

Chapter 10

Creativity as a Dynamic, Personal, Parsimonious Process



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Abstract This entire volume is intended to challenge static conceptions of creative action and thought. The present chapter introduces a particular dynamic definition of creativity. It also explores applications of that definition, primarily for education. The definition detailed herein is only one of several, as is evidenced by the other chapters in this same volume, and it may be that there is overlap. There may also be disagreement, the exploration of which will no doubt lead to further refinements and advance in our understanding of creativity. For obvious reasons the present chapter begins with a brief summary of previous definitions of creativity. The new dynamic definition will make the most sense after this summary (also see Corazza, GE. *Creativity Research Journal*, 28:258–267 (2016)).

10.1 Introduction

This entire volume is intended to challenge static conceptions of creative action and thought. The present chapter introduces a particular dynamic definition of creativity. It also explores applications of that definition, primarily for education. The definition detailed herein is only one of several, as is evidenced by the other chapters in this same volume, and it may be that there is overlap. There may also be disagreement, the exploration of which will no doubt lead to further refinements and advance in our understanding of creativity. For obvious reasons the present chapter begins with a brief summary of previous definitions of creativity. The new dynamic definition will make the most sense after this summary (also see Corazza 2016).

This chapter also explores the idea that there is a mechanism that explains how creativity comes about. This involves the *construction of original interpretations of experience*. That idea is detailed below, as is Piaget’s idea that “to understand is to invent,” for it too emphasizes a dynamic process. This chapter also brings in an interplay of top-down and bottom-up cognitive processes and describes how that interplay

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is dynamic. It defines creativity such that discretion is involved, and that too implies a dynamic as the individual decides when to be creative and when not to be creative.

10.1.1 The Standard Definition of Creativity

The “standard definition” of creativity has been used for decades (see review by Runco and Jaeger 2012). It is most easily interpreted as static rather than dynamic. It posits that creative things must be both original and effective. The ratio of originality to effectiveness may vary in different domains or even at different phases of a creative process, but regardless, all creativity is both original and effective. The static nature of this standard definition is tied to the fact that it is usually applied to *things*. More often than not the label given to creative things is *product*, which is one of the six major perspectives on creativity. The other perspectives refer to creative personality, creative places, creative processes (Rhodes 1961), creative persuasion (Simonton 1995), and creative potential (Runco 2008). Recognizing these 6 Ps is helpful because it brings up the possibility that creativity can be understood as a process rather than a product, and processes are by definition dynamic.

Before turning from the standard definition to dynamic creative processes, it behooves us to acknowledge that originality and effectiveness are not the only criteria of creative things and creative processes. The standard definition works fairly well but is far from perfect. Indeed, a slew of alternative definitions have been published in the last 2–3 years (Acar et al. 2017; Corazza 2016; Kharkhurin 2014; Martin and Wilson 2017; Simonton 2012; Weisberg 2015), and most include criteria in addition to originality and effectiveness. One criterion that stands out is *authenticity*. This may be the most useful addition to a definition of creativity because it helps to insure that such a definition applies across cultures (Tan 2016) and it fits nicely with what the humanists said about creative expression and self-actualization. Put simply, self-actualized individuals are psychologically healthy, authentic (true to themselves, to others, and to the topic or experience at hand), and creative.

The addition of authenticity to a definition of creativity might be especially helpful because it is inherently dynamic. This is implied by much of the humanistic research, which tends to view life as a journey, a process, a developmental process. Life is a matter of growth and change, and these are of course processes, and thus to be true and authentic, changes must be acknowledged and perhaps even directed. But all we really need to do is consider the label, *self-actualization*, for any actualization is a process. For the humanists, the self-actualization process depends on authenticity and creativity (Maslow 1968; Rogers 1954).

10.2 Creativity as Dynamic Construction

The addition of authenticity to a definition of creativity is useful, but it would be even more useful to go beyond self-actualization and to bring in the cognitive contributions to creativity. It would also be useful to be able to describe what underlying

mechanisms actually explain how creative things come about. This could easily be the most important question in all of the creativity research, and any mechanism will need to be dynamic. What is it about humans that allows creativity? How are we creative? What do we inherit that provides us with the capacity to create?

These questions led to a theory that relies on a dynamic definition of creativity and which focuses on a mechanism that actually offers at least a partial explanation of the creative process. The theory has been outlined before, but earlier descriptions were primarily intended to show that creativity depends on individuals rather than social processes. Indeed, this theory was proposed in reaction to the social and attributional theories that became the norm 20 and 30 years ago (e.g., Csikzentmihalyi 1990; Kasof 1995) and are still alive and well (Glaveanu 2010). These social theories are useful because they describe how culture and *Zeitgeist* influence judgments of creativity, but they go too far and often conclude that without social recognition, there is no creativity. Elsewhere I have argued that there *is* creativity, even if the end result or product is not social recognized, and in fact even if there is no manifest product! That is a hint of the dynamic nature of personal creativity: it relegates static products and outcomes. The theory of personal creativity is a process theory with very broad implications (Runco 1995, 1996, 1997, 1999, 2003; Runco and Pina 2013).

