

Finding Meaning With Creativity in the Past, Present, and Future

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Abstract

Being creative is considered a desirable trait, yet most empirical studies emphasize how to increase creativity rather than explore its possible benefits. A natural connection is how creativity can enhance life's meaning. Many of the core concepts in work on the meaning of life, such as the needs for coherence, significance, and purpose or the desire for symbolic immortality, can be reached through creative activity. The synthesis of these two constructs—creativity and the meaning of life—is discussed with a temporal model encompassing past, present, and future pathways to creativity. The past pathway can help one understand and reflect on life. The present pathway can remind one of life's joy and the many possible connections with humanity. Finally, the future pathway strives to ensure some type of legacy that may resonate with younger generations.

Keywords

creativity, meaning of life, wisdom, purpose, happiness

Creativity is often viewed and studied as an end goal. Traditionally defined as the production of something both new and useful (Plucker, Beghetto, & Dow, 2004), creativity is used in most empirical studies as a dependent variable. As a result, such investigations are often aimed at understanding how people can become more creative. The focus might be on establishing a nurturing organizational (Hunter, Cushenbery, & Freidrich, 2012) or educational (Beghetto, Kaufman, & Baer, 2014) environment. Other questions may concern how personality (Feist, 1998; Feist, Reiter-Palmon, & Kaufman, 2017), motivation (Hennessey, 2015), or intelligence (Kaufman & Plucker, 2011) are associated with higher creativity. Still other approaches may study the stages through which one might improve in the creative process (Reiter-Palmon & Robinson, 2009).

Such work is invaluable. Yet if creativity is seen as an independent variable (Forgeard & Kaufman, 2016), then another approach is also possible: understanding how creativity can help people achieve desired outcomes. There are many existing pockets of outstanding research along these lines. Some emphasize creativity's role in fighting trauma (e.g., Forgeard, 2013; Forgeard, Mecklenburg, Lacasse, & Jayawickreme, 2014) or increased sexual appeal (Lange & Euler, 2014; S. B. Kaufman et al., 2016) or its potential role in increasing

equity in gifted and college admissions (Kaufman, 2010, 2015; Luria, O'Brien, & Kaufman, 2016). In addition, many creativity theories emphasize potential positive outcomes, both across one's life span (Kaufman & Beghetto, 2009) or, with evolution, multiple life spans (Gabora & Kauffman, 2016).

Creativity can help someone achieve numerous other positive outcomes. Although creative genius has been linked to mental-health issues (e.g., Kaufman, 2014), everyday creative people are less stressed, happier, more successful, and more satisfied with their jobs (for a review of this literature, see Kaufman, 2016). One understudied area is how creativity can support what may be considered the ultimate variable: finding meaning in one's life. To reach this conclusion, I first outline the benefits associated with creativity. Drawing from the fields of humanism, positive psychology, and wisdom, I then briefly highlight both classic and current conceptions of meaning and the small amount of work conducted on creativity and meaning making. Finally,

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I offer my own model of how creativity can be used to help people find life's meaning.

Creativity and Humanism

Within the creativity research literature, there are streams of articles that explore creativity's potential dark side (Cropley, Kaufman, & Cropley, 2008) or highlight how different components of creativity can best be combined for maximal impact (Gabora & Tseng, 2017). On a more general level, creativity is traditionally seen as a beneficial, positive attribute. Early humanists included creativity in many of their theories. The peak of Abraham Maslow's (1943) hierarchy of needs, self-actualization, focuses on achieving one's full potential; being creative is one pathway. Carl Rogers (1961) includes creativity as one of seven traits of a fully functioning person (and other traits, such as openness to experience and freedom of choice, are related to creativity). Fredrickson (1998), in a detailed analysis of positive emotions, proposed a "broaden and build" theory. She suggested that positive emotions enhance people's cognitive, social, and physical resources; creativity is specifically highlighted as an ability increased with positive emotions. The connection between creativity and identity development continues to be explored today (see essays in Karwowski & Kaufman, 2017).

Of course, creativity is not the only way to reach this type of self-transcendence; wisdom is also considered a pathway (Levenson, Jennings, Aldwin, & Shiraishi, 2005). As Koltko-Rivera (2006) notes, wisdom and creativity work together toward transcendence in theories from Maslow (1969) to Sternberg (1998). It is also important to note that both Sternberg's balance theory of wisdom (2001) and subsequent wisdom, intelligence, and creativity synthesized (WICS) model (Sternberg, 2007) place a high value on creativity. Wisdom and creativity can work together to help people reach their potential.

