scale was used to assess the perceived employability of the students (Di Fabio & Palazzeschi, 2013). It is composed by 16 items rated on a 5-point Likert scale (1 = “strongly disagree”, 5 = “strongly agree”). The structure of the scale is mono-dimensional and the scores ranged from 16 to 80.
- c) *Employability Activities Scale (EAS; Van Dam, 2004)*. The scale assesses the activities individuals undertake to improve and maintain their employability. It consists of 6 items rated on a 4-point Likert scale (1 = “strongly disagree”, 4 = “strongly agree”). The structure of the scale is mono-dimensional and the scores ranged from 6 to 24.
- d) *Competence-Based Measurement of Employability (Cb_ME; Van der Heijde & Van der Heijden, 2006)*. The measure is composed of 47 items assessing the five dimensions hypothesised by the authors: Occupational expertise (15 items), Anticipation and optimisation (8 items), Personal flexibility (8 items), Corporate sense (7 items), and Balance (9 items). The items are rated on a 6-point Likert scale.

Procedure

A written informed consent was taken from students, who were asked to voluntarily and anonymously complete a questionnaire during their classes taught throughout the period ranging from March to July 2014. The fulfilment of the questionnaire took approximately 25 minutes. Potential order effects were controlled by presenting the scales in a randomised order.

Data analyses

Descriptive and preliminary analyses were conducted using SPSS 20, and structural analyses were performed using Mplus7. Descriptive analyses included means, standards deviations, and ranges of the scores.

Before performing factorial analyses, preliminary analyses were carried out in order to assess the assumptions of normality, “gender” and “year of attendance” effects on the scales scores, and their reliability. The assumptions of normality were checked using statistic tests (Kolmogorov-Smirnov and Shapiro-Wilk), and descriptive statistics (mean, median, mode, standard deviation, skewness, and kurtosis). The normal distribution can be assumed if the values of mean, median, and mode coincide, and if the values of skewness and kurtosis range from -1 to +1 (Barbaranelli & Ingoglia, 2013, p. 268). Independent samples t-tests were conducted to examine differences between group means scores of the aforementioned scales. Finally, Cronbach’s alpha was used to assess the internal reliability of each scale and sub-scale.

A Confirmatory Factor Analysis (CFA) was carried out to examine the factor structure of the Competence-Based Measurement of Employability (Cb_ME). The following fit indices were considered: Chi-square, RMSEA (Root-Mean-Square Error of Approximation), CFI (Comparative Fit Index), SRMR (Standardised Root Mean Square Residual).

Finally, Pearson’s bivariate and partial correlations were performed in order to verify convergent validity of the measure. Convergent validity can be defined as the extent to which the scores on one measure are related to the scores collected from a similar or different measure. Positive correlations were thus hypothesised between the Cb_ME dimensions and SPES-S and EAS scores.

Results

Descriptive analyses

Descriptive statistics (mean, standard deviation, range scores) of the scales scores are shown in Table 1.

Table 1. Descriptive statistics of the scales scores

	Minimum	Maximum	Mean	Standard deviation
SPES-S				
Self-Perceived Employability Scale				
Total	23	79	44,66	8,22
Males	27	63	46,20	8,54
Females	23	79	44,27	8,10
Bachelors	23	79	44,77	8,05
Masters	24	65	43,98	9,24
Cb_ME – Occupational Expertise				
Total (n = 375)	1,47	6,0	4,46	,65
Males	1,93	5,8	4,33	,66
Females	1,47	6,0	4,50	,65
Bachelors	1,47	6,0	4,39	,63
Masters	1,93	6,0	4,89	,64
Cb_ME – Anticipation and Optimisation				
Total	1,88	5,88	3,87	,73
Males	1,88	5,5	3,76	,71
Females	1,88	5,88	3,90	,73
Bachelors	1,88	5,88	3,80	,71
Masters	1,88	5,50	4,36	,66
Cb_ME – Personal Flexibility				
Total	2,13	5,63	3,81	,53
Males	2,25	5,00	3,85	,53
Females	2,13	5,63	3,80	,52
Bachelors	2,13	5,63	3,78	,51
Masters	2,25	5,00	4,02	,57
Cb_ME – Corporate sense				
Total	1,00	5,86	3,20	,92
Males	1,00	5,71	3,16	,97
Females	1,14	5,86	3,21	,91
Bachelors	1,14	5,86	3,13	,89
Masters	1	5,57	3,60	1,0
Cb_ME – Balance				
Total	1,44	5,44	3,86	,67
Males	1,89	5,11	3,83	,71
Females	1,44	5,44	3,87	,67
Bachelors	1,44	5,44	3,83	,67
Masters	1,89	5,33	4,02	,68
EAS – Employability activities scale				
Total	7	24	16,62	2,91
Males	10	24	16,51	3,06
Females	7	24	16,65	2,87
Bachelors	7	24	16,34	2,84
Masters	12	23	18,37	2,71

Preliminary analyses

Normality assumptions

Kolmogorov-Smirnov (K-S) and Shapiro-Wilk tests showed significant values ($p < .001$) in all the scales, that is, the scores distributions were not normal. As these statistics tests are influenced by the sample size, it is not surprising that the values were significant. Thus, descriptive statistics were

considered. As for SPES-S, the distribution of the item scores can be treated as normal. With regard to EAS, only item number 1 was not normally distributed as the kurtosis was too high (2.43). Some participants (outliers) obtained higher scores in that item and were excluded from the analyses. Finally, as for CB_ME, values of kurtosis and skewness of items 25 and 28 were $> +1$ (2.70 and 1.54 respectively). Outliers were identified and excluded from the analyses.

Independent sample t-test

Independent sample t-tests were launched to assess differences between group means scores of the aforementioned scales and to examine “gender” and “year of attendance” effects. As for the former, findings showed significant differences between males and females in the mean scores only in the “Occupational expertise” sub-scale, $t(373) = -2,05, p = .041$. Females obtained higher scores (see Table 1). Unfortunately, males and females were not equally distributed and the effect might be due to the higher number of the latter. As for the “year of attendance”, significant differences emerged in the scores of *Employability Activities Scale*, $t(373) = -4,80, p = .000$, “Occupational expertise”, $t(373) = -5,33, p = .000$, “Anticipation and optimisation”, $t(373) = -5,38, p = .000$, “Personal flexibility”, $t(373) = -3,21, p = .001$, and “Corporate sense”, $t(373) = -3,40, p = .001$, of CB_ME: masters obtained higher scores than bachelors (see Table 1), although they were fewer in number.

Reliability

The scales showed a good internal consistency. Cronbach’s alpha coefficients are shown in Table 2.

Table 2. Cronbach’s alpha of the scales

Scales	α
<i>Self-perceived Employability Scale for Students</i>	.84
<i>Employability Activities Scale</i>	.72
<i>Competence-based Measure of Employability</i>	
1. Occupational expertise	.91
2. Anticipation and optimisation	.77
3. Corporate sense	.85
4. Personal flexibility	.66
5. Balance	.67

Structural analyses

A confirmatory factor analysis (CFA) was conducted on the original factor structure. The Maximum Likelihood method was used. The first CFA showed very poor fit indexes: $\text{Chi}^2 = 3090.07$, $df = 1024, p < .000$; CFI = .73; SRMR = .077; RMSEA = .073, I.C. 90% = .070 ~ .073, $p = .000$. Parcels were constructed, for the sake of parsimony, by combining the items with the highest and lowest item-total correlations. Three parcels were assigned to each factor as indicators of the latent variables. Before carrying the CFA, a normal distribution of parcels was verified using descriptive statistics criteria. Only three parcels showed values of kurtosis higher than +1: parcel 1 and parcel 3 of “Occupational expertise” (1.464 and 1.344 respectively), and parcel 1 of “Personal flexibility” (1.136). Consequently, the Mean and Variance adjusted Maximum Likelihood (MLMV) method was used. This approach is a modified version of Satorra-Bentler robust method and is based on the mean and variance adjusted chi-square (Barbaranelli & Ingoglia, 2013).

The five structures with parcel showed acceptable fit indexes: $\text{Chi}^2 = 207.065$, $df = 80, p < .000$; CFI = .94; SRMR = .046; RMSEA = .065, I.C. 90% = .054 ~ .076, $p = .012$.

All the correlations between dimensions were significant and positive (see Table 3).

Table 3. Correlations between Cb_ME dimensions.

	Occupational expertise	Anticipation and optimisation	Personal flexibility	Corporate sense
Occupational expertise	-			
Anticipation and optimisation	.713***	-		
Personal flexibility	.694***	.697***	-	
Corporate sense	.576***	.750***	.696***	-
Balance	.648***	.697***	.656***	.652***

*** $p < .000$

A second order CFA was carried out to test the alternative model in which employability was presented as a latent variable and the five factors were its sub-dimensions. The model showed acceptable but lower fit indexes: $\chi^2 = 280.74$, $df = 85$, $p < .000$; CFI = .93; SRMR = .05; RMSEA = .078, I.C. 90% = .068 -.089, $p = .000$.

Bivariate correlations between Cb_ME, SPES-S, and EAS

Correlation analyses between the dimensions of Cb_ME and the scores of SPES-S and EAS were run to verify the convergent validity of the scale. The Cb_ME dimensions positively correlated with the total scores of SPES-S and EAS, thus providing strong evidence for the construct validity (Table 4).

Table 4. Bivariate correlations between CB_ME, SPES-S, and EAS

	1	2	3	4	5	6
1. Self-perceived Employability Scale	-					
2. Occupational expertise	.257**	-				
3. Anticipation and optimisation	.305**	.598**	-			
4. Personal flexibility	.286**	.574**	.533**	-		
5. Corporate sense	.298**	.520**	.612**	.535**	-	
6. Balance	.319**	.528**	.534**	.468**	.521**	-
7. Employability activities	.237**	.396**	.559**	.395**	.414**	.267**

** $p < .01$

Discussion and conclusion

Since scientific literature reports the Self-perceived Employability Scale for students (Rothwell et al. 2007) as the only instrument assessing students' employability in terms of perception, the present study aimed at examining psychometric properties of the Competence-based Measure of Employability (Van der Heijde & Van der Heijden, 2006) in an academic context.

The obtained results provided evidence to support the reliability and validity of the scale in the academic context, as well. First of all, the 47-item Competence-based Measure, previously tested only with employees and supervisors, showed a stronger internal reliability with undergraduate students. Secondly, data supported the multidimensional structure of the scale and confirmed the hypothesis that employability involves five dimensions, i.e., Occupational expertise, Anticipation and optimisation, Personal flexibility, Corporate sense, and Balance, that are not fully exclusive (Van der Heijde and Van der Heijden, 2006). Moreover, the subscales of the Cb_ME correlated with one another and with measures of the same construct, thus providing evidence for the convergent validity.

The results of t-test showed that master students were more employable than bachelors, that is, students at the end of their academic course showed higher levels of engagement in employability activities, good bases for a career development and future career changes (*Occupational expertise*), a twofold adaptation, the first one being proactive and creative (*Anticipation and optimization*), and the other more passive and reactive (*Personal flexibility*). Finally, they tend to participate in different communities and networks and, consequently, are able to build on social capital.

Some limitations concerned the sample size and homogeneity. This study was conducted using a sample with a relatively high proportion of females. Consequently, the gender effects in mean scores were not meaningfully appreciable. Using a broader sample may help improve the adaptation process as well as the generalisation of the findings.

Although the explanation of these findings remains somewhat tentative and open to scrutiny, some implications can be drawn: CB_ME might provide a user-friendly opportunity for practitioners to monitor students' competences, in order to contribute to the construction of career paths and to the planning of relevant actions for the future career strategies.

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Rezime

U svetlu aktuelne svetske ekonomske krize koja neizbežno dovodi do više stope nezaposlenosti, karijerni razvoj je manje predvidiv. Stoga bi studenti trebalo da budu opremljeni nizom veština koje će im pomagati u očuvanju zaposlenja ili dobijanju novog posla. Van der Heijde i Van der Heijden (2003) zapošljivost definišu kao kontinuirano ispunjavanje, sticanje ili stvaranje posla kroz optimalno angažovanje kompetencija. Oni su razvili multidimenzionalni instrument koji daje meru zapošljivosti na osnovu kompetencija (Cb_ME), koji može doprineti planiranju karijere još tokom univerzitetskog školovanja. U ovom istraživanju ispitivane su psihometrijske karakteristike instrumenta (adaptirane verzije za studente) na italijanskom uzorku. 375 (76 M i 299 Ž, $M_{uzrast} = 21.94$) studenata univerziteta je popunilo sledeće upitnike: Upitnik socio-demografskih podataka, Skalu za samoprocenu zapošljivosti za studente, Skalu za merenje zapošljivosti na osnovu kompetencija, Skalu aktivnosti usmerenih na održavanje i poboljšanje zapošljivosti. Na osnovu dobijenih podataka izvršena je korelaciona i faktorska analiza. Rezultati pružaju potvrdu multidimenzionalne strukture instrumenta Cb_ME sa prihvatljivim fit indeksima: $\chi^2_{(80)} = 207.06$, $p < .000$; CFI = .94; SRMR = .046; RMSEA = .065, I.C. 90% = .054 ~ .076, $p = .012$. Utvrđena je prihvatljiva interna konzistentnost (vrednosti Kronbah Alfa koeficijenata su u rasponu od .67 do .92). Korelacije između skala su pozitivne i značajne ($p < .01$). Nalazi potvrđuju validnost instrumenta Cb_ME adaptiranog za studente.

Ključne reči: *zapošljivost, kompetencije, studenti*

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PERCEPTION OF THE QUALITY OF THE RELATIONSHIP LEADER-FOLLOWER AND WORK MOTIVATION IN THE PUBLIC AND PRIVATE SECTORS

Abstract

The paper studies two variables that are important for the success of any organization, social exchange and attitude towards work. Social exchange is determined by the relationship between a leader and followers, and the attitude towards work is assessed by a motivation to work. The research problem is related to the question: What connection exists between the quality of the relationship leader–follower and work motivation and whether there are differences in the quality of this relationship and work motivation in terms of sector, gender, age, education and work experience. The sample consists of 30 employees in the public sector and 30 employees in the private sector in Skopje. The Leader Member Exchange - LMX 7 scale with seven items (Graen & Uhl-Bien, 1995) and the Work Preference Inventory with 30 items (Amabile, 1987) are applied while the responses are graded, respectively. A significant correlation between the quality of the relationship leader–follower and work motivation ($r(58) = 0.480$ $p < 0.01$), intrinsic motivation ($r(58) = 0.536$ $p < 0.01$) and extrinsic motivation ($r = 0.294$ (58) $p < 0.05$) was obtained. Also, the quality of the relationship leader–follower was manifested as a significant predictor of work motivation. Comparing the quality of the relationship leader–follower and work motivation in relation to the sector and demographic variables showed a significant difference only in the intrinsic motivation and that of gender and education. So, women employees ($t(58) = -2.033$ $p < 0.05$) and employees with higher education ($t(58) = -3.429$ $p < 0.01$) have a significantly higher intrinsic motivation for their work than men and employees with secondary education. This means that leaders who take into account the employees' needs are able to motivate them to work, so employees, especially women employees, enjoy their work which becomes their stimulus (intrinsic motivation). In the private sector, there is a slightly better relationship between leaders and followers, and a higher work motivation which leads to the conclusion that leaders pay attention to both social relations and the execution of the work, and in turn employees are committed to a greater extent to achieving the organization's objectives.

Keywords: *leader, follower, motivation, work, quality*

Introduction

This paper studies two variables selected from the factors leading to the success of organizations, employee well-being and other positive outcomes in the workplace. The first variable is the relationship between a leader and followers that is represented by the quality of the psycho-social interaction and communication between them. The second variable is the work motivation as a representative of individual attitudes towards work. Employees assessed the quality of the relationship leader–followers and the level of work motivation by using self reports about their individual perceptions.

