**Uncorrected Proof**

**Key Take-Aways**

- Creativity is somewhat paradoxical.
- One way to think about creativity is a blend between originality and conformity to task constraints.
- The level of originality and conformity to task constraints necessary for creativity varies depending on the specific context.
How might we think about the relationship between creativity and conformity? A common way is to view them as opposites. Conformity refers to thinking and acting in expected, accepted, and conventional ways. Few things could seem further from creativity. Indeed, creativity is often associated with “thinking outside the box” and new ways of thought and action. In fact, if you were to perform a quick Internet search on the terms creativity and conformity, you likely would find commentaries that describe the perils of conformity and how it can stifle or even kill creativity. Although the idea that conformity can stifle creativity seems clear, the actual relationship between creativity and conformity is not as straightforward as it may initially seem. In fact, conformity and creativity have a closer relationship than most people realize.

How might two seemingly opposing concepts be related? Creativity researchers have noted that many creative breakthroughs have come from the combination of opposites. Rothenberg (1996) called this “Janusian thinking” after the Roman god Janus, who simultaneously gazes in opposing directions (e.g., past and future). An example is Einstein’s revolutionary ideas about gravity. Specifically, Einstein recognized that a person falling is simultaneously experiencing the opposing states of being at rest and in motion, which resulted in “a new conception of gravity in the general theory of relativity” (Rothenberg, 2014, p. 37).

A fascinating result of blending opposites is that it can lead to outcomes that have emergent properties. Emergent properties represent new features that are not true of the initial concepts that have been combined (Sawyer, 2012). An example is the concept of “frenemy,” which combines the opposites of friend and enemy. A frenemy has properties that are different from both friends and enemies. It thereby represents a new and meaningful category that we can use to describe the relationships we have with certain people in our lives who are neither friends nor enemies. As these examples illustrate, creativity can emerge from the combination of seemingly opposing elements. The purpose of this Hot Topic is to explore the paradoxical relationship between creativity and conformity by explaining how creativity can emerge from the combination of originality and conformity.

**Originality and Conformity**

It is true that a simple act of conformity (e.g., complying with existing rules, expectations, and standards) can hardly be called creative. New products, ideas, and behaviors must demonstrate some level of originality to be deemed creative (Plucker, Beghetto, & Dow, 2004; Runco, 2003). Indeed, that is why we have patent laws. It is also true, however, that an act of originality is not
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necessarily creative. Writing a love sonnet about the beauty of gravity instead of solving a problem on a physics exam is original, but not creative in the context of the physics exam. Creativity is more than originality (Feist, 1998; Runco, 2003). Creativity requires that original expression is also meaningful in the context of the particular task, problem, or situation (Beghetto, 2013; Dow, this volume; Kaufman & Beghetto, 2009; Plucker et al. 2004). In this way, creativity can be thought of as a blend of originality and conformity. At first blush, this may seem impossible or at least incorrect.

How might creativity result from the blending of conformity and originality? The idea of creativity requiring originality is rather straightforward. In fact, creativity and originality are often viewed as synonyms. Creativity researchers, however, tend to differentiate between originality and creativity. As alluded to earlier, creativity scholars view originality as a necessary but insufficient aspect of creativity. One way to think of creativity is constrained originality. This means that originality is constrained by the need to meet task constraints, to be meaningful, and to be useful. Put simply, an original solution to a complex problem would be meaningless if it was impossible to carry out. There are always constraints placed on creativity (Sternberg & Kaufman, 2010). As such, creativity requires a certain level of conformity to the constraints of a situation, problem, or context. A poem, no matter how original, must meet the conventions of Haiku poetry to be considered a creative Haiku poem. A new approach to solving a math problem must be mathematically accurate in order to be considered a creative solution to the problem. A wildly original idea for fixing a leaky roof (e.g., cover the leak with peanut butter) cannot be considered creative if it is ultimately useless in the long run.

