IMAGE SCHEMAS IN INTERACTION BETWEEN LISTENERS AND INSTRUMENTAL MUSIC

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Abstract

Although they are fundamental to our basic life experiences, image schemas are rarely discussed across disciplines. In fact, knowledge about them is almost non-existent within the music community. This article aims to present the modest musicological literature on the subject, explore image schemas in *Two Studies* for piano (1986) by Paweł Szymański, and examine image schemas identified in music history. *First Study*, a post-tonal composition in eight episodes, features series of identical chords of increasing length, where the first chord is always loud and subsequent chords softer. Interpreted as an expanding musical echo, it requires image schemas such as ITERATION, FORCE, PATH, and UP. *Second Study* is a fast-paced, one-voice piece alternating between quasi-baroque and modernist sections. Assuming that we consider the etude as a rapid musical movement in two different manners − one with a well-defined goal and one with a goal that resists clear definition − it incorporates the following image schemas: +PATH and +GOAL for quasi-baroque sections, +PATH and −GOAL (or TELEOLOGICAL MOVEMENT) for modernist sections, and CYCLE for the entire study. According to the author, the enumerated schemas are highly characteristic of music, regardless of genre, style, or musical system (major-minor, post-tonal, or others).

Keywords: image schema, conceptual blending, meaning, Paweł Szymański, *Two Studies*

1. Introduction

Modern research on meaning, including musical meaning, initiated several decades ago has proven very fruitful. Today, we not only have constantly evolving

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subdisciplines such as image schemas, frames, conceptual metaphors, and conceptual integration, but we are also deeply and increasingly engaged with meaning stemming from our experience. This article is devoted to the problem of image schemas in the context of music. I will first present one of the most recent positions on image schemas in cognitive science, then move on to discuss this problem in music, touching on the literature, my own research results, and broader implications.

2. Image schemas in cognitive science

Image schemas are organizing anchors of cognition common to all human beings or prelinguistic ontologies concerning space, time, and other core elements of embodied human experience used to conceptualize the world. The notion was introduced to science almost half a century ago, and today the list of works devoted to it is quite extensive (Johnson, 1987, 2007, 2018; Mandler, 2004; Rohrer, 2005; Oakley, 2010; Mandler and Cánovas, 2014). Without denying the importance of earlier findings on schemas, I offer below a brief summary of the position of representatives of the neural theory of linguistics, by George Lakoff and Srini Narayanan, as presented in the book *The Neural Mind: How Brains Think* (2025: 92-112).

The authors claim that an image schema represents a general case – one that is understood cognitively but cannot be directly perceived. Immanuel Kant's example of an image schema of a triangle illustrates this distinction. "This means," they wrote, "that if you activate the [neural—V.K.] circuitry for any specific schema, you will also activate the circuitry for the general schema. But the general schema does not necessarily activate any specific schema" (2025: 94). Lakoff and Narayanan term these basic schemas as primary schemas, categorizing them into three types: image schemas, force schemas, and executing networks (X-Nets). While the first two categories are widely recognized and accepted, the third—executing networks— was introduced by the authors. For instance, to trace a triangle in the air with your index finger, you need X-schema circuitry in your brain, neurally bound to triangle schema circuitry. As noted, primary schemas are embodied, with the most definitive examples being the motion schema, the part-whole schema, the balance schema, the container schema, the contact schema, among others. These schemas play a pivotal role in conceptual thought, primarily because "they can be combined to form complex schemas, and they are used (…) in other kinds of conceptual structures: frames, conceptual metaphors, and conceptual integration" (2025: 104).