According to the theory of exchange between a leader and followers, those employees who perceive a mutual trust and respect with the leader, developing creativity and inspirational motivation, evaluate a higher quality of the relationship leader–followers and a higher level of their motivation to work (Dansereau, Graen & Haga, 1975). With the support of the leader, the employees, in the role of followers, have the opportunity to realize their potentials –abilities, knowledge, skills, competencies and conceptual understanding of the information related to work. The quality relationship with the leader, then, allows employees to receive increased responsibilities, authority, access to resources and information, and participation in decision-making. A high *quality of the relationship leader–followers* results in an increased performance of employees and development of good informal relationships that

involve mutual obligation and reciprocity behavior. The quality relationship leader–followers gratifies a psychological need of employees to perform a task that pleases them (intrinsic motivation), but also the need to have an egalitarian relationship with the leader on the level of impact, preparedness and common purpose, which includes cooperation and friendship (extrinsic motivation).

The findings indicate that the authentic, transformational leadership and the style of leadership that is motivated by relationships, are the basis for a quality relationship leader–followers. But for the development of a relationship leader–followers, the leader is necessary to update this relationship and to give feedback and rewards to employees for performance, and that means to apply practices and a transactional style of leadership (Robbins & Judge, 2007).

Accordingly, for a quality relationship leader–followers, both transformational and transactional styles of leadership are necessary. In addition, the transformational style is predominantly oriented towards relationships with followers, while the transactional style is oriented to tasks and performance (Сапуоска, 2014).

In other words, the *transformational leadership* emphasizes a psychosocial exchange between the leader and followers, which takes place through a constructive interaction and complementary communication. The transformational leadership meets intrinsic motives of employees concerning interesting, fun, meaningful and important jobs; challenge, enjoyment, autonomy and discretion in the performance of work; recognition, praise, opportunity to learn and progress.

The transactional leadership, however, emphasizes the economic exchange between the leader and the followers, when the leader awards material rewards and incentives to employees for their work engagements, efforts and achievements. The transactional leadership actually meets extrinsic incentives of employees to obtain visible / tangible benefits (salary, bonuses, dividends, stocks), prestige, status, competitive advantage.

According to the modern approach to leadership, a valid prerequisite for a relationship leader–followers is an equitable relationship of the leader to every follower, which means that the leader makes no division of privileged (in-group) and underprivileged (out-group) followers (Dansereau et al., 1975; Uhl-Bien, Riggio, Lowe & Carsten, 2014).

Other antecedents of the relationship leader–followers are: the characteristics of the follower (big five factors of personality, locus of control, competence, affective tone, niceness); characteristics of the leader (the style of leadership and leader behavior, personality traits); and interpersonal relations (psychological climate and social atmosphere in the work environment).

Significant consequences of the quality relationship leader–followers are: perceptions of procedural and distributive justice; attachment to the organization; loyalty to the leader; satisfaction with salary; psychological empowerment and influence of followers; motivation to work (intrinsic-internal and extrinsic-external).

The work motivation is of great importance for the performance of the employees and the organization because it is the power that raises, directs and maintains working efforts towards achieving the business goals. It means that people achieve success in the job if they are motivated to work and to engage their skills, knowledge, skills, competencies and experience in performing the work.

Williams (2010) explained the work motivation so that he associated it with receiving awards for the work completion. Namely, employees experience job requirements as needs that they should meet because it causes tension and, therefore, they endeavor to achieve a performance by engaging in the work completion. For the performance, however, they receive appropriate rewards (internal and external) that further develop in them a sense of job satisfaction.

The main differences between the intrinsic and extrinsic motivation are related to the source and to the direction of the motivation (Mullins, 1999; Reeve, 2010).

The intrinsic motivation stems from the desire of a person to constantly find new challenges in the activities carried out and to exceed them. Due to the intrinsic motivation, the pleasure derives from performing a particular activity/task/job. The intrinsic motivation enhances creativity of employees so that it improves their conceptual understanding of the information needed to successfully perform the job.

The extrinsic motivation, however, arises from the factors outside the individual, and it is related to getting specific rewards, but also by avoiding penalties and criticism. When regarding the external motivation, satisfaction comes from the consequences of the activity/task performed by a single

person. The extrinsic motivation can occur in the form of an external, adopted, self-identified and integrated regulation (Ryan & Deci, 2000 according to Reeve, 2010). The integrated regulation means that the person has transformed completely those values and behaviors that they highly valued and with which they are identified in their self-concept.

Relevant research on the relationship leader - followers regarding the work motivation and other variables show the following. There is a significant relationship between perceptions of the quality of the relationship leader - followers and preferred style of leadership (Notgrass, 2010). In addition, the high quality relationship leader - followers is associated with the most preferred transformational leadership style and constructive communication. The moderate quality relationship leader-followers is associated with an average preferred transformational leadership style, while a low quality relationship leader - followers is associated with the least preferred transformational leadership style. In connection with the transactional style of leadership, however, Notgrass (2010) found a correlation between just one subscale of the transactional style that assessed the presence of rewards (incentives for work) and the quality of the relationship leader-followers.

Lee (2001) explored the relationship between the quality of the relationship leader - followers and perceptions of procedural and distributive justice. In addition, the procedural justice means fair procedures and policy for awards, while distributive justice means a fair distribution of rewards and resources (incentives for work) in the organization. She found that the quality relationship leader - followers was associated with perceptions of more procedural and distributive justice, while the low quality of the relationship leader - followers was associated with perceptions of less procedural and distributive justice.

Method

The research problem is related to three questions:

- What kind of connection exists between the quality of the relationship leader-followers and work motivation (intrinsic and extrinsic)
- Whether the relationship leader-followers is a significant predictor of work motivation (intrinsic and extrinsic)
- Whether there are differences in the quality of the relationship leader-followers and work motivation (intrinsic and extrinsic) in terms of sector, gender, age, education and work experience.

Variables of the study are:

- Quality of the relationship leader-followers which includes a psycho-social interaction among its participants (consideration and constructive communication between the leader and employees) and economic transactions (tangible benefits granted by the leader in exchange for work engagement of employees).
- Work motivation is an attitude towards work which includes the intrinsic motivation (stimulation that the employee receives from the challenges of the work) and the extrinsic motivation (stimulation that the employee receives from the results of the work).
- Relevant variables: sector, gender, age, education and work experience of employees.

Hypothesis:

1. A positive correlation exists between the quality of the relationship leader – followers and work motivation (intrinsic and extrinsic).
2. The relationship leader – followers is a significant predictor of work motivation (intrinsic and extrinsic).
3. There are differences in the quality of the relationship leader-followers and work motivation (intrinsic and extrinsic) in terms of sector, gender, age, education and work experience.

Sample:

The sample consists of 30 employees in the public sector and 30 employees in the private sector in Skopje (total of 60 people: 26 men and 34 women; 36 at the age to 35 and 24 older than 35 years; 28 with secondary education and 32 with higher education; 37 with less than 10 years working experience and 23 over 10 years working experience).

Measures:

The quality of the relationship leader – followers is measured with the *Leader Member Exchange - LMX 7* scale with seven items and Likert's type of answer scale on 5 degrees (from 1-rare

to 5- very often) (Grean & Uhl-Bien, 1995). In addition, the lowest possible score is 7 while the highest possible score is 35. The range between scores 21-25 denotes an average quality of the relationship leader – follower. An example of an item from the LMX 7 scale is: Do you usually know to what extent your leader is satisfied with what you do?

The work motivation is measured with the *Work Preference Inventory* with thirty items, half of which measure intrinsic and extrinsic motivation (Amabile, 1987 according to Aamodt, 1999) while the responses are graded at Likert’s type of scale on 4 degrees (from 1-never to 4-always). The lowest possible score is 30 while the highest possible score is 120 (for work motivation). In addition, the lowest possible score is 15 while the highest possible score is 60 (for intrinsic/extrinsic motivation). Examples of items from the Work Preference Inventory are: The more difficult the problem, the more I enjoy trying to solve it (for intrinsic motivation); I have to feel that I’m earning something for what I do (for extrinsic motivation).

Data analysis:

Statistical analysis of the data comprises: descriptive statistics, correlative-regression analysis with backward method and inferential statistics (t-test).

Results

The *correlative analysis* in the private sector showed the existence of a significant positive correlation between the quality of relationship leader– followers and work motivation ($r=0.693$ $p<0.01$), intrinsic motivation ($r =0.777$ $p<0.01$) and extrinsic motivation ($r =0.412$ $p<0.05$) (see R in table 1). Respectively, a significant positive but lower correlation is found in the whole sample (see R in table 2), while the positive correlation in the public sector is significant just for the relation between the quality of the relationship leader–followers and intrinsic motivation: ($r=0.421$ $p<0.05$) (see R in table 3).

Regression analysis showed that the relationship leader–followers is a very important predictor of work motivation and intrinsic motivation in the private sector because it explains almost 50% of the variance of work motivation and even 60% of the variance of intrinsic motivation and approximately 20% of the variance of extrinsic motivation (see R² in table 1).

Table 1. Results of the regression analysis models for the private sector (30)

Criterion variable	Predictor	R	R ²	F	p
Work motivation	Relationship leader– followers	0.693	0.480	25.82	0.00
Intrinsic motivation	Relationship leader– followers	0.777	0.604	42.76	0.00
Extrinsic motivation	Relationship leader– followers	0.412	0.170	5.74	0.02

Also, the leader-followers relationship explains a smaller but significant percentage of the variance of work motivation (23%), intrinsic motivation (29%) and extrinsic motivation (9%), when it comes to the whole sample (N = 60) (see R² in table 2).

Table 2. Results of regression analysis models for the entire sample (60)

Criterion variable	Predictor	R	R ²	F	p
Work motivation	Relationship leader– followers	0.480	0.231	17.39	0.00
Intrinsic motivation	Relationship leader– followers	0.536	0.288	23.41	0.00
Extrinsic motivation	Relationship leader– followers	0.294	0.086	5.47	0.02

In the public sector, the relationship leader-followers explains a small, significant percentage and 18% of the variance of the intrinsic motivation and also 13% of the variance of the work motivation, but on the limit level of significance 0.05 (see R² in table 3).

Table 3. Results of regression analysis models for the public sector (30)

Criterion variable	Predictor	R	R ²	F	p
Work motivation	Relationship leader-followers	0.361	0.130	4.20	0.05
Intrinsic motivation	Relationship leader-followers	0.421	0.177	6.03	0.02
Extrinsic motivation	Relationship leader-followers	0.202	0.041	1.19	0.28

Comparing the quality of relationship leader-followers and the level of the work motivation (intrinsic and extrinsic) in terms of the sector and demographic variables gender, age, education and work experience, the existence of a significant difference concerning only the intrinsic motivation in terms of gender and education is revealed. So, women ($t(58) = -2.033$ $p < 0.05$) (see table 4) and employees with high education ($t(58) = -3.429$ $p < 0.01$) (see table 5) have a significantly higher level of the intrinsic work motivation than men and employees with secondary education, respectively.

Table 4. Results of t-test-comparisons between male (26) and female (34) regarding to the relationship leader - follower and the motivation to work

Variable	N	M	SD	t	p
Work motivation	26	80.77	9.13	-1.18	0.24
	34	84.44	13.71		
Intrinsic motivation	26	40.65	6.01	-2.03	0.047
	34	44.44	7.91		
Extrinsic motivation	26	40.12	5.22	0.07	0.94
	34	40.00	6.96		
Relationship leader - followers	26	21.36	3.20	-1.66	0.10
	34	22.82	3.65		

Table 5. Results of t-test-comparisons between secondary education (28) and high education (32) according to the leader - follower relationship and work motivation

Variable	N	M	SD	t	p
Work motivation	28	79.71	9.53	-1.94	0.06
	32	85.59	13.33		
Intrinsic motivation	28	39.61	5.62	-3.43	0.001
	32	45.59	7.59		
Extrinsic motivation	28	40.11	4.96	0.07	0.95
	32	40.00	7.22		
Relationship leader - followers	28	21.39	3.15	-1.76	0.08
	32	22.97	3.69		

In terms of the sector, a slightly higher, but not a significantly expressed level of the work motivation, extrinsic motivation and quality of the relationship leader-followers exists in the private sector compared with the public sector, while the intrinsic motivation is equally expressed in both sectors (table 6).

Table 6. Results of t-test-comparisons between public sector (PU) and the private sector (PR) according to the relationship leader-follower and work motivation

Variable	N	M	SD	t	p
Work motivation	PU	81.97	14.46	0.57	0.57
	PR	83.73	9.05		
Intrinsic motivation	PU	42.93	8.89	-0.14	0.89
	PR	42.67	5.52		
Extrinsic motivation	PU	39.03	7.32	1.27	0.21
	PR	41.07	4.78		
Relationship leader - followers	PU	21.80	3.53	0.95	0.34
	PR	22.67	3.51		

Further on, in terms of the age and the work experience, in both sectors, the level of the work motivation (extrinsic and intrinsic) and quality of the relationship leader-followers are slightly higher, but not significantly expressed among younger employees (under 35 years) as well as among those with less than 10 years of working experience in comparison with older employees and with those with a longer working experience.

Discussion

This research is based on the employee self-reports of the quality of relationship leader - followers and the level of the work motivation. It is about two complex dynamic variables because the relationship leader - followers is determined by the combination of the transformational and transactional leadership style, while the work motivation includes intrinsic and extrinsic motivation.

As for the transformational leadership style, it is a leader who creates good relations with followers, takes care of the needs and personal goals of followers giving support and assistance to realize them, increases confidence, self-concept and intrinsic work motivation of followers, by involving them in the realization of a shared vision for the development of the organization. With the transformational style of leadership, in fact, employees are transformed into psychologically stronger and better persons so that they become capable of self-motivation and self-managing but also of looking for and overcoming new challenges.

While the transformational style of leadership is primarily directed towards social relations, the transactional leadership style, however, is directed primarily to the tasks and work. In the transactional leadership, the leader awards tangible benefits to employees (salary, bonuses, resources, rewards, information) in exchange for a good performance.

However, only the right combination of the transformational and transactional leadership style allows a quality relationship leader-followers, which in turn includes the leadership that cares about employees' needs and goals, social relations and psychological climate, but at the same time provides material incentives, feedback from the work, information, resources and other benefits to the employees.

Quality leadership develops gradually from the stage at which there is no acquaintance among the leader and followers over the stage at which they are acquainted to one another, and the employees try to work well just to get tangible benefits. Further on, in the mature phase of the partnership, they cooperate and reach the organizational objectives together sharing influence, responsibility and authority. Only the mature partnership highlights a mutual trust, respect, competence, efficiency, authority and participation in decision-making on both sides of the relationship leader-followers. Respectively, it is an active followership and authentic leadership that is accompanied with appropriate rewards.

This research has shown the existence of a medium quality of the relationship leader-followers which means that the characteristics of a transactional and transformational style of leadership are present and developed to an average extent. A permanent improvement of social relations accompanied with benefits increasing will lead to a higher quality of the relationship leader-followers.

Also, this paper explores the work motivation (intrinsic and extrinsic) which represents an attitude towards work that raises, directs and maintains the activity to achieve a specific goal. In addition, the intrinsic motivation arises from internal motives and psychological needs of the person such as challenge, achievement, progress, competence, recognition, interest, self-actualization. The

intrinsic motivation is primarily aimed at activity (work) and its execution leads to success and satisfaction. The intrinsic motivation is an inspiring and creative force which leads to a higher achievement and performance in that it enhances persistence, conceptual understanding, endurance, self-discipline, psychological boost and self-actualization of a personality.

The extrinsic motivation, however, arises from the external drivers of a personality such as: salary, status, working conditions and relations, material benefits, and avoiding criticism and punishment. Extrinsic motivation is primarily directed to the results of an activity/work or the consequences of a behavior.

For one person to be motivated for a activity/work or behavior, there are two important types of motivation (intrinsic and extrinsic) that correspond to the transformational and transactional leadership, and in a proper combination, they lead to success, satisfaction (intrinsic and extrinsic) and welfare. In addition, the work success is a function of work motivation and also of the abilities, skills, knowledge and experience of employees.

This paper showed that the quality of the relationship leader-followers in the private and public sector is a significant correlate and predictor of the work motivation.

