The aim of this article is to present selected concepts related to idea generation in musical composition. Different approaches towards creativity are discussed in order to delineate how they describe spontaneous creativity. The typological view of composers and theories of the creative process are discussed. Further advances in studies of creative cognition are scrutinized: research on unconscious and conscious processes in creation, followed by the development of the concept of innovative Involuntary Musical Imagery (InMI) in composers. Current research on internal auditory phenomena suggests that composers’ InMI can be potentially innovative and serve composers as a source of ready ideas to be used in their compositions. The current overview is informed by cognitive sciences and creative process studies, especially compositional studies.

Keywords: creative process; Involuntary Musical Imagery; musical creativity; musical epiphany; creative cognition.

INTRODUCTION

Through centuries, people tried to explain the experience of a sudden idea coming to their head. According to the knowledge of their times, they attributed the unexpected ideas to supernatural powers such as ghosts, Muses, or angels.
The majority of the current literature in creativity studies depicts such a stance as an outmoded explanation for human creativity (e.g., Bocchi, Cianci, Montuori, & Trigona, 2014; Boden, 2004; Sternberg, Jarvin, & Grigorenko, 2010; Wiggins, 2012). Nonetheless, the phenomenon of sudden idea appearance is present in creative process descriptions from different eras, which suggests that it is not only a Romantic ideal (Walton, 2014). Auditory imagery was seen as crucial in composition practices from the earliest works in musical creativity (Agnew, 1922; Benham, 1929; Cowell, 1926).

A creative idea is not always evoked “on demand,” which makes it difficult for psychological testing. Its accounts are retrospective and introspective. The difficulty in articulating the mental creative process stems from the need to describe nonverbal processes by verbal means (Nass, 1975). Similarly to other internal phenomena, new ideas may be a part of one’s phenomenological reality which can be accessed mainly through the subject’s account. Despite these problems, creativity studies try to answer the questions related to creative idea generation.

The aim of this article is to present selected concepts related to idea generation in musical composition. The “Composers’ practices” subsection serves as a general introduction to the creative practices and habits of composers. Furthermore, different theories related to musical creativity are discussed in order to delineate how they depict spontaneous creativity. The following subsections describe the most relevant theoretical stances: “Typology of composers”; “Stage theories”; “Unconscious and conscious processes in creation.” Finally, a new approach to idea generation in music composition is proposed. It stems from the newest research in cognitive sciences and allows viewing Involuntary Musical Imagery in composers as a source of innovative ideas.

Composers’ Practices

In the case of music composers, the famous quote stating that “genius is 1% inspiration and 99% perspiration” can be translated into: one relies to some extent on sudden ideas that are later processed and reworked. The extent to which a composer makes use of spontaneous ideas varies across individuals (Agnew, 1922; Bahle, 1938). The “perspiration” (reflection and reworking) can consist in composing sessions, accompanied by an instrument or be limited to the mental realm. The ideas are then gathered, catalogued, reviewed, and assessed in terms of usefulness in a given composition.

Yet, composing happens also outside scheduled sessions. A new idea can occur when we least expect it—during a walk or other mundane activity. The very
first idea for a composition (the so-called germinal idea) can be born through such a sudden creative outburst (Benham, 1929).

Many composers confess that the unexpected creative ideas are at the core of their creative process and that their best hits were conceived as a result of such an epiphany. Lou Reed heard new songs all the time in an “internal radio”; he later used the tunes in his compositions (Zollo, 2003). Bob Dylan admits that both intentional composing and waiting for “inspiration” are vital in his songwriting (Zollo, 2003). Sudden creativity is by definition unexpected at a given moment—it is neither preceded directly by reflection on composing nor accompanied by a willingness to compose (Bahle, 1938). The complexity of the idea’s content may vary—from concerning just one aspect (e.g., an idea for a line of lyrics) to a combination of several aspects of the musical piece (a musical phrase consisting of a vocal melody and lyrics; Zollo, 2003).

Composers’ creativity can be explained in terms of human cognitive capacities (Sloboda, 1985). In other words, musicians develop a set of skills that are shared with other people—but musicians master them. Those skills include memory and the capacity to notice and capture (transcribe) the ideas for new music. Composers are more selective and better at recognizing the practical possibilities of incorporating an idea into a work of art. They are more aware of how to deal with musical content. Thrash and colleagues point out that expertise is crucial for making use of a creative idea (Thrash, Moldovan, Fuller, & Dombrowski, 2014).

