

The Agency Approach to Phenomenal Experiences: The Case of the Creator-Witness Phenomenon in Musical Improvisation

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Abstract

The purpose of this paper is to introduce the sense of agency approach to explaining phenomenal experiences associated with musical performance. I argue for the usefulness of the agency approach on the basis of the analysis of creator-witness phenomenon—the twofold experience of being simultaneously in control and not in control reported by improvising performers. The agency approach is proposed to supplement the previously offered automaticity explanation of the phenomenon, and introduce a wider framework for explaining phenomenal experiences of expert improvisers and non-expert performers. The significance of the approach is further discussed in light of the development of the embodied learning teachings for music education and efficient instruction strategies in the context of the psychotherapeutic use of musical improvisation.

Keywords: sense of agency, improvisation, creator-witness phenomenon.

1. Introduction

Analyses of retrospective verbal protocols of improvising musicians reveal that the process of improvisation often creates a twofold experience of being in control and not being in control at the same time (e.g., Berkowitz, 2010; Sansom, 2007). This dual experience consists of highly controlled reasoning on the spot, active problem solving, and fast decision-making occurring simultaneously with the sense of absorption, loss of conscious control, and “letting go” of conscious inhibitions. Berkowitz (2010) recently referred to this twofold experience of control/non-control as the *creator-witness phenomenon*, in which *creator experience* represents a highly focused state of conscious awareness, and *witness experience* represents the perspective of the observer who does not have conscious access to much of what occurs during improvisation.

The first part of the paper provides an interpretative analysis of two components of the creator-witness phenomenon building on the published feedback of improvising musicians. Tracing the nature of control/non-control experiences within improvisational performance allows for the introduction of the agency perspective on the creator-witness phenomenon. This framework is presented as an alternative to the automaticity explanation of the creator-witness phenomenon proposed by Berkowitz (2010). While automaticity perspective allows interpreting skilled improvisational performance that requires knowledge of a specific music vocabulary, the present work is motivated by the lack of a framework that would explain the creator-witness phenomenon in improvisation without a clear referent and in improvisation by non-musicians lacking the sufficient knowledge base necessary for automaticity of skilled action. Considering the above aim, present analysis primarily focuses on non-idiomatic improvisation with some reference to jazz improvisation and other forms of music improvisation.

The second part of the paper reviews the creator-witness as an automaticity phenomenon and introduces the sense of agency perspective. Sense of agency is further discussed with regard to the comparator model of agency (Blakemore, Wolpert, & Frith, 2002) and the two-step model of agency (Synofzik, Vosgerau, & Newen, 2008). I conclude by outlining some of the possible implications of the agency approach to phenomenal experiences in musical performance.

2. The Creator

With regard to experience of control, or the creator component of the creator-witness phenomenon, musical improvisation has been widely studied as a problem solving activity (e.g., Matare, 2009; Pressing, 1984) and a real time decision-making process (e.g., Pressing, 1984; Sarath, 1993).

Free improvisation is commonly defined as composition on the spot, or real-time composition (e.g., Chiu, 2006; Rzewski, 1999) and, if we understand it in this way, may employ the same cognitive processes as formal composition with certain indispensable peculiarities. For example, synthetic abilities are widely acknowledged as essential for improvisation (e.g., Bullock, 2010; Solomon, 1986). The improvisational peculiarity of synthetic abilities is that in comparison to time-limitless composition, improvisation requires a higher level of synthesis to assimilate and respond to a variety of factors occurring during the performance (Sarath, 1993). In addition to higher level of synthesis, improvisation also requires faster decision-making than formal composition. This is due to the fact that in improvisation, decisions are made during the process of performing music and not prior to it as in formal composition (“Evan Parker,” 2006). These decisions affect the ongoing composition process during performance (Solomon, 1986) and the outcome of such decisions can be implemented while new sensory data is being processed (Pressing, 1984). The way a musician engages in the continuous decision-making process determines the spontaneity of his performance (Sarath, 1993). Composer Alvin Curran (2006) refers to such decision-making in improvisation as “lightning fast decision making” (p. 487), while organist Jean Langlais in conversation with Derek Bailey explicitly states that “the most important thing for improvisation is to be able to think very quickly” (Bailey, 1992, p. 38).