Testing of the first hypothesis confirmed the existence of a positive correlation between the quality of the leader-followers relationship and the work motivation (intrinsic and extrinsic), which is consistent with the studies of the positive outcomes of high quality relations leader-followers such as: greater engagement and better work performance; greater satisfaction with the leader and work; greater commitment to the team and to the organization (Gerstner & Day, 1997; Ilies, Nahrgang & Morgeson, 2007; according to Van Gils, van Quaquebeke & van Knippenberg, 2010). In addition, the desired positive outcomes of the leader-followers relationship are fairly consistent in different countries and cultures (Van Gils et al., 2010).

Also, testing of the second hypothesis confirmed the quality of the leader-followers relationship as a significant predictor of the work motivation, especially of the intrinsic motivation, which is similar to the findings of Reeve (2010). Namely, people with a dominant intrinsic motivation have better interpersonal relationships, greater self-realization, subjective well-being and self-esteem (Reeve, 2010).

Testing of the third hypothesis showed the existence of significant differences only on the level of the intrinsic motivation, in terms of gender and education. Namely, women employees and employees with higher education are more internally motivated, and that allows them greater creativity in work and life (according to Reeve (2010).

As regards the sector, in the private sector (compared to the public sector), there exists a slightly better relationship leader-followers, and a higher work motivation. This is due to the leader who pays equal attention both to the social relations and to the work execution, which makes employees satisfied with their work and able to commit themselves to a greater extent to achieving the organizational objectives. In fact, the leader who takes into account the employees' needs is more able to motivate them to work, especially if people like their job and its completion presents an internal stimulus (intrinsic motivation). This evidence especially concerns women employees and employees with a high level of education in this research.

Conclusion

The high quality of the leader - followers relationship that stimulates a high work motivation and engagement is necessary for employees to be willing to attain a high performance and a high quality of products and services.

According Sardžoska (Capuocka, 2014), the development of a high quality relationship leader - followers in organizations can be achieved by:

- proactive behavior and also through a training and learning new roles, such as the authentic leadership and active followership;
- organizational culture in which there are friendly relations and cooperation;
- teamwork and restructuring of hierarchical relationships in flexible relationships;
- taking personal responsibility and self-control;
- perception of personal authority and self-efficacy.

Limitations of the study are concerning:

- the possible occurrence of the insufficient objectivity of the results due to the application of self-reported instruments;
- the adaptation and application of the instruments that are not “culture-free”;
- the relatively small sample but which is balanced according to the relevant socio-demographic variables of the research.

Recommendations for further research: Suggestions for future research are concerning a complementary approach to assessing the quality of the leader-followers relationship and the level of the work motivation by the leader, followers, collaborators and managers. Also, there is a need to explore the factors that influence the quality of the leader-followers relationship and the level of the work motivation, such as: organizational culture, hierarchy, structure and requirements of the work; personal factors, capabilities, competencies. The impact of the quality of the leader-followers relationship and the level of the work motivation on performance, productivity and development of organizations should be the subject of future research, too.

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Rezime

U ovom radu se proučavaju dve varijable značajne za uspeh svake organizacije, a to su socijalna razmena i odnos prema radu. Socijalna razmena je određena odnosom lidera i sledbenika, a odnos prema radu je procenjen preko motivacije za rad. Problem istraživanja tiče se pitanja: kakva je povezanost između kvaliteta odnosa lider-sledbenik i radne motivacije, kao i da li postoje razlike u kvalitetu ovog odnosa i motivacije za rad s obzirom na sektor rada (javni, privatni), pol, uzrast, obrazovanje i radno iskustvo. Uzorak obuhvata 30 zaposlenih u javnom sektoru i 30 zaposlenih u privatnom sektoru u Skoplju. Primenjena je Skala razmene između lidera i sledbenika sa sedam stavki - LMX 7 (Graen & Uhl-Bien, 1995), kao i Inventar sklonosti ka radu sa 30 stavki (Amabile, 1987). Dobijene su značajne korelacije između kvaliteta odnosa lider-sledbenik i motivacije za rad ($r(58) = 0.480$ $p < 0.01$), intrinzičke motivacije ($r(58) = 0.536$ $p < 0.01$) i ekstrinzičke motivacije ($r = 0.294$ (58) $p < 0.05$). Kvalitet odnosa lider-sledbenik se pokazao kao značajan prediktor

motivacije za rad. Poređenje kvaliteta odnosa lider-sledbenik i radne motivacije zaposlenih s obzirom na sektor u kome rade i demografske varijable, pokazalo je da značajne razlike postoje samo kada je reč o intrinzičkoj motivaciji, i to s obzirom na pol i obrazovanje. Naime, zaposlene žene ($t(58) = -2.033$ $p < 0.05$) i zaposleni sa visokim obrazovanjem ($t(58) = -3.429$ $p < 0.01$) pokazuju značajno višu intrinzičku motivaciju za svoj posao u poređenju sa zaposlenima koji imaju srednje obrazovanje. Ovo znači da lideri koji vode računa o potrebama zaposlenih, uspevaju i da ih motivišu za rad, pa zaposleni, naročito žene, uživaju u poslu koji za njih postaje podsticaj (intrinzička motivacija). U privatnom sektoru postoje nešto bolji odnosi između lidera i sledbenika, kao i nešto viša radna motivacija, što navodi na zaključak da ovi lideri vode računa i o socijalnim odnosima, i o obavljanju posla, pa su zato i zaposleni mnogo posvećeniji postizanju ciljeva organizacije.

Ključne reči: *lider, sledbenik, motivacija, rad, kvalitet*

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COMPARATIVE ANALYSIS OF THE ORGANISATIONAL CULTURE AND ITS IMPORTANCE TO THE OCCUPATIONAL HEALTH AND SAFETY SYSTEM IN RUSSIA AND SERBIA

Abstract

The goal of this research is to establish the influence of organizational culture on the system of safety and health at work. The following procedures and techniques were used: primary and secondary source analysis, statistical survey procedures (scaling), i.e. a questionnaire as the research measuring instrument. The research sample included 556 respondents employed in various jobs in Russia. If the structure of the data acquired is compared to the structure acquired from the Serbian sample, both similarities and differences can be established. The first noticeable difference is that all first extracted factors conducted on the Russian sample have lower inherent values than on the Serbian sample. The second difference concerns the first claim from the set of claims on the attitude towards occupational safety – whereas in the Russian sample, it has only a slightly lower correlation with the factor (factor saturation) than other items, in the Serbian sample, it proves a completely inadequate indicator of the attitude towards occupational safety – it has a very low and negative correlation with some of the factors, i.e. factor saturation. The third difference is a higher number of aspects where two factors satisfy the Kaiser-Guttman criterion - in the Serbian sample, that is only the aspect of Cooperation, while in the Russian sample, that is also true for the aspects of Credibility and Communication. In order to examine and quantitatively express the degree of similarity between factor structures acquired from the Serbian and Russian sample, Tucker's coefficients of congruence between factor structures of claims within each set acquired from the Serbian and Russian sample were calculated. The results indicate that all acquired correlations are very low. It can be concluded that results point to a good structural similarity of investigated measures between the Russian and Serbian sample, but to very large differences in their mutual relations. Finally, correlations acquired from the Serbian sample are practically everywhere a lot higher than those obtained from the Russian sample, which is reflected through the results of all applied analyses.

Keywords: *Organisational culture, Safety and health at work, Comparative analysis, Serbia, Russia*

Theoretical framework

Culture is a field that has been examined and theorised from many different disciplinary perspectives. It has consequently been explored at several levels from societal, national to organisational, and individual experiences at all these levels (Bryson, 2008). Although there are many definitions of culture, organisational culture has been viewed as holistic, historically determined, and socially constructed (Rashid et al., 2004). Culture involves beliefs and behaviour, it exists at various levels, and manifests itself in a wide range of features of organisational life (Hofstede et al., 1990). As such, organisational culture refers to a set of shared values, beliefs, assumptions, and practices that shape and guide members' attitudes and behaviour in the organisation (Davis, 1984; Denison, 1990; Kotter and Heskett, 1992; Miron et al., 2004; O'Reilly and Chatman, 1996; Wilson, 2001). Organisational cultures result from a learning process of interaction with its internal and external environment. Certain actions and procedures that used to be successful in the past constitute the basis of commonly accepted behaviours (Baumgartner & Zielowski, 2007). Organisational culture brings sense, orientation and stabilisation into a complex and dynamic world. Its elements are transferred by a process of socialisation (telling stories, observing rituals...) and are not learned consciously (Schreyögg, 1991). Organisational culture acts as a sense-making device that influences the way people construct the reality of the whose members they are (Brad et al., 2010).

Starting from the fact that at the centre of studying the organisational culture lies the system of values in an organisation, identified with the strategies and the vision of the company's development, the connection of the organisational culture to safety and health activities at work is clear. Safety and health activities at work place an employed individual at the centre of their research with an intention of creating better and safer working conditions for them. A common interest of the organisational culture development and safety and health activities at work is creating safe work conditions and higher income which increases employees' motivation and creates a generally stronger sense of security and belonging to a team.

Research methodology

The goal of the research is to establish the influence of the organisational culture on the system of safety and health at work in order to create a clearer image of the organisational culture values which influence the definition of certain attitudes towards safety and health activities at work. Safe work conditions contribute to the reduction of the number and seriousness of injuries at work, which ultimately has an impact on the increase of productivity and economy of every organisation.

A Questionnaire was formulated for the purpose of the research, which was expected show the attitude of the management and other employees towards safety and health at work through an analysis of the organisation's basic values, such as: vision, credibility, cooperation, feedback and recognition, responsibility, communication and action orientation. A total of 600 questionnaires were distributed to organisations performing various economic activities. Out of the total number of distributed questionnaires, 556 questionnaires were returned completely filled in.

The following procedures and techniques were used: primary and secondary source analysis, statistical survey procedures (scaling), i.e. a questionnaire as the research measuring instrument.

A series of statistical procedures were used during the processing of the data gathered in the empirical research: descriptive statistical measures, correlation coefficient and other measures of the linear or monotone connection, hierarchical regression analysis, the Sobel mediation test, bootstrapping for checking the stability of appropriate statistics, hierarchical linear and classical structural linear modelling, as well as the procedures for testing such models and appropriate coefficients of fitting models to the data.

Results and discussion

Considering the fact that given claims are intended as indicators of certain organisational culture aspects, i.e. indicators of the attitude towards health at work, it was tested whether they fulfil the demands of a latent model, i.e. whether they can really be considered to be the indicators of a certain latent characteristic. If they are adequate indicators, then a particular one-factor solution should prove the most adequate in the factor analysis procedure on each group of claims. The following tables show the results of the factor analysis. The factor saturation of every claim in the group is presented, as well as the number of factors which satisfy the Kaiser-Guttman criterion and their inherent values.

Table 1. The number of factors and factor saturation acquired in the procedure of factor analysis of claims from the group of the attitude towards occupational safety indicators

RELATION TO THE SAFETY AT WORK	
A number of factors that meet the Gutman-Kaiser criterion	1
The inherent value of the first factor	1.818 (45.452%)
Claim	Factorial permeation
I understand the legal requirements as	0.578
Investments are	0.654
Safety at work is	0.743
Education for Occupational Safety is	0.710

The given table shows that all items have substantive saturation in the first main factor, as expected, even though that saturation in the first item (Legal requirements...) is lower than in the others. These results differ from the ones acquired from the Serbian sample in which this item proved very bad (due to which it was removed), whereas here it merely has a slightly lower factor saturation.

Furthermore, it can be established that the inherent value of the extracted factor in this sample is slightly lower than the one acquired from the Serbian sample.

Table 2. The number of factors and factor saturation acquired in the procedure of the factor analysis of claims from the group of Vision as an aspect of the organisational culture indicators

VISION	
A number of factors that meet the Gutman-Kaiser criterion	1
The inherent value of the first factor	3.501 (50.020%)
Claim	Factorial permeation
I show a high personal standard with regard to safety at work	0.640
I am helping others to start thinking about their own standards with regard to safety at work	0.756
I transmit a vision by personal behaviour and own words	0.705
I accept new ideas	0.639
I motivate others to think about the impact of personal actions to other employees in the organisation	0.776
I motivate employees to accept the challenges regarding the values that are associated with the protection of the work	0.783
I can define a clear framework for action in the future	0.632

Table 3. The number of factors and factor saturation acquired in the procedure of the factor analysis of claims from the group of Credibility as an aspect of the organisational culture indicators

CREDIBILITY		
A number of factors that meet the Gutman-Kaiser criterion	2	
The inherent value of the first factor	2.812 (35.154%)	
The inherent value of the second factor	1.456 (18.200%)	
Claim	Permeation of the first factor	Permeation of the second factor
I admit own mistakes in front of other	0.602	-0.086
I always give truthful information, although they can be received with negative reactions	0.652	0.013
I stand up for others to higher levels	0.573	0.490
I seek suggestions and ideas for personal improvement	0.635	0.366
I correctly realise the prescribed standards	0.658	0.058
I retrieve different and unpopular decisions that could harm my career but good for employees from the perspective of safety at work	0.375	0.583
I'm work with dignity and respect for others	0.607	-0.597
I always meet current obligations	0.594	-0.613

Table 4. The number of factors and factor saturation acquired in the procedure of the factor analysis of claims from the group of Cooperation as an aspect of the organisational culture indicators

COOPERATION		
A number of factors that meet the Gutman-Kaiser criterion	2	
The inherent value of the first factor	3.467 (43.337%)	
The inherent value of the second factor	1.554 (19.426%)	
Claim	Permeation of the first factor	Permeation of the second factor

I promote cooperation in relation to safety at work	0.633	-0.311
I investigate and motivate employees regarding improvement in safety at work	0.773	-0.413
I help others to deal with the challenges in the field of safety at work	0.770	-0.412
I motivate to accept and implement new solutions	0.734	-0.303
I'm willing to listen to others	0.490	0.584
I have confidence in the other	0.559	0.636
I support the independent decisions of other	0.620	0.502
I gain the approval of others before implementing new ideas	0.633	0.163

Table 5. The number of factors and factor saturation acquired in the procedure of the factor analysis of claims from the group of Feedback and recognition as an aspect of the organisational culture indicators

FEEDBACK AND RECOGNITION	
A number of factors that meet the Gutman-Kaiser criterion	1
The inherent value of the first factor	2.797 (46.609%)
Claim	Factorial permeation
I publicly recognize the contribution of others	0.591
I immediately pay tribute to people who have contributed to better protect the safety of the company	0.747
I positively accept any proposal and do not criticise attempts to solve certain problems in the field of safety at work	0.662
I give positive feedback and advocate for rewarding successfully implemented measures	0.728
I motivate everyone in the organisation	0.642
I celebrate the accomplishments in the field of occupational safety	0.712

Table 6. The number of factors and factor saturation acquired in the procedure of the factor analysis of claims from the group of Responsibility as an aspect of the organisational culture indicators

RESPONSIBILITY	
A number of factors that meet the Gutman-Kaiser criterion	1
The inherent value of the first factor	3.446 (57.437%)
Claim	Factorial permeation
I clearly and transparently define roles in the organisation	0.732
I promote a system that supports the individual's responsibility for his work	0.819
I define the responsibilities associated with the tasks in the field of safety at work	0.769
I demand accountability of individuals for the received tasks	0.823
I define the criteria for the objectives	-
I periodically analyse the results based on defined standards	0.750
I implement the changes	0.639

Table 7. The number of factors and factor saturation acquired in the procedure of the factor analysis of claims from the group of Communication as an aspect of the organisational culture indicators

COMMUNICATIONS		
A number of factors that meet the Gutman-Kaiser criterion	2	
The inherent value of the first factor	3.954 (43.935%)	
The inherent value of the second factor	1.147 (12.740%)	
Claim	Permeation of the first factor	Permeation of the second factor
I stimulate people to forward information	0.618	0.455
I inform all employees about the events in the field of safety at work	0.619	0.577
I often communicate with all employees	0.624	0.082
I analyse events in the spot	0.723	0.016
I share with others personal experience and motivation	0.762	-0.032
I listen carefully	0.684	-0.344
I say in a constructive way what I'm thinking	0.636	-0.480
I ask others for their opinion	0.664	-0.434
I make a mood that allows others to express their views on the challenges in the field of safety at work in a free manner	0.619	0.248

Table 8. The number of factors and factor saturation acquired in the procedure of the factor analysis of claims from the group of Action orientation as an aspect of the organisational culture indicators

ORIENTATION TO ACTION	
A number of factors that meet the Gutman-Kaiser criterion	1
The inherent value of the first factor	2.368 (47.368%)
Claim	Factorial permeation
Intransigence in addressing the challenges of safety at work	0.543
I actively supports addressing the challenges in the field of safety at work	0.550
I'm creative and innovative in solving problems in the field of safety at work	0.787
I use every opportunity to improve the solution	0.846
I define reasonable priorities	0.660

These presented results show that in four out of seven aspects of the organisational culture only one factor satisfies the Kaiser-Guttman criterion and that all claims have high saturation in this factor. In three remaining aspects of the organisational culture, one additional factor satisfies the Kaiser-Guttman criterion. Nevertheless, in each of the observed situations, all items have substantive, i.e. high saturation in the first extracted factor and such saturation is theoretically expected. Likewise, the inherent value of these factors is in all cases, except one, two or three times larger than the inherent value of the second extracted factors. The smallest difference in the inherent values of the first and second factor was acquired from the claims representing the indicators of Credibility where the relation between the inherent values of the first and second factor was a little lower than two to one. However, as the first factor here is again the one that has substantive saturation in all claims, it can be considered justified to treat it as the measure of prominence of the organisational culture aspect this set of claims refers to, i.e. credibility.

