UDK 159.923.2.072
Research Article
https://doi.org/10.46630/gpsi.22.2025.02

The Effects of High-Stakes Versus Low-Stakes Contexts and Item Framing on the Manifestation of Response Styles in Self-Report Questionnaires [1*]

Ivana Pedović**
Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Abstract

This study examined how situational factors shape four common response styles - extreme responding, acquiescence, disacquiescence, and midpoint responding - using the Representative Indicators of Response Styles (RIRS) approach. Two manipulations were implemented: (a) stakes of the situation (low-stakes vs. high-stakes) and (b) item framing (self-referent vs. other-referent). Data were collected from a sample of adults from Serbia (N = 540) aged 18 to 86 (M_{age} = 38.25; SD_{age} = 15.30) who completed 20 heterogeneous items under both situational conditions. Response style indices were calculated based on recoding procedures, and repeated-measures ANOVAs were used to test main and interaction effects. Results indicated that both acquiescence and extreme responding were significantly stronger under high-stakes instructions compared to low-stakes, though effect sizes were small, likely reflecting the simulated rather than real consequences of the manipulation. By contrast, item framing had a robust impact: self-referent items elicited greater acquiescent, extreme, and disacquiescent responding, whereas other-referent items produced higher midpoint responding. These findings align with self–other knowledge asymmetry, whereby individuals express greater confidence and certainty in judgments about themselves relative to others. Interaction effects of stakes and item framing were generally non-significant, except for disacquiescence, which was more prevalent in low-stakes contexts.

Keywords: Response styles, acquiescence, extreme responding, self-report questionnaires, situational context

[1] Corresponding author: ivana.pedovic@filfak.ni.ac.rs
The part of the results was presented at the *19th International Conference Days of Applied Psychology*
*Please cite as: Pedović, I. (2025). The Effects of High-Stakes Versus Low-Stakes Contexts and Item Framing on the Manifestation of Response Styles in Self-Report Qustionnaires. *Godišnjak za psihologiju, 22,* 27-46.
** https://orcid.org/0000-0001-6547-909X

The Effects of High-Stakes Versus Low-Stakes Contexts and Item Framing on the Manifestation of Response Styles in Self-Report Questionnaires

Theoretical Framework

Response styles represent the tendency of respondents to answer questionnaire items systematically, regardless of their content (Baumgartner & Steenkamp, 2001). The most widely accepted definition is Paulhus's (1991), which states that a response style is a systematic tendency of respondents to answer questionnaire items not based on the construct the items are intended to measure, but based on different criteria. When completing self-report questionnaires, respondents provide information about their characteristics. However, in addition to this, variations in responses can occur that may result from temporary response tendencies, the testing context, or other stable characteristics of the respondent (Damarin & Messick, 1965; Nisbett & Wilson, 1977). A common feature of the response styles discussed here is that they occur independently of the content of the items in a given questionnaire.

An overview of response styles and their effects on measured constructs is presented in Table 1.

Table 1

Overview of Response Styles and Their Effects

Style	Definition	RP	Consequences	RS
Acquiescence	Tendency to agree with items regardless of their content.	□□□■■	Increases the mean value, strengthens the magnitude of the relationships among variables.	Baumgartner & Steenkamp (2001); Greenleaf (1992b)
Disacquiescence	Tendency to disagree with questionnaire items irrespective of their content.	■■□□□	Lowers the mean value, increases the strength of associations between variables.	Baumgartner & Steenkamp (2001); Stenning & Everett (1984)
Middle-category response style	Tendency to give answers by selecting the midpoint on the rating scale.	□□■□□	Makes the mean values closer to the middle of the scale, reduces variance, and strengthens the magnitude of relationships among variables.	Baumgartner & Steenkamp (2001); Weijters et al. (2008)
Extreme response style	Tendency to choose responses at the extreme poles of the rating scale.	■□□□■	Increases (decreases) the variance of the observed mean values, reduces the magnitude of relationships among variables.	Baumgartner & Steenkamp (2001); Greenleaf (1992b)

Style	Definition	RP	Consequences	RS
Moderate response style	Tendency to avoid responses located at the extreme ends of the rating scale.	□■■■□	Makes mean values closer to the middle of the scale, reduces variance, and increases the strength of relationships among variables.	Hurley (1998); Moors (2008)
Inconsistent responding	Tendency to give responses that are meaningless, random, or careless.		It is not possible to formulate an a priori hypothesis about the effect.	Baumgartner & Steenkamp (2001); Watkins & Chueng (1995)

Note. RP – Response presentation; RS – Respresentative studies; Table adapted from Van Vaerenbergh, Y., & Thomas, T. D. (2013). Response styles in survey research: A literature review of antecedents, consequences, and remedies. *International Journal of Public Opinion Research, 25*(2), pp. 197.

Although six response styles are commonly discussed in the literature, we focused on four: extreme responding, acquiescence, disacquiescence, and midpoint responding. Inconsistent responding was excluded because it reflects careless or random answering rather than a systematic style (Alarcon & Lee, 2022; Arias et al., 2024; Wardell et al., 2014). Similarly, the moderate response style was not analyzed separately, as it conceptually overlaps with the middle-category style: both reflect avoidance of extremes, with midpoint responding representing a specific manifestation of moderation (Hamamura et al., 2008; Kyllonen et al., 2010; Van Herk et al., 2004).