Improvisation defined as real-time composition (e.g., Chiu, 2006; Rzewski, 1999) is a decision-making process also because unplanned events as well as unplanned events experienced as mistakes are inherent to the process of spontaneous creation. Immediate decision-making is, therefore, required to either react to these unplanned events or not react at all. While all unplanned events add to the quality of unpredictability of improvisational performance, they can also be considered a natural byproduct of spontaneity. With regard to unplanned events, accordionist Pauline Oliveros (2006) says that when she improvises, she listens “inclusively so that any sound regardless of its origin (there may be obvious unwanted exceptions) is acknowledged and incorporated as part of [the] piece” (p. 481). An improvising musician who makes decisions about the treatment of mistakes must also realize that certain kinds of errors can be corrected while others must be accepted and justified after the fact (Pressing, 1984). Composer Frederic Rzewski (2006) describes improvisation as the “art of making connections between unplanned events in such a way as to make it seem as if they had to happen” (p. 491-492). Such compositional justification requires active decision-making. An uncorrected accidental event as well as an intended event defines subsequent real-time decisions (Brown, 2006). Both improvising musicians and improvisation theorists emphasize that mistakes are the basis for improvisation (e.g., Alan Licht in conversation with Jason Gross; Gross, 1998), and that ability to handle errors is crucial for skilled improvised performance (Pressing, 1984) which requires an active creator.

3. *The Witness*

The second component of the creator-witness phenomenon is the experience of witness that seems to be the result of the vaguely described, nevertheless clearly acknowledged process of *letting go*. The concept of letting go is intuitive to most musicians; many describe their own experiences while performing as letting go (e.g., guitarist Paco Peña in conversation with Derek Bailey; Bailey, 1992; cello player Tristan Honsinger; “Tristan Honsinger,” 2006), as well as refer to letting go as an improvisational strategy (e.g., Curran, 2006). For an improvising musician, letting go often means opening up the unconscious (e.g., guitarist John Fahey in a conversation with Jason Gross; Gross, 1997), establishing a dialog with an unconscious source (e.g., composer Richard Teitelbaum; Teitelbaum, 2006), allowing the stream of consciousness (e.g., Tom Jenkinson in conversation with Jason Gross; Gross, 1999), and allowing content that is “submerged within the consciousness” to emerge (e.g., electronic musician Robin Rimbaud; “Robin Rimbaud aka Scanner,” 2006, p. 627). From the musician’s standpoint, this connection to the unconscious allows for the discovery of new techniques. For example, violinist Mari Kimura says that improvising helps find techniques that she “never could have dreamed of otherwise,” and they seem “to come from an unconscious process” (“Mari Kimura,” 2006, p. 436). It is important to note that the discovery of new techniques in improvisation does not happen only in an unplanned and unconscious manner. Improvisational pedagogy provides musicians with multiple methods to improve their improvisational skills and discover new techniques (see, e.g., Berliner, 1994).

In addition to the discovery of new techniques, experienced connection to the unconscious allows for the discovery of the personal limitations and possibilities. Guitarist Derek Bailey (1992) states that improvisation allows you to be “taken out of yourself” (p. 115). He elaborates:

Something happens which so disorients you that, for a time, which might only last for a second or two, your reactions and responses are not what they normally would be. You can do something you didn't realise you were capable of. Or you don't appear to be fully responsible for what you are doing. (p. 115)

Pianist Sarah Cahill noted that when she started improvising she began learning things about herself. For example, she discovered her preference for certain structures over others (“Sarah Cahill,” 2006).

Finally, experienced connection to one's unconscious allows for the avoidance of filtering the product through the criteria of one's conscious mind. Frederic Rzewski (1999) notes that improvisation is a free association process and, as opposed to composition, is not filtered through the conscious criteria of “goodness.” Composer Geoffrey King (2006) expresses a similar view by saying that for him “improvisation silenced inner voices—those of the taste police” and that improvisation “can be off and at full speed before the police whistles are out” (p. 553).