The most compelling data pertains to explanations centered on pattern-based thinking – logic schemas. According to Lakoff and Narayanan, embodied schemas underpin inferences that we unconsciously and effortlessly employ in daily life. However, the human brain does not possess specialized neural circuits for every individual inference. The theorists propose that these inferences are facilitated by image schematic generalizations, suggesting that "the special case circuitry adds additional structure to the general case in each specific case (…), that general

circuitry is physically part of each specific case of neural circuitry" (2025: 107). For instance, a single logic schema can accommodate embodied schemas such as source-path-goal, container, behind, and above. These findings lead the authors to the concept of simulation, which they argue is integral to everyday cognition. In their view, inferences or logic schemas function as essential components of mental simulation. As they say:

> For that to happen, the right combinations of neurons have to be in right places to constitute a circuit for a logic schema, and for an embodied schema that is relevant in this situation. Once recruited through repeated use, those neural circuits keep firing in appropriate situations, getting stronger and stronger until they are permanent. That is how their content is learned (2025: 113).

Lakoff and Narayanan's attempt to link elements of thought and language with neural circuitry is an intriguing, though rather isolated, direction for the development of image schemas. It is possible that this approach will inspire further in-depth studies of these fundamental units of our thought processes.

3. Image schemas in music cognition

In contrast to cognitive linguistics, the fields of systematic musicology and music theory have yet to develop a substantial body of research on image schemas. Three pivotal contributions merit attention: Candace Brower's seminal article (2000), which laid the foundation for this line of inquiry; the recent comprehensive study by Mihailo Antović, Vladimir Janović, and Vladimir Figar (2023), offering a novel perspective on the subject; and Mihailo Antović's chapter focused on the concept of the meta schema (forthcoming).

Drawing upon the basic conceptual metaphors MUSICAL EVENTS ARE ACTIONS and A MUSICAL WORK IS A JOURNEY, Brower attempted to identify image schemas characteristic of melody, harmony, phrase structure and narrative within major-minor music. She posited that a tonal melody, moving primarily through diatonic steps and reaching a final rest on the tonic (the most significant pitch), is underpinned by six schemas: SOURCE-PATH-GOAL, VERTICALITY, CONTAINER, CENTER-PERIPHERY, BALANCE, and CYCLE. For instance, the VERTICALITY schema pertains to the hierarchical significance of pitches within a given key. The tonic pitch is considered the lowest and most fundamental, while the subsequent degrees of the triad are "upward" (in frequency), and the highest is the eighth degree, which reiterates the tonic an octave higher. "As a consequence of our interpreting melodic tones as having differing degrees of stability, we experience them as acted upon by *forces*. We feel these forces to act most strongly on the unstable tones of a melody, pulling them upward or downward to the closest stable tones" (2000: 334). These forces are compared to a constant downward pull of gravity. After presenting her theory, Brower offers a nuanced semantic interpretation of Schubert's song *Du bist die Ruh*. She identifies the presence of CONTAINER

and SOURCE-PATH-GOAL schemas within the poem, and CYCLE, CONTAINER FOR MOTION, and EXPANDING CONTAINER schemas within the music. She concludes her article by asserting that the presence of image schemas and metaphors has been substantiated in major-minor classical pieces and world music, and she posits that it is highly probable they also manifest in post-tonal/neotonal compositions.

The study conducted nearly a quarter of a century later by Antović et al. (2023) confirms some of Brower's findings while introducing novel dimensions to the discourse. The authors delve into the generation of meaning in both music and language, yielding intriguing comparative insights. Their investigation centers on two hypotheses. The first posits that multiple image schemas are concurrently engaged at any given moment in the cognitive process, interacting dynamically. The second hypothesis elevates the image schema SCALE to a higher-order parameter, suggesting it serves as an indicator of the intensity of the schemas involved. The Serbian researchers propose a three-tiered scale for each schema, encompassing upward and downward gradations. Interestingly, they believe that studying complex image schemas is easier in music than in language.