Measuring Response Styles

Regarding the measuring of response styles, two approaches can be distinguished: categorical and dimensional. The categorical approach views response styles as categorical variables. A respondent can possess only one response style, meaning that having one response style excludes having others. Within this approach, response styles are most often measured using latent class confirmatory factor analysis (LCFA) or by applying a mixed Rasch model with latent classes, which are assumed to differ in their response patterns (Austin et al., 2006; Wetzel et al., 2016).[2]

The dimensional approach views response styles as continuous variables on which respondents may differ in the degree to which they exhibit various response styles. Within this approach, response styles can be measured through summative scores (Baumgartner & Steenkamp, 2001; Greenleaf, 1992; Wetzel et al., 2016), modeled using item response theory (IRT)-based methods (Bolt & Newton, 2011, as

[2] The mixed Rasch model (Rost, 1990, as cited in Kaiser & Keller, 2001) is an extension of the traditional Rasch model. It enables the detection of different performances within latent groups of people. It is used to identify distinct groups based on a set of predictors (items in the test).

cited in Wetzel et al., 2016), or measured through defined pseudo-items for separate subprocesses of the responding process that are either related to the trait being measured or to the response style (De Beuckelaer et al., 2010; Kieruj & Moors, 2013; Wetzel et al., 2016; Zettler et al., 2016).

The approach used in this study is dimensional and based on the calculation of summative scores. This approach is suitable for examining quantitative individual differences in the levels of different response styles. Although there are questionnaires designed exclusively to measure specific response styles (e.g., extreme response style), He and Van de Vijver's (2014) recommendation is that, where research conditions permit, researchers should use multiple measures of a response style to obtain more valid and reliable indices of the response style.

Weijters and colleagues (2008) recommend constructing 10–14 indicators to quantify summative measures of response styles in studies involving response styles. De Beuckelaer and colleagues (2010) argue that at least 15 heterogeneous items should be used to calculate a response style in order to obtain a valid and reliable response style index. This approach has been employed in numerous studies (Baumgartner & Steenkamp, 2001; Greenleaf, 1992; Weijters et al., 2010a) and is known as the Representative Indicators of Response Styles (RIRS) method (Van Vaerenbergh & Thomas, 2013; Weijters et al., 2008).

The RIRS method involves administering a set of items covering maximally different content areas, so that the response style can be calculated from a set of sufficiently heterogeneous items (ideally representing a random sample from the domain of traits covered). In this manner, all response patterns that are a consequence of content or trait variance are canceled out, leaving only the portion of variance originating from the response style (Weijters et al., 2010a). To achieve this, inter-item correlations should be as low as possible. In most studies using this approach, the average correlations among such items ranged from .07 (Greenleaf, 1992) to .12 (Baumgartner & Steenkamp, 2001).

Weijters et al. (2008) recommend that researchers using the RIRS approach include a minimum of 30 items in studies primarily focused on response styles. Conversely, Greenleaf (1992) argues that minimizing correlations among items is a more effective way to achieve a more accurate index of response style than simply increasing the number of items. In practice, items to which respondents provide answers are never completely uncorrelated, and low correlations among items are easier to achieve with a smaller number of items.

These items should not originate from a small number of scales typically used in psychological studies but should be purposefully included in the research design with the aim of detecting response styles, following Weijters and colleagues; they should also originate from a relevant population of items so that findings related to response styles can be generalized to other items (Weijters et al., 2008; Weijters et al., 2010a; Weijters et al., 2010b).

In this study we adopt the RIRS approach.

Situational Factors of Response Styles

As already mentioned, the reasons why respondents may differ in their response styles to items in self-report questionnaires can be dispositional (personality traits, gender, age, etc.) or situational (Baumgartner & Steenkamp, 2001; Paulhus, 1991). Bonarius (1971, as cited in Van der Kloot et al., 1985) argues that a particular response style (in his study, the extreme response style) arises as a reaction to the perceived importance of the stimulus. Paulhus (1991) suggests that a response style can also be a temporary reaction to the demands of the testing situation. Zickar et al. (2004, as cited in Liu et al., 2017) claim that in high-stakes situations—where the respondent can gain or lose something based on test results (e.g., in professional selection contexts)—people may change their response style in order to, for example, create a better impression of themselves. On the other hand, results presented by Ziegler and Kemper (2013) suggest that people use the same response style regardless of the specific situational demands.

The vast majority of research on the effects of low- and high-stakes situations has focused on socially desirable responding. Studies (Li & Bagger, 2006; Paunonen & LeBel, 2012; Galić & Jerneić, 2006; Dodaj, 2012) have shown that socially desirable responding and its quality vary depending on the situation. Since this research focuses on response styles where the primary content of the items should not reflect the response style (and socially desirable responding is considered a response style that reflects the item content) this style will not be examined in this study.

Research by Van der Pligt and Eiser (1984) showed that when rating the traits of others compared to rating oneself, respondents tend to more frequently use response categories indicating uncertainty. In other words, their findings indicate that respondents are less confident in their assessments of other people. In a series of experiments by Rogers et al. (1977) and Kuiper and Rogers (1979), designed to investigate differences in processing information about oneself versus others within the incidental recall paradigm, results consistently showed that self-assessments were rated as easier to perform, and respondents displayed more confidence when making self-assessments compared to judging others. Based on these findings, we expect that response styles may differ in their degree of occurrence depending on whether the items to which respondents respond are formulated to refer to the respondent personally or to other people.

Since research (Galić & Jernejić, 2006; Dodaj, 2012) on the relationships between situational factors and response styles has mostly focused on situational factors leading to socially desirable responding in our cultural context, this study aims to broaden the scope of this issue by examining the relationships of several situational factors with the extreme response style, middle-category response style, acquiescence, and disacquiescence.

The present study aims to investigate the effects of situational factors on the manifestation of response styles in self-report questionnaires. Specifically, it examines differences in four common response styles—extreme response style,

acquiescence, disacquiescence, and middle-category response style—across two situational dimensions: (1) high-stakes versus low-stakes contexts, and (2) item framing referring either to the respondent personally or to other individuals. This research seeks to improve understanding of how these situational variables affect systematic response tendencies independent of item content, thereby contributing to more accurate assessment in survey research.