From a psychological standpoint, the experience of letting go in improvisation has been described as a process which requires “relaxation of conscious control” leading to various levels of “experiential awareness” (Sansom, 2007, *Improvisation as Self-invention* section, para. 1). In fact, not only are there various levels of experiential awareness, but there are also active shifts of awareness which occur throughout the improvisational experience: a shift from “absorbed unawareness” to clear awareness of the properties of the environment (e.g., acoustics), and a shift from the “vague ‘tuning-in’ of awareness” toward highest awareness of the environment (Sansom, 2007, *Environment* section, para. 1). Such shifts of awareness possibly correlate with the phenomenal experience of letting go of a certain aspect of immediate external or internal environment. Letting go also seems to be psychologically representative of one of the intentional strategies used by improvising musicians—the “diffuse attention strategy,” which aims at allowing unconscious control over details of performance (Pressing, 1984, p. 359).

3.1. Repressing Knowledge as a Form of Letting Go

The performer's conscious idea of goodness, regardless of his professional relationship to music, is not the only obstacle to improvisational freedom. Previous training in general is often considered an obstacle to letting go and experiencing improvisational freedom (e.g., “Jon Rose,” 2006; Solomon, 1986). Solomon (1986) states that despite the benefit of musical knowledge and skilled control over an instrument, trained musicians are often not good improvisers since they tend to be driven by conventional idioms. Bailey (1992) also notes that “a high measure of skill in other aspects of instrumental playing is no guarantee of the ability to improvise,” and that “any sort of strict classical training does seem to be the biggest single handicap to improvising” (p. 66). Violinist Jon Rose strongly supports this point and reflects that in order to find a way to improvise he had to “undo” all his classical violin training (“Jon Rose,” 2006, p. 634).

Training is considered an obstacle to free improvisation for several reasons. It may generally restrict the impulse to improvise (“Sarah Cahill,” 2006) or instill such an attitude towards music that essentially separates the process of creating music and the process of playing music (Bailey, 1992), as well as inhibit the exploration component of performance (Solomon, 1986). Cellist Frances-Marie Uitti, while describing working with composer Giacinto Scelsi, emphasizes the role of exploration in improvisation by saying that “one needed a totally free mind, a free attitude combined with the will to try anything on the instrument that two hands could physically manage” (“Frances-Marie Uitti,” 2006, p. 518-519). Unschooling musicians, on the other hand, uninhibited and open to exploration, often become fine improvisers (Solomon, 1986). This might be especially true for non-idiomatic improvisation since it does not require knowledge of any specific referent. Frederic Rzewski (2006) famously said that “if composition is about different levels of memory, improvisation is about refinements in forgetting” (p. 495).

The above view on training is relevant to free or non-idiomatic improvisation. On the other hand, acquisition of stylistic vocabulary and procedural skills is crucial for most types of improvisation (e.g., jazz improvisation, Indian raga, improvisation in Western classical music). It might also be valid to argue that an improvisational performance can never be entirely free from acquired knowledge and previous experiences, and we can only measure the degree of manifested independence.

3.2. *Repressing Self as a Form of Letting Go*

According to some accounts, in order to freely improvise one needs to let go not only of conscious criteria and pre-learned practices, but also of the *self*. Considering theoretical and empirical diversity of the interpretations of the concept of self, in the current context Neisser's (1988) wide definition of the self might be most useful. According to Neisser (1988), the self consists of several quite distinct aspects or *subselves*: 1) the ecological self (based on information provided by the senses), 2) the interpersonal self (based on social interaction), 3) the extended self (based on memories of own experiences), 4) the private self (based on understanding of own uniqueness and unavailability of some of personal experiences to others), and 5) the conceptual self (based on theories and assumptions about the self). Even though all selves contribute to the unified experience, they differ in their developmental history and accuracy of our knowledge of each.

Repression of the self as a form of letting go is expressed in a variety of ways. Composer and bassist Gavin Bryars, for example, in conversation with Derek Bailey, refers to being limited in improvisation by his own personality (Bailey, 1992). Alvin Curran (2006) talks about self-discipline in the improvisational context and the "commitment and momentary suspension of the individual's self" (p. 489). Music experienced as a result of such suppression is often described as liberating (e.g., Curran, 2006). Letting go of ego and self seems to provide not only the experience of freedom, but also the possibility to re-experience the self. The paradox of the role of the self in improvisation is that in order to freely improvise, one needs to let go of the self, which in turn allows for a true and full experience of the self. This makes improvisation the ideal medium or vehicle for self-expression (Bailey, 1992; Racy, 2000). From Neisser's (1988) perspective, one way to interpret this paradox would be to assume that under certain conditions one might need to dissociate from the extended or the conceptual self to access and fully experience the ecological or the private self. A true and full experience of the self might also arise as a result of identification with music.