While there is no doubt that musicians’ conscious cognition is involved in the creative process (Baumeister, Schmeichel, & DeWall, 2014), it is hard to attribute the creative output to mere deliberate manipulation of previous knowledge, as “creativity may involve thoughts or actions that are radically novel, not merely conceptual combinations of existing materials” (Stokes, 2014, p. 158). Mere conscious, intentional effort is not enough in art creation (Mazzola, Park, & Thalmann, 2011). The authors of Composing Processes and Artistic Agency: Tacit Knowledge in Composing regard composing processes “not as the mere application and result of knowledge, experience and training—although knowledge, experience and training do play a constitutive role” (Zembylas & Niederauer, 2017, p. 4). In other words, the musical skills developed by a musician through theoretical learning and practice do not suffice to excel in composing.

Typology of Composers
In his early attempts at understanding musical creativity, a precursor of compositional studies, Julius Bahle, distinguished two types of composers: the “inspirational” type (Inspirationstypus) and the “working” type (Arbeitstypus; Bahle, 1938). The former can be characterized as less regular and disciplined, relying on the sudden occurrence of ideas, and having a spontaneous predisposition to compose. Such composers tend not to schedule a time devoted for composing but rather wait for “inspiration.” By contrast, the “working” types are more systematic. They compose during dedicated sessions and do not engage in music making outside those scheduled hours.

Indeed, theorists of creativity agree that sudden creative outbursts occur more often in certain individuals than in others (e.g., Kozielecki, 1968). A mechanism of endogenous activation of musical imagery could be present in composers representing Bahle’s “inspirational” type, although there are no empirical studies confirming this hypothesis.

Stage Theories of the Creative Process

Modern stage theories of creativity are based on the first such model proposed by Graham Wallas (1926). According to his proposal, the phases of creation are: Preparation, Incubation, Illumination, and Verification.

The first stage, Preparation, consists in investigating the issue and gathering information (Wallas, 1926). In the second one, Incubation, the artist sets the composition aside and engages in other activities. Illumination refers to the sudden unconscious occurrence of an idea. The term was coined by Wallas and is still widely used in scientific writings to refer to the moment of spontaneous creativity (Sadler-Smith, 2015). Finally, Verification refers to the implementation of the new idea in a composition and adjusting it if necessary. Wallas’ model is one of the first to take into account the unconscious aspect of creativity. Illumination can be seen as a progenitor of the psychological term “insight.” Coined by the Gestaltists, it refers to the sudden finding of a solution to a particular problem (Dorfman, Shames, & Kihlstrom, 1996). Insight is unexpected to the individual, and the period before its appearance is also referred to as incubation. Similarly to Wallas’ Incubation stage, pre-insight incubation is understood as the time of a mental break from thinking about the problem.

Thinking about the creative process as a chain of consecutive phases is widespread in the literature on creativity. Zembylas and Niederauer (2017) indicate that problem solving skills are one of the dominant explanations of creativity in the current literature. The problem solving model is applied to different domains,
yet very often it is employed to explain the creative process. Problem solving is defined as a behavioral process that occurs when dealing with a problematic situation that “increases the probability of selecting the most effective response” (D’Zurilla & Goldfried, 1971, p. 107). It is composed of stages, including: problem definition, generation of solutions, selection of a final solution, implementation, and verification of the results (D’Zurilla & Goldfried, 1971). This approach presupposes that the artist first delineates the scope of ideas. The model is meant to illustrate the creative process, but it focuses solely on intended actions and leaves out unplanned creative ideas (the ones that the artist did not intend to find in the first place). In the problem solving approach creativity is an essentially rational phenomenon (Kozbelt, Beghetto, & Runco, 2010; Mazzola et al., 2011) with emphasis on conscious effort and choice.

Of the recent creativity theories, an alternative to problem solving is the problem finding theory (Kozbelt et al., 2010). This approach focuses on the artist searching for, formulating, and reformulating the problem as a model for creative process. However, it shares other main assumptions with the problem solving model (Kozbelt et al., 2010). In this perspective, creating requires conscious deliberation to pose a problem, which in turn results in excluding spontaneous, involuntary emergence of an idea from the scope of the model.

