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Emergence: A Parameter of the Effectiveness of Artistic Creativity—A Study of Dance Improvisation

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ABSTRACT

When discussing artistic improvisation, effectiveness is generally dismissed for at least two main reasons. On the one hand, an improviser cannot anticipate the appropriate means to achieve an end that, by definition, they do not set in advance—hence the inherent risk of failure. On the other hand, an improviser does not aim to showcase their virtuosity in appropriating a particular movement vocabulary, insofar as their intention is rather to circumvent habitual patterns and expand their vocabulary. The aim of this article, however, is to demonstrate that invoking the notion of effectiveness is not incompatible with the indeterminate nature of improvisation. In this context, our thesis is that emergence—implying a sudden appearance of novelty—can be seen as a key parameter in fostering the effectiveness of artistic creativity in an improvisation. We will focus our discussion on the case of dance improvisation, particularly as it has developed since the American postmodern period of the 1960s and 1970s. This thesis is elaborated through several lines of argument. It distinguishes between two forms of emergence: a framework for emergence, related to emergence as an occurrence, and an emerging framework, related to emergence as downward causation. It differentiates, consequently, two specific senses of effectiveness: the precision and openness of action guidelines, enabling the expansion of the dancer's movement vocabulary, and the reduction of the field of possibilities through collectively made real-time

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decisions, which allow for the creation of new norms of action and generate a unified sense and form among dancers' actions. This leads us finally toward a new approach to artistic creativity.

Keywords: Improvisation; Dance; Emergence; Occurrence; Downward Causation; Creativity; Effectiveness

1. Introduction

The discourse surrounding a work of art generally seeks to determine what makes it a success. In the case of performing arts, this success often depends on the conformity between the “type” of the work, “initiated” by the artist ^[1,2], and the interpretation in a specific context or “instantiation” ^[1,2], carried out by the performer, to borrow some of Levinson’s expressions. It means that such a success often depends on the conformity between an abstract and conceived work of art (e.g., a music score) and its physical and temporal occurrence (e.g., during a concert) ^[3].

However, some performing practices do not seem to presuppose an ideal “type”, as is particularly the case with the so-called free improvised practices, which are non-referential and not planned in advance ^[1,2]. In such cases, it would seem that one cannot speak of error: there is no possible mismatch with the normativity of a dance or music score, a script, in short, with a repertoire ^[3]. Admittedly, this observation applies less to the so-called “structured” improvisations, such as jazz improvisation, where rhythmic and harmonic frameworks are still predetermined. In these latter cases, if a note, for instance, fails to align with the harmonic structure, it may be perceived as a mistake. Yet, if this deviation is subsequently adopted and developed by one or more musicians, it may become integrated into the performance and may give rise to a performative and transformative normativity that departs from the original normative framework ^[4]. Ultimately, this suggests that, within the general practice of improvisation, notions of right and wrong are not absolute but contingent. From the very beginning of improvisation practiced for its own sake, some dance teachers such as Robert Dunn—whose composition classes in New York between 1960 and 1962 gave rise to the emergence of the *Judson Dance Theater* (1962–1964)—replaced indeed such evaluative judgments with a focus on analytical inquiry, asking dancers instead: “How did you make that dance?” ^[5].

Nevertheless, while there may not be a single cor-

rect way to respond to a given problem, or to explore the framework for action facilitated by an artist, one cannot help but observe that, when it comes to collective improvisation, sometimes it works—and sometimes it does not. There are moments when improvisers succeed in attuning to one another, allowing forms to emerge that carry meaning. But there are other times when nothing seems to arise from their interactions. As Marie Bardet asks—despite the fact that improvisation is an “art of composition within evanescence”: “But then, what is it that happens, nonetheless? How does it work, and how does it not work?” (our translations) ^[6] (pp. 113–114). This is a question that mostly remains unaddressed by theorists, even when they acknowledge degrees of success in an improvisation ^[7]—and one to which Bardet herself does not offer an explicit answer.