Alvin Curran (2006) defines improvisation through such identification by saying that "improvisation is the art of becoming sound" and that it is "the only art in which a human being can and must become the music he or she is making" (p. 483). For Alvin Curran (2006), in improvisation it is the self and others that "become the score." Some musicians, on the contrary, consider such corporeal identification and the fact that "music in improvisation doesn't stand alone" a disadvantage of improvisation (Gavin Bryars in conversation with Derek Bailey; Bailey, 1992, p. 115). Ultimately, the resulting experience from the act of letting go seems to be an intuitive playing. Thus, improvisation has been widely referred to as an intuitive art (e.g., Racy, 2000).

Burrows (2004), Curran (2006), Borgo (2007), and many others touch upon complex issues of experience of the self and suppression of the self within group improvisation. In such improvisation, the inter-musician dynamics can itself become the content of the improvised performance (Thomson, 2008). However, it is beyond the scope of this paper to discuss the experience of the self in ensemble improvisation, and would require the perspective of joint sense of agency as opposed to individual sense of agency that is the focus of the current paper.

4. *The Creator-Witness Phenomenon as an Automaticity Experience*

It was previously proposed that creator-witness phenomenon "could result from the automaticity of access to the elements of the knowledge base and the pathways that connect them" (Berkowitz, 2010, p. 130). With regard to earlier references to automatism in musical improvisation (Pressing, 1988; Sacks, 2007), Berkowitz (2010) explains that the conscious idea allows the experience of creator to occur but after the idea started being realized in movement, "the fingers may lead spontaneously and subconsciously to another element of the knowledge base" (p. 130). Campbell (1991) expresses a similar view stating that when melodic and rhythmic phrases "are 'in the hand'" and "have progressed from voluntary actions to unconscious reflex actions, improvisation can readily occur" (p. 23). Many other researchers and improvising musicians emphasize the role of automaticity by referring to motor intelligence or muscle memory (Donnelly, 2010), the common experience of "fingers getting ahead of the mind" (Chiu, 2006; Hersch, 2006; "Robert Levin," 2006), and by considering the embodied nature of musical knowledge (e.g., Johnson, 1989).

Despite the fact that the role of automatic processes in musical improvisation has been previously acknowledged (e.g., Pressing, 1988), as well as the fact that skilled performance does not need to rely on explicit knowledge or be controlled in a fully conscious manner (Sacks, 2007), it remains to be proven that automaticity provides an exhaustive explanation for altered control experiences.

Though valid for skilled performance and idiomatic improvisation, automaticity account does not explain creator-witness phenomenon in either non-idiomatic improvisation or improvisation by non-musicians lacking the sufficient knowledge base to guide the movement in unconscious way; therefore, there is a need for a larger framework that will allow for explanation of the creator-witness phenomenon on the basis of the sensory-motor input and cognition without reference to automaticity of skilled actions.

5. The Creator-Witness Phenomenon as an Agency Experience

Due to the fact that the core experience in the creator-witness phenomenon is the sense of being and not being an agent of an action, *sense of agency* is proposed as an alternative framework possibly allowing the neurocognitive explanation of the creator-witness phenomenon.