A Polish creativity researcher and a critic of the phase models of creativity, Edward Nęcka, proposed to view the art-making process as a creative interaction between the artist’s aim and intermediary supports such as sketches (2005). He opposes the idea of a rigid order of problem solving phases, positing that the creative process is self-regulated and goes beyond the proposed theoretical stages.

From this short review, it is clear that already the early theory proposed by Wallas (1926) explicitly takes account of unconscious processing (in the Incubation phase) and sudden involuntary generation of ideas for a composition (in the Illumination phase). The problem solving model (e.g., D’Zurilla & Goldfried, 1971) is a dominant one in current creativity studies. It is important to acknowledge that the latter implies the existence of a pre-defined problem, while in reality not all instances of creativity are an answer to a specified issue. Both the problem solving model and the problem finding theory suggest that creativity relies on effort and decision making, yet the two models ignore the sudden and unexpected ideas for composition, so crucial for many composers. The problem solving model is equally often used in the context of mundane actions (D’Zurilla & Goldfried, 1971), so it comes as no surprise that it can be inconsistent when applied to a more abstract act of musical composition.
Unconscious and Conscious Processes in Creation

There are discussions between theorists about the degree of unconscious processing in the act of artistic creation. Advocates of mere deliberate choice as the basis of the creative process do not take into account unconscious, spontaneous creativity (Elster, 2000; Martindale, 1989; Pressing, 1988; Sawyer, 2006). The radical opposite is the idea of passivity and no effort involved in creating (Gaut, 2003). The notion of spontaneous, effortless creation is incompatible with the views of the proponents of the decision-based approach. Moreover, the conscious decisions in the creative process are easier to track than sudden ideas, which is why models describe the process mainly in terms of conscious decision making. Creativity researchers tend to depict it as an effort- and decision-based task, implicitly or explicitly (e.g., Amabile, 1996; Guilford, 1957; Nęcka, 2005; Runco, 2014; Sternberg & Lubart, 1991). As a result, spontaneous creativity tends to be ignored in the analysis.

A number of creativity researchers posit that the creative process involves both conscious and unconscious cognition (e.g., Baumeister et al., 2014; Gaut, 2003; Mazzola et al., 2011; Sloboda, 1985; Thrash et al., 2014; Wallas, 1926; Wiggins, 2012). The notion of combining unconscious activity with later voluntary reworking in the creative process appeared already in the early 20th-century writings on composing (Agnew, 1922; Benham, 1929; Cowell, 1926; Wallas, 1926). However, some of the contemporary researchers suggest that artists tend to overestimate the role of sudden idea appearance in their art or intentionally present themselves as inspired to seem more genuine (Burkus, 2014; Lehmann, Sloboda, & Woody, 2007).

An example of a framework that integrates and reinterprets various theories of creativity is the explicit–implicit interaction theory (Hélie & Sun, 2010). This theory assumes the coexistence of and the distinction between explicit and implicit knowledge and postulates that both types of knowledge are involved simultaneously in most tasks related to creativity. Unconscious and conscious elaboration are two aspects intrinsic to and integrated in creative activity. Thus, spontaneous ideas can be incorporated into a composition through conscious elaboration of the musical material.

According to cognitive psychology, idea generation can be depicted as follows: the unconscious processes take place in our brains constantly (Maruszewski, 1996). Therefore, creative ideas are developed at any time, not only during composing sessions (Zollo, 2003). The creative moment occurs when ideas enter
awareness and become consciously available. Then, they can be captured to be later reworked in the composition process (Zembylas & Niederauer, 2017).

Creative Cognition in Music: InMI

Besides voluntary musical imagination, there is also Involuntary Musical Imagery (InMI), defined as internal music that appears without conscious control (Williamson, Jilka, Fry, Finkel, Müllensiefen, & Stewart, 2011) in the absence of direct sensory input (Intons-Peterson, 1992). InMI is often equated with “earworms” (e.g., Beaman & Williams, 2010, 2013; Cotter, Christensen, & Silvia, 2019; Hemming & Merrill, 2015; Jakubowski, Finkel, Stewart, & Müllensiefen, 2017; Lancashire, 2017; Liikkanen, 2011). However, Involuntary Musical Imagery can occur as a single event (it does not need to be repetitive, like earworms; Elua, Laws, & Kvavilashvili, 2012; Liikkanen, 2011). Therefore, not all instances of InMI are earworms.