Based on the data, it can be established that it is justified to treat the first extracted factors from all these sets of claims as adequate measures of the organisational culture aspect the given set of claims refers to. This is true not only for the aspects where only one factor which satisfies the Kaiser-Guttman criterion was acquired, but also for the aspects where two such factors were extracted.

If the structure of the data acquired here is compared to the structure acquired from the Serbian sample, both similarities and differences can be established. The first noticeable difference is that all first extracted factors in the Russian sample have lower inherent values than those in the Serbian sample. This is a systematic occurrence also perceived in the claims regarding the attitude towards occupational health, but also in all sets of claims regarding various aspects of organisational culture. This practically means that average correlations among items in a set are more present in the Serbian than in the Russian sample (hence more common variance, i.e. higher inherent values of factors). The second difference, which has already been mentioned, concerns the first claim from the set of claims on the attitude towards occupational safety – whereas in the Russian sample it has only slightly lower correlation with the factor (factor saturation) than other items, in the Serbian sample it proved a completely inadequate indicator of the attitude towards the occupational safety – it has a very low and negative correlation with the factor, i.e. factor saturation, even though the direction one would expect based on the item formulation is positive. The third noticeable difference is a higher number of aspects where two factors satisfy the Kaiser-Guttman criterion - in the Serbian sample that is only the aspect of Cooperation, whereas in the Russian sample that is also true for the aspects of Credibility and Communication.

The Russian sample respondents' average results obtained from such acquired measures were calculated and they are given in the following table:

Table 9. Average values of measures of the organisational culture aspects and the attitude towards occupational safety

Measure	AS	SD
Attitude towards occupational safety	3.75	1.60
Vision	4.49	1.39
Credibility	5.12	1.04
Cooperation	4.79	1.22
Feedback and recognition	4.72	1.28
Responsibility	4.57	1.58
Communications	5.20	1.22
Orientation to action	4.69	1.27

After calculating descriptive statistical measures, as well as forming composite scores of the Attitude towards the occupational safety and organisational culture aspects, connections between the Attitude towards the occupational safety and other examined characteristics were investigated, as well as the connections within the organisational culture aspects themselves in this sample. First, mutual connections among the organisational culture aspects were examined. The following tables show the correlations among these measures and the results of their factor analysis.

Table 10. Mutual correlations among the organisational culture aspects

Correlations	Vision	Credibility	Cooperation	Feedback and recognition	Responsibility	Communications	Orientation to action
Vision	1.00	-	-	-	-	-	-
Credibility	0.48	1.00	-	-	-	-	-
Cooperation	0.58	0.52	1.00	-	-	-	-
Feedback and recognition	0.49	0.41	0.57	1.00	-	-	-
Responsibility	0.44	0.35	0.53	0.55	1.00	-	-
Communications	0.45	0.49	0.57	0.52	0.55	1.00	-
Orientation to action	0.45	0.39	0.57	0.52	0.57	0.54	1.00

Statistically significant at least at the 0.05 level all correlation coefficients greater than 0.07.

The given data show that the correlations among the organisational culture aspects are statistically significant and medium, and that they vary from 0.35 to 0.58 which, as with the Serbian sample, indicates the possible existence of a common factor at their basis. Because of that, an explorative factor analysis was performed using the procedure of analysing the main components of these measures. The results are given in the following table.

Table 11. Inherent values of the factors and factor saturation of the organisational culture aspects

Aspects of organisational culture	
A number of factors that meet the Gutman-Kaiser criterion	1
The inherent value of the first factor	4.025 (57.503%)
Claim	Factorial permeation
Vision	0.73
Credibility	0.67
Cooperation	0.82
Feedback and recognition	0.77
Responsibility	0.76
Communications	0.78
Orientation to action	0.76

If these results are compared to the results obtained from a research conducted in Slovenia (2009) with the same questionnaire, it can be noticed that the structure of the factor acquired generally corresponds to the factor named the usefulness of the manner of management in the research (Markič et al., 2011). It is a general factor with a high saturation in all organisational culture aspects. In comparison with that research, the factor extracted from this sample explains almost the same percentage of variance of the organisational culture aspects (57.5% versus 58% acquired there). On the other hand, it can be noticed that its inherent value is lower than the inherent value of the factor extracted from the Serbian sample (in the Serbian sample – 78%). This is also clear from the fact that the correlations among the measures of the organisational culture aspects acquired from the Serbian sample are generally higher than those acquired here (Markič et al., 2012; Živković et al., 2012).

In the following step, the connection of the organisational culture aspects, as well as other investigated variables with the attitude towards the occupational safety was examined. The correlations of the organisational culture aspects, level of education, years of service, workplace type, age and gender with the attitude towards the occupational safety are shown in the table 12.

The result which is most evident from the table is that all acquired correlations are very low. Even though numerous correlations are statistically significant, it is noticeable that not one of them is higher than 0.2, or even higher than 0.15. All of this indicates that in this Russian sample there is generally a very weak connection of the Attitude towards the occupational safety with all other variables investigated in the research. Nevertheless, there is a statistically significant connection of the Attitude towards the occupational safety with 5 out of 7 aspects of the organisational culture, as well as with the general factor of Usefulness of the manner of management. In addition, there is a statistically significant connection to age, total years of service and qualifications. There are some additional statistically significant correlations with individual claims from the attitude towards the occupational safety area, but as it has been previously said, all those correlations are very low and reach the level of statistical significance primarily due to the sample size (a large sample), even though they are almost negligible according to their intensity.

Table 12. Correlations of the attitude towards occupational safety with the organisational culture aspects, level of education, years of service, workplace type, age and sex, Spearman's correlation coefficients

	Attitude towards occupational safety (total score obtained in the manner as the Serbian sample)	Attitude towards occupational safety 2 (total score obtained from all items)	I understand the legal requirements as:	Investments are:	Safety at work is ...	Education for Occupational safety is ...
Vision	0.128	0.124	0.019	0.079	0.180	0.079
Credibility	0.056	0.063	0.049	0.046	0.100	-0.012
Cooperation	0.081	0.052	-0.056	0.024	0.065	0.082
Feedback and recognition	0.064	0.033	-0.068	0.129	0.084	-0.060
Responsibility	0.130	0.103	-0.033	0.091	0.099	0.075
Communications	0.089	0.087	0.026	0.127	0.092	-0.003
Orientation to action	0.086	0.063	-0.043	0.090	0.092	0.028
Usefulness of the manner of management (factor scores)	0.113	0.091	-0.031	0.100	0.124	0.033
Gender	-0.031	-0.015	0.034	-0.007	0.062	-0.053
Age	-0.108	-0.107	-0.023	-0.060	-0.040	-0.093
Workplace type: executive-executant	0.059	0.056	0.003	0.098	0.055	0.000
Working experience in current company	-0.054	-0.068	-0.042	0.008	0.019	-0.126
Total work experience	-0.098	-0.085	0.014	-0.040	-0.031	-0.137
Level of qualifications	0.090	0.110	0.079	0.033	0.128	0.038
Number of company employees'	-0.035	-0.038	-0.075	-0.067	-0.017	-0.022

For Gender, women are marked with 2, men with 1, which means that the positive correlation indicates that women have a higher average score than men, while the negative correlation shows that men have a higher average score than women.

For Workplace type, executives are marked with 2, executants with 1, which means that the positive correlation indicates that executives have a higher average score than the executants, and the negative that executants had higher average scores than executives.

Statistically significant at least at the 0.05 level all correlation coefficients greater than 0.08.

In comparison with the Serbian sample, quite a different situation is observed – even though there is a positive connection of the Attitude towards the occupational safety with the organisational culture aspects, the intensity of that connection is drastically lower than it was the case in the Serbian sample. Besides, out of the other variables, gender, workplace type, qualifications and the number of employees in the company had a statistically significant connection with the Attitude towards the occupational safety in the Serbian sample. In this sample, out of all variables listed only qualifications have a statistically significant correlation with the Attitude towards the occupational safety, whereas here correlations with age and total years of service are statistically significant, which they are not in the Serbian sample. Nevertheless, it should be stated that these two correlations are of the same direction as the statistically insignificant correlations acquired in the Serbian sample. When the agreement between this correlation matrix and the one acquired in the Serbian sample is calculated and expressed quantitatively, the result is Spearman's coefficient of correlation between these two sets of correlations (shown correlations in the Serbian and Russian sample) of 0.696, whereas the Kendall's W coefficient of concordance is 0.848. This indicates a considerable general agreement

between correlation structures, even though the correlations acquired from the Russian sample are generally lower, at least in case of the attitude towards the occupational safety aspects.

Considering the aforementioned data, an effort was made in the next step to perceive the relations of various shown variables and the Attitude towards the occupational safety better, so as to perhaps emphasise the relations, if they exist, which are not directly visible from the given correlation matrix. Hence, the procedure of the hierarchical linear regression analysis was conducted, where the Attitude towards the occupational safety (the total score) was used as a dependent variable and those variables which had proved statistically significant predictors in the Serbian sample were first added as predictors and in the same order, for the sake of comparison – first, the organisational culture aspects, then the number of employees in the company, next gender and finally workplace type and qualifications.

Differences between the Russian and Serbian sample regarding the prominence of the organisational culture aspects, the general factor of Usefulness of the manner of management and the Attitude towards the occupational safety were investigated. The results are given in the following table:

Table 13. Differences in the average level of prominence of the organisational culture aspects and the attitude towards the occupational safety between the Russian and Serbian sample

Variable	Sample	Mean	Standard Deviation	F statistic	Statistical significance	Effect size
Attitude towards occupational safety	Serbia	4.34	1.92	35.227	<0.001	-0.159
	Russia	3.75	1.60			
Vision Credibility	Serbia	4.92	1.57	26.839	<0.001	-0.139
	Russia	4.49	1.39			
Cooperation Feedback and recognition	Serbia	5.43	1.26	22.569	<0.001	-0.128
	Russia	5.12	1.04			
Responsibility Communications	Serbia	4.84	1.45	0.422	0.516	-0.018
	Russia	4.79	1.22			
Orientation to action Vision	Serbia	5.23	1.51	42.115	<0.001	-0.174
	Russia	4.72	1.28			
Credibility Cooperation	Serbia	5.01	1.63	24.374	<0.001	-0.133
	Russia	4.57	1.58			
Feedback and recognition Responsibility	Serbia	5.23	1.52	0.250	0.617	-0.014
	Russia	5.20	1.22			
Communications	Serbia	4.74	1.66	0.477	0.490	-0.019
	Russia	4.69	1.27			

As a measure of effect size point-biserial correlation coefficient was used.

Conclusion

There is generally a very weak connection in the Russian sample between the Attitude towards the occupational safety and other variables investigated in this research. Nevertheless, there is a statistically significant connection of the Attitude towards the occupational safety with 5 out of 7 aspects of the organisational culture, as well as with the general factor of Usefulness of the manner of management. In addition, there is a statistically significant connection to age, total years of service and qualifications.

It can be established that there is a difference between the average answers of respondents from Serbia and Russia in the Attitude towards the occupational safety, which is on average slightly more prominent among the respondents from Serbia. In relation to the organisational culture aspects, there are differences in Vision, Credibility, Feedback and recognition, as well as Responsibility. The respondents from Serbia have higher average values in all these measures, but all the differences are small (all effect sizes are below 0.2). The results of these comparisons ought not to be taken for granted due to the previously given reasons.

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Rezime

Svrha istraživanja jeste utvrđivanje uticaja organizacione kulture na sistem bezbednosti i zdravlja na radu. U radu su korisnici sledeći postupci i tehnike: analiza primarnih i sekundarnih izvora, statistički postupci anketiranja (skaliranje) odnosno upitnik kao meri instrument istraživanja. Istraživački uzorak je obuhvatio 556 ispitanika raznih delatnosti u Rusiji. Ako se dobijena struktura podataka uporedi sa strukturom dobijenom na srpskom uzorku mogu se konstatovati sličnosti, ali i razlike. Prva uočljiva razlika je ta da svi prvoekstrahovani faktori na ruskom uzorku imaju niže svojstvene vrednosti nego na srpskom uzorku. Druga razlika, tiče se prve tvrdnje iz grupe tvrdnji o odnosu prema zaštiti na radu – dok ona na ruskom uzorku ima samo nešto manju korelaciju sa faktorom (faktorsko zasićenje) od ostalih stavki, onda se na srpskom uzorku pokazala kao potpuno neadekvatan pokazatelj odnosa prema zaštiti na radu – imala je veoma nisku i negativnu korelaciju sa faktorom odnosno faktorsko zasićenje iako je smer koji se mogao očekivati na osnovu formulacije stavke pozitivan. Treća

uočljiva razlika je veći broj aspekata kod kojih po dva faktora ispunjavaju Gutman-Kajzerov kriterijum – na srpskom uzorku je to samo aspekt Saradnje, dok su na ruskom to i aspekti Kredibiliteta i Komunikacije. Da bi se ispitalo i kvantitativno izrazio stepen sličnosti faktorskih struktura dobijenih na srpskom i na ruskom uzorku, izračunati su Takerovi koeficijenti kongruencije između faktorskih struktura tvrdnji unutar svakog skupa dobijenih na srpskom i na ruskom uzorku. ukazuje da su sve dobijene korelacije veoma niske. Može se zaključiti da rezultati ukazuju na dobru strukturnu sličnost ispitivanih mera između ruskog i srpskog uzorka, ali veoma velike razlike u njihovim međusobnim odnosima. Konačno, korelacije koje su dobijene na srpskom uzorku praktično su svuda dosta više nego na ruskom, što se reflektuje i kroz rezultate svih primenjenih analiza.

Ključne reči: *Organizaciona kultura, Bezbednost i zdravlje na radu, komparativna analiza, Srbija, Rusija*

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EFFECTS OF ASSERTIVENESS TRAINING ON EMPLOYEES' PARTICIPATION IN DECISION-MAKING

Abstract

In modern organizations, the attention is increasingly being directed towards the improvement of the employees' performance, as they tend to be the most important resource of every organization. Primarily, the importance of developing *soft skills* is stressed as well as encouraging a participation in decision making among employees. The initial assumption is that communication skills, such as assertiveness, are a precondition for an effective cooperation and participation. The purpose of this study is to examine the impact of the assertiveness training on the employees' participation. This study is a quasi-experimental scenario study with a test-retest design. The sample consists of 37 (18 females) employees with a university degree who are employed at a local IT company in Belgrade. All employees took part in the assertiveness training during the period of two months. The training consisted of lectures and workshops. After the training, the employees' participation was evaluated by a HR manager of that organization during a business meeting. The HR manager's evaluation was to show whether there was any change regarding the employees' participation in decision making after the training compared to the previous meeting. Every employee was rated with "Yes, there was a positive change" or "No, there was no change". The change was noted in 25 employees. The data were analysed with the Chi-square test, $\chi^2(1)=4.568$, $p<.033$. These results indicate that the assertiveness training leads to a better participation in decision making among employees. These findings indicate that assertiveness trainings could result in a higher employees' involvement in the process of decision making and consequently, the organization itself can make better business decisions.