In this way, the assertion that creativity is a blend of originality and conformity is not as puzzling as it may first seem. In fact, this assertion aligns quite nicely with the definition that creativity researchers generally agree on: *Creativity is the combination of originality, novelty, or newness and usefulness, meaningfulness, value, or meeting task constraints as defined within a particular context* (Beghetto, 2013; Plucker et al., 2004). As this definition suggests, creativity requires that original expressions of thought and action conform to some criteria—be it usefulness, meaningfulness, value, or meets tasks constraints—in order for it to be considered creative. In can therefore be said that creativity requires conformity to help ensure that the new and original idea, behavior, or action is meaningful for the task at hand. This is not to say that all forms of creative expression require the same level of conformity.

A painting you make for yourself need not conform to the aesthetic standards of a professional artist to be considered creative. You can still considerer your painting creative as long as it conforms to your own subjective sense of beauty (see Beghetto & Kaufman, 2007). For others to consider it creative,
however, it must conform to the standards set by your audience (Glăveanu, 2013; Kaufman & Beghetto, 2009). In this way, creativity can be thought of as a blending of conformity and originality as determined by the particular situation or context—including your own subjective experience. This more nuanced view of creativity moves us away from pitting creativity and conformity as opposites and, instead, allows us to think about the various ways that conformity and originality can come together as a creative outcome. One way to do this is to think about conformity and originality along a continuum (see Figure HT6.1).

As illustrated in Figure HT6.1, on one end of the continuum is conformity, and on the other end is originality. Toward the middle is a blend of conformity and originality. The shaded grey area can be thought of as the region in which conformity and originality combine in the form of creativity. In some cases, there is a bit more conformity blended with a bit less originality (e.g., developing a novel approach to solving a mathematical problem). In other cases, there might be more originality blended with conformity (e.g., coming up with an interpretive dance to convey emotion). Still in other cases, there may be somewhat equal blends of originality and conformity (e.g., a short story published in a popular science fiction magazine). In all such cases, however, there is a blending of originality and conformity as determined by the various conditions of the situation or task.

Context Matters

The various conditions under which creativity can emerge from originality and conformity underscore the importance of context (Kaufman & Beghetto, 2013; Plucker et al., 2004). In schools, for instance, creative behaviors can easily be labeled “misbehaviors.” Indeed, researchers have noted that teachers often view creativity as a desired trait in theory, but not in practice. As Runco (2007) explained, “no doubt [teachers] do respect creativity, in the abstract, but not when faced with a classroom with 30 energetic children!” (p. 178). Other researchers have highlighted how teachers tend to view creative students in a negative light (Scott, 1999; Westby & Dawson, 1995). One way of interpreting this situation would be to assume that teachers hold a negative view of creative expression in their classroom. An alternative interpretation would be that its not that teachers dislike creativity in their classroom, but rather they do not like it when students are unable to know when and when not to be creative (Kaufman, Beghetto, & Watson, 2015). In other words, teachers likely want their students to learn how to strike a balance between originality and conformity so as to develop real-world creativity, rather than demonstrate originality
for originality’s sake, which often results in unnecessary disruptions and can actually stifle creativity.

An example may help clarify. Consider a student who chooses to write poems about the beauty of science in her “observation log” instead of adhering to her teacher’s instructions to record and scientifically interpret observational data. Even if her poetry might otherwise be considered creative in another context (e.g., language arts class), it is understandable how a teacher might be frustrated with a student who fails to meet the task constraints of the science assignment. The issue here is not that the student is misbehaving. Rather, the problem is that the student’s creativity is misplaced. If, for instance, the student was redirected to share her poetry in her language arts class, then that would be the appropriate time and place for that form of creative expression. Moreover, the teacher might also encourage the student to demonstrate her creativity in science by providing novel and scientifically justified interpretations of the observational data collected. If the student is able to learn the appropriate time and place for creative expression, then most teachers would likely welcome student creativity.