Rollo May's (1975/1994) *The Courage to Create* also advances the position that creative expression represents a pinnacle of life. Being creative is not easy, May argues; it requires challenging the others' beliefs and, at times, one's own beliefs. These ideas continue to be important concepts in the creativity literature (Sternberg, 2018). A recurring theme in the theoretical and philosophical approaches of such giants as Jung, May, Maslow, and Rogers is that the development of one's identity and discovery of the self can be considered a creative act in itself.

Creativity and Positive Psychology

Humanism has been surpassed in popularity by positive psychology in recent years, but creativity continues to

play a significant role in both. If humanism emphasizes the processes of creativity and how they can lead to personal growth and development, positive psychology sees creativity as a core character strength (Peterson & Seligman, 2004). Positive psychology has an outcome-oriented, individualistic view of creativity (Bacon, 2005) as a strength primarily to the extent it can be used to produce good results and increase well-being (Seligman & Csikszentmihalyi, 2000).

Both humanism and positive psychology value creativity and include it in their broad pantheons of desirable attributes. Yet their primary emphasis lies elsewhere. Humanism aims for self-actualization; positive psychology focuses on well-being. Creativity is but one of many similar strengths that both areas value, along with the aforementioned wisdom, as well as happiness, emotional intelligence, self-identity, altruism, and self-discovery. As positive psychology has evolved, meaning has become more important, whereas creativity is less of a central tenet (Seligman, 2012). For example, humanism might emphasize how young psychology professors' creativity could help them develop as scholars and human beings. Their creativity will lead to new insights about their work and themselves. Positive psychology would be more likely to emphasize how the same young psychology professors could use their creativity to conduct better studies with broader scopes, so that their work could help the most people possible.

It is worth noting that positive psychology's reduced emphasis on creativity may be related to Bacon's (2005) distinction between balance strengths and focus strengths. Balance strengths, he proposed, are aimed at harmony and integration. His prototypical balance strength is wisdom; other examples include kindness and fairness. Focus strengths, in contrast, are more individualistic. They aim for personal achievement, potentially at the expense of others. Bacon includes examples of leadership and intelligence, but the featured focus strength is creativity. As positive psychology has shifted to emphasize constructs that improve the greater world, balance strengths are emphasized at the expense of focus strengths.

Creativity and Meaning

Given that creativity is clearly encompassed by humanism and positive psychology yet is not a focal point of either, might another approach place creativity in a more central role? I argue that one of the most natural and reciprocal relationships is between creativity and meaning. This idea is, of course, an old one. Indeed, it predates modern creativity research (Guilford, 1950), modern humanistic psychology (Rogers, 1951), and positive psychology (Seligman & Csikszentmihalyi,

2000). Viktor Frankl (1946/2006) survived Auschwitz's atrocities and developed logotherapy. This theory of psychological analysis revolved around the idea that the most important component of leading a fulfilled life is achieving meaning. Frankl described three ways of finding meaning. The first comes with creating a work or doing an activity. The second comes via an experience or by connecting with someone. The third, and direst, path is in the manner in which people face inevitable suffering.

Most people, or at least those who are Western, educated, industrialized, rich, and democratic (WEIRD; Henrich, Heine, & Norenzayan, 2010), have the luxury of not having to endure daily torment. As a result, the first two tenets of logotherapy (Frankl, 1946/2006) have continued to receive the most attention. Meaning might be achieved through personal relationships with family or friends or by doing exciting, enlightening, or noble deeds (e.g., Seligman, 2012). Creativity represents another way of finding meaning in life. It could be in the form of its own activity (such as tinkering to build a new project or engaging in an artistic endeavor) or by using creativity in one's personal relationships or as one embarks on adventurous actions. For example, helping other people may be a way to attain meaning; moreover, it is possible to help people and use creativity as part of the process (Forgeard & Mecklenburg, 2013).

In the seven decades since Frankl's (1946/2006) seminal work, research and theories on meaning have continued to progress. Meaning is not its own field or school such as humanism or positive psychology. It is, rather, a focus that can be studied alongside other related topics, such as wisdom, or under the guise of several different perspectives (also including social psychology, clinical psychology, cultural psychology, psychiatry, and organizational psychology). In many ways, the study of meaning is comparable with the study of creativity, a universal construct about which different disciplines can offer their own unique insights. As scholarship about meaning has expanded, so too have the many possible ways it can be interwoven with creativity (Amabile & Pratt, 2016; Forgeard & Kaufman, 2016).