In this article, we would like to begin sketching a possible response. To this end, we would like to pave the way for a third path alongside the two main theoretical approaches. On the one hand, there are theorists and practitioners who argue that, in order not to hinder an improviser’s creativity, one should refrain from passing judgment on their actions (see, for instance, Johnstone ^[8]): “what is good is an improvisation free of thoughts about what is good” ^[9] (p. 73). On the other hand, many theorists agree that the inherently indeterminate nature of improvisation makes it, by definition, susceptible to failure (see, for example, Nunn ^[10]). Yet, in the end, little attention has been paid to what “success” might mean within the context of improvisation. We argue here that the success of an improvisation may depend on the ease with which novel materials emerge from within a given exploratory framework, and on the ability of participants to collectively construct new norms in real time. These norms allow them to move beyond that initial framework and to generate an interactional one. In other words, emergence—understood here in multiple forms, as we will see—might serve as a key parameter in evaluating the effectiveness of the artistic creativity at work in improvisation. The notions of emer-

gence, effectiveness, and creativity will be further examined in this context.

2. Materials and Methods

This article will focus specifically on improvisation in dance—a field that has received comparatively less scholarly attention than musical or theatrical improvisation. More precisely, the analysis will center on improvised practices situated within the lineage of American postmodern dance of the 1960s and 1970s, for several reasons. First, for the first time in dance history, American postmodern dance embraced improvisation not as a tool for generating choreographic material or embellishing movement, but as an artistic practice for its own sake^[11]. It would therefore be more judicious to refer specifically to this type of improvisation within the broad field of forms of improvisation in dance, for the purpose of our article here. This helps to position our discussion, which aims to analyze improvisation for its own sake, even though some of the points theorized here could, to a certain extent, subsequently be applied to other forms of dance performance. Then, these practices continue to exert a significant influence on the practices of dance improvisers nowadays, particularly in Europe, which constitutes our field of research (see, simply to mention a few: the work of David Zambrano, João Fiadeiro, Emma Bigé, etc.).

The examples discussed here will therefore be drawn from two primary sources. Firstly, they will be drawn from the accounts and reflections of dancers from this first generation of American improvisers, and the subsequent generation they helped to shape. Secondly, they will be drawn from insights gained from my own improvisational practice with dance improvisers of this second European generation.

This conceptual discourse is therefore methodologically constructed across several levels of discourse. First, it is anchored in the tacit knowledge of the body, which becomes consciously accessible through bodily practices. This initial level is then connected to personal feedback, recorded in a notebook after each exercise, and subsequently to collective, oral feedback at the end of a session. Finally, through temporal reflection, a more theoretical and conceptual discourse can emerge, while also engaging with

the knowledge conveyed by other authors and practitioners in dance studies, performance studies, philosophy, and related fields. Awareness of one’s starting point, combined with the diversification of resources (practical and theoretical) and methods (practices, discussions, readings), helps to avoid extrapolating from singular experiences and to avoid potential conceptual illusions.

This approach is consequently grounded in a practical and embodied philosophy, one that thinks from within experience itself and values—as advocated by Donna Haraway—situated, embodied, experiential knowledge^[12,13]. In this way, the results to which our analyses lead are conceptual and explanatory within the standards of philosophical, theoretical, and artistic research, but they are not “scientific” in the empirical or experimental sense because they are not predictive or falsifiable (according to Karl Popper’s criterion of what constitutes a “science”).

3. A Framework for Emergence in Dance Improvisation

3.1. The Reasons for Establishing a Framework for Action before Improvising, and the Reasons for Speaking of “a Framework for Emergence”

Let us begin by defining, at least minimally, improvisation as it is practiced for its own sake by dancers. Such a dancer may have an intention prior to entering an instant composition. However, it is highly unlikely that this intention can be sustained, since real-time decision-making tends to lead them away from the goal initially set. As William Forsythe observes: “You make a voluntary decision, you let yourself move into space and then gravity and velocity and several other factors are going to affect that decision and force you into another one”^[14]. Thus, the result of such an improvisation may be far removed from the artist’s initial intention. Yet this is not experienced as a mistake, but rather as an opportunity to open oneself to the unknown and to negotiate with unpredictability. Consequently, when perceived by a viewer, such an improvisation appears as a real-time process of exploration, with its hesitations and deviations. These ideas can already be found in the Latin origin of the word (“*improviso*”: “that happens unpredictably”): it refers to the absence of pre-

dictability in an action and therefore implies the necessity of inventing strategies on the spot to respond to an unprecedented situation.