Given that this theory started in reaction to static product and social views of creativity, it may make sense to introduce it by outlining what is misleading or even wrong with those alternative views. Just above I alluded to one thing what is wrong with static views: they are unrealistic. Life is a process, and creating is a process. Also important is that products do not tell us about the process that was used to create the product. Thus they do not help us to understand the causal mechanism underlying creation. They aren't really explanations at all. A scientific explanation must include causality, otherwise it does not really explain anything. Admittedly, the creative process may lead to a creative product, and that is one reason the creative process should be nurtured, but judgments of products often vary (Runco 1989; Runco et al. 2010, 2016; Runco and Smith 1992), an in fact some things are deemed creative at one point in time only to be deemed uncreative later! There are all kinds of reasons to recognize that creativity is a process.

Not all social views of creativity are product views, so something more should be said about the problems of social views, above and beyond problems of product views. The main problem with social views is that they over-emphasize judgments, attributions, and social reactions. Indeed, many of them go as far as to say that, without social recognition, there is no creativity (Csikzentmihalyi 1990; Glaveanu 2010; Kasof 1995). The fact of matter is that social recognition is distinct from creativity. It is extricable from it—and should be extricated because that is how the creative process works. Attributions follow the creation and are not required for the actual creation. Simplifying, a creative process occurs, and sometimes it results in an outcome that is judged as creative. There are at least two steps—creation and social recognition—and the first step can happen without the second. Just as important, the second step does not help in any way to explain the first. Including social recognition in a definition of creativity is therefore quite misleading. It conflates creation with social recognition. This is especially disconcerting given the scientific need for parsimony (Runco 2010).

So the creative process does not depend on social attributions and is therefore personal. In addition, the personal processes offer a parsimonious view of creativity and describe a mechanism that may explain how creativity comes about. What is required for personal creativity? Three things, the first being the *construction of original interpretations of experience* mentioned briefly earlier. This is how original ideas, insights, and ideas come about. The term *interpretations* is used because so much is known about how the human mind uses both top-down (conceptual) and bottom-up (data-driven) processes such that the individual constructs a meaningful understanding. And it is a construction; it is not just a snapshot of what is experienced. That would be all bottom-up, but instead the individual brings something to the construction of interpretations. It is in precisely this fashion that creativity is dynamic. There is a kind of interplay between the individual and his or her experience. Interpretations are always original, at least for the individual him- or herself, and we do not construct meaning in a random fashion—or it would not be meaningful! The fact that it is meaningful indicates that it is effective, though again, it might be only for the individual him- or herself.

One highly attractive feature of the theory of personal creativity is that interpretations, and thus the creation of meaningful interpretations, rely on a mechanism that is possessed by each of us. Children have the capacity for interpretation, older adults have it, individuals in all domains (e.g., art, mathematics, music, athletics, dance, design) have it. Dynamic creativity is a part of what it means to be human. It results from the deployment of cognitive capacities we all possess.

Personal creativity also involves *intentions*. A person is creative if his or her meaningful and original interpretations result from effort; they are not serendipitous. Creative breakthroughs do sometimes occur by chance or accident, but including serendipity would probably lead to a mechanism that does not apply broadly. The process does also require *discretion*. In this context discretion refers to knowing when to invest in creativity, or when to construct original interpretations, and when instead to rely on memory, habit, tradition, or assumption. Life requires this kind of discretion because, although the creation of original ideas is frequently useful, it is always necessary, and in fact is sometimes inefficient or wasteful. Sometimes it is best to save one's resources for creative opportunities and to *satisfice*, which means to invest minimal effort. Assumptions, habits, and routines are sometimes very useful; they allow us to process information quickly when effortful processing would be a waste.

Then there is the fact that we are social animals (Aronson 1980). We need to get along, at least some of the time, and maybe most of the time! This in turn requires conformity or at least compliance to conventions. You might look at it this way: what kind of students and employees and citizens do we want? I suggest the ideal is to support people who retain the capacity for originality and creativity, but at the same time can get along with others. They know when to invest in new ideas and when to conform. That depends on discretion.

Discretion may sound a bit like the judgments that were criticized above, as part of the social recognition that is too often glued to creativity when it should be extricated. Actually, discretion is dynamic, at least in the sense that it is a process. The

creative person exercises discretion in that he or she recognizes that one context lends itself to creativity, while a different context, encountered another time, does not, and indeed each context in which the person finds him- or herself is judged as right for creativity or not. That is a dynamic process, as the person moves from context and setting to context and setting.