Method

In the present study, two situational factors were varied, and four response styles were examined. The first situational factor contrasted a high-stakes situation with a low-stakes situation for the respondent. The second situational factor involved whether the respondent answered questionnaire items that referred to themselves personally or to other people. Based on participants' responses, four response styles were calculated. The *extreme response style* was assessed by recoding responses so that only the extreme categories of the rating scale (1 and 5) were coded as 1; the total was then divided by the number of items to yield an overall extreme response style score. The *acquiescence* score was obtained by recoding agreement-indicating categories (4 and 5) as 1 and dividing the sum by the number of items. The *disacquiescence score* was calculated by recoding disagreement-indicating categories (1 and 2) as 1 and dividing the total by the number of items. Lastly, the *middle-category response style* was computed by recoding the middle category of the scale (3) as 1 and dividing the sum by the number of items to determine the overall score for this style.

Instruments

In this study, a questionnaire for assessing response styles was developed specifically for the purposes of this research, consisting of a set of 20 heterogeneous items by content (Pedović, 2020). The procedure for constructing the questionnaire is described below.

Algorithm for Selecting Heterogeneous/Low-Correlated Items Within the RIRS Approach to Calculating Response Styles

The initial item pool used was the PORPOS3 battery administered on a stratified national sample of adult respondents from Serbia (N = 1225). This battery was developed and used in the project "Indicators and Models of Harmonizing Family and Work Roles", Ministry of Education, Science, and Technological Development of the Republic of Serbia. It consists of a series of short instruments assessing various

domains of family and work functioning and different personality constructs, as part of a separate, unpublished study at the time of writing.

The item selection process functioned in the following manner. The algorithm constructs a list of heterogeneous/low-correlated items starting from the matrix of inter-item correlations among all candidate items. The first item from the matrix is added to the list. For each subsequent item, the algorithm checks whether its correlations with all items already in the list are below a specified threshold. If the item meets this condition, it is added to the list of heterogeneous/low-correlated items. This check is performed for all items in the matrix.

The number and content of the item list depend on the choice of the initial item and the order in which items are checked. Therefore, the procedure is repeated several million times, starting from a randomized order of items in the correlation matrix.

By increasing the maximum allowed correlation threshold between items, it is possible to obtain a list of the desired length, i.e., with the required number of items. If this procedure yields multiple lists, the one with the lowest average inter-item correlation is selected. This list does not necessarily represent the absolute minimum possible maximum correlation among items, since that would require checking all possible combinations of items in the correlation matrix. For a list of 20 items and a sample of 188 respondents, this would mean checking over 4×10^26 combinations, which is not feasible in a reasonable time frame. Therefore, the obtained list strictly represents the lowest maximum correlation among items that can be found using this method.

In our sample, the minimum correlation among these selected items was r = .00, the maximum r = .28, and the average r = .07.

To enable comparison of response styles in two different contexts, these sets of items were administered twice within the battery, which is part of a larger study (focused on personality traits and epistemological variables in relation to response styles). The first administration represented a "low-stakes" situation, and the second a "high-stakes" situation. The instruction for the simulated "high-stakes" situation, according to Rogers (1997), should contain a realistic scenario for all participants with a warning designed to discourage obvious faking. The instruction used in our study was a modified version of that used by Ziegler and Kemper (2013) and it reads as follows:

"In front of you is a test similar to those used in the selection of future employees in large companies. Please imagine that such a company has invited you to take a test for a job you have always wanted. Therefore, it is necessary to stand out compared to other candidates, but be careful because an expert will check your results to detect if you were honest in your answers. Your goal is to make a good impression but at the same time avoid being identified as someone who faked their results. By circling the number next to each statement (the meaning of the numbers is given below), indicate the extent to which you agree with them."

For the low-stakes situation, no specific instruction was given, only a basic instruction at the beginning of the questionnaire:

"Please rate the extent to which you agree with each of the statements by circling a number from 1 to 5 on the scale next to each statement. Please be honest; there are no right or wrong answers."

To examine whether response styles differ depending on whether the questionnaire items refer to the respondent personally or to another person, half of the items were reformulated to describe situations involving other people. Respondents indicated their level of agreement with each statement by circling a category on a five-point Likert scale.

Response style scores from this questionnaire were calculated by recoding respondent answers so that responses characteristic of a particular response style were assigned the value *1* and all other responses the value *0* (the recoding procedure was described earlier in the beginning of the Methods section). The values for each respondent's answers were summed and divided by the number of items in the questionnaire (20) to obtain an index for each response style.

Sample and Procedure

The study was conducted using the paper-and-pencil method. The sample consisted of 541 adults from Serbia aged 18 to 86 (M_{age} = 38.25; SD_{age} = 15.30). Among the participants, 38.4% identified as male (N = 203), 61.1% as female (N = 323), and 0.6% as other (N = 3); 2.2% (N = 12) did not report their gender. Each participant was tasked with completing a battery consisting of the questionnaires described in the Instruments section. This battery comprised a total of 151 items, which were part of the aforementioned larger study. Regarding the extreme response style, Hui and Triandis (1989) emphasize that it is more likely to occur at the end of a questionnaire, due to respondent fatigue or boredom. In order to control this and any potential effects of questionnaire order on response styles, the order of questionnaires within the battery was randomized for each participant after the demographic questionnaire.

Data analysis was performed using SPSS 24 (IBM Corporation, 2016) and JASP Version 0.11.1 (JASP Team, 2019). The results of the analyses are presented in the following sections.

Results

Descriptive Statistics

The tables below present descriptive statistics of the response styles measured in different response situations.

Table 2

Description of Extreme Response Style Scores in High- and Low-Stakes Situations

	N	Min	Max	*M*	*SD*	*Sk*	*Ku*
High-stakes situation	541	0	.80	.24	.22	1.06	.75
Low-stakes situation	541	0	.89	.30	.20	0.83	.28

Note. *Sk* = Skewness; *Ku* = Kurtosis.

Table 3

Description of Acquiescence Response Style Scores in High- and Low-Stakes Situations

	N	Min	Max	*M*	*SD*	*Sk*	*Ku*
High-stakes situation	541	0	1	.40	.15	.17	.16
Low-stakes situation	541	0	1	.42	.14	.17	-.30

Note. *Sk* = Skewness; *Ku* = Kurtosis.