Now, if the decisions are made in real time and if the situation is unprecedented, why set a framework prior to improvisation, and what type of framework is involved? There are several reasons that may initially justify the legitimacy of setting a framework for improvisation, in workshops or performances.

The first reason is that, without a defined framework for action, nothing may occur. The simultaneous presence of too many possibilities can, in fact, lead to a paralysis of action. As David Zambrano explains:

what happens is that many times when I go to teach improvisation, for many people, young people especially, it's like they can do whatever (they want). But you can say: "Where are we going?" and they answer: "I don't care, whatever", and they stay here. And then I say, "okay, it's two of us, where are we going?", and they answer back "I don't care, every place". In that case, there is not really a place that we can go... ^[15] (p. 6).

In this situation, there is no unlocking of imagination, no stimulation of creativity.

The second reason worth mentioning is that, in the absence of a defined framework for action, dancers tend—whether out of habit, comfort, security, or even laziness—to resort to familiar movements rather than striving to overcome deep-rooted motor patterns. As Frédéric Poullaude states:

to thus rely on the spontaneity of the subject, on what immediately emerges without projection or judgement, from mere proximity to oneself, is also to run the risk of empty repetition, of the uninterrupted reiteration of the same figures and patterns, usually the most reassuring and conventional ones. [...] Through this, convention and vocabulary very quickly risk catching up with us (Our translation) ^[16] (p. 151).

These two risks may be summarized as follows: either doing nothing or doing nothing new. In other words, dancers face the risks of either inaction or the repetition of the same actions time and again.

Establishing a framework for action, i.e., some initial guidelines, thus allows conversely to orient, guide an improvised action, but above all to stimulate the improvisers' creativity. In this sense, the guidelines of the established framework should not determine or constrain the action but rather enable or facilitate it. Otherwise, another risk is that there would no longer be any emergence of the unexpected, and consequently any improvisation, which, by its very nature, is defined as an openness to the unpredictable (as previously said).

In this context, it may be fruitful to speak of "frameworks for emergence" to refer to such frameworks for action established prior to improvisation. Although the concept of "emergence" is a scientific notion that has only recently been applied to human sciences, it would help to understand, within improvisation, how individual and unforeseen initiatives can be reconciled and stimulated by a pre-given structure. Indeed, a phenomenon of emergence is generally characterized by the irreducibility of emergent elements with respect to the base for emergence, since they introduce new aspects beyond this base. By way of consequence, at least part of these aspects is also unpredictable from the standpoint of prior knowledge. This is the difference, often highlighted by scientists, between an effect that "results from" a cause and an emergent phenomenon that "arises from" a base for emergence (see Lloyd Morgan who is one of the first to make this distinction ^[17]). In brief, the novelty and unpredictability surrounding the phenomenon of emergence may help to understand the artistic creativity involved in an improvisation.

3.2. Examples of Action Guidelines within These "Frameworks for Emergence"

Generally, one or a few action guidelines are provided orally before beginning an improvisation, for instance, by an artist who is called a "facilitator" during a workshop. They make proposals and support the dancers, without giving orders or movements to be replicated, unlike a dance master. These guidelines serve to narrow the scope of possibilities, that is, to delineate the "what" of the action to come. To do so, they often destabilize habitual motor patterns with the aim of expanding the range of dancers' movements and enriching the daily experience of their bodies.

Let us detail several examples of action guidelines (of course, not exhaustive here). These guidelines may involve, for instance, a movement constraint. For example, Anna Halprin asked participants to move on the ground without using arms or legs^[18]. This encourages the exploration of novel ways to move using the spine.

These action guidelines can also involve a constraint on the quality of movement. To take one example among many, Simone Forti explores in her *Land Portraits* how the dynamic quality of a landscape can permeate her movements as well as those of her group, the Simone Forti & Troupe, founded in 1986 and sustained for six years (with K.J. Holmes, Lauri Nagel, David Rosenmiller, Eric Schoeffer, and David Zambrano). The work essentially involved selecting a landscape, researching the physical and historical characteristics of the site, and creating a danced portrait of that landscape, which is also based on the dancers' sensory and affective experience through the site^[19]. Simone Forti is known for having drawn inspiration in her work from the motor dynamics of living beings too, particularly animals, whose movements she studied in zoos^[20].

Among these examples of action guidelines, we can mention the constraint of time too. Robert Dunn, for instance, could ask participants in his collective composition classes to improvise a three-minute solo^[5].