Creativity's Role in Meaning

Frankl's (1946/2006) idea of finding meaning through facing suffering holds less of a prominent role in current theory. His other two pathways (creating or doing something and interacting with a person or experience) have been subsumed into larger concepts. After much study and discussion, three broad components of "meaning-making" are usually considered: coherence, purpose, and significance (King, Heintzelman, & Ward,

2016; King, Hicks, Krull, & Del Gaiso, 2006; Martela & Steger, 2016).

As these three facets are explored, it is important to highlight their similarity to ongoing work in wisdom. Grossmann (2017) points to both theoretical and empirical studies that connect wisdom with positive well-being. Baltes and Staudinger (2000) discuss wisdom as a way of mastering the fundamental pragmatics of life: learning about and making decisions about what constitutes a "good life." Their concepts of life management, review, and planning are comparable with Martela and Steger's (2016) significance, coherence, and purpose. The concept of wisdom itself incorporates cognition, reflection, and affect (Ardelt, 1997, 2003). There are many ways to achieve these pinnacles, but these ways do include being creative (Staudinger, Lopez, & Baltes, 1997).

In general, the construct of wisdom embraces creativity more than do current perspectives on meaning (e.g., Sternberg, 2007), even if this connection is less present in laypeople (Sternberg, 1985). A large empirical study found that workers who were wiser not only performed better on a creative task but also showed lower stress levels (Avey, Luthans, Hannah, Sweetman & Peterson, 2012). Likewise, Craft (2006) has pointed to wisdom and creativity's interconnected role in the classroom.

Even when wisdom is not directly related to creativity, there are still indirect connections. For example, several theories of wisdom encompass creativity-related constructs. Most notable is openness to experience (Bangen, Meeks, & Jeste, 2013), which has been tied to both creative and wise people (Helson & Srivastava, 2002). Other constructs include insight (Vervaeke & Ferraro, 2013), not resisting change, and accepting other people's opinions (Grossmann, 2017; Grossmann et al., 2010). The latter is often called *perspective taking* in the creativity literature (Glăveanu, 2015).

Coherence, Purpose, and Significance

Turning back to the meaning literature, Martela and Steger (2016) offer excellent summaries of the three core facets. *Coherence* (sometimes called continuity; see Landau, 2018) involves both understanding and comprehension. It is making sense of one's life. Although it is cognition based, it is more comparable with wisdom's concept of reflection, given the latter's emphasis on objectivity and insight (Ardelt, 2003). Higher levels of coherence are often associated with positive health outcomes, such as reduced distress in patients with cancer (Winger, Adams, & Mosher, 2016) more posttraumatic growth in older adults (López, Camilli, & Noriega, 2015), and safer driving habits in

teenagers (Taubman–Ben-Ari, 2014). In an interesting conceptualization of coherence, researchers had participants responding to either coherent or incoherent patterns in photographs of nature (shown as corresponding to seasonal patterns or being out of order) and words (regular or scrambled). Those exposed to the coherent stimuli reported higher levels of self-reported meaning than the group shown incoherent stimuli (Heintzelman, Trent, & King, 2013).

Purpose is rooted in motivation; it refers to having specific goals for the future. Although not perfectly analogous, purpose is comparable with wisdom's cognitive dimension and how one seeks deeper understanding of both knowledge and life (Ardelt, 2003). Higher levels of purpose are associated with a wide array of positive outcomes, from healthy parental relationships (Hill, Burrow, & Sumner, 2016) to higher net worth (Hill, Turiano, Mroczek, & Burrow, 2016). The psychological benefits include helping people age well (Windsor, Curtis, & Luszcz, 2015) and cope better with anxiety (Kashdan & McKnight, 2013). Purpose is such a key component of meaning that the two constructs are often conflated (Hill, Burrow, Sumner, & Young, 2015).

Significance (sometimes called value; see Landau, 2018) refers to whether one's life has value and is worth living. It is comparable with the Greek concept of eudaemonia and can be contrasted to hedonia, which comes from pleasure and positive emotions (Disabato, Goodman, Kashdan, Short, & Jarden, 2016; Tov & Lee, 2016). Likewise, Seligman (2002) distinguishes a pleasant life (akin to hedonia), a good life (using one's strengths and virtues to enrich one's life), and the eudaemonic idea of a meaningful life. All represent pathways to well-being. Wisdom's affective dimension would contribute to higher feelings of significance given its association with interpersonal connections.