Sense of agency (SoA) has been most generally defined as the experience of being in control of own actions (Frith, 2002) and is commonly explained on the basis of the *comparator model* (CM) (Blakemore, Wolpert, & Frith, 2002). The CM is based on three types of representation comparisons: 1. comparison between a desired state and estimated actual state; 2. comparison between estimated actual state and predicted state; 3. comparison between desired state and predicted state (Blakemore et al. 2002). According to CM, two comparators mainly account for the sense of agency: comparator 2, necessary for self-attribution of sensory events (Synofzik, Vosgerau, & Newen, 2008), and comparator 3, which allows the sense of being in control to occur (Frith, 2005). Synofzik et al. (2008) note that despite the huge empirical support of the CM in explaining sensory-motor control it, however, explains only one aspect (or level) of sense of agency—the non-conceptual level of *feeling of agency* (FoA). In addition to FoA, sense of agency also relies on conceptual level of *judgment of agency* (JoA). While the feeling of agency is a “low-level feeling of being the agent of an action,” judgment of agency is an “interpretative judgment of being an agent” (Synofzik et al., 2008, p. 222). Both FoA and JoA are different from sense of ownership (Synofzik et al., 2008), which has been defined as “the sense that I am the one who is undergoing an experience” (Gallagher, 2000, p. 15) and is usually experienced implicitly.

In order to deal with limited explanatory power of the CM, Synofzik et al. (2008) propose a more general two-step model of agency that intends to explain FoA, JoA, and their role in experiencing sense of agency. According to the two-step model, sense of agency arises as a result of bottom-up FoA-related processes (feed-forward cues, proprioception, sensory feedback), and top-down JoA-related processes (intentions, thoughts, social cues, situational cues). Such multifactorial account presents a currently dominant model of agency and has obtained a strong empirical support (e.g., David, Newen, & Vogeley, 2008; De Vignemont & Fournieret, 2004; Moore & Fletcher, 2012). Therefore, within current research, the idea of complex SoA consisting of FoA and JoA is adopted, as well as the idea that JoA mechanisms *alone* can give rise to SoA. Creator-witness phenomenon from such perspective on agency arises as a result of the failure of monitoring at the level of non-conceptual feeling of agency, thus causing the experience of witness. At the same time, a performer does not lose sense of agency due to correct judgment of agency, which allows the creator experience. I will further explain the result of non-conceptual level failure—alienation of FoA, on the basis of the comparator model, and the simultaneous persistence of JoA on the basis of two-step model.

With regard to the CM, Blakemore et al. (2002) effectively showed that there are multiple sources of altered agency experience in clinical subjects. In case of delusional control, for example, abnormal agency experience is due to faulty prediction mechanism and irrational judgment; anarchic hand sign, on the other hand, arises as a result of the discrepancy between intentions and the actual state accompanied by a person’s awareness of this discrepancy. Similarly, there may also be multiple sources of altered experience of agency in normal subjects. Here, I am going to refer to two possible sources of altered agency experience in improvisational performance with regard to phenomenological experiences of control reported by improvising performers. Since normal subjects always have adequate judgment of agency based on thoughts, expectations and other situational cues, altered agency experience in normal subjects is reducible to the alienation of feeling of agency, and is transient in nature.

The authors of the CM have also acknowledged the role of JoA in self-agency, as they state that in case of delusional control, in addition to faulty prediction mechanism, the belief system is faulty (Blakemore et al., 2002). This results in an unnatural interpretation of the initiated movement. Similarly to the case of delusional control, alienation of FoA, as manifested through creator-witness phenomenon, may arise as the result of a failure at the level of prediction of movement.

Failure to monitor movement prediction creates “malfunction” at two comparators: C2: comparison between estimated actual state and predicted state, and C3: comparison between desired state and predicted state. As opposed to the case of delusional control however, in case of creator-witness phenomenon, JoA is rational, and therefore self-agency is possible. In the context of improvisation, alienation of FoA does not rely on explicit discrepancy between intention and action. It may arise as a result of failure at the level of prediction of movement, which in turn may be the outcome of intentional withdrawal of attention from the thought process about a subsequent action. This intentional strategy to act but not have intention of any *specific* action is widely employed by improvising performers. Composer, pianist, and electronic musician Chris Brown (2006) speaks about free improvisation as “an art of unknowing, in which the performer tries at all moments not to know the ultimate direction of the music” (p. 572).

For composer Jean-Charles François (2006), one of the essential improvisational abilities is “the ability to concentrate on the present instant without having to plan ahead the musical form in a self-conscious way” (p. 624). This seems to be a skill necessary across different domains of improvisation. Tap improvisation teacher Margaret Morrison notes that “improvisation means not knowing what you’re going to do before you do it” (Buteau, 2004, p. 59), while drama teacher Keith Johnstone talking about theater improvisation famously compares an improviser to a man who is walking backwards: “he sees where he has been, but he pays no attention to the future” (Johnstone, 1989, p. 116). Other musicians refer to applying conscious effort to distract themselves from thinking about what will happen in music as part of performance preparation (Hersch, 2006).