Finally, the constraint of space can provide a reference point for improvisation as well. For example, some improvisers, such as João Fiadeiro, mark the boundaries of the action area with scotch tape.

3.3. Emergence as a Parameter of Artistic Creativity Efficiency within These Frameworks for Action: Emergence Understood as an “Occurrence”

Among the previously mentioned action guidelines, none specify “how” an action should be performed. This is left to the dancer’s interpretation. Consequently, these frameworks for action disrupt habitual motor patterns while simultaneously leaving the manner of the gesture open-ended. This renders such improvisation practices truly experimental and encourages practitioners to stimulate their imagination, i.e., to create something new. In this respect, it closely aligns with Erin Manning’s distinction between “enabling constraints” and “disabling constraints”

^[21]. These constraints are not, nor do they remain, disabling (though they initially appear to be so by disrupting our motor but also sensory, and cognitive habits). They are rather “enabling constraints” because they open possibilities, particularly regarding “how” an action may be performed.

Therefore, if there is effectiveness here, it does not refer to an action that produces an expected (and often considered useful) outcome by assessing the appropriateness of the means that are used, i.e., the appropriateness of the “how” of the action. Effectiveness here refers rather to the ease with which these frameworks for action can give rise to movements that are unfamiliar to the dancers—that is, to their capacity to stimulate imagination and artistic creativity. In other words, the effectiveness of these frameworks is understood in terms of the openness and richness of the possibilities they enable. This can be experienced by the dancers as a sense of ease and fluidity, and as a feeling of expansion in unfolding and exploring movement. The fluidity of movements as they follow and call to one another can also be perceived by viewers.

This notion of effectiveness is precisely what, according to Pouillaude, distinguishes a merely “given” framework from one that is genuinely “constructed” before an improvisation:

Improvisation generally takes place within a framework, which minimally consists in the determination of space and the possible presence of others [...]. But this framework is, at this stage, merely given. One may seek to construct it, to increase its precision and, in doing so, its effectiveness. One may establish a few rules of the game, thereby structuring the improvisation in advance (Our translation)^[16] (p. 152).

In sum, the emergence that “arises from” the initially established action guidelines, set for improvisation, can be regarded as a parameter of artistic creativity’s effectiveness. The precision and openness of these guidelines indeed generate a form of creativity understood as an expansion and enrichment of one’s movement vocabulary. So, unfamiliar movements, for the dancers, may appear and arise from such frameworks for action: it enables us to speak of emergence as an “occurrence”.

More precisely, it would be more accurate to speak

here of “efficiency” rather than “effectiveness”, since such movements emerge using minimal resources. As said previously, the action guidelines disrupt habitual patterns and destabilize familiar reference points. In this sense, “Less is more”, to borrow the slogan of the postmodern era, the very period in which the form of dance improvisation we study here first emerged^[22].

4. An Emerging Framework in Dance Improvisation

4.1. The Reasons for Speaking of “an Emerging Framework” in Improvisation

Yet in practice, while such action guidelines or frameworks are necessary, they are not sufficient to ensure that an improvisation—particularly a collective one—is truly successful. Put differently, they do not fully account for what an improvisation consists of.

In this context, Anna Halprin introduces a valuable distinction between what she terms “explorations” and what she designates more precisely as “improvisations”. According to her, “dance explorations” involve exploring all the possibilities of a specific idea (e.g., running through the dance studio while paying attention to the different directions given to our spine). This is how new “resources” can be brought out from the body. But while “explorations” require staying on the same task, “improvisations” always move on to something else, to new directions. That’s why she says that “explorations” are more precise and controlled. They indeed prevent the dancers from avoiding the (difficulty of the) task at hand and from falling back on familiar movement patterns^[18].

However, for our discussion here on emergence, it is particularly interesting to consider what is at stake when an improviser chooses to move on to something else. While it is true that in “explorations” there is already improvisation—since the movements are not conceived prior to their execution—it is not yet, strictly speaking, an “improvisation”. Improvisation, properly understood, involves in fact a shift in operation. It implies the deconstruction of a given framework that is then restructured in a different way. In this sense, what is truly specific to “improvisation” occurs when a “framework for emergence” (as previously explained) becomes, properly speaking, an “emerging frame-

work” co-constructed in real time between practitioners. It is this “emerging framework” that we would now like to examine. As we shall see, it requires us to reconsider the meanings of both emergence and effectiveness.