Table 4

Description of Disacquiescence Response Style Scores in High- and Low-Stakes Situations

	N	Min	Max	*M*	*SD*	*Sk*	*Ku*
High-stakes situation	541	0	.70	.28	.13	.24	.75
Low-stakes situation	541	0	.60	.33	.12	-.03	.23

Note. *Sk* = Skewness; *Ku* = Kurtosis.

Table 5

Description of Middle-Category Response Style Scores in High- and Low-Stakes Situations

	N	Min	Max	*M*	*SD*	*Sk*	*Ku*
High-stakes situation	541	0	1	.32	.17	.41	.32
Low-stakes situation	541	0	.80	.25	.14	.48	.12

Note. *Sk* = Skewness; *Ku* = Kurtosis.

Table 6

Description of Extreme Response Style Scores in High- and Low-Stakes Situations When Items Refer to the Respondent Personally or to Other People

	N	Min	Max	*M*	*SD*	*Sk*	*Ku*
High-stakes situation (items refer to the respondent personally)	541	0	1	.30	.25	.57	-.61
High-stakes situation (items refer to other people)	541	0	1	.18	.22	1.55	2.02
Low-stakes situation (items refer to the respondent personally)	540	0	1	.29	.25	.68	-.35
Low-stakes situation (items refer to other people)	540	0	1	.17	.21	.56	2.14

Note. *Sk* = Skewness; *Ku* = Kurtosis.

Table 7

Description of Acquiescence Scores in High- and Low-Stakes Situations When Items Refer to the Respondent Personally or to Other People

	N	Min	Max	*M*	*SD*	*Sk*	*Ku*
High-stakes situation (items refer to the respondent personally)	541	0	.90	.43	.18	-.02	-.39
High-stakes situation (items refer to other people)	541	0	.90	.37	.20	.22	-.36
Low-stakes situation (items refer to the respondent personally)	540	0	1	.41	.17	.19	-.01
Low-stakes situation (items refer to other people)	540	0	1	.36	.20	.32	-.13

Note. *Sk* = Skewness; *Ku* = Kurtosis.

Table 8

Description of Disacquiescence Scores in High- and Low-Stakes Situations When Items Refer to the Respondent Personally or to Other People

	N	Min	Max	*M*	*SD*	*Sk*	*Ku*
High-stakes situation (items refer to the respondent personally)	541	0	.80	.31	.14	.13	-.11
High-stakes situation (items refer to other people)	541	0	.80	.24	.18	.62	-.03
Low-stakes situation (items refer to the respondent personally)	540	0	.80	.32	.15	-.02	-.42
Low-stakes situation (items refer to other people)	540	0	.70	.25	.17	.25	-.22

Note. *Sk* = Skewness; *Ku* = Kurtosis.

Table 9

Description of Middle-Category Response Style Scores in High- and Low-Stakes Situations When Items Refer to the Respondent Personally or to Other People

	N	Min	Max	*M*	*SD*	*Sk*	*Ku*
High-stakes situation (items refer to the respondent personally)	541	0	1	.25	.23	.76	.60
High-stakes situation (items refer to other people)	541	0	1	.39	.18	.42	-.24
Low-stakes situation (items refer to the respondent personally)	540	0	1	.25	.23	.65	.15
Low-stakes situation (items refer to other people)	540	0	.90	.39	.18	.37	-.33

Note. Sk = Skewness; Ku = Kurtosis.

Inferential Statistics

A repeated-measures ANOVA with two within-subject factors - Stakes (low vs. high) and Item framing (self vs. other) - was conducted to examine whether response styles varied depending on situational stakes and the framing of the items. Scores for response styles in high- and low-stakes situations were calculated based on scores from questionnaires constructed specifically for this study, consisting of 20 heterogeneous items with instructions varied to reflect either a low- or high-stakes situation. Scores were calculated for the extreme response style, acquiescence, disacquiescence, and middle-category response style. Half of the items were formulated to refer to the respondent personally, and half of the items' formulations were referring to other people.

Table 10

Results of 2 × 2 Repeated-Measures ANOVA for Stakes (Low vs. High), Item Framing (Self vs. Other) and Their Interaction, N = 540 for Extreme Response Style

Extreme response style	*df*	*F*	*p*	Partial η^2
Stakes	1, 539	4.53	.034	.008
Item framing	1, 539	241.27	<.001	.309
Stakes × Item framing	1, 539	0.30	.586	.001

Extreme response style showed significant main effects of Stakes and Item framing, but their interaction was not significant.

Table 11

Results of 2 × 2 Repeated-Measures ANOVA for Stakes (Low vs. High), Item Framing (Self vs. Other) and Their Interaction, N = 540 for Acquiescence

Acquiescence	*df*	*F*	*p*	Partial η^2
Stakes	1, 539	4.32	.038	.008
Item framing	1, 539	43.68	<.001	.075
Stakes × Item framing	1, 539	3.69	.055	.007

Acquiescence showed significant main effects of Stakes and Item framing, while the Stakes × Item framing interaction did not reach significance.