Conclusions regarding music are discussed using an excerpt from Beethoven's Piano Sonata No. 1 in F minor (bars 6-7). The analysis of musical structure, the distinct climax and ornaments contained within, reveals that the musical material evokes the following image schemas in the listener: PATH, FORCE, BALANCE, LINK, and CONTAINMENT. The relationships between these schemas are dynamic, changing over time, as best demonstrated by the scale of positive or negative scores assigned to them. The authors draw the following conclusions from their study: the greater the number of active image schemas during the reception of a musical fragment, the more diverse extramusical associations the listener can generate. Furthermore, the stronger the scalarity, the more profound the emotional impact.

In the third announced work, Antović (forthcoming) updates his multilevel-grounding theory (2022) and postulates an enhanced role for cross-modal correspondences in generating semiosis. He advocates for replacing embodied image schemas with the concept of the meta-schema, defined as "a set of higher constraints, which are likely amodal, though they may receive more strongly embodied specifications at a later stage of meaning construction" (forthcoming: 2). This abstract concept aims to integrate various embodied image schemas into multilevel-grounding, each contributing distinct semantic trajectories at higher levels. As an illustrative example, the renowned piccolo motif from Mozart's *The Magic Flute* is presented here, with an emphasis on pitch movement. Antović juxtaposes open-ended descriptions of this motif provided by experiment participants with phrases derived from musicological analyses as well as with three distinctly shaped scenes featuring this motif in opera performances from recent years. The conclusion from this research is as follows:

> Instead of a variety of schemas for directed movement (…) I have proposed that the succession of pitches in musical scales is naturally conceptualized on the basis of a meta-schema, which introduces a discretely ordered, stepwise, unidirectional path or

transformation of a geometric shape, leading from smaller to higher consumption of energy during the motion. In turn, this meta-schema may lie at the basis of numerous instances of musical meaning generation sparked by pitch succession, verbal, imagistic, or fully multimodal, as in operatic and film settings (forthcoming: 10).

It is noteworthy that Antović, at the time of writing this chapter, was not yet familiar with the work by Lakoff and Narayan discussed above, which posits that neural circuitry for specific schemas activates the circuitry for general schemas. The convergence of ideas here is likely not coincidental, warranting further investigation.

4. Schemas discovered while listening to Paweł Szymański's *Two Studies* for Piano

Following Candace Brower's suggestion to expand musicological research on image schemas in post-tonal music, I determined that the two-level music ("surconventional" music) of the leading Polish contemporary composer Paweł Szymański (b. 1954) would serve as excellent research material (Kostka, 2018a, 2018b, 2021, 2022). *Two Studies* for piano (1986) was selected as a case study. These compositions rank among Szymański's most popular works, readily available on multiple CDs[2] and online,[3] which I recommend listening to in order to follow my reflections. These works were crafted in a manner typical of the Polish composer. In each etude, the starting point was a minor structure (chordal and melodic, respectively), which was then radically expanded using some mathematical ideas and embellished. The post-tonality evident in the *Two Studies* signifies a substantial disruption of traditional tonality, stemming from the adopted two-level compositional technique.

My research commenced with formal analyses of the pieces and an exploration of the intuitive extra-musical meanings attributed to them by music critics, pianists and a few scholars. By narrowing these meanings to a single recurring theme, I sought to demonstrate that this chosen meaning is not arbitrary but is underpinned by a reasoned thought process, specifically as a result of conceptual blending (Fauconnier & Turner, 2002; Oakley & Pascual, 2017). With such a robust semantic structure that I inferred, I further aimed to identify a set of image schemas underlying the meaning generation process.

First Study (*Presto ritmico sempre staccato e secco*) originates from a baroque chord structure, which has been transformed and extended through the application

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[2] *Paweł Szymański. Partita III, Lux aeterna, Partita IV, Dwie etiudy, Miserere*, Warszawa: Accord 1997, piano - Szábolcs Esztényi; *Paweł Szymański. Works for Piano. Maciej Grzybowski. Piano*, Warszawa: EMI 2006; *Simon Ghraichy 33,* Deutsche Grammophon 2019; Paweł Szymański, Andrzej Ślązak Works for piano. Opus Series 2019.