Accomplished creators therefore know how to “read the situation” and determine when it is appropriate and feasible to express their creativity. This knowledge is called creative metacognition and has been defined as a “combination of creative self-knowledge (knowing one’s own creative strengths and limitations, both within a domain and as a general trait) and contextual knowledge (knowing when, where, how, and why to be creative)” (Kaufman & Beghetto, 2013, p. 160). Developing the requisite self-knowledge and contextual knowledge for high levels of creative accomplishment takes time. Researchers (e.g., Ericsson, 1996) estimate an average of 10 years (or 10,000 hours) of deliberate practice to develop the knowledge necessary for creative achievement. Put simply, accomplished creators have developed the knowledge and experience
necessary to determine whether they are capable of being creative and whether it makes sense to try to be creative in a particular situation.

As mentioned, knowing how to strike the right balance between originality and conformity will vary across particular domains (e.g., poetry, science, mathematics, digital arts) and subdomains (e.g., sonnet, Haiku, free verse poetry, slam poetry). The balance will also vary by level of creative accomplishment. Creative thoughts and actions that are focused more on subjective experiences (and not evaluated by others) may require both lower levels of originality and lower levels of conformity than those that are being evaluated or judged by experts (see discussion of 4-C model of creativity in Beghetto & Kaufman, this volume). Other factors, including everything from temporary personal factors (e.g., your mood) to more stable and global factors (e.g., cultural norms and historical time periods) can also play a role in influencing your ability to strike the right balance between originality and conformity. The key take-away is that there are no easy or fixed recipes for creativity. The level of originality and conformity necessary for creative expression will vary depending on the particular task and sociocultural and historical context—and creators may not know the proper balance until they are within those particular contexts.

Creativity In and Outside the Box

In closing, it may be worthwhile to return to the slogan “think outside the box” and briefly discuss why it is somewhat problematic when it comes to understanding creativity in practice. The problem with this slogan is that it refers only to the originality necessary for creativity and abandons the requirement of conforming to situational or task constraints. A more accurate slogan might therefore be: “Think originally inside the box” (Beghetto, 2016). The criteria of meaningfulness, value, and usefulness represent the constraints of the box. Working originally within such constraints is the hallmark of creative thought and action. Unless you are able to conform to those constraints, your efforts will not be considered creative. Creativity therefore has an evaluative or verification component (Wallas, 1926). Creativity is not simply about imagining new alternatives—those alternatives must be put into action and tested against real-world constraints. In some cases, these tests can be thought experiments (e.g., tested against the constraints of logic); in other cases they will be tested in the material world (e.g., can I actually sit on this new type of chair?).

Thinking originally inside the box does not preclude building a new box. Creative breakthroughs often result from recognizing that former constraints are no longer viable in light of new ideas (e.g., Einstein’s theory of relativity). In such cases, new boxes (i.e., new criteria) are established. Creativity that results
in the development of a new box, however, still emerges from conforming to the criteria of value, meaningfulness, usefulness, or beauty (e.g., it is more meaningful to view some phenomenon from a new theory than the previously held theory; a new style of painting is recognized as having aesthetic value by art critics and fellow painters).

In sum, the slogan “think outside the box” encourages people to avoid conformity and, instead, focus on originality. This slogan is not completely empty. Given that most people are risk averse (Mumford, Blair, Dailey, Leritz, & Osburn, 2006), being able to take the risks necessary to generate new thoughts and actions is something many of us can improve upon. Moreover, there really is no such thing as a completely constraint-free situation. As such, our efforts to be original will always be constrained by some set of factors. The key issue here is learning how to strike the right balance.

It is true that too much conformity can suppress creativity and, in many situations, we probably tend to underestimate the amount of freedom we have available to put our own unique twist on routine ways of thinking and acting. At the same time, too much originality can overshadow creativity and, somewhat ironically, result in conforming to the status quo by default. This can happen when we ignore real-world constraints, and thereby people fail to see the relevance of our ideas or our ideas lack feasibility for the particular circumstances. Fortunately, once we are able to recognize that creativity can result from an appropriate blend of originality and conformity, we will be in a better position to work toward establishing that blend and not give up so quickly when we face setbacks. In some cases, this will require working harder to make sure our ideas and actions conform to existing task constraints. In other cases, it will require being willing to take the risks necessary to try out new ways of thinking and acting.

**Recommended Readings**


## References