Table 12

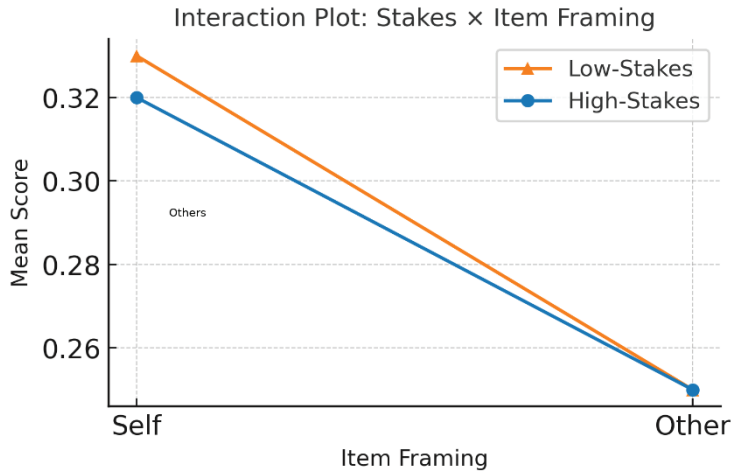
Results of 2 × 2 Repeated-Measures ANOVA for Stakes (Low vs. High), Item Framing (Self vs. Other) and Their Interaction, N = 540 for Disacquiescence

Disacquiescence	*df*	*F*	*p*	Partial η^2
Stakes	1, 539	2.15	.143	.004
Item framing	1, 539	92.10	<.001	.146
Stakes × Item framing	1, 539	4.09	.044	.008

Disacquiescence showed a strong main effect of Item framing, no significant effect of Stakes, and a small but significant Stakes × Item framing.

Figure 1

Interaction Plot of Low-Stakes × High-Stakes by Item framing



The interaction plot shows that mean scores were higher when participants evaluated themselves compared to others across both stakes' conditions. The self–other difference was slightly larger under the low-stakes condition than under the high-stakes condition.

Table 13

Results of 2 × 2 Repeated-Measures ANOVA for Stakes (Low vs. High), Item Framing (Self vs. Other) and Their Interaction, N = 540 for Middle Category Response Style

Middle category response style	*df*	*F*	*p*	Partial η^2
Stakes	1, 539	0.30	.587	.001
Item framing	1, 539	212.66	<.001	.283
Stakes × Item framing	1, 539	0.03	.873	.000

The main effect of Stakes was not significant, indicating no differences across stakes conditions. In contrast, a significant main effect of Item framing was observed. The interaction between Stakes and Item framing was not significant.

Differences in Response Styles Depending on the Situation

Differences in the levels of response styles were examined depending on the situation. To compare response style scores calculated for the low- and high-stakes situations, a paired-samples t-test was used. The results are presented in Table 14.

Table 14

Investigation of Differences in the Levels of Response Styles in Low- and High-Stakes Situations

	LSS		HSS		*t*	*p*	95% CI		*d*
Style	*M*	*SD*	*M*	*SD*			LL	UL	
Extreme response style	.23	.21	.24	.22	-2.13	.03	-.02	.00	-.09
Acquiescence	.39	.15	.40	.15	-2.08	.04	-.01	.00	-.09
Disacquiescence	.29	.13	.28	.13	1.47	.14	.00	.01	.06
Middle-category response style	.32	.17	.31	.17	.54	.59	.00	.01	.02

Note. LSS – Low-stakes situation; HSS – High-stakes situation; CI – Confidence Interval; LL – Lower limit of confidence interval; UL – Upper limit of confidence interval; *d* – Classic Cohen's d coefficient.

The results show that there is a statistically significant difference in the average level of acquiescence and extreme response style between high- and low-stakes situations. Both of these response styles are more pronounced in the high-stakes situation. Although statistically significant, these effects are weak.

The second aspect of the situation examined concerned the formulation of the items presented to the respondents. It was found that there are statistically significant differences in the levels of all examined response styles depending on whether the scores were calculated on items formulated to refer to the respondent personally or on items referring to other people. These differences were first tested in the "low-stakes" situation (Table 15).

Table 15

Investigation of Differences in the Levels of Response Styles When Items Refer to the Respondent Personally (Self) Versus When Items Refer to Other People (Others) in a Low-Stakes Situation

	IFS		IFO		*t*	*p*	95% CI		*d*
Style	M	SD	M	SD			LL	UL	
Extreme response style	.29	.25	.17	.21	14.59	< .001	0.11	0.14	0.63
Acquiescence	.42	.17	.36	.20	5.58	< .001	0.03	0.07	0.24
Disacquiescence	.33	.15	.24	.17	9.70	< .001	0.07	0.10	0.42
Middle-category response style	.25	.18	.39	.23	-13.61	< .001	-0.15	-0.11	-0.59

Note. IFS – Item framing (self); IFO – Item framing (others); CI – Confidence Interval; LL – Lower limit of confidence interval; UL – Upper limit of confidence interval; *d* – Classic Cohen's d coefficient.

All calculated response styles are more pronounced in the situation where the items refer to the respondent personally, except for the middle-category response style, which is more pronounced when calculated on items referring to someone else.

Following this, the existence of these differences was examined in the "high-stakes" situation (Table 16).

Table 16

Investigation of Differences in the Levels of Response Styles When Items Refer to the Respondent Personally (Self) Versus When Items Refer to Other People (Others) in a High-Stakes Situation

	IFS		IFO		*t*	*P*	95% CI		*d*
Style	M	SD	M	SD			LL	UL	
Extreme response style	.30	.25	.18	.22	14.36	< .001	.11	.14	.62
Acquiescence	.43	.18	.37	.20	6.51	< .001	.05	.08	.28
Disacquiescence	.31	.15	.25	.18	187.84	< .001	.05	.08	.34
Middle-category response style	.25	.18	.39	.23	-12.97	< .001	-.15	-.11	-.55

Note. IFS – Item framing (self); IFO – Item framing (others); CI – Confidence Interval; LL – Lower limit of confidence interval; UL – Upper limit of confidence interval; *d* – Classic Cohen's d coefficient.

All calculated response styles in the high-stakes situation are more pronounced when the items refer to the respondent personally, except for the middle-category response style, which is more pronounced when calculated on items referring to someone else.