[3] Both Studies https://www.youtube.com/watch?v=-8sKxS0irjY. First Study: https://www.youtube.com/watch?v=_z7DBSBXsd4&ab_channel=Ari. Second Study: https://www.youtube.com/watch?v=K2VkfjHvOjg.

of mathematical principles. The final composition features series of identical chords, with the first chord in each sequence being loud and subsequent chords always softer. The loud chords enter at irregular gaps, but the repetitions of each loud chord maintain consistent gaps. At the beginning of the study, series of identical chords are distinctly audible, but as the series begin to overlap, their clarity diminishes significantly. All chords follow an eighth-note rhythm in a five-eight meter, yet the study lacks a regular beat. The piece is divided into eight episodes, with the number of identical chords in each series increasing progressively from 1 to 8 across the episodes. For instance, the second episode comprises only series with two identical chords, whereas the third episode includes only series with three identical chords.

First Study, like *Second Study*, represents a virtuosic genre, which might suggest that it will be perceived by listeners as a self-referential work. However, this assumption is far from accurate. I managed to find a dozen various meanings in the texts about the piece, written, among others, by music critics (e.g. Marcin Gmys, Tomasz Cyz) and pianists (e.g. Maciej Grzybowski, Simon Ghraichy). All of them, grouped by similarity, are presented in Table 1.

Meanings attributed to *First Study*
"expanding musical echo"
"echo effect"
"more and more frequent reflections in the form of echoes"
an étude "immersing itself in the affect of an apparent echo"
"we are witnessing a kind of game with time. The subsequent chords give the illusion of a double, triple or even quadruple reality"
"a kind of disturbance in time"
"the slow emergence of music"
the "self-propelling mechanism carries compressed emotional content"
"maximum emotion"
"waterfalls of chords"
"ametric intrigue" gives the study "a dramatic context"
"the mystical aura of this brilliant composition"
the beginning of the work as a "broken tango"
"a hypnotic effect on the listeners"

Table 1. Meanings attributed to *First Study*

Since the first group of meanings, associating this etude with the concept of echo, is the most numerous, I delve into how this meaning takes shape. Imagine a conceptual integration network diagram appropriate for a fragment of the piece, where two input spaces converge: one rooted in the physical world of echoes, and the other in the musical realm of repeating chords. In the echo input, we find a loud sound source and its reflections, while the musical input mirrors this with a loud chord followed by softer repetitions. As a result of correspondences between the elements from both inputs and the projection of elements from the inputs to the blending space, a possible meaning emerges − a musical echo. But the story does not end there. This etude unfolds like a narrative, with seven pivotal moments where a series of identical chords meets another series, one chord longer. To capture this transition, a new type of conceptual integration network is needed. In this network,

elements from two different meaning frames correspond: in one, we have the familiar everyday experience of increasing the number of phenomena/objects (e.g., books on a shelf), expressed by numbers from one upward (1, 2, 3, 4, 5, 6, etc.); in the other, we have transition from one episode to another, in which one series intersects with another series which is longer by one chord. As these elements intertwine and project into the blended space, a deeper meaning surfaces – an expanding musical echo.

How did several listeners arrive at nearly identical interpretations of Szymański's *First Study*? The answer lies in their unconscious reliance on similar image schemas. Consider one series of identical chords from any episode. Listening to such a series activates the ITERATION image schema (a thing or process is repeated a certain number of times), which is closely tied to the conceptualization of sound source repetitions in both natural phenomena and music. The next image schema at play is FORCE, which here pertains to the volume of the sound. In both echo and the piece, volume decreases over time – earlier sound is louder, later sounds softer. Since a series of identical chords unfolds over time, the PATH image schema becomes relevant, and during the transition from one episode to the other, the UP image schema emerges. Given the piece's relative uniformity in technical means, the set of image schemas remains consistent throughout *First Study*.