Withdrawal of attention from monitoring of ongoing sensory-motor input is another possible way alienation of FoA in creator-witness phenomenon is achieved. The failure of monitoring of ongoing sensory-motor input creates “malfunction” at two comparators: C1: comparison between a desired state and estimated actual state, and C2: comparison between estimated actual state and predicted state. Such failure to monitor ongoing sensory-motor input, similarly to classical cases of change blindness, can be achieved by concentrating on the perceptual input of either auditory or visual nature, or even specific thought or feeling. An example of concentration on sensory stimulus is given by guitarist John Leighton Beezer in a conversation with 5-Track (2009) about an initiation of improvisational performance by a drummer. Beezer states that a performer may concentrate on one of the multiple rhythms constantly surrounding us (e.g., the sound of the passing car or ice cubes in the glass) and initiate spontaneous performance (5-Track, 2009). Failure of monitoring of the sensory-motor input may also be a result of an intentional strategy of concentration on cognitive stimulus as a source of improvisational idea. In this case, in order to achieve spontaneity of expression, a musician may have a general idea in mind (e.g., representing a certain emotional in music) but non-determined technical peculiarities for conveying this idea.

6. Conclusions

The purpose of this analysis was to introduce the sense of agency perspective on phenomenal experiences that arise in musical performance. The creator-witness phenomenon in musical improvisation was taken as an example of such phenomenal experiences. In the first part of the paper, the creator-witness experience was interpreted on the basis of retrospective feedback of improvising performers. It might have become apparent to the reader that such feedback is often phrased metaphorically and should not be taken literally. However, in case of phenomenal aspects of any experience, a metaphor, in fact, provides better means of description than those provided by measures with precise and predetermined response categories; therefore, it is informative of the psychological nature of the phenomenon.

In the second part of the paper, the creator-witness phenomenon was viewed as an agency experience. As such, it can be treated as a transient experience of the alienation of non-conceptual feeling of agency with preserved conceptual judgment of agency. Such perspective on creator-witness phenomenon was taken due to the possibility of relating retrospective personal feedback of improvising performers to neurocognitive mechanisms of control over movement. Based on the known multiple sources of altered agency experience in clinical subjects, I here assumed the possibility of multiple sources of transient alienation of feeling of agency within improvisational performance in normal subjects. At least two possible ways of transient alienation of feeling of agency that emerges in normal subjects within improvisational performance were defined. The first reason for the transient alienation of the feeling of agency in improvisational performance might be the failure at the level of monitoring of movement prediction. The second reason for the transient alienation of the feeling of agency in improvisational performance might be the failure of monitoring of ongoing sensory-motor input.

Both possibilities are in line with improvisational strategies used by performers. The failure at the level of monitoring of movement prediction might result from the intentional strategy of eliminating the thought process about the consequent movement, and the failure of monitoring of ongoing sensory-motor input might result from the conscious strategy of concentrating on irrelevant external or internal stimuli.

In addition to supplementing the automaticity account and explaining the creator-witness phenomenon in skilled as well as non-skilled performers, the agency perspective gives the ground for explanation of other phenomenal experiences. For example, one of the commonly reported psychological phenomena in musical performers is an “instrument as extension of the body”. The complexity of relationship between a performer and his instrument is specifically acknowledged by skilled musicians. Jon Rose calls such relationship “an inter-species relationship” (“Jon Rose,” 2006, p. 639). From the agency perspective, instrument as extension of the body can be treated as a case of transferring self-agency to an object.

The agency perspective on phenomenal experiences in improvisation could also provide tools for empirical study of non-planned actions and help create a neurocognitive model of motor spontaneity. Such neurocognitive model of motor spontaneity could allow understanding of the elements of the improvisational process, and help develop efficient embodied learning techniques. With regard to the agency perspective, such strategies could be based on the manipulation of awareness of sensory-motor feedback, and result in an efficient goal achievement by improvising performers and a controlled outcome of the therapeutic musical improvisation.

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