One important implication of this view of creativity as interpretive follows from Piaget's (1976) theory of cognition and invention. He used the label *assimilation* to describe how an individual processes information and, in order to grasp it, actually alters it to understand it. He gave examples such as a child calling a dog a cat because both share four legs and live around people. This child's cognitive structures are apparently limited, probably because of experience (e.g., the family owns a cat but not a dog), and the child is not sure what to call the dog, but since it has four legs and two ears and is around the house, well, close enough, it's a cat. The information about the dog is forced into the schema for a cat. In doing so the child ignores the woof and many other features of the concept of "dog," and does so in order to process the information. Assimilation is enormously useful because it allows new information to be processed, even if not fully understood, and does so by altering what is processed. It is quite dynamic, and the Piagetian way to describe the initial stages of the construction of new knowledge, new schema, new understandings. Of relevance is the title of Piaget's (1976) monograph on this topic, namely "to understand is to invent." To my reading he may have used the word "create" instead of "invent." As was proposed earlier in this chapter, people create by constructing—or "inventing," or "creating"—meaning.

One reason I bring in the Piagetian view is because he also argued that true development requires assimilation and the invention of new understandings. For Piaget, if the person does not go through the adaptive process (which begins with assimilation), there is no real development. The person can memorize something, but that is not the same as understanding. Thus Piaget ties the invention of knowledge to development, and if I am correct that the same process helps us to understand creativity, it follows that creativity is required for development. I am using the word "development" here instead of "learning" because Piaget and others felt there were differences between and among growth, development, and learning; but in essence the idea here is that creativity is required for intellectual growth. The important point is that education must focus on personal creativity or students will not really learn (Runco 2003). They may memorize, but that won't serve them well when they leave school and are faced with the natural environment and ill-defined problems. Creativity is what is needed in the natural environment.

10.3 Implications and Clarifications

Several points need to be examined further. First is the idea that social recognition can be extricated from actual creativity. This does not mean that socially recognized creativity requires a different process from that described as personal creativity.

There is creativity that is only personal, but there is also socially recognized creativity. The difference? The former may not lead to a product and may not be observed and judged by any audience whatsoever. It may be creative and meaningful, but only for the individual. Of great significance is that socially recognized creativity also starts with the same process, the construction of an original interpretation, but it may lead to something that is shared and socially recognized. So *personal creativity and socially recognized creativity both start with and depend on the same constructive process*. The difference is that the latter goes further such that something is shared and attributed with creativity by an audience. That “something further” is not required for creativity, however, and it is not a part of the explanatory mechanism (i.e., the construction). Indeed, we should see creativity as one thing and attributions and recognition as other (social) things.

That being said, audiences can be creative when they attribute meaning to a product or person. This follows from the fact that they experience the result of the personal creative process (e.g., they may hear a new song that one individual composed) and they construct their own personal interpretations of it. That process may very well be the same as that used by the songwriter! It may be a construction of meaning, in this case the meaning of the song. Hence creators may construct new meaning, and audiences may experience that creation and construct their own creative interpretations of it. They may not do this; they could just listen to others in the audience and conform or agree. But they may actively construct their own interpretations, in which case they are also being creative, just as the songwriter or original creator was creative.

Indeed, all kinds of interesting questions arise, once the creativity of the audience is recognized. Consider, for example, that something may be creative that is meaningful in one (personal) way to the creator but is meaningful in another (creative) way to the audience—but their interpretations may differ! This difference has been debated for some time. Literary critics, for example, have debated “the text” for years, the idea being that all a critic needs to judge is the written product—the text—and he or she can formulate his or her own meaningful judgment. But others believe that, to judge a creation, be it textual or otherwise, judges should take into account the creator’s view and situation. The theory outlined herein implies that judges should be free to create their own meanings and may ignore the creator, but here I merely wish to acknowledge the debate as an example of how both creators and audience may be creative and yet disagree with one another.

10.4 Conclusions

Admittedly this chapter describes only one view of how creativity involves a process and is dynamic. Then again, note the different ways that creativity is dynamic, given the personal and constructive view outlined here. Creative ideas and insights result from an interplay of bottom-up and top-down processes, for example, which is a dynamic interplay. In addition, discretion is required or the person would be

blindly original but not necessarily creative, and such discretion means that the individual is actively deciding about when to be creative and when not to be creative—another dynamic aspect of the creative process. I leave it to the other contributors to this volume to explore other aspects of a dynamic creativity. I myself will be satisfied if we recognize that products tell us little about the underlying process, and thus lack explanatory power; and that to understand the *how* people create, we must look to processes.

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