Discussion

The analyses revealed that acquiescent and extreme response styles were both significantly stronger in the high-stakes condition than in the low-stakes condition, although the effect sizes were small. In other words, when respondents believed the questions were more important, they tended to agree more often and choose the extreme scale points more frequently. Lechner et al. (2019) argue that situational factors such as respondent interest and context influence acquiescent responding. Our results align with these findings: increased interest or perceived importance (high stakes) can amplify agreeable or extreme answering. Notably, results showed these differences were significant, but the effects were weak. This pattern is consistent with the idea that high stakes increase impression-management bias: in demanding contexts, people are more motivated to present themselves favorably. For example, Seitz et al. (2025) note that in high-stakes contexts, test-takers are motivated to respond in a way that enhances their impression. Greater expression of extreme response style in high-stakes situations can be interpreted as individuals intensifying their answers to demonstrate confidence in important contexts. This suggests that, while real high-stakes situations may strongly elicit response biases,

our experimental manipulations (instructions) had a more modest impact, so the observed differences should be interpreted as substantive but not large.

We also examined how item framing affects response style. Items that were self-referential (asking about the respondent personally) elicited stronger response styles than items referring to other people. Specifically, extreme responding, acquiescence, and disacquiescence were all more pronounced when questions were framed about the self, whereas the midpoint/neutral style was higher when questions were about others. This pattern held across both high- and low-involvement conditions. For example, respondents tended to "yea-say" or choose strong options more when evaluating themselves, but they resorted to safer midpoint answers when evaluating others. These findings are consistent with theories of self–other knowledge asymmetry: people typically have more information and confidence about themselves than about others. As one recent study summarizes (Arslan et al., 2020), there are self–other knowledge asymmetries in which individuals know their own traits better than they know those of others. With more self-knowledge, respondents feel more certain and use broader parts of the scale; with less information about others, they hedge more (select midpoints). Overall, the stronger response styles on self-referent items likely arise because respondents are more certain and informed about themselves than about others. As a result, self-related questions lead to more extreme or agreeable responses. In contrast, when reasoning about others, people have less information and are more cautious, boosting mid-point responding. In short, people's confidence in their own self-assessments appears to underlie the observed differences in response styles by item framing.

No significant interaction effects were found between situational stakes (low-stakes vs. high-stakes) and item framing, except in the case of disacquiescence, where the tendency to disagree indiscriminately varied with stakes. Specifically, participants showed greater disacquiescence under low-stakes conditions, consistent with evidence that response styles are more pronounced when assessments have fewer consequences (Navarro-González et al., 2016). The interaction plot further illustrated that participants consistently rated themselves a little more positively than others across both stakes conditions, reflecting the robust self–other evaluation gap (Brown, 2012). This difference was slightly larger under low-stakes than high-stakes conditions, suggesting a modest dampening of self-enhancement when outcomes carry greater importance (Anglim et al., 2018).

An important limitation of this study concerns the nature of the high-stakes manipulation. Although the results showed that response styles such as acquiescence and extreme responding were more pronounced under high-stakes instructions, it is important to note that the high-stakes condition was simulated rather than genuinely consequential. Participants were only instructed to imagine that the situation was important, rather than actually experiencing real-world pressure or consequences. As such, the psychological stakes may not have fully captured the motivational intensity of authentic high-stakes contexts, such as job applications or academic testing. This likely contributed to the small effect sizes observed. While the manipulation was sufficient to elicit statistically significant changes in response styles, the modest magnitude of

effects suggests caution when generalizing findings to real high-stakes environments, where impression management and response distortion may be more pronounced.

Another important limitation of this research concerns the data collection method. The exclusive use of the paper-and-pencil format may limit the generalizability of findings, as prior studies have shown that response styles can differ by administration mode (Weijters et al., 2008). For instance, online surveys have been associated with lower acquiescence and extreme response tendencies (Liu et al., 2017).

Conclusion

This study found that response styles - extreme responding, acquiescence, disacquiescence, and midpoint responding - vary with situational factors. Acquiescence and extreme responding were stronger in high-stakes contexts, though effects were modest, likely due to the experimental setup (Lechner et al., 2019; Seitz et al., 2025). Additionally, items about the respondent personally triggered more extreme and acquiescent responses than items about others, consistent with self–other knowledge asymmetry (Arslan et al., 2020), where people are more certain about themselves and more cautious when judging others.

Overall, the results confirm that response styles are dynamic and context-dependent, influenced both by the perceived stakes of the situation and by how items are framed. These findings highlight the importance of carefully considering situational and item-related factors when interpreting survey responses and measuring psychological constructs.

Acknowledgements

This study was supported by the Ministry of Science, Technological Development and Innovations of the Republic of Serbia (Contract No. 451-03-137/2025-03/ 200165); Prepared as a part of the project Popularization of science and scientific publications in the sphere of psychology and social policy, conducted at the University of Niš – Faculty of Philosophy (No. 423/1-3-01).

References

Alarcon, G. M., & Lee, M. A. (2022). The relationship of insufficient effort responding and response styles: An online experiment. *Frontiers in Psychology, 12*, Article 784375. https://doi.org/10.3389/fpsyg.2021.784375

Anglim, J., Bozic, S., Little, J., & Lievens, F. (2018). Response distortion on personality tests in applicants: Comparing high-stakes to low-stakes medical settings. *Advances in Health Sciences Education, 23*(2), 311–321. https://doi.org/10.1007/s10459-017-9796-8

Arias, V. B., Ponce, F. P., Garrido, L. E., Nieto-Cañaveras, M. D., Martínez-Molina, A., & Arias, B. (2024). Detecting non-content-based response styles in survey data: An application of mixture factor analysis. *Behavior Research Methods, 56*(4), 3242–3258. https://doi.org/10.3758/s13428-023-02308-w

Arslan, R.C., Brümmer, M., Dohmen, T., Drewelies, J., Hertwig, R., & Wagner, G.G. (2020). How people know their risk preference. *Scientific Reports 10*, Article 15365. https://doi.org/10.1038/s41598-020-72077-5