Second Study (*Prestissimo senza metro ma ritmico*) emerges from tonal, baroque sequential writing, which Szymański has transformed, expanded, and embellished. The resulting form of this piece is highly unconventional. It consists of a single-voice melody, flowing continuously in sixteenth notes without a discernible meter or beat. The composition alternates between approximately 70 quasi-baroque sections and 70 modernist sections. Initially, these sections are very brief, but they gradually lengthen as the piece progresses. The distinction between these section types becomes particularly evident in the longer sections.

As with *First Study*, *Second Study* has evoked a broad range of meanings among music writers (e.g. Andrzej Chłopecki, Maja Trochimczyk, Ewa Szczecińska, Maciej Grzybowski). These interpretations encompass themes of time, emotions, transcendence and many others (see Table 2).

Meanings attributed to *Second Study*
"the titanic flows of sounds"
"the idea of a single-voice fugue" [fugue = an escape]
a study "looking for a melody, only to lose it and find it"
"a rapid musical movement in two alternating manners: one with a well-defined goal and one without a goal"
"time stops, although paradoxically there is intense 'happening'"
"a kind of disturbance in time"
"there is a constant pulsing energy causing it to spin lines around its own axis"
the study is an „arabesque"
the study is „crystalline", "passages like glass beads"
"everything directed all the time to a higher space, towards the sun, the sky, or maybe God"
"a sense of reverberation", like "in some chapel from old days"
"maximum emotion"
"a hypnotic effect on the listeners"

Table 2. Meanings attributed to *Second Study*

In this case, it seems that there is only one group with similar meanings (concerning time), but the first four are still strongly interconnected. The first two meanings clearly pertain to movement, the third poetically captures the alternation between section types, while the fourth unites these earlier ideas together. Let us consider the fourth meaning. While listening to any longer quasi-baroque section, two mental spaces participate in its interpretation: physical movement and musical event. The physical movement encompasses elements such as an agent in space, regular and rapid motion, change of location, and a clear destination for the movement. In turn, the musical event comprises a melody with doubling of each note, regular motion at a fast tempo, diverse motifs, and gravity towards the most significant pitch − the tonic. From the correspondence of these elements and their projection into the blending space, the section's meaning emerges − a musical movement akin to a fast run with a precisely defined goal. In the case of any longer modernist section, many elements remain consistent, yet there are also distinctly different elements, such as a melody composed of numerous indirect repetitions of individual notes and the absence of gravity. Such a melody evokes associations with rapid physical movement, like pounding on an electric treadmill. Consequently, I define the section by its meaning − a musical movement resembling a fast run without a defined goal.

All the meanings created for *Second Study* are the result of the unconscious participation of image schemas. Two fundamental image schemas come to the fore: PATH and GOAL. Lakoff and Johnson proposed a combined version: SOURCE-PATH-GOAL, which includes: a trajector that moves, the starting point, a goal representing an intended destination of the trajectory, a route from the source to the goal, and additional elements (1999: 33). However, I will use PATH and GOAL separately, whereby PATH signifies the trajectory or route of movement, and GOAL denotes reaching an intended destination. With this assumption, the quasi-baroque section draws on a pair of image schemas: +PATH and +GOAL, while the modernist section relies on the pair: +PATH and −GOAL, where the minus sign indicates that the goal remains elusive due to the intricate structure. Instead of –GOAL, the thought process focused on the modernist section could draw on a different schema, such as TELEOLOGICAL MOVEMENT understood as "moving toward a locationally unspecified 'goal'" (Antović, forthcoming: 2). Furthermore, the CYCLE image schema appears quite evident in this etude. According to experts, CYCLE is used whenever a series of events occur in a specific order and are often repeated. In the case of *Second Study*, one cycle comprises one quasi-baroque section and one modernist section, and there are approximately 70 such cycles in total. A listener experiencing this etude from beginning to end cannot fail to notice this.