Some theorists of improvisation, such as Frédéric Pouillaude, already previously mentioned, prefer to distinguish between a framework constructed prior to improvisation and one that is constructed in the course of improvisation. In this philosopher’s terminology, this corresponds to a distinction between what he calls a “game framework” (“dispositif de jeu”) and what he refers to as “the play of the framework itself” (“jeu du dispositif”):

The rules, of which the American practices of the 1960s and 70s offer numerous examples, are less inviolable principles than simple components of a game framework [*dispositif de jeu*]. More than conformity to the rule, it is the play of the framework itself [*jeu du dispositif*] that takes precedence, even when it involves setting itself as an exception. For improvisation most often unfolds over an extended duration, allowing the framework to evolve from within and to become something other than the mechanical application of external rules. A truly unpredictable reality can then emerge, one that nonetheless remains inseparable from the constraining framework which it both extends and negates (Our translation)^[16] (pp. 152–153).

We can observe, between these two moments of an improvisation, a differing conception of game/play. In the first instance, one plays while remaining within the bounds of the initial rules or action guidelines (game). In the second instance, this “syndrome of rules” is set aside in favor of what Anne Boissière calls the “living dimension of play”^[23]. This involves allowing oneself to be caught up in the play of others’ actions. It is a process characterized by a sense of “being seized” by a collective situation, by surprising proposals, by unexpected encounters that escape our control. And so, we definitely “play”. These two different definitions of game/play correspond to distinct terms in English, yet in French, they are both encompassed by the single noun “jeu” or verb “jouer”, which may introduce a degree of ambiguity.

In short, because “improvisation” involves the abili-

ty to deviate from the action guidelines initially established and to create new ones in the present moment, an “interactional framework”^[24–26] can emerge between practitioners. This framework is in itself emergent and not only enables the emergence of new movements from the dancers: this is a distinction we are making between an “emerging framework” and a “framework for emergence”. This relates, as we shall see, after examining concrete examples, to another possible definition of emergence, and consequently, to another possible conception of its effectiveness and its artistic creativity.

4.2. Examples of “Emerging Framework” in Improvisations

Let us consider two examples of collective improvisation that have been experienced with Laura Aris Álvarez during an advanced improvisation workshop she led at Circuit-Est, a choreographic centre in Montreal, from May 11 to 17, 2024.

In the first instance, we were working with a sensation of pressure in our hands. This led one of the dancers, through the course of his explorations, to tense an entire part of his body, which became immobilized as a result of this tension. He then implicitly drew others into this new interpretation of the action guideline, including me. Here, we observe that the guideline—initially focused on the hands—expanded to include other parts of the body, thereby extending but simultaneously negating the original framework.

In the second instance, we were working on precision—both as a mode of use and as a form of direction—in relation to our feet, to guide our movements. There were three of us, and we eventually ended up seated on the floor, placing our feet and legs on those of the others. Once again, we observe both an extension and a negation of the initial framework, as Pouillaude argued. The action guideline was modified in such a way that we began to focus not only on our own feet, but also on those of others, to orient our movements.

In these two examples, we observe, in short, that improvisation entails not only carrying out the task initially assigned, but also breaking away from it. Improvisation entails taking initiative, suggesting possible deviations and modifications of the original framework. It is about work-

ing at the margins, at the boundaries. As Laura Aris Álvarez repeatedly emphasizes in her workshops, “Do not walk in the frame, push the frame”.

Finally, this tendency of the initial framework to exceed itself sheds light on these “frameworks for emergence”. Indeed, these are structures that may be referred to as “allotelic”, as opposed to “autotelic” structures: their purpose lies outside of themselves. To put it differently, they find “their fulfillment in their own transcendence”, and they aim to “transcend their own frameworks, bringing about a realization that exceeds the initial possibilities of the action” (our translation)^[27]. To summarize, we may affirm that the “framework for emergence” contains within itself the possibility of opening onto an “emerging framework”—where the notion of emergence takes on a second meaning, as we shall see below.