Austin, E. J., Deary, I. J., & Egan, V. (2006). Individual differences in response scale use: Mixed Rasch modelling of responses to NEO-FFI items. *Personality and Individual Differences, 40*(6), 1235–1245. https://doi.org/10.1016/j.paid.2005.10.018Baumgartner, H., & Steenkamp, J. B. E. M. (2001). Response styles in marketing research: A cross-national investigation. *Journal of Marketing Research, 38*(2), 143–156. https://doi.org/10.1509/jmkr.38.2.143.18840

Brown, J. D. (2012). Understanding the better than average effect: Motives (still) matter. *Personality and Social Psychology Bulletin, 38*(2), 209–219. https://doi.org/10.1177/0146167211432763

Damarin, F., & Messick, S. (1965). Response styles as personality variables: A theoretical integration of multivariate research. *ETS Research Bulletin Series, 1965*(1), 1–116. https://doi.org/10.1002/j.2333-8504.1965.tb00967.x

De Beuckelaer, A., Weijters, B., & Rutten, A. (2010). Using ad hoc measures for response styles: A cautionary note. *Quality & Quantity, 44*(4), 761–775. https://doi.org/10.1007/s11135-009-9225-z

Dodaj, A. (2012). Social desirability and self-reports: Testing a content and response-style model of socially desirable responding. *Europe's Journal of Psychology*, *8*(4), 651–666. https://doi.org/10.5964/ejop.v8i4.462

Galić, Z., & Jernejić, Ž. (2006). Socijalno poželjno odgovaranje u različitim motivacijskim kontekstima: provjera Paulhusova modela socijalne poželjnosti. *Suvremena psihologija, 9*(2), 155–170. https://hrcak.srce.hr/81338

Greenleaf, E. A. (1992). Measuring extreme response style. *Public Opinion Quarterly, 56*(3), 328–351. https://doi.org/10.1086/269326

Hamamura, T., Heine, S. J., & Paulhus, D. L. (2008). Cultural differences in response styles: The role of dialectical thinking. *Personality and Individual Differences, 44*(4), 932–942. https://doi.org/10.1016/j.paid.2007.10.034

He, J., & Van de Vijver, F. J. R. (2014). Self-presentation styles in self-reports: Linking the general factors of response styles, personality traits, and values in a longitudinal study. *Personality and Individual Differences*, *81*, 129–134. http://doi.org/10.1016/j.paid.2014.09.009

Hui, C. H., & Triandis, H. C. (1989). Effects of Culture and Response Format on Extreme Response Style. *Journal of Cross-Cultural Psychology*, *20*(3), 296–309. http://doi.org/10.1177/0022022189203004

IBM Corporation. (2016). *IBM SPSS Statistics for Windows (Version 24.0)* [Computer software]. IBM Corporation.

JASP Team. (2019). *JASP (Version 0.11.1)* [Computer software]. https://jasp-stats.org/

Kaiser, F. G., & Keller, C. (2001). Disclosing situational constraints to ecological behavior: A confirmatory application of the mixed Rasch model. *European Journal of Psychological Assessment, 17*(3), 212–221. https://doi.org/10.1027/1015-5759.17.3.212

Kieruj, N. D., & Moors, G. (2013). Response style behavior: Question format dependent or personal style? *Quality and Quantity*, *47*(1), 193–211. https://doi.org/10.1007/s11135-011-9511-4

Kuiper, N. A., & Rogers, T. B. (1979). Encoding of personal information: Self–other differences. *Journal of Personality and Social Psychology, 37*(4), 499–514. https://doi.org/10.1037/0022-3514.37.4.499

Kyllonen, P., Burrus, J., Lietz, P., Roberts, R. D., & Van de Gaer, E. (2010). Cross-cultural comparative questionnaire issues. In E. Ercikan & M. Roth (Eds.), *Generalizing from educational research* (pp. 119–148). OECD/ACER. Retrieved from https://www.acer.org/files/kyllonen_burrus_lietz_roberts_vandegaer_pisaqeg2010.pdf

Lechner, C. M., Partsch, M. V., Danner, D., & Rammstedt, B. (2019). Individual, situational, and cultural correlates of acquiescent responding: Towards a unified conceptual framework. *British Journal of Mathematical and Statistical Psychology, 72*(3), 426–446. https://doi.org/10.1111/bmsp.12164

Li, A., & Bagger, J. (2006). Using the BIDR to distinguish the effects of impression management and self-deception on the criterion validity of personality measures: A meta-analysis. *International Journal of Selection and Assessment*, 14(2), 131–141. https://doi.org/10.1111/j.1468-2389.2006.00339.x

Liu, M., Conrad, F. G., & Lee, S. (2017). Comparing acquiescent and extreme response styles in face-to-face and web surveys. *Quality and Quantity*, *51*(2), 941–958. https://doi.org/10.1007/s11135-016-0320-7

Navarro-González, D., Lorenzo-Seva, U., & Vigil-Colet, A. (2016). How response bias affects the factorial structure of personality self-reports. *Psicothema, 28*(4), 465–470. https://doi.org/10.7334/psicothema2016.113

Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we know: Verbal reports on mental processes. *Psychological Review, 84*(3), 231–259. https://doi.org/10.1037/0033-295X.84.3.231

Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17–59). Academic Press. https://doi.org/10.1016/B978-0-12-590241-0.50006-X

Paunonen, S. V., & LeBel, E. P. (2012). Socially desirable responding and its elusive effects on the validity of personality assessments. *Journal of Personality and Social Psychology*, *103*(1), 158–175. http://doi.org/10.1037/a0028165

Pedović, I. (2020). *Relacije osobina ličnosti, situacionih varijabli i stilova odgovaranja na upitnike samoprocene* [Doctoral dissertation, University of Niš]. University Digital Repository. https://eteze.ni.ac.rs/application/showtheses?thesesId=8217

Rogers, R. (1997). Researching Dissimulation. In R. Rogers (Ed.), *Clinical Assessment of Malingering and Deception* (2nd ed., pp. 309–327). Guilford Press.