Key words: *assertiveness training, participation in decision-making, strategic management*

Introduction

Serbia is a country in transition that is receiving influences from both the east and the west. These influences, or rather demands, coming from different sides, are set as an imperative for the economic existence while the country is trying to deal with its past. The remains of the patriarchal society, strict hierarchy and global opinion are most striking in the attempts of modernizing today's companies and organizations. Modernization which is mentioned here is not related to the technology used in the process of production, although that aspect is not negligible, but first and foremost to removing the hierarchic system and implementing the model of a postmodern organization that refers to working in teams and participating in the decision-making (Đurišić-Bojanović, 2011).

These kinds of changes in work organizations imply changing points of view, organizational atmosphere, training employees and changing their viewpoints and values. This process is long and it has to be done carefully by experts. One of the characteristics of the transition that is happening in this country is the fact that this process has started.

So, the foundation is set and it is up to future generations to make adequate improvements. The role of psychologists in the improvement could be to strategically organize the presentation of these global changes, preparing the employees and equipping them with the necessary "tools" for understanding these changes and participating in them. Employees have to be able to communicate freely, work in teams, participate in creating a vision, repositioning on the market and making other important decisions for the company. They also have to be ready to learn new skills and to change their opinions about different subjects, like the freedom of speech, the position of women in society, collective spirit over individualistic and many more.

Assertive communication in an organization

Communication should be seen as a constant process, and not like isolated and detached actions of individuals. Communication has a lot of important roles, including the following: understanding others and enabling social interaction, maintaining mental health, creating and maintaining one's own identity through communication with others and understanding and fulfilling assignments (Adler & Rodman, 2006; Harige & Dickson, 2006; Harige, 2004).

Through communication with others, the speaker is in position to present their feelings, opinions, thoughts and values through words. Aside from expressing themselves, they are in a position to compare their own characteristics with the characteristics of their interlocutor, and in that way affirm themselves as the individuals that are different from others, maintaining their own identity (Adler & Rodman, 2006). In short, it could be said that the prerequisite of successful communication is assertive communication.

Assertive behaviour is a convolution of a person's behaviours in a social context, with which that person expresses their wishes, feelings, opinions, thoughts and rights (Galassi & Gallasi, as cited in Furnham, 1979). Assertiveness is seen as a skill for an individual to express themselves, without attacking others, and it represents a socially acceptable behaviour, while aggression is extremely undesirable and it represents a threatening behaviour, so one of the purposes of an assertiveness training would be to reduce aggression (Galassi & Gallasi, as cited in Furnham, 1979).

Assertiveness training

During conceiving and realising any training, even an assertiveness training, it should be kept in mind that people are mutually the same as much as members of the same species, and the fact that some people are more like others because they share biological and cultural characteristics. Also, it should not be neglected that all people are unique, and that there are individual differences that have persisted throughout time (Cole & Cole, 1993). Even though every method has its own activating potential which can be realised in a certain context, things that should be kept in mind are individual differences and the individuality of the trainees (Ivić, Pešikan & Antić, 2001). According to that, good trainings and lectures cannot be carried out without precedents, so it is required to listen to participants and adapt the content and tempo to their characteristics.

Educational workshops represent a form of interactive work with a group. This kind of interactive work is actually a form of methodological approach, because it encompasses an array of previously conceived procedures, techniques and tasks in specified time sequences in a definite space. These workshops are called educational because they were made with the purpose of supporting cognitive growth, starting with learning factual knowledge, gaining skills, and finally, developing higher intellectual processes (judging, problem-solving, etc.). The defining guidelines of educational workshops are active participations of learners and exchange among them (Ivić, Pešikan & Antić, 2001).

As the main postulate of workshops rests on the activity of its participants, it is very suitable to encourage interactive aspects of learning like cooperative learning, learning by model or learning through solving problems. In no way should this be interpreted by the assumption that workshops have to neglect the classical way of training participants, like a verbal presentation by subjects. So, it is recommended to connect practical learning with receptive verbal learning and in that way encourage both convergent (learning smaller parts, and then connecting them into a whole) and divergent learning (starting with a general problem, dividing it into smaller problems). It is recommended to rotate different forms of learning in a workshop, in order to keep it interesting and to motivate participants due to the dynamics of the process. Frontal forms, like lectures, homework assignments and summing up, could be combined with a teamwork and game-like exercises. Some of the useful game-like exercises for an assertiveness training are: "Like you are", which represents playing individual roles; "Simulation", meaning more roles in an interaction; "Pro et contra", where the participants are divided into two groups, and a debate on a specific subject is organized, which one group defends, and the other group attacks with arguments; "Guided fantasy", where participants are put into an imaginary event which represents a problematic situation, and it is up to them to identify with the situation and find an appropriate solution (Ivić, Pešikan & Antić, 2001).

The activities of the person running the workshop start with the design of the workshop, from an idea to a detailed, but flexible scenario. However, the activity that is maybe more important than

thinking up the theoretical and practical parts of a workshop is getting to know its participant to which the workshop has to adapt throughout the process of education. Sensitivity to individual differences of participants is the basis for guiding them through the introductory, main and final activities. Also, keeping participants motivated and interested is a great undertaking (Ivić, Pešikan & Antić, 2001). However, keeping all this in mind, it is truly a challenge not to overdo adapting the content of the training to each of the participants, but to set semipermeable boundaries that will ensure realising the goals of the training with the sensitivity to individual differences.

When implementing the training, in the organizational context, it is important to secure the support of management and dedication of participants above all. The next step consists of analysing the organization and deciding on the atmosphere in which the training will take place, identifying available resources and abiding to the cultural norms of the organization, as well as general work law regulations. The third and the fourth step represent analysing the needs of the organization and participants of the training, selecting adequate methods and anticipating possible problems during the realisation of the training. Finally, it is needed to evaluate every participant, determine their capabilities, interests and segments which will require more work during the training (Millward, 2005). This example is about increasing assertiveness in employees and their preparation for participation in decision-making. An obstacle to acquiring these skills could be, for example, social anxiety. This obstacle should be systematically removed and attention should be paid to it as a particular problem, so it is not a bad idea to give that kind of participant individual homework in order to solve this problem. After these preparations, the actual training can begin. When the training is finished the educational process should be evaluated with adequate methods and techniques, and optionally, participants might be asked to provide some feedback (Millward, 2005).

Five different models of training which are characterized by different epistemological assumptions about the nature of the selected process of learning can be singled out. And each of these models unequivocally assumes an active participation of a participant during the training. Most models assume the informative, verbal part with a practical part, as well as combining a formal and an informal approach to participants. The most adequate model for training for the organizational context is the instructional model, which is sometimes called the industry training model because of it. During this training, the emphasis is on demonstrating and practising certain skills, which are being perfected and put to test. "Behavioural language" is insisted upon in contrast to "cognitive language", considering that its epistemological basis is in experimental psychology. Today, other forms of learning are assimilated within this model, which complement it. The apprenticeship model represents transferring skills from a teacher to a student by learning by model (Millward, 2005). This model is not suitable for the conditions found in an organization, considering the fact that it is a group training which is taking place in controlled conditions, so those situations are not valid and a problem could arise with generalizing learnt skills in realistic situations. The investigation model is based on learning from experience, which also makes it unsuitable for an implementation in working conditions of an organization, because bosses are not likely to approve of learning by trial and error. The last, self-evaluation model is very similar to the investigation model and encourages reflexion and decentering in participants, with mentorship and guidance (Millward, 2005). This model takes too much time and a set place, and time period is not favourable.

Researchers from this field are optimistic concerning learning assertiveness, because assertiveness trainings usually give positive results (Geller, Wildman, Kelly & Laughlin, 1980). However, findings that can cast a shadow on accepting a female assertive behaviour speak volumes of certain stereotypes today. It is shown that children aged 4, 6 and 8 years regard the female assertive behaviour as rude (in contrast to the male assertive behaviour) and in time male children become more expressive about it (Connor, Serbin & Ender, 1978). Stake and Pearlman managed to show that someone's confidence could be increased with an assertiveness training (Stake & Pearlman, 1980). Doing a regressive analysis on a group of females of different age and education, they got considerable changes in self-perception before and after each training.

Participation of employees in decision-making

In every society that rests on the foundation of a democratic ideology, the participation of employees is a practice that is nurtured and highly valued in organizations. However, this process is very complex and carries a multitude of consequences for employees in a company (Aplin & Leveto,

1977). Decisions are made through an interaction of different positions and thoughts, their confrontation and re-examination, the purpose of these discussions is finding solutions which will improve the feelings of a group (Popadić et al., 1998). In this process, the interaction can be both constructive and destructive. The way in which the interaction between employees during participation develops depends on the problems that will be talked about, employees' skill of communication and the way in which the management will present information and lead the communication (Tjosvold, 1987). So, teaching employees to communicate adequately and constructively is of utmost importance, before this kind of information exchange is introduced. Decision-making depends a lot on the knowledge and competence of the person that is supposed to express his/her opinion. However, if that person is not assertive and if he/she does not manage to adequately express his/her opinion, an organization may lose important solutions to a problem (Hayes, 2002). Also, if employees do not understand decisions made by the management, they might not do their job in a satisfactory way. This often happens when employees fear that asking questions will shake the management's authority (Aplin & Leveto, 1977). This kind of attitude might be devastating for a company.

It would be wrong to make the impression that participation is an ideal and infallible process of decision-making in every situation. The consensus that stems from this kind of discussion is not always possible, and specific situations that make this kind of behaviour unsuitable are not rare. The interaction of factors like the nature of the problem, group atmosphere and the whole situation can make the conditions of group decision making inconvenient. Most often, this happens when there is a short deadline, a large number of people in a group or if there are problems in interpersonal relations between group members that need to decide (Popadić et al., 1998).

It is necessary to emphasize that participation is a long process and that it would be wrong to expect immediate solutions (Tjosvold, 1987). Persons more inclined towards assertive behaviour and communication will have a clearer idea of what they want to accomplish and in which way to do it. They will be more confident in their potential to contribute to solving a problem, also they will accurately collocate their available resources and adequately express their suggestions, contributing both to their own and the company's advancement (Hayes, 1991).

The cause of this research

The main cause of this research is to confirm changes in participation of employees after taking an assertiveness training.

Operationalization and defining variables

The independent variable in this research is the assertiveness training, through which all subjects pass. The training consists of active workshops for three hours every other week during a two-month period. The dependent variable is the participation of employees.

Before the beginning of the training, all subjects take an assertiveness test (Vesić et al., 2011). After the training, the employees that went through the training are given the same test again, and the human resources manager of a company determines if there is a change in participation and decision-making.

The goal of the research and hypotheses

The goal of this research is testing the influence of the assertiveness training on higher participation of employees.

Hypotheses

H1: The assertiveness training leads to score increases on assertiveness tests in employees that went through the course.

The experimental research data obtained from the study conducted on different subjects show that an assertiveness training positively affects the level of assertiveness in participants in different assertiveness trainings and workshops (Geller, Wildman, Kelly & Laughlin, 1980; Stake & Pearlman, 1980).

H2: The subjects that were more influenced by the training will be graded better in participation of making decisions.

Having in mind the characteristics of assertive behaviour mentioned above, it is expected that subjects, which were more affected by the training, will apply this skill in situations like participation in making decisions. If the training had an effect on participants, they have to manifest in some behavioural aspect (Geller, Wildman, Kelly & Laughlin, 1980).

Methodological part of the research

The used method

In this research, the experimental method was used, of the test-retest design.

Procedure

Questionnaires are given in a form of paper-pencil. The time for filling out the questionnaires is not limited. The training is conceived as a combination of lectures and workshops with active participation of subjects and is taking place in the building where the subjects are employed. Workshops were done two times a month, on Fridays, from 11am to 14pm for the first group and from 14pm to 17pm for the second group, as activities for teambuilding.

Having in mind that the test-retest design is in question, with one repeated and one unrepeated survey, a control group is not needed (Todorović, 2008). This is a mitigating circumstance, because finding people of the same or so number of people for the control group that have a high education and work within the same organization is not easy.

Sample

The used sample is consisted of 37 highly educated working people within an organization, 18 of whom were females and 19 of whom were male. Only the subjects that have worked within the organization for more than a year were considered. Employees that participate in this research are equal in gender and the degree of education.

Instruments

The instrument used in this research is the assertiveness test (Vesić i sar. , 2011) adapted to a local population. The change of participation in making decision is registered according to the human resources manager of the organization, who attended these meetings before and after the training.

The instrument for testing assertiveness is consisted of 29 statements. The subjects fill out the questionnaire by circling a number for every statement, which represents his/her agreement with the statement. The answers given are in the form of Likert scales: 1. I completely agree; 2. I mostly agree; 3. I do not agree or disagree; 4. I mostly disagree; 5. I completely disagree.

Example:

	I completely disagree	I partially disagree	I don't agree or disagree	I partially agree	I completely agree
I understand my wishes and goals clearly.	1	2	3	4	5

The consistency of this instrument, measured by Cronbach's alpha coefficient, is .97.

Statistical analysis of data

Chi-square test was used to check the connection of the successfulness of the training and the evaluation of the manager. Analysing the variance, for repeated surveys, checked if there was a difference in the assertiveness score before and after the training.

Results

Assertiveness training

Having in mind that the research done was of an experimental type, with a test-retest design and the main goal of the research being checking the effect of assertiveness training, it is necessary to present the results of testing and retesting of the subjects with the assertiveness test (Vesić i sar., 2011). With a one-way analysis of repeated surveys, the results of the assertiveness test before and after the training were compared. The means and standard deviations are given in table 1. A significant effect of the training was confirmed, wilks' lambda= .376 , F (1,36)=59.77 , p=.000.

Table 1: Means and standard deviations on the assertiveness test, both before and after the training.

Assertiveness test	N	M	SD
Test	37	93.95	20.51
Retest	37	108.62	21.98

With the help of this analysis, the first hypothesis, that assumed that there would be an increase on the retest in participants that took the training, was confirmed. This is the first fact that contributes to the supposition that the training will have a positive effect on subject assertiveness.

The second hypothesis assumed that the persons, who were affected more by the training, would be more active in participation of making decisions. Confirming this hypothesis also represents the outside value of assertiveness training and an additional support of the first hypothesis, that was also confirmed. This hypothesis was confirmed with the T-test, $t=4.35$, $p=.000$. The means and deviations of the evaluated change in the subjects that took the training is shown in Table 2.

Table 2: Means and standard deviations for evaluated changes in participation after the assertiveness training.

Evaluated change in participation	M	SD
A definite change in participation	18.96	10.76
No change in participation	5.75	7.42

Discussion

Serbia is a country whose traditional heritage makes it inconvenient for developing skills like assertiveness, and practices like participating in making decisions. Until recently, organizations in Serbia had a strict hierarchy and it was inconceivable to contradict superiors or to express one's own ideas about the business organization. Employees throughout the country are still holding back to publicly express their own opinion, especially if it is not in compliance with the majority's opinion (Bojanović, 2009). Although there are certain efforts to overcome this situation, a retention of opinion and distrust on the part of employees are to be expected if you keep in mind the authoritarian and quasi-democratic values that are present in the socio-cultural system of our society (Bojanović, 2009; Bakić, 2009).