5. Broader implications

The image schemas enumerated above, connected with Szymański's post-tonal *Two Studies*, are not uncommon in the experience of listening to musical pieces. It is

conceivable that they might be activated regardless of genre, style, or system (major-minor, post-tonal, or any other). Below, I provide several examples.

ITERATION is likely a fundamental organizing anchor of music cognition, as repetition itself is a significant compositional element. Various forms of repetition are evident in Stravinsky's music (Horlacher, 2011) and in the genre of canon, known since the Middle Ages. However, the highest frequency of repetition is found in minimal music. For instance, in Terry Riley's *In C*, there are 53 melodic-rhythmic cells, each repeated until the conductor signals a transition to the next cell. Repetition also serves as a crucial foundation for ritual forms (e.g., Zikr) and in the world music repertoire. Its participatory nature can draw listeners into an immersive relationship with music, laying the groundwork for diverse affective and meaningful responses (Margulis, 2013).

The UP image schema and its opposition DOWN are fundamental to music, as composers have employed expansion and contraction techniques for centuries. These techniques are extensively utilized by Arvo Pärt (Shvets, 2014) and Rafał Augustyn (Ferenc, 2024) to shape their musical forms. Polish musicologist Maciej Gołąb has examined such phenomena in music, categorizing them as telescopic and chipped techniques. The former has been identified and described in the works of Beethoven, Chopin, Mahler, and Bartók, while the latter is evident in Karol Szymanowski's *Pentezilea* (Gołąb, 2011: 78−80).

Another image schema identified in my interpretation above is CYCLE, which may refer to several distinct music phenomena. In acoustic terms, a cycle denotes a single complete and recurring sequence of compression and rarefaction in air pressure. In musical composition, a recurring rhythmic pattern can also exemplify a cycle. Numerous musical traditions have been characterized as fundamentally cyclical in nature. For instance, in the gamelan music of Indonesia, nested gong cycles − known as colotomy − structure the rhythmic framework of a piece (Becker, 1984; Tenzer, 2000). Other recurring rhythmic structures can be found in Indian classical music; they are known as tala.

Many scholars concur that music's temporal development aligns with the SOURCE-PATH-GOAL image schema. As Brower observes, this schema is most prominently exemplified in the major-minor tonal system, which dominated Western music from the 17th to the 19th century. This dominance is largely attributed to the structural inclination of major-minor music to resolve into a cadence centered on the tonic.

In light of compositional experiments of the twentieth and twenty-first centuries, in which the obvious tonal-harmonic trajectory toward a final tonic has become either secondary or altogether irrelevant, the conceptual integrity of the SOURCE-PATH-GOAL image schema has been notably disrupted. For instance, Michael Spitzer identifies a lack of clear directional motion in Claude Debussy's *La mer* as well as in Renaissance polyphony (2022: 110). This observation may be extended to works such as Arnold Schönberg's *Farben*, which seeks to articulate a melody of shifting timbres (*Klangfarbenmelodie*); György Ligeti's *Lontano*, described by one reviewer as "a glowing lamp, to be extinguished at the end" (Willson, 2007: 114);

Louis Andriessen's *De Tijd*, which is virtually devoid of movement; John Zorn's *Road Runner*, a dense collage composed of brief excerpts from a wide array of musical sources; and Paweł Szymański's *Through the Looking Glass I*, characterized by a technique reminiscent of stuttering: following a tonal fragment, the music seems to recede, only to be followed by another tonal fragment, and so on. One may hypothesize that modern and postmodern music, like its predecessors, continues to rely on the PATH image schema, though the GOAL is frequently obscured and demands extended reflection. Regrettably, Western music education has thus far failed to encourage listeners to independently infer the GOAL of a composition – a pedagogical oversight that now appears increasingly problematic. Twentieth- and twenty-first-century music, as repertoire not yet fully explored in terms of its GOAL schema, therefore presents a compelling field of inquiry for music cognition scholars.