4.3. “Emerging Frameworks”: Emergence Taking the Form of a “Downward Causation”

Despite the fact that the concept of emergence can be applicable to many fields^[28], it is commonly defined as a whole, greater than the sum of its parts, whose underlying elements and properties constitute the base for the emergent phenomenon^[29,30]. As Jaegwon Kim states, “an emergent property is new because it is unpredictable, and this is its epistemological sense; and, second, it has a metaphysical sense, namely that an emergent property brings with it new causal powers, power that did not exist before its emergence”^[31] (p. 8). Therefore, emergence implies both an extension and a negation, both a continuation and an irreducibility between the base and the emergent elements. That’s why it fosters something new.

The elements that emerge can also take different forms. Let us take the example of our case study, that is, improvisation. They may be, as we observed in the first part of our article, unfamiliar and unexplored movements arising from an initially given framework for action. But they may be too, as we have just seen in the second part of our development, norms newly arising from interactions among practitioners, which in turn foster the emergence of an interactional framework for action. In this latter case, as previously mentioned, there is no longer simply “a framework for emergence”; rather, a truly “emerging frame-

work” appears, giving rise to another definition of the term “emergence”.

This framework, which we, here, call “emerging”, arising within the implicit, non-verbal intercommunications and interactions among dancers, closely resembles what R. Keith Sawyer names an “interactional framework”^[24–26]. It is, in his case, a framework emerging from the processual dynamics of a conversation among actors (then explicit or verbal), referring to the type of improvisational theatre that appeared in Chicago, in the United States, in the 1950s. To provide an example: a word is suggested by the audience (e.g., the word “surgery”), and the actors improvise a surgical operation scene. The main rule here to nurture collective artistic creativity is the “yes, and?” principle: subsequent responses from the interlocutors confirm, specify, and extend previous contributions through a process of retroactivity, until from this short scene unfolds a new short scene. For instance, one of the actors assumes another is a medical student, and the setting shifts to a classroom, and so forth.

Some differences with improvisation in dance can be clearly highlighted, of course. Firstly, lines in theatre are successive, whereas gestures in dance, but also in music, are most often simultaneous. Secondly, one can reject a proposal in dance, but it does not seem to be the norm in theatrical improvisation of the “yes, and?” type. However, the clarification of the different types of causal relations present in an improvised dialogue in theatre, as outlined by R. Keith Sawyer, can help us better understand what we have termed an “emerging framework” in improvised dance practices. That’s the reason why we will delve more deeply into his theory.

In this regard, he theorizes a relationship he calls “metapragmatic”, in which the speaker is causally influenced by what precedes and, in turn, causally influences what follows. He distinguishes it from an “emergent” relationship, which he terms “collaborative”, because the situation is causally shaped by the dialogue between the actors. Finally—and most importantly—he names “downward causation” a relationship in which the speaker, but also the initially established framework, are causally influenced by the emerging framework. For example, when one of the interlocutors opens the perspective of a new situation (e.g.,

a medical student in a classroom), this new scene redefines what is possible for the other speakers, and so it redefines a new framework for action. There is, said differently, a causal power of the new interactional framework over individuals and over the initial framework^[24].

In philosophy, more broadly, downward causation refers to the ability of higher-level structures (e.g., biological systems, social organizations) to exert causal influences on lower-level processes (e.g., biological cells, human behaviours). To take a common example, the social rules of a group can influence the behaviour of an individual. It is generally opposed to upward causation because, in the latter case, the micro-components of a system influence the macro-level, i.e., the whole system. To take another common example, individuals decide to unite and create common laws: the individual actions produce a global social structure. But not all downward and upward causations apply to cases of emergence: when an emergence occurs, it adds complexity to the systems under study. This can be understood in the context of the examples of improvisation we examined earlier. The dancers who are improvising together shape a collective situation: this is the “collaborative” relationship to which R. Keith Sawyer was referring. In doing so, there is upward causation (from the individuals to the collective) and an emergent phenomenon, since none of the dancers can predict how the situation will unfold. But, when one of the dancers, followed by the others, redefines the initial framework in real time, implicitly creating new action guidelines, this in turn opens new possibilities for action for all. In this case, there is downward causation—from the new framework of action to the improvisers and to the initial framework—and an emergent phenomenon, since, once again, it was not predictable.

5. Differences between These Two Forms of Emergence: Contingency, Necessity, Effectiveness and Artistic Creativity

Let us now clarify further the differences between the two types of “emergence” we discussed in the article, i.e., between the emergence as an occurrence and the emergence as downward causation.