This research was, in the broadest sense, done with the idea of shedding light on one of the possibilities for upgrading practices of strategic management of human resources in Serbia. The main goal of the research was to test the effects of assertiveness training and to examine if assertiveness training had an effect on employees' participation in making decisions.

The first hypothesis, about raising the score on the assertiveness test after the training was complete, was completely confirmed. This can be explained by the fact that the employees were previously informed about how long the training would last, what the content would be, who would run it and why, also by the fact that the employee promotion was supported by the vision and general attitude of the management (Šiber, 1999). Training participants, as well as the leader of the training, were highly motivated, the content of the training was adapted to employees and to what the situation required, which additionally improved the results (Šiber, 1999). Confirming this hypothesis is not a surprise, because there are data which suggest that assertiveness trainings give very good results by participants (Geller, Wildman, Kelly & Laughlin, 1980).

The second hypothesis was also confirmed. It assumes that performing well in the assertiveness training will lead to a higher degree of participation in an organization. The confirmation of this hypothesis is especially important because, besides the fact that the relation of these two variables was the subject of this research, it speaks of a practical use of assertiveness trainings.

Limitations of the study. In spite of the achieved effects of the training, and the results that were obtained, the limits of this research have to be kept in mind. The obtained data are not generalizable on a population because of a few reasons.

Sample. In this research, the sample was small and unrepresentative. There were only 37 participants, 18 of which were female. All participants were in constant work relations, highly educated, living in Belgrade, which is not representative of Serbia.

No anonymity. The results of the research are used for scientific purposes and the data about participants are not given, but the actual participation in the research was not anonymous. The research was done in the way that the effects of the training could be monitored also, and that the participation of employees could be connected to the scores employees were given on assertiveness tests and the plurality of ideas by the human resources manager. All employees were informed of this and they gave consent to participating in the research. Nevertheless, in spite of their consent, the pressure was high. So, that might be the reason why participants gave socially acceptable answers. But it is not necessary that this pressure should have an effect in this way, but it is possible that they had higher motivation because of this.

Test-retest. Although it is a legitimate research method, this method has its flaws. It is possible that “learning questions” could happen while giving the same test in a certain time span. Also, there is a possibility that after the training was complete, participants gained insight into what “acceptable answers” were, so they could have circled them during the retest (Todorović, 2008). Even though this kind of argument is valid, participation in making decisions is harder to fake. It was already said, a connection between participation before and after the training was confirmed. Leaving space for the possibility that the real change in assertive behaviour should not be based on the obtained differences with the tests and retests, the change noticed in the participation of employees indicates that a change did occur.

Human resources manager's evaluation. The change in employees' participation in decision-making is based on a binary evaluation of the company's human resources manager, who confirmed that there was a change in this segment of employees' behaviour based on watching. The subjectivity of this evaluation can be compensated by the expertise of this manager who has a rich previous experience in human resources and long years of experience within the company. The key objection is the fact that the evaluation was not done before and after the training, but determined as “there is a change in behaviour, compared to the period before the training” and “there was no change in the behaviour, compared to the period before the training”.

Monitoring the changes. In the opinion of the authors of the research, one of the most important objections to this research is observing changes. Although the results of this research showed that the training significantly affected assertive behaviour in employees and their participation in decision-making, it is not known if the changes are long-term. The evaluation of the human resources manager came 12 days after the training was complete, which is evidence of a short-term success. To be able to say that the training had a real effect on assertive behaviour and participation of employees, a long study and monitoring the success of participants for a long time would have to be done.

Organizational culture. In this text, democratic organizational culture within an organization is discussed, but this information was not checked. The human resources manager of this organization called it democratic and, given by the steps that the manager took, like introducing participation and strategic management, it can be assumed that democratic culture is maintained. But it should be kept in mind that this information was not checked at all.

Suggestions for further research. During the attempt of replicating this research, it is desirable to take a larger sample of subjects. But, the fact that variables should be kept constant should be kept in mind, especially the demographic characteristics of subjects, time span between the segments of training, the content of every segment of training, the time that passes between completing the training and testing the effects and organizational culture.

It is also desirable to conduct a long study with a higher number of effect testing during training. A reliability of data would be higher if a similar test of assertiveness was used for testing, like

Rathus' (Rathus, as cited in Kearney et al., 1984). It would be ideal if there was more than one experiment that evaluated the employees.

The research would disperse most of the doubts that are occurring, it would include two more groups of subjects. The first group would attend the assertiveness training, the second group would attend a training, for example, in public appearances and the third group would not attend any training. It is not easy to find an organization that has such a high a number of employees, especially if we want to keep the demographic data constant. And all of those employees have to willingly participate in the training, so as to avoid absenteeism and other interfering factors.

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Rezime

U savremenim organizacijama sve više pažnje se posvećuje unapređivanju zaposlenih, kao najvažnijeg resursa svake organizacije. Pre svega, akcenat je na "mekim" veštinama i na ohrabivanju zaposlenih da učestvuju u donošenju važnih odluka u organizaciji u kojoj rade. Osnovna pretpostavka je da je za zdravu saradnju i učinkovitu participaciju neophodno imati razvijene komunikacijske kompetencije kao što je to asertivnost. Cilj ovog istraživanja je da ispita da li trening asertivnosti daje efekte u pogledu participacije zaposlenih. Istraživanje je rađeno na uzorku koji je činio 37 muškaraca i žena VII stepena obrazovanja, zaposlenih u jednoj IT kompaniji u Beogradu. Korišćen je kvazi eksperimentalni metod, test-retest dizajna. Participacija zaposlenih procenjavana je od strane menadžera koji je po završenom sastanku za svakog zaposlenog procenio da li je kod njega došlo do promene u participaciji ili ne u odnosu na prethodni sastanak. Zaposleni su procenjivani sa da, došlo je do promene i ne, nije došlo do promene. Trening asertivnosti trajao je dva meseca i sastojao se od teorijskog dela i workshopova. Menadžer je procenio da je kod 25 zaposlenih došlo do promene u participaciji, a da je ta promena izostala kod njih 12. Podaci su analizirani hi-skver testom, koji iznosi $\chi^2(1)=4.568$, $p<.033$. Ovakvi rezultati ukazuju na to da trening asertivnosti značajno utiče na participaciju zaposlenih u procesu donošenja odluka. Implikacije ovakvih nalaza su da bi treninzi asertivnosti rezultirali većom involviranošću zaposlenih u odlučivanju u kompaniji što bi kao posledicu moglo imati bolje poslovne odluke same kompanije.

Ključne reči: *trening asertivnosti, participacija u donošenju odluka, strateški menadžment*

Appendix

Assertiveness test

In front of you there is a questionnaire that surveys communication skills and inter-personal relations. It is consisted of 29 statements that relate to your feelings and reactions in specific situations. There are no false answers.

Please circle how much you agree with the following statements.

The categories are:

1. I completely disagree.
2. I mostly disagree.
3. I don't agree or disagree.
4. I mostly agree.
5. I completely agree.

	I completely disagree	I partially disagree	I don't agree or disagree	I partially agree	I completely agree
1. I don't have a problem approaching a person I like.	1	2	3	4	5
2. A person that doesn't cooperate will not affect my contribution.	1	2	3	4	5
3. I don't have a problem with emphasising my need in a situation where I feel that my rights are threatened.	1	2	3	4	5
4. I understand my wishes and goals clearly.	1	2	3	4	5
5. In a situation where I am defending my rights my approach is careful but direct.	1	2	3	4	5
6. When my superior doesn't excuse my absence because of sickness, I will tell them that I don't want to be unjustifiably punished.	1	2	3	4	5
7. I have a clear distinction between the things that I want to do and the things I think I should do.	1	2	3	4	5
8. I don't have a habit of standing up to elderly people in a bus.	1	2	3	4	5
9. I feel uncomfortable when I point out that a cashier gave less change than needed.	1	2	3	4	5
10. I feel uncomfortable after I point out to a friend that he/she hurt me	1	2	3	4	5
11. If I make a fool out of myself at the beginning of a presentation, I will remain confused to the end.	1	2	3	4	5
12. When I make a remark to a friend that she tore my book I lent him/her, I have pangs of conscience.	1	2	3	4	5
13. I'm always afraid of looking stupid for saying my opinion.	1	2	3	4	5
14. It's easy for me to decide between two love interests.	1	2	3	4	5
15. When I get a drink that I didn't order, I return it and ask for what I ordered immediately.	1	2	3	4	5
16. When I express a need of mine, I feel that I showed a weakness.	1	2	3	4	5
17. If someone's behaviour is bothering me, I tell them directly.	1	2	3	4	5
18. I don't have a dilemma when I'm ordering in a restaurant.	1	2	3	4	5
19. I stay collected in threatening situations.	1	2	3	4	5
20. I know what my needs are in every situation.	1	2	3	4	5
21. I don't have a problem with shutting up a babbling friend.	1	2	3	4	5
22. When I a colleague raises their voice, I calmly tell them that there is no need for that.	1	2	3	4	5
23. I don't use a gathering of my peers as an excuse to get drunk.	1	2	3	4	5
24. When something is bothering me concerning my partner, I openly tell him/her.	1	2	3	4	5
25. When someone cuts in line in front of me, I tell them to go to the back of the line.	1	2	3	4	5
26. If I make a mistake, I'll make sure my associates don't suffer because of it.	1	2	3	4	5
27. I feel uneasy when I tell someone that they left their car in front of my gateway.	1	2	3	4	5
28. When I need advice, I know whom to ask.	1	2	3	4	5
29. I remain confident in expressing my opinion even if it's not the same as the opinion of a group.	1	2	3	4	5

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THE PSYCHOSOCIAL PROFILE OF SUCCESSFUL, PROFESSIONALLY ESTABLISHED WOMEN IN SERBIA

Abstract

The qualitative research presented in the paper describes the success factors and common problems of professionally engaged women in Serbia. The aim of this research is to understand the named phenomena, as well as the interviewees' perception of success and social influence. The research was constructed as an in-depth interview on a sample of 55 women. Also, an anonymous survey with 15 open questions was sent to 1000 addresses of women selected by predetermined criteria of professional success. The response to the survey was 12%, which made it valid for making conclusions. All the women that participated in the research live in Belgrade or Niš. For most interviewees, the criterion for being entitled to see themselves as successful was the existence of some kind of balance between their professional and private life. The other criterion was independence from men, although they were very aware that they are "living in a man's world" and fighting for their place. This research has found that the problems of a successful career woman are recurrent and are as follows: in the first place, the position of successful women in business is still unenviable compared to men, then the lack of time, fear of losing one's job and, lastly, more susceptibility to mobbing.

Key words: *interview, self-perception, professional role, expert women's status*

Introduction

The main aim of the research is to describe and understand the psychosocial profile of a successful business woman in Serbia, to make a description of the lifestyle and perspective of women who fit into the predetermined criterion – a successful professionally established woman. In research polls women more frequently than men describe themselves as dissatisfied with the marital relationship. The polls show that less than 5 per cent of male respondents are involved in the current household maintenance, and this distribution of chores satisfies almost two thirds of the men questioned and less than a third of the women (Blagojević, 2006). Starting with the knowledge of the existence of a significant discrepancy in the self-perception between women and men regarding the satisfaction with family and social status, determined by quantitative research, the aim of this research is to understand the psychosocial influences that shape the perspective of a professionally successful woman. The research question is how does a professionally self-actualized woman perceive and understand her success from a psycho-sociological point of view? What are the advantages and disadvantages from their perspective and experience?

Methodology

Qualitative methodology was chosen due to the exploratory and descriptive needs of the research. The data was collected primarily using the in-depth interview technique. Besides this, a secondary source of data was collected through an anonymous email survey with 15 open questions sent to the addresses of 1000 women selected by predetermined criteria of professional success including women in managerial positions, independent experts in their domain or successful entrepreneurs. There was a 12% response to the survey, making it valid for drawing conclusions. All the women that participated in the research live in Belgrade or Niš. 35% of the interviewees were

young women aged between 28-36, about 60% of the interviewees were women aged between 37-56 and 5% were women aged between 57-65.

The technique used to analyze the data was the extraction of typical, illustrative answers from the individual interviews, which would, during further analysis, facilitate and support the understanding of the typical problems, challenges and lifestyle of the selected sample of women.

According to the research team's knowledge, the total population to which the results refer is up to 1500 professionally respectable women whose contact details are available in the public internet contact database by means of the NGO Female Government of Serbia. The published qualitative research included 55 women from Belgrade, aged from 25 to 65, with most of the women being 35 to 45 years old. Since the aims of the research are first of all exploratory and not to predict attitudes and behavior, or make generalizations of conclusions for the overall female population of Serbia, we have to emphasize that the sample represents important material for making conclusions in accordance with the set of research goals. The transferability of information and the credibility of the conclusions are, to a great extent, secured through the procedure of methodological triangulation. Triangulation is very broadly defined by Denzin (1978) as the process of combining various methodologies in the research of one and the same social phenomenon (p. 291). The professions included in the sample are at managerial level, ranging from health care, education, law, journalism and culture to marketing, public relations, the economy and sales. All the interviewees were not only highly motivated to talk, but were also interested in the subject of the interview. The interviews lasted for 30–40 minutes. The length of the answers varied depending on the personality of the interviewee.

The results shown were categorized according to the priority topic groups from the guide, based on which the interviews were carried out. The guide was formed based on the following topic groups: perception of one's personal success, social influence and power, chosen role models, values and lifestyle, as well as problems to deal with in both one's personal and professional life.

Research results

As already mentioned the main data analysis technique was to extract typical, frequent and illustrative answers from the individual interviews and group them in categories. A descriptive report within each question category from the guide was made based on those dominant categories of answers. Therefore, the results are shown as a topic analysis for each individual segment included in the research. We will start by showing the perception and evaluation of personal success. The interviewees agree that women are capable of keeping balance in all areas of life, although for most of them that is very demanding. They also think that professionally successful women have alone imposed on themselves this pattern that they have to be successful in all fields, as mothers, partners or friends, and that they "are not easily forgiven" if they do not achieve the set ideal. One interviewee from the sample claimed that "women must pretend to be a superwoman", meaning that they have to achieve a balance between family and work on an everyday basis. They believe that in this matter men are in a better position. It is easy to recognize in the answers a high degree of self-criticism as well as the omnipotent nature of ambition. Although a large number of women from the sample have not started a family yet, they still think that having a family is certainly one of the most significant goals in life. A frequent response among the interviewees was that a woman has to achieve certain success in her career and then to devote herself to the family. A smaller number of the interviewees openly choose only their career as a goal. These interviewees have a competitive spirit and are prone to emphasizing their merits and qualities, wishing to achieve enviable results and to be the best at what they do.

The dominance of intrinsic motivation in the sample is reflected in most answers which define professional success as a reflection of satisfaction with one's own choices, persistence in achieving set goals, independence, freedom and self-realization. Even one interviewee who mentioned material criteria as an indicator of her own success did so by comparing her own needs and the possibilities that her income provides, without mentioning profit, increase of wealth and similar terms. She said: "The results of my work enable me to live very well." Therefore, what can be attributed to all the interviewees is the dominance of internal criteria for self-evaluation accompanied by the awareness of external criteria for the measurement of success and evaluation of their own work (the goals set by top management, public criticism when it comes to culture and art, income compared to standard and the like). They claim that over the years their standards for evaluation of their own success change so as to

stay adequately motivated in each phase of their career development. One of the frequently mentioned indicators of success was the opportunity to co-operate with globally recognized authorities from their own field. The interviewees are mostly more satisfied with their social status than with the income their work provides. They are in a position to travel a lot and meet respectable people from their own field. However, what is noticeable regarding the interviewees from the field of culture and art is their dissatisfaction with the treatment they receive from the state. They have a feeling they are inadequately paid and that they lack stimulating conditions for work and further improvement. Still, they stay motivated to create and think creatively. As indicators of their success they named the authority and reputation achieved throughout their years of work, as well as the respect they get from their associates, which they all see as an adequate compensation for the lesser satisfaction with the financial aspects of their achievement. Concerning the dominant decision making model related to their career and work, the majority of interviewees consult their superiors and colleagues. However, years of experience and gaining a “business instinct”, as they call it, facilitates the process of making decisions which are important for business success. Still, both at work and in their private life, they give priority to communication and cooperation. Even when they make decisions that concern themselves, they do it through talking and consulting. They are not prone to taking risks or competing, which they see as their positive characteristic. We have learned from the interviewees that they are mostly driven by the idea of surpassing their own abilities, not comparing and competing with others. Competitiveness and a “strong Ego” are mentioned as weaknesses mostly seen among men. Also, this observation is further generalized by stating that the women they cooperate with are more rarely motivated by competition and admiration of others, unlike men in similar positions. It is easier for them to cooperate with women, although they do not find that working with men is a big challenge. When making decisions, all of the interviewees take into consideration consulting with others, but a small number point out that the decision has already been made “somewhere deep inside them.” They are aware of the consequences and accept responsibility for such decisions. Generally, the interviewees do not think that women are in the shadow of men, or that success and position are connected to gender. Also, they recognize and point out that women are more pugnacious and creative than men. For example, the field of marketing is often reserved for women, precisely because of these qualities.