6. Conclusion

To summarize, the fields of systematic musicology and music theory have not yet established a robust tradition of research on image schemas. However, the efforts of certain scholars are beginning to yield promising results. Gradually, we are uncovering not only the diversity of image schemas that underpin our conceptualization of music but also refining the methodologies for employing them in subsequent research and interpretative analyses of musical works. In this article, I have sought to demonstrate that image schemas are intrinsically connected to original post-tonal music. It turned out that due to the exceptional coherence of the musical material, Szymański's *Two Studies* elicit many various meanings, and one specific meaning is supported by several image schemas. I have also provided a set of broader implications. It follows that image schemas such as ITERATION, UP, DOWN, CYCLE, PATH, and GOAL function at the interface between the recipient and the musical work, irrespective of genre, style, or system. As noted earlier, however, this issue remains relatively underexplored within the field of music cognition and calls for extensive further research.

References

Antović, M. (2022). *Multilevel Grounding: A Theory of Musical Meaning*. London: Routledge.

Antović, M. [unpublished typescript] From Embodied Imagery to Meta-Schemas: Cross-Modal Variations Provide Different, Yet Related Interpretations of the Piccolo Motive in *The Magic Flute*. The chapter intended for the edited volume entitled *The Meaning of Music: A Cognitive Approach* is currently held in the archive of Violetta Kostka.

Antović, M., Jovanović, V.Ž., & Figar, V. (2023). Dynamic Schematic Complexes: Image Schema Interaction in Music and Language Cognition Reveals a Potential for Computational Affect Detection. *Pragmatics & Cognition, 2*, 258–295.

Becker, J. (Ed.). (1984). *Karawitan: Source Readings in Javanese Gamelan and Vocal Music* (Vol. 1). Ann Arbor, Mich.: University of Michigan Center for South and Southeast Asian Studies.

Beckles Willson, R. (2007). *Ligeti, Kurtág, and Hungarian Music during the Cold War*. Cambridge: Cambridge University Press.

Brower, C. (2000). A Cognitive Theory of Musical Meaning. *Journal of Music Theory*, *44*(2), 323−374. doi: 10.2307/3090681

Ferenc, A. (2024). *Twórczość Rafała Augustyna w perspektywie intertekstualnej* (Unpublished doctoral dissertation). Kraków: Academy of Music.

Fauconnier, G., & Turner, M. (2002). *The Way We Think: Conceptual Blending and The Mind's Hidden Complexities*. New York: Basic Books.

Gołąb, M. (2011). *Muzyczna moderna w XX wieku*. Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego.

Horlacher, G. (2011). *Building Blocks. Repetition and Continuity in Stravinsky*. Oxford: Oxford University Press.

Johnson, M. (1987). *The body in the mind. The bodily basis of meaning, imagination, and reasoning*. Chicago: The University of Chicago Press.

Johnson, M. (2007). *The meaning of the body. Aesthetics of human understanding*. Chicago: The University of Chicago Press.

Johnson, M. (2018). *The Aesthetics of Meaning and Thought: The Bodily Roots of Philosophy, Science, Morality and Art*. Chicago/London: The University of Chicago Press.

Kostka, V. (2018a). *Muzyka Pawła Szymańskiego w świetle poetyki intertekstualnej postmodernizmu*. Kraków: Musica Iagellonica.

Kostka, V. (2018b). Intertextuality in the Music of our Time: Paweł Szymański's Riddles. *Tempo: A Quarterly Review of New Music*, *286* (72), 42–52. doi: 10.1017/ S0040298218000347

Kostka, V. (2021). Intertextual Poetics: from Ryszard Nycz's Theory to Paweł Szymański's Music. In V. Kostka, P. Castro, & W. Everett (Eds.), *Intertextuality in Music: Dialogic Composition* (pp. 87−102). London: Routledge.