In the case of composers, InMI can go beyond the repetition of a known song. Internal music can consist of new melodies (Agnew, 1922; Bailes, 2006, 2007, 2009, 2015; Bailes & Bishop, 2012; Beaty et al., 2013; Covington, 2005; Cowell, 1926; Mountain, 2001; but see: Jakubowski et al., 2017) and can be used in a composition (Agnew, 1922; Bailes, 2006, 2007, 2009; Covington, 2005; Cowell, 1926; Floridou, 2015). Composers volitionally loop the tune in their working memory before transcribing it into musical notation or making a recording. Interindividual differences can predict the occurrence of InMI (Müllensiefen et al., 2014), which goes along the lines of Bahle’s distinction, although the causes of such differentiation are still unknown.

I propose that sudden ideas appear in the form of InMI in different stages of the creative process. The content of InMI can constitute an initial idea for unplanned work as well as contain an answer to previous search for an idea. In the moment when the idea occurs, its content is regarded by the subject as artistically potent (in other words, as worth keeping). All ideas later undergo the composer’s critical assessment. This stance needs further theoretical development and requires empirical testing.

InMI is a potential source of musical ideas, since the internal tunes in a composer’s mind can consist of original melodies. Music composers constitute a rare case in which a creative idea can at the same time be a ready-made part of their oeuvre (Bailes, 2006, 2007, 2009). Similarly, painters may use their visual imagery to get visual ideas for their paintings (rather than only a general idea for a theme).
CONCLUSION

The aim of this article was to present selected concepts that relate to creativity in musical composition. Practices of composers were described in order to show that music can be created spontaneously, without voluntary effort, and not only during scheduled composing sessions. At the same time, composers’ prior preparation and experience are vital for capturing ideas and incorporating them into the compositions.

Secondly, Bahle’s observation that composers exemplify either the “inspirational” or the “working” type was reported. This distinction seems to be important to understand the music creation process, and it can be expanded in future studies to explain the differences in composers’ practices. Future studies could, for example, explore how being an “inspirational” or “working” type is related to a composer’s personality and to what extent each type uses musical imagery in composing.

Thirdly, this article presented some frameworks used to explain creativity in music. The decision-based approach to creativity (i.e., the problem solving model described in this article) does not encompass outbursts of spontaneous creativity in its various forms (especially when it comes to the generation of a germinal idea). Despite the importance attached by artists to sudden idea appearance, the assumptions of the prevailing creativity models might hinder viewing spontaneous creativity as a vital part of composers’ practice. Some current theories, however, acknowledge the role of both implicit and explicit knowledge processes in creation (e.g., Hélie & Sun, 2010). Nevertheless, they also have their limitations. For example, the explicit–implicit interaction theory focuses on creativity in general and does not address the creation process in music specifically.

Lastly, the attention of the readers was drawn to unconscious processes in music making, especially the involuntary and spontaneous idea generation. As the knowledge in psychology has advanced, the inner private mechanisms has become accessible to scientific scrutiny. Among them, InMI has become a new concept that allows a better understanding of inner music. Current research on internal auditory phenomena suggests that composers’ InMI can be potentially innovative. The new idea can take the form of a melody.

The limitation of this review is the fact that it does not comprise all psychological concepts related to creativity (e.g., for a review, see Hélie & Sun, 2010). Also, some important theories of creativity (e.g., Kozielecki, 1968) are only briefly mentioned, while it is recommended that they should be carefully investi-
gated and taken into account in planning theory development and future studies on the musical creative process.

The current article highlights the need to develop a model of musical creativity that will merge knowledge about InMI with models focused on tasks requiring conscious effort and choice during the composition process. The inclusion of spontaneous creativity in the new model will bring us a step closer to viewing creativity in all its complexity, as spontaneous and conscious compositional work are two important aspects of the creative process.

REFERENCES