Within the case of emergence as an occurrence, called here a “framework for emergence”, we have seen that this framework orients and guides the action, while leaving open the “how” of the action, which, then, may emerge in an unpredictable manner. To say that differently, in this case, a contingency may arise from the necessity of the framework’s action guidelines. In philosophy, generally, contingency refers indeed to something that could be otherwise, while necessity designates something that could not be otherwise. They are not opposed if neither contingency nor necessity is absolute. For instance, in the case of a “framework for emergence”, a “contingency relative” to the “external necessity” of a structure for action, set before improvising, may be observed ^[32].

By contrast, within the case of emergence as downward causation, called here an “emerging framework”, the relationship between necessity and contingency seems to be reversed. Indeed, as practitioners continue their experimentation, the contingency that emerges is no longer solely driven by the initial framework. It becomes a contingency tied to the *kairos* of the unfolding situation, i.e., to the occasional windows of opportunity that open up from time to time and can be seized at the right moment by practitioners. This is linked with the concept of “affordances”, defined by James Jerome Gibson as invitations to act from the environment ^[33]. For example, a chair may be perceived otherwise than as something “to sit on,” through the window of opportunity opened by a dance partner. In short, this new form of contingency could be referred to as a “kairotic contingency”, which may be defined as a set of indeterminacies opened up by the fluctuations of an improvisational situation ^[26]. Furthermore, a form of necessity—taking on a new meaning—also emerges: it is no longer a necessity based on a predefined set of action guidelines, but rather a necessity arising from the demands of a situation in the process of its unfolding. This situation calls in fact for certain responses from practitioners that are more appropriate and timelier than others, in order to enhance its potential and in order to foster mutual attunement. This gives rise to an internal necessity, inherent to the situation itself and derived from its “kairotic contingency” ^[32].

Finally, not only does the relationship to contingency and necessity change, but also the relationship to effectiveness and artistic creativity differs between these two forms of emergence. We had observed that both the precision and the openness of the initial action guidelines constitute the efficiency of the emergence as an occurrence (with regard to the “framework for emergence”). Their precision enables the disruption of our habitual patterns, while their openness leaves the “how” of our actions undetermined. It thereby generates an artistic creativity understood as an extension and enrichment of a movement vocabulary.

On the other hand, the effectiveness of an emergence as downward causation (with regard to an “emerging framework”) is ensured by the capacity to reduce the range of possibilities thanks to collectively made choices aimed at serving the situation that is unfolding. This fosters artistic creativity again, newly understood as the creation of collective norms, and newly manifested through the emergence of a coherent unity of form and meaning among practitioners. As R. Keith Sawyer highlights regarding the “interactional framework” he theorizes: “The more complex the framework becomes, the greater the interactional power of the emergent framework, thereby reducing the range of possible actions” (our translation) ^[24] (p. 61), and in the meantime offering new possibilities for collective creativity. This new effectiveness of artistic creativity can thus give rise, in the practitioner, to a feeling of belonging to a whole that exceeds and regulates their individual actions, which also enables to examine improvisation from relational perspectives ^[34,35]. It can also give rise, in the spectator, to the perception of unified and coherent collective forms and meanings. In this regard, cognitive studies have also recently been conducted on improvisation to highlight the importance of making sense together in collective improvisation ^[36,37].

We can summarize these four differences (regarding necessity, contingency, effectiveness, and artistic creativity) between a “framework for emergence” (or an emergence as an occurrence) and an “emerging framework” (or an emergence as downward causation) in **Table 1**:

Table 1. Differences between the two forms of emergence.

Notions	A Framework for Emergence	An Emerging Framework
Necessity	External	Internal
Contingency	Relative	Kairotic
Effectiveness	Precision and openness of action guidelines	Collectively made choices in real time that reduce the range of possibilities
Artistic Creativity	Extension and enrichment of a movement vocabulary	Creation in real time of collective norms, manifesting a coherent unity of form and meaning

6. Emergence and Artistic Creativity

This study is situated within the field of research aiming to apply the notion of emergence to the humanities, and more specifically within the strand of work that applies emergence to art (see particularly, Michael J. Pearce ^[38]), and dance (see notably, Massimo ^[39]), or even improvisation ^[40,41]. This article follows our previously written paper focused on the concept of emergence in dance improvisation ^[32], and tends here, more specifically, to question the relationship between emergence and artistic creativity’s effectiveness. Finally, we would like to delve more deeply into the characteristics of this artistic creativity facilitated by these processes of emergence within dance improvisation practices.