Kostka, V. (2022). Paweł Szymański and His Transformation of Musical Conventions. In D. Hurwitz, & P. Eslava (Eds.), *Music in the Disruptive Era* (pp. 161–174). Turnhout: Brepols.

Lakoff, G., & Johnson, M. (1999). *Philosophy in the Flesh. The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.

Lakoff, G., & Narayanan, S. (2025). *The Neural Mind: How Brains Think*. Chicago/ London: The University of Chicago Press.

Mandler, J. (2004). *The foundations of mind: Origins of conceptual thought*. New York: Oxford University Press.

Mandler, J., & Cánovas, C. (2014). On defining image schemas. *Language and Cognition*, *6*(4), 510−532, doi: 10.1017/langcog.2014.14

Margulis, E. (2013). *On Repeat: How Music Plays the Mind*. Oxford: Oxford University Press.

Oakley, T. (2010). Image schemas. In D. Geeraerts, & H. Cuyckens (Eds.), *Handbook of Cognitive Linguistics* (pp. 214−235). Oxford: Oxford University Press. https://www.academia.edu/357340/Image_Schemas (accessed August 22, 2025)

Oakley, T., & Pascual E. (2017). Conceptual Blending Theory. In B. Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics* (pp. 423−448). Cambridge: Cambridge University Press.

Rohrer, T. (2005). Image Schemata in the Brain. In B. Hampe, & J. Grady (Eds.), *From Perception to Meaning: Image Schemas in Cognitive Linguistics* (pp. 165−196). Berlin: Mouton de Gruyter.

Spitzer, M. (2022). *Musical human*. London: Bloomsbury Publishing.

Shvets, A. (2014). Mathematical Bases of the Form Construction in Arvo Pärt's Music. *Lietuvos muzikologija*, *15*, 88-101.

Tenzer, M. (2000). *Gamelan Gong Kebyar: the Art of Twentieth-century Balinese Music*. Chicago: University of Chicago Press.

SLIKOVNE SHEME U INTERAKCIJI IZMEĐU SLUŠALACA I INSTRUMENTALNE MUZIKE

Apstrakt

Iako su fundamentalne za naša osnovna životna iskustva, slikovne sheme se retko razmatraju u različitim disciplinama. Zapravo, znanje o njima je gotovo nepostojeće u muzičkoj zajednici. Ovaj članak ima za cilj da predstavi skromnu muzikološku literaturu na ovu temu, istraži slikovne sheme u delu *Two Studies for piano* (1986) Pavela Šimanskog i ispita slikovne sheme identifikovane u istoriji muzike. Prva studija, posttonalna kompozicija u osam epizoda, sadrži nizove identičnih akorda sve veće dužine, pri čemu je prvi akord uvek glasan, a naredni akordi tiši. Tumačena kao muzički eho koji se širi, ona zahteva slikovne sheme kao što su ITERACIJA, SILA, PUTANJA i GORE. Druga studija je brza, jednolinijska kompozicija koja se smenjuje između kvazibaroknih i modernističkih odeljaka. Ako pretpostavimo da etidu posmatramo kao brzo muzičko kretanje na dva različita načina — jedno sa jasno definisanim ciljem i drugo sa ciljem koji odoleva jasnoj definiciji — ona uključuje sledeće slikovne sheme: +PUTANJA i +CILJ za kvazibarokne odeljke, +PUTANJA i –CILJ (ili TELEOLOŠKO KRETANJE) za modernističke odeljke, kao i CIKLUS za čitavu studiju. Prema autoru, navedene sheme su izrazito karakteristične za muziku, bez obzira na žanr, stil ili muzički sistem (dur-mol, posttonalni ili neki drugi).

Ključne reči: slikovna shema, konceptualno slivanje, značenje, Pavel Šimanski, *Two Studies*