As far as social influence and power are concerned, all the interviewees are aware of and openly talk about the existence of their own influence and its meaning. Those who frequently appear in the media connect influence with responsibility and regard their own influence as an opportunity to demonstrate and support quality in their work. They recognize the influence in the attitudes and values they transfer onto their readers, audience, close friends and everyone else. Some of them have had the chance to be called someone’s role model on several occasions during their career. They believe they have worked hard to gain respect and the influence which comes out of respect.

Some other interviewees, on the other hand, that are not media figures, describe their direct influence as power to motivate others, provoke optimism, transfer knowledge, interest others in their own ideas, easily find allies in their goals and have a large circle of acquaintances. The work they do has enabled them to meet a lot of people, with whose help and support they accomplish their own business goals.

As they claim, social power is mostly reflected in the number of contacts they have. A smaller number of interviewees see influence as a personal quality and power as a female strength which enables them to feel superior to others, owing to the self-confidence they gained in the process of achieving their personal goals in both their professional and private life.

All the interviewees unanimously agree that the work they do gives them influence, whether they want it or not. When they talk about implementing their influence, they most often mention promoting the institution where they work or influencing making decisions related to the work they do. Also, they think that they use their own influence for the purpose of transferring knowledge and informing their associates. What is common for all the interviewees is the belief that they use their social power to send encouraging and stimulating messages to their closer and wider social environment, and to succeed in work more easily. Some of them do not even like using the word “use”, but they talk about the possibility of putting influence into effect in order to achieve certain practical goals. Again, from their point of view their own influence is reflected in the possibility to influence their associates, to help improve their team, to help the young to develop, to teach and give

adequate advice. Since they know many successful people from different fields, they try to use their influence in a positive way, even for altruistic purposes, in order to help people close to them within “reasonable limits”. From the psychological point of view, it is interesting to notice that women with successful careers are capable of rationally evaluating and choosing when and who to support, and by doing so they resist the socially desirable and dominant pattern of non-selective helping of friends and family. The interviewees with above average professional accomplishments are actually capable of setting psychological boundaries relating to their social environment through the rational evaluation of their own available capacities, resources and skills. The group of older interviewees (50-65 years old) thinks that their influence is connected with their career, which means persistence and continuity in the quality of their work, then good communication with people from their field and the possibility to organize and balance their private and professional life well. The interviewees who have families regard themselves as influential primarily within the family (for example, influential mothers who raised their children and influenced them in that sense).

As far as the evaluation of social power that professional and expert women have, the interviewees do not agree whether in Serbia there are or aren’t significant gender differences in the business world. They say that success includes pugnacity regardless of the gender. Certainly, most women think that there are typically male jobs, but this is only connected with physical, not intellectual predispositions. The dominant belief is that a woman can achieve career success if she is dedicated enough to the goals and quality of her work, without paying attention to the fact that she is a “woman”. Some interviewees point out that there have been cases of “psychological” mobbing at work, but that was something happening exclusively to “someone else”, not to them. The others say that although they know about this problem, they have never encountered it. On the other hand, many of the women claim that there is still inequality between genders, that women are wrongfully suppressed, and that a man with the same level of education, or less, will always get a better position and higher salary than a woman in the same situation.

Unlike influence and success, none of the interviewees accepted a direct conversation about power. Although they claim they are influential, none of them sees herself as powerful. They connect power with politics and large capital, positions in which they do not see themselves. They are unanimous that politics is present in all social areas and that politicians (men) are those who have the greatest social power, considering the fact that there are significantly fewer women in politics than men. Although they think in a political way, they think there is no point being engaged in politics if you are a woman. One interviewee from the sample joined a political party, and then left it after being criticized, since she estimated that politics potentially threatened her career. Also, they think it is a problem that even when they occupy high positions in direct cooperation with men, the “woman” rarely takes initiative when it comes to making strategic decisions. The power they talk about can be better described as a position of grey eminence accompanied by subtle persuasive skills. Instead of talking about power, they talk about individuality, self-awareness and independent thinking as their biggest qualities.

It seems that all of them respect the patriarchal model and do not question the male/female division of jobs and positions within partnerships and family. They emphasize this, adding that they do not promote or support “extreme feminism”, according to which a woman is self-sufficient. By analyzing their answers, we can conclude that they openly accept the differences and division of roles in partnership explaining that “they expect to feel like ‘women’ in the relationship with their partners. Keeping in mind the fact that they grew up in traditional and patriarchal families, they are in favor of the model in which “the woman represents the neck, and the man the head”.

A significant number of the interviewees from the sample (30 out of 50) claim that professional success is a risk factor in the context of a partnership since men have difficulty accepting equality, let alone inequality to the benefit of the woman. They often have the opportunity to see successful women with serious partnership problems, from a lack of understanding to domestic violence, to quote one interviewee, “only a woman who is the owner of a company can be in a viable social position and have security”. Regarding partner relationships, they say it is very important to have a partner who understands them (because they are often in meetings or on business trips), so they find a solution in finding a partner from a similar field or in the same position. Persons who share mutual characteristics and affinities with their partners experience their marital relationships as balanced, and based on their

experienced similarity with their partner, they predict that they will be loved and accepted in the relationship, which makes room for intimate and enhancing emotional exchange.

Most interviewees think that women generally fight more for survival at work than men, and that they need much more than men to achieve certain success in the same line of work. Many of their answers and claims suggest that, in spite of the qualities and knowledge they possess, men still have a dominant role in society as they see it. A lot of them point out that belonging to a certain political party is present/essential when getting a job or getting promoted. As far as the position of women in society is concerned, almost all of the interviewees agreed that there is discrimination against women when it comes to employment, professional improvement and finally getting promoted to managerial positions in companies. The interviewees in managerial positions think that they needed a lot of time and effort to come to that position, primarily because they are women. Some of the interviewees emphasized that a team spirit in the context of the professional environment is much less present in women than in men, which can be explained by the previous attitude. All of the interviewees mentioned that there are a lot of women in higher positions in their professional environment, emphasizing that that is not common practice in Serbia.

The role models that they described cannot be easily categorized, as is the case with the interviewees' perception of the dominant problems related to the female position in society. The role models they talk about start with family, in the form of an ambitious and supportive mother, and then move to world famous names from art, culture and sports. It is interesting that the interviewees often mention Novak Djokovic as a positive role model for the young, although the interview was primarily about female role models, which proves how broad their perception of inspiration is. When asked about current good female role models, the middle age group (35 –50 years old) mentioned their colleagues from the same or a similar field as well as examples of women that are less known. Since family does not have role model status any more, they think that role models should be found in positive examples in the world of sports, culture, art and entrepreneurship. Many of the interviewees pointed out that during their development they have shaped their own model of behavior based on different persons and qualities which appeared to be the most valuable goal for their further development. According to their answers, the qualities that a desirable role model should possess are:

- Persistence, perseverance and good organization
- Positive energy and charisma
- Creativity
- A broad education
- Self-confidence and care for oneself

These qualities are ranked in accordance with their given frequency. In the first position, there are those qualities which, according to the subjects, are essential for professional success and continuity in professional success. Having a positive attitude and charisma, which they mention, can be linked to a strong need for good connectedness and exercising the influence necessary for achieving success and social recognition.

Discussion

Here we will return to the research questions. How does a professionally self-actualized woman perceive and understand their success from the psycho-sociological point of view? What are the advantages and disadvantages from their perspective and experience? As we have learned from the results, the interviewees see maintaining balance between family and work as an important element necessary for recognizing and completing their perception of success. For example, the dominant female scripts are mostly based on social programming, which imposes the myth of their dependence, incompleteness, or inadequacy. The accepted stereotypes of gender roles imply that the "incompleteness" of men is complemented by the culturally stereotypical woman, and vice versa. It is no wonder that it is precisely this economically intoned description of human motivation that bears the brunt of the feminist critique of the traditional conceptions of autonomy (Mayers, 1987). So, among the interviewees we did not register any autonomous evaluation of professional success isolated from other aspects of their identity. As most interviewees claim, it is very difficult to achieve success in one's career, and at the same time not to neglect the family.

Their own career success was described by the interviewees using mainly subjective criteria in accordance with the Hotorn effect. According to this, it is not enough to work only for money, but it is

a human need to work for someone, in front of someone and with someone, that is the available social confirmation of work is in the form of attention, acknowledgement and approval (Mayo, 1933 according to Cukic, 2003). Before everything else, fulfillment, satisfaction and the purpose of the work they do were mentioned, rather than material measurement of the success achieved.

On the other hand, a large number of the women claimed that there is still inequality between genders, that women are wrongfully suppressed and that a man with the same level of education, or less, will always get a better position and higher salary than a woman in the same situation. To illustrate this, we can mention the example of the psychological strategy for dealing with this inherent inequality described by one interviewee. She says that women deal with this problem in two ways, both of which are in accordance with Bem's gender schema theory: A cognitive account of sex typing source (1981). On the one hand, she will develop typically male characteristics and by doing so try to overpower them, or on the other hand, she will develop typically female characteristics and by doing so manipulate men in order to achieve her goal.

If we take a broader perspective, economically, the positions of men and women are profoundly unequal in Serbia. Ownership of real estate, as well as opportunities for earning a living and employment are in the hands of men, while taking care of the home is, even in the 21st century, primarily the women's domain (Blagojević, 2006). In Serbia, a late modern society, different views of marriage as an institution are also par excellence political issues. A functional symmetry of marital partners leads to a realistic and reciprocal appreciation and acceptance between the spouses. Personal and interpersonal balance is supported if the person has the opportunity to find a partner whose interactive style and social rules do not require significant alterations in his own style of behavior and communication (Brajovic Car & Hadzi Pesic, 2011, pp. 63-81).

When talking about dominant problems from their point of view, the answers are varied and cannot be categorized. The problems that the majority of interviewees see as a priority are:

- Threat to the health of women aged between 25 and 45 when they are professionally most active, almost preoccupied with their work. This especially applies to those women who besides their career have a dynamic family life, and as a result neglect themselves and their own needs. In industrialized societies today men die earlier than women but women have poorer health than men. In 1996 in the UK males had a life expectancy of 74.4 years compared with 79.7 years for females. This excess mortality of 5.3 years in males in 1996 increased over the course of the twentieth century from only 3.9 years in 1900-1910. To complicate the picture further, the mortality gradient appears to be steeper for men than for women, while illness rates, treatment rates absenteeism and prescription drug use are generally higher for women (Marks et al. 2000). Women have higher morbidity rates but lower mortality rates. Women suffer more non-fatal chronic illnesses and more acute illnesses. They also make more visits to their family physicians and spend more time in hospital, and suffer twice the rate of depression. Men, on the other hand, have a shorter life expectancy suffer more injuries, suicides, homicides and heart disease.
- Threat on the job market to women aged 28–35 due to employers' resistance towards this age group which is reproductively most active. The majority of interviewees noticed discrimination and violence from their employer as a problem (a contract about not giving birth was mentioned). Besides this, as mentioned earlier, domestic violence is equally present among successful, professionally engaged women.
- From the interviewees' point of view, the problem which is connected to this is a "bad business ambience" which is reflected in the position of woman in society because it deals with the corruption and criminalization of any profession.
- What has been pointed out is the lack of quality role models in the media and diversity in representing woman, which would present an antithesis to the ever present "woman – starlet", as a superficial manifestation of inner desires towards a more ideal version of herself about which they talk themselves. As they say: "A woman is not supported to be different from the traditional pattern". Too many negative models of both sexes get undeserved media attention and become role models for the young who "stop thinking for themselves when it comes to important life decisions".
- An important problem which they recognize is the difficulty in balancing time and their obligations, namely family and work. They feel under pressure due to the lack of time to implement all of their business ideas, but also the lack of time for family and friends. The most difficult task

they do is coordination between family and business obligations. To illustrate this is the example of a child who gets sick while she is on a business trip.

- Closely connected with the above mentioned difficulty is the lack of free time. This is also followed by the lack of understanding when they often neglect friends because of urgent business obligations. Social support derived from friendships, intimate relationships and marriage, although significant, appears to be of less positive value to woman than to men. Although physical and mental well-being generally benefit from social support, women often provide more emotional support to their families than they receive. Thus, the loss of a spouse has a longer and more devastating effect on the health of men than on that of women (Stroebe and Stroebe, 1983).
- In the last place, they mention problems regarding education and schooling, the school system which is not organized enough, violence in schools, and teachers and professors who are unmotivated to do their job due to their low salaries. They think that all these things are reflected to a great extent in the quality of their private life. The interviewees who have pre-school children point out that kindergartens in Serbia rarely adjust their working hours to them since they in fact work overtime and it is never "from nine to five".

Regarding role models, the answers can be understood and interpreted in accordance with Festinger's hypothesis, which says we are more motivated by people who are similar to us than those who we see as different to and more successful than us (Festinger, 1954). As far as their own role models are concerned, the interviewees mostly answered that they did not have any specific role models in their youth, but rather people they could learn something from. In that sense, they often mentioned parents as role models, which differs to the role models registered with younger age groups, adolescents and young adults, in whose choice of role models persons appearing in the media are dominant (Beck, 1992).

Self-confidence and care for oneself are in the last position among the desirable qualities presented in the Results section. We assume they are the starting point for success and commitment to one's own goals. From the psychological point of view it is assumed that self-respect and self-confidence are a necessary condition of personal autonomy (Dillon, 1992), but not enough taking into consideration the complexity of the presented psychosocial profile of a professionally successful woman in Serbia in the second decade of the new millennium.

Conclusion and implications of the research

Based on these results, that is, the description of the psychosocial profile of a highly engaged and successful woman in Serbia observed from the viewpoints of different professions, we can make a preliminary conclusion or hypothesis that the definition of success and influence, as well as the indicators of professional success significantly differ when compared to men in the same profession or position. At the same time, we can assume that a smaller difference in the self-perception in the context of their profession is present among female interviewees depending on their family situation, age or nature of their job. We think that it is worth doing further research so as to increase understanding of the assumed differences in order to improve cooperation and understand the specificity of work/professional motivation depending on gender. Self-description and portraying oneself in the context of a professional identity by successful women supports the fact that personal autonomy and achievement are not valued as a goal as such if they are not placed in the narrower or wider social context to which a woman belongs, which adds this research to the string of research confirming cultural change from individualism to the relational paradigm (Gergen, 2009), which is more and more relevant not only to the understanding of everyday human existence, but also to a scientific-methodological approach in psychological research.