In the first part, we remarked that creativity was linked to the enrichment of our movement vocabulary, and consequently, to the enhancement of the experience of our own body. We highlighted that this extension of our movement vocabulary can only occur through action guidelines—that is, through the external necessity of an initial framework for action (referred to as a “framework for emergence”). In this regard, as Frédéric Pouillaude asserts:

What is primarily expected from constraint is that it gives rise to an escaped movement, an involuntary product, an accident—in short, all those things (or rather, events) that cannot be produced intentionally by the subject, but instead result from the objective, albeit unpredictable, play of the framework (Our translation) ^[42] (p. 342).

Artistic creativity is therefore here intrinsically linked to the involuntary, to the subject’s (or ego’s) capacity to learn to step back from their own volitions, preferences, and habitual tendencies. In this way, we may argue that a defining feature of creativity, as it arises from this

“framework for emergence”, is its impersonal nature. The framework for action indeed operates as a depersonalizing force—with respect to our intentions, preferences, and habitual patterns ^[43]. By way of consequence, this leads to an original way of conceiving artistic creativity, since creation in art has often been understood as a matter of personality and self-expression, or as a process of creation from the self. As Henri Bergson writes, among others, there is an “indefinable resemblance [...] which one sometimes finds between the artist and his work” ^[44]. From this “indefinable resemblance” arises the possibility of generally recognizing the artist’s style through their work, in which they have, in a sense, left something of themselves. Yet in the context of improvisation, it becomes difficult to discern what stems from the self, what is generated by the framework, and what arises from others or from external influences. Hence, the frequent reference to a “diffraction of authorship”, a notion that once again underscores the depersonalizing dimension inherent in this mode of artistic creativity.

We then observed in a second phase that improvisation gives rise to a collective creativity, which becomes evident through the real-time emergence of new action guidelines and through the unfolding of a shared and meaningful coherence of forms across the practitioners’ movements. More precisely, as previously discussed, these norms emerge from collectively negotiated choices aimed at responding to the evolving demands of the situation. In other words, reaching such collective choices does not involve merely adding up individual decisions or summing individual intentions. It simply requires being attentive and willing to serve the demands of a situation in the making. Consequently, collective creativity may be conceived as an “expression of the milieu” where the “milieu” refers to the shared situation to which, for example, dancers actively co-participate ^[43]. Once again, it is worth noting that

expression is no longer psychological or personal (such as in Bergson's work): it is not a matter of externalizing what manifests internally.

7. Conclusions

In conclusion, some artists and/or theorists emphasize the ineffectiveness of improvisation, partly because it exposes itself to the risk of failure, and partly because the improviser is not intended to perform skillful feats. But we have sought throughout this article to demonstrate how the processes of emergence at play in improvisation can, on the contrary, foster the effectiveness of artistic creativity.

We have shown that this effectiveness takes on two particular meanings in dance improvisation, related to two distinct forms of emergence.

On one hand, it can be the guideline actions' effectiveness within a framework for emergence (where emergence is understood as an occurrence). The precision of these guidelines enables the disruption of our habitual patterns, while their openness leaves the "how" of the actions undetermined. This effectiveness thus fosters artistic creativity, understood as the extension and enrichment of the movement vocabulary of a dancer. On the other hand, this effectiveness can stem from choices made collectively and in real time by the improvisers, insofar as these choices reduce the range of possibilities and give rise to an emerging framework—characterized by new norms and a unity of form and meaning between practitioners. Such a unity is also perceptible by the viewers.

These considerations ultimately led us to reconceptualize artistic creativity. In improvisation, indeed, it is no longer a matter of personal creation or psychological expression. It is rather a depersonalized creativity because depersonalization is facilitated by the action guidelines of the initial framework for action. And it is also a collective creativity that takes the form of an "expression of the milieu", aiming to best serve the demands of an ongoing situation.

All these new considerations may finally enable us to distinguish between success and failure when observing and practicing an improvisation.

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Conflicts of Interest

The author declares no conflict of interest.

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