Rogers, T. B., Kuiper, N. A., & Kirker, W. S. (1977). Self-reference and the encoding of personal information. *Journal of Personality and Social Psychology, 35*(9), 677–688. https://doi.org/10.1037/0022-3514.35.9.677

Seitz, T., Spengler, M., & Meiser, T. (2025). "What if applicants fake their responses?": Modeling faking and response styles in high-stakes assessments using the multidimensional nominal response model. *Educational and Psychological Measurement 85*(4), 747–782. https://doi.org/10.1177/00131644241307560

Van Herk, H., Poortinga, Y. H., & Verhallen, T. M. M. (2004). Response styles in rating scales: Evidence of method bias in data from 6 EU countries. *Journal of Cross-Cultural Psychology, 35*(3), 346–360 https://doi.org/10.1177/0022022104264126

Van Vaerenbergh, Y., & Thomas, T. D. (2013). Response styles in survey research: A literature review of antecedents, consequences, and remedies. *International Journal of Public Opinion Research*, *25*(2), 195–217. https://doi.org/10.1093/ijpor/eds021

Van der Kloot, W. A., Kroonenberg, P. M., & Bakker, D. (1985). Implicit theories of personality: Further evidence of extreme response style. *Multivariate Behavioral Research*, *20*(4), 369–387. http://doi.org/10.1207/s15327906mbr2004_2

Van der Pligt, J., & Eiser, J. R. (1984). Dimensional salience, judgment, and attitudes. In J. R. Eiser (Ed.), *Attitudinal Judgment* (pp. 161–177). Springer.

Wardell, J. D., Rogers, M. L., Simms, L. J., Jackson, K. M., & Read, J. P. (2014). Point and click, carefully: Investigating inconsistent response styles in middle school and college students involved in web-based longitudinal substance use research. *Assessment, 21*(4), 427–442. https://doi.org/10.1177/1073191113505681

Weijters, B., Geuens, M., & Schillewaert, N. (2010a). The individual consistency of acquiescence and extreme response style in self-report questionnaires. *Applied Psychological Measurement*, 34(2), 105–121. https://doi.org/10.1177/0146621609338593

Weijters, B., Geuens, M., & Schillewaert, N. (2010b). The stability of individual response styles. *Psychological Methods*, *15*(1), 96–110. http://doi.org/10.1037/a0018721

Weijters, B., Schillewaert, N., & Geuens, M. (2008). Assessing response styles across modes of data collection. *Journal of the Academy of Marketing Science, 36*(3), 409–422. https://doi.org/10.1007/s11747-008-0101-7

Wetzel, E., Lüdtke, O., Zettler, I., & Böhnke, J. R. (2016). The Stability of Extreme Response Style and Acquiescence Over 8 Years. *Assessment*, *23*(3), 279–291. http://doi.org/10.1177/1073191115583714

Zettler, I., Lang, J. W. B., Hülsheger, U. R., & Hilbig, B. E. (2016). Dissociating indifferent, directional, and extreme responding in personality data: Applying the three-process model to self- and observer reports. *Journal of Personality, 84*(4), 461–472. https://doi.org/10.1111/jopy.12172

Michael Ziegler & Christoph J. Kemper (2013). *Extreme Response Style and Faking: Two Sides of the Same Coin?* In P. Winker, N. Menold, & R. Porst (Eds.), *Interviewers' Deviations in Surveys: Impact, Reasons, Detection and Prevention* (pp. 217–233). Peter Lang.

Efekti konteksta sa visokim i niskim ulozima i formulacije ajtema na ispoljavanje stilova odgovaranja u upitnicima samoprocene

Ivana Pedović
Department of Psychology, Faculty of Philosophy, University of Niš, Serbia

Apstrakt

Ovim istraživanjem je ispitivano kako situacioni faktori oblikuju četiri uobičajena stila odgovaranja - ekstremno odgovaranje, akviesencija (slaganje), disakviesencija (neslaganje) i odgovaranje srednjom kategorijom - primenom pristupa reprezentativnih indikatora stilova odgovaranja (RIRS). Primenjene su dve manipulacije: (situacija (niski vs. visoki ulozi) i (b) formulacija ajtema (koji se odnose na ispitanika vs. oni koji se odnose na druge osobe). Podaci su prikupljeni na prigodnom uzorku odraslih iz Srbije ($N = 540$), starosti od 18 do 86 godina ($M = 38.25$; $SD = 15.30$), koji su odgovorili na 20 heterogenih ajtema u oba situaciona uslova. Indeksi stilova odgovaranja izračunati su na osnovu procedura rekodiranja, a za testiranje glavnih i interakcionih efekata korišćena je analiza varijanse za ponovljena merenja. Rezultati su pokazali da su i akviesencija i ekstremno odgovaranje bili značajno izraženiji pod instrukcijama sa visokim ulozima u poređenju sa niskim, iako su veličine efekata bile male, što verovatno odražava simulirane, a ne stvarne posledice manipulacije. Suprotno tome, formulacija ajtema imala je robustne efekte: ajtemi koji se odnose na ispitanika lično izazivali su izraženije slaganje, ekstremno odgovaranje i neslaganje, dok su ajtemi koji se odnose na druge osobe proizvodili češće odgovaranje srednjom kategorijom. Ovi nalazi se uklapaju teorijski u asimetriju znanja o sebi i drugima, prema kojoj pojedinci pokazuju veću sigurnost i uverenost u procene sebe nego one koje donose o drugima. Interakcioni efekti uloga i formulacije ajtema uglavnom nisu bili značajni, osim za disakviesenciju, koja je bila izraženija u kontekstu sa niskim ulozima.

Ključne reči: stilovi odgovaranja, akviesencija, ekstremno odgovaranje, upitnici samoprocene, situacioni kontekst

RECEIVED: 3.7.2025.
REVISION RECEIVED: 26.9.2025.
REVISION RECEIVED: 17.10.2025.
ACCEPTED: 31.10.2025.