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Rezime

Ova kvalitativna studija ispitivala je faktore uspeha i tipične probleme uspešnih, profesionalno afirmisanih, žena u Srbiji. Sam cilj ovog istraživanja jeste razumevanje pomenutih fenomena, kao i doživljaja uspeha, i procenu socijalnog uticaja od strane ispitanica. Podaci su prikupljeni primenom tehnike dubinskog intervjua i anonimne elektronske ankete sa 15 otvorenih pitanja, poslate na 1000 adresa žena koje su odabrane prema unapred definisanim kriterijumima poslovne uspešnosti, i to: žene na upravljačkim funkcijama, samostalni stručnjaci u svojoj oblasti ili uspešne preduzetnice. Odziv ispitanica u okviru elektronske ankete je 12%, što ga čini validnim za prenosivost zaključaka. Ispitanice koje su učestvovala u istraživanju žive i rade u Beogradu i Nišu. Obavljenim kvalitativnim istraživanjem obuhvaćeno je 55 ispitanica. Većina ispitanica na uspeh gleda kao na svojevrsnu ravnotežu između poslovnog i privatnog, te im to dalje predstavlja i merilo za doživljaj ličnog uspeha. Takođe, merilo uspeha povezuju i sa nezavisnošću u odnosu na muškarce, iako naglašavaju da su još u muškom svetu u kojem se bore da nađu svoje mesto. Istraživanjem je ustanovljeno da se problemi uspešnih poslovnih žena često ponavljaju, a to su: da je položaj žena u veoma nezavidnom položaju u odnosu na muškarce, zatim nedostatak vremena, strah od otkaza i "mobing".

Ključne reči: *Intervju, samopercepcija, profesionalna uloga, psihosocijalni status stručno uspešne žene*

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GENDER DIFFERENCES IN PREFERENCES OF FOLLOWERSHIP STYLE AND LEADERSHIP STYLE: HOW REALISTIC ARE THEY?

Abstract

The academic and professional literature has put more emphasis on the phenomenon of leadership than on the phenomenon of followership. An effective leadership requires an effective followership, and vice versa. Leaders and followers have an inseparable function, but different roles. There are many publications that elaborate on the characteristics of female leaders, but there is no sufficient information about male and female followership. The research aims to determine the differences between preferences of leadership styles and followership styles in male and female employees. Exemplary, pragmatic, passive, conformist and alienated followers are identified, and in relation to the leadership style, there are followers motivated by the tasks, and followers motivated by the relations. Personal Style Questionnaire for followership styles (Kelley, 1992) was used to identify followership styles, and Least Preferred Co-worker Questionnaire (Fiedler, 1978) was used to identify leadership styles. Data were collected from 287 employees from different organisations in Serbia and Macedonia. The results revealed that the majority of the followers were exemplary, while there was an equal number of employees whose leadership style was motivated by relationships, and whose leadership style was motivated by the tasks. Chi-square test showed no significant differences between gender and preferences of followership styles $\chi^2(4, N = 287) = 2.67, p = 0.61, fi = 0.10$. Also, there are no significant differences between gender and leadership styles $\chi^2(1, N = 287) = 0.59, p = 0.44, fi = 0.05$. The findings of the study contribute to the theory of followership and leadership in terms of gender, offering the empirical data that will encourage further research. The results indicate a need for changing the structure of the organisation and breaking the stereotypes. These frameworks provide guidelines to be used in a practical implementation of these results with the purpose of creating working conditions in which both the leaders and followers, male and female, can best work together.

Key words: *followership styles, leadership styles, gender, leaders, followers*

Introduction

The academic and professional literature has put more emphasis on the phenomenon of leadership than on the concept of followership. Employees in companies and firms are determined as docile, dependent on and loyal to the leader or organisation. Contrary to the traditional view of employees as passive and obedient people, modern theories describe them using completely opposite terms and define them as active members of the leader-follower relationship. Gilbert & Hyde (1988; according to Baker, 2007) have noticed the obsession with the romance of leadership and dependence on the ability to motivate as the two main reasons for the lack of research on the process of followership. The role of follower has been changed drastically in accordance with the changes in modern industry. Chaleff (2009) confirms that the changes in the global economy provide a fertile ground for developing different models of followership. He also explains that in the past, strong leadership was needed in order to achieve something, such as to build a pyramid or set a railroad. But organisations and companies today operate in the information age, where there are so many

interrelated units working for the success of the organisation in the long run and leaders need to effectively coordinate the business of many people with clear information. Considering the fact that there is a lack of research aimed at followers and followership, any attempt to investigate followership is a major challenge for research. According to Kelley (1998), followership is not a person but a role, and what distinguishes followers from leaders is not intelligence or character but the role they play. Leaders and followers have inseparable functions, but different roles.

Kelley, Chaleff and other researchers of followership were probably concerned to establish followership as a field of study, and there are no gender differences in approaches to followership, while there are studies that examine differences in leadership in terms of gender. The concept of leadership has always been associated with masculine values and with the male domination, because there have been so few women leaders. The leader follows the organisational goals; thus, being a good follower helps to be a good leader. An effective and sustainable leadership and followership (and their interrelationships) need to attend to all these various dimensions and interrelationships for ensuring consistency, compatibility, and creativity of organisational activities (Küpers, 2007). While differences in leadership styles by gender are on the way to be understood, it is important to explore gender differences of people who follow.

The aim of the study is to determine the differences between preferences of leadership styles and followership styles in male and female employees.

Kelley's model of followership styles

Kelley (1992) indicates that the followers need models for followership styles, the models to identify with that will be different from the stereotype of followers as passive or sheep-people. Namely, the followership style is based on two dimensions: an active engagement, which ranges from passivity to activity, and some independent thinking, ranging from independent, critical thinking to dependant, uncritical thinking. The categories of followership styles do not represent personality traits, but how an individual plays the role of a follower. In different circumstances, you can use different followership styles. Kelley suggests five styles of followership: alienated followers, conformist followers, passive followers, pragmatist followers and exemplary followers.

Alienated followers have the ability to think independently, but do not frequently engage in the organisational aspects. They are described by Kelly as competent, but cynical. Their capacity for independent thinking allows them to make critical assessments of the organisation; however, they usually do not take any concrete actions. They feel mistreated and not recognised by the organisation, and often express frankly their negative attitude towards the organisational policies.

Opposite to the alienated followers, conformist followers tend to be engaged in all organisational activities. But, they are either not capable of independent thinking, or have completely given up on it, and allow the leader to make the decisions for them. They obey and complete the leader's tasks without questioning, and tend to maintain an excellent relationship with their leader. Conformist followers are ready to sacrifice their own needs for the sake of achieving the organisational goals.

Passive followers are characterised by uncritical thinking, ineffectiveness, and lack of active contribution to and involvement in the organisational activities. They let the leader do the thinking, tend to be uncreative and need a constant supervision and motivation in order to finish the given tasks and duties. They usually leave the workplace at the end of working time, no matter whether the work task has been finished or not.

Pragmatic followers make an average contribution to their organisation. They have the needed ability to think and perform independently but rarely do more than the average of what is expected. They primarily think of their own benefit, instead of the organisational goal. During an organisational crisis, they initially think of getting through the difficulties themselves. Pragmatic followers rarely and quietly question the decisions and policies of the leader.

Exemplary followers are vital to the organisational success, mainly because of their critical, innovative, original and independent thinking. They are adaptive to the organisation. Exemplary followers are able to complement the effort of their leader, but sometimes question and disapprove of the leader's decisions. They always act in the best interest of the organisation.

Leadership styles

The contingent theory suggests that the effectiveness of the leader is determined by the extent to which the style of the leader fits in the appropriate context. In order to understand the actions of the leader, it is needed to understand the situation in which leaders lead followers. An effective leadership depends on the degree of compliance of the style of leadership with the appropriate parameters in the environment.

This theory analyses two styles of leadership, a task motivated leadership style and a relationship motivated leadership style. The task motivated leadership style is concerned primarily with reaching a goal, work performance. People with the relationship motivated leadership style are more concerned with developing close interpersonal relationships.

According to the theory, three elements, leader – member, task- structure and position – power relations, are combined to produce distinct situations which differ in compliance with the leader's ability.

The studies report a number of contradictory findings about gender differences in leadership styles. Authors are trying to answer the question whether there is really a difference between leadership styles of males and females? Some authors argue strongly that there are differences, while others assert just as strongly that there are none (Moran, 1992).

An influential review of 162 studies revealed that women showed a bit more democratic/participative leadership styles and a bit less directive/autocratic styles than did their male counterparts (Eagly & Johnson, 1990). The results of this research show that there is no difference in the leadership ability among male and female employees (Yukl, 2002).

Method

Problem

The problem that this paper analyses is the study of the differences in the preferred style of leadership and followership styles between male and female employees.

Research participants

The total sample included 287 employees from different organisations in the Republic of Serbia and Republic of Macedonia. 51,6% were female and 48,4% were male with an average age of 37,11 years (SD=10,21), ranging from 21 to 65 years of age.

Instruments

The Personal Style Questionnaire for followership styles (Kelley, 1992) was used to identify followership styles. Scores were derived from a 20-item self-report survey, utilising a Likert scale from 0 (strongly disagree) to 6 (strongly agree). The scores obtained from twenty items gave scores of two broad dimensions of followership, independent thinking and active engagement. The Cronbach alpha found for this questionnaire is 0,83.

The Least Preferred Co-worker Questionnaire (Fiedler, 1978) was used to identify leadership styles. The participant was asked to think about all of the people with whom he or she had ever worked and to select one person who was the most difficult to work with — the least preferred co-worker. The participant was asked to describe this person through 16 bipolar rating items. Lower scores on the LPC questionnaire indicate that people are motivated by tasks and higher LPC scores show that people are relationship motivated. The Cronbach alpha found for this questionnaire is 0,91.

Procedure

The questionnaires were given to individual participants at their workplace during working hours by the researcher. It was clearly emphasised in the questionnaire that the answers were completely anonymous, and that they would never be identified in the study or in any presentation or publication.

Results

The obtained results show that the majority of the respondents, 81,53%, indicated an exemplary followership style. A higher percentage of exemplary followers are male (50,17%). There are more

female alienated and conformist followers than male, whereas more male participants show the pragmatic followership style than women participants. One male and one female respondent indicated the passive followership style. Table 1 illustrates the distribution of followership styles related to male and female respondents.

Table 1. Distribution of followership styles related to male and female respondents

	Male	Female	Total
Exemplary	114 (50,17%)	120 (41,81%)	234
Alienated	7 (2,44%)	10(3,48%)	17
Conformist	3 (1,04%)	7 (2,44%)	10
Pragmatic	14 (4,88%)	10 (3,48%)	24
Passive	1 (0,35%)	1 (0,35%)	2
Total	139	148	287

Chi-square test was used to analyse the proposed relationship between an individual's followership styles, answering the question: are there differences in preferences of followership style between male and female participants? The findings suggest that there is not statistically significant relationship between gender and followership styles $\chi^2 (4, N = 287) = 2.67, p = 0,61, fi = 0,10$.

Table 2. Chi-square test values

	Value	p
Pearson Chi-Square	2,67	0,61
Phi	0,10	0,61
Cramer's V	0,10	0,61
ContingencyCoefficient	0,10	0,61

The followership style is formed upon two dimensions, independent thinking and active engagement. Table 3 displays descriptive statistics of the two dimensions, independent thinking and active engagement among male and female respondents. The data indicates that in general the participants score higher on the active engagement scale (M=47,43) than on the independent thinking scale (M=37,45).

Table 3. Descriptive statistics

Gender		Independent thinking	Active engagement
Male	M	37,99	46,54
	N	139	139
	SD	7,74	8,68
	Min	15	15
	Max	54	60
Female	M	36,95	48,26
	N	148	148
	SD	7,76	7,12
	Min	11	25
	Max	54	60
Total	M	37,45	47,43
	N	287	287
	SD	7,75	7,95
	Min	11	15
	Max	54	60

An independent-samples t-test was conducted to compare the two dimension scores, independent thinking and active engagement for males and females. There was no significant difference in independent thinking scores for males (M=37,99, SD=7,74) and females M=36,95,

SD=7,76; $t(287)=1,14$, $p=0,26$. Also, there was no significant difference in active engagement scores for males ($M=46,54$, $SD=8,68$) and females $M=48,26$, $SD=7,95$; $t(287)=1,84$, $p=0,07$.

An additional research question sought to be resolved is whether there are differences in leadership styles preferences among males and females. More females prefer the relationship oriented leadership style than male, Table 4. But chi-square test was calculated and there are not significant differences between gender and leadership styles preferences $\chi^2(1, N = 287) = 0.59$, $p = 0,44$, $fi = 0,05$.

Table 4. Distribution of leadership styles related to male and female respondents

	Leadership style	Gender		Total
		Male	Female	
	Task motivated	73	70	143
	Relationship motivated	66	78	144

Discussion

There is a considerable disagreement among researches concerning the extent to which men and women differ on characteristics associated with leadership (Landy& Conte, 2004), even more concerning followership. Some studies have showed statistically significant differences regarding attributes of males and females, but many of these differences are too small (Feingold, 1994; according to Landy& Conte, 2004).

The results of this study show that the majority of employees are exemplary followers. A higher percentage of males are exemplary followers and pragmatic followers. But females display the alienated followership style and conformist style. These differences may be associated with social roles of the genders in contemporary society since these roles are determined primarily by culture. In Macedonian society, gender relations during communism were characterised by strong patriarchal values that had never been questioned (Spehar, 2012), and the situation was approximately the same in Serbia. The differences are not statistically significant. Furthermore, there are no differences between men and women in followership style preferences.

Similar results were found concerning leadership style preferences in relation to gender. Male and female employees do not differ in preference of the leadership motivated by tasks or by relationships. These findings are encouraging since they confirm that both men and women should feel free to adopt leadership strategies and skills for the exemplary followership style, which will help them to bring success to the organisation.

The findings of the study contribute to the theory of followership and leadership, offering empirical data that will encourage further research. The results indicate a need for changing the structure of the organisation. An effective leadership requires an effective followership and vice versa, the main purpose being reaching the final goal.

It takes two to tango is used as a metaphor for leading and following in organisations (Challef, 2009); therefore, these frameworks provide the guidelines for a practical implementation of the results, i.e. of how leaders and followers, male and female, can best work together. Males and females alike will be challenged to develop the type of leadership skills that will be needed to lead the organisations of tomorrow (Moran, 1992).

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Rezime

Akademski i stručna literatura više naglašava fenomen liderstva nego sledbeništva. Efikasno rukovođenje zahteva efikasno sledbeništvo, istovremeno efikasno sledbeništvo zahteva efikasno rukovođenje. Lideri i sledbenici imaju neodvojive funkcije, ali različite uloge. Postoje mnoge publikacije koje razrađuju karakteristike liderke, ali nema dovoljno informacija o muškom i ženskom sledbeništvu. Cilj istraživanja bio je da utvrdi razlike između preferencija stilova rukovođenja i stilova sledbeništva kod zaposlenih muškarca i žena. Identifikovani su uzorni sledbenici, pragmatisti, pasivni, otuđeni i sledbenici konformisti, a kada je reč o stilu rukovođenja, postoje pojedinci motivisani zadacima i pojedinci motivisani odnosima. Za identifikaciju stila sledbeništva korišćen je Personal Style Questionnaire for followership styles (Kelley, 1992), a za identifikaciju stila liderstva korišćen je Least Preferred Co-worker Questionnaire (Fiedler, 1978). Ispitivanje je izvršeno na uzorku od 287 zaposlenih iz različitih organizacija u Srbiji i Makedoniji. Rezultati su pokazali da među sledbenicima većinu čine uzorni sledbenici, dok postoji jednak broj zaposlenih čiji je stil rukovođenja motivisan odnosima i zaposlenih čiji je stil rukovođenja motivisan zadacima. Hi-kvadrat test je pokazao da ne postoje značajne razlike između pola i preference stila sledbeništva $\chi^2(4, N=287) = 2.67, p = 0.61$. Takođe ne postoje značajne razlike između pola i stilova rukovođenja $\chi^2(1, N=287) = 0.59, p=0.44$. Nalazi studije doprinose teoriji sledbeništva i teoriji liderstva, nudeći empirijske podatke koji će podstaći dalja istraživanja. Rezultati ukazuju na potrebu za promenom strukture organizacije i razbijanjem stereotipa. Ova studija obezbeđuje smernice u vezi sa tim kako u praksi mogu najbolje da rade zajedno lideri i sledbenici, muškarci i žene.

Ključne reči: *stilovi sledbeništva, stilovi rukovođenja, pol, lideri, sledbenici*

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