In thinking about how these concepts might apply to a young academic, consider how a researcher would want to achieve all three facets of meaning throughout his or her career. Coherence might play a key role at several points in time. In the successful defense of a dissertation, the researcher has demonstrated mastery of a small area. As he or she continues to develop, a need for coherence could manifest itself by a desire to understand his or her primary topic at a very deep level, finding areas to further reflect on or explore. The need for purpose will help a young scholar keep pushing in the wake of criticism or doubts. As he or she evolves as an academic, purpose may either be more external (wanting to publish in better journals or obtain more funding) or internal (feeling like a true expert on a topic). Finally, significance can drive the choice of a topic with real-world importance or, later in his or her career, to find value in mentoring students and sharing knowledge with others.

It is important to note that the early humanists, and Frankl (1946/2006) himself, placed creativity in a central role for achieving meaning. However, recent theoretical and empirical work has pushed creativity to the background. This development is not only unfortunate but also unnecessary; as I discuss, creativity can provide direct pathways to coherence, purpose, and significance. Creativity-related concepts, such as the use of metaphors, have been suggested as potential pathways (Landau, 2018), but empirical investigations have focused primarily elsewhere, such as Martela, Ryan, and Steger's (2018) study of how autonomy, competence, relatedness, and beneficence (the belief that one has a positive effect on others) all significantly predicted self-reported meaning of life.

Terror-Management Theory and Meaning-Making Model

Creativity plays a larger role in two recent theories that offer different perspectives on meaning: terror-management theory (TMT; Greenberg et al., 1990; Greenberg, Solomon, & Pyszczynski, 1997) and the meaning-making model (MMM; Heine, Proulx, & Vohs, 2006). TMT is an expansion of Becker's (1973) ideas and emphasizes the need to feel part of a cultural worldview; this need strengthens when people are reminded of the inevitability of their own deaths (also called *mortality salience*). In contrast, MMM builds off of Lifton's (1979) work and suggests that people inherently make meaning. When it is threatened in one area, people will seek meaning in an alternate area to regain equilibrium.

Each theory has its own relationship with the construct of creativity. For example, TMT's emphasis on seeking people with similar views when faced with mortality salience would seem to specifically decrease creativity. Creativity is often an individual pursuit (particularly in Western cultures; Niu & Kaufman, 2013) and can interfere with long-term relationships (Campbell & Kaufman, 2017). People confronted with thoughts of death are likely to seek out some type of symbolic immortality—a way of living on after their deaths. According to TMT, they are therefore more likely to seek symbolic immortality by engaging with others rather than by being creative (Arndt, Greenberg, Solomon, Pyszczynski, & Schimel, 1999). Creativity increases upon being primed for mortality salience only if the act itself is focused on community (Routledge, Arndt, Vess, & Sheldon, 2008) or related to leaving a legacy (Sligte, Nijstad, & De Dreu, 2013). It is also notable that people with a low need for structure (which has been associated with creativity; De Jonge, Rietzschel, & Van Yperen, 2018) are less likely to be successfully primed to think about mortality salience itself (Routledge & Juhl, 2012),

as are those people who reported specific evidence of creative accomplishment (Perach & Wisman, 2016).

MMM recognizes the importance of symbolic immortality but also includes three equally important needs: self-esteem, affiliation (a sense of belonging), and certainty (a feeling that one understands the world). If there is a threat to any of these needs, a person may seek to balance the scales. This attempt may occur within a particular need; imagine someone who has gotten divorced seeking out old friends (i.e., seeking affiliation needs). It may also happen across needs; think of that same person becoming more religious (symbolic-immortality needs) or reciting daily affirmations (self-esteem needs). This act of balancing across needs is called *fluid compensation* (Heine et al., 2006).

Creativity has been linked to self-esteem (Beghetto, 2006; Kaufman & Beghetto, 2013), affiliation (Pearce, 2017), and certainty (Watts, Steele, & Song, 2017). Yet if one returns to Lifton's (1979, 2011) original work, the most natural need that can benefit from creativity is symbolic immortality. Like Frankl, Lifton was interested in analyzing what enabled people to survive atrocities ranging from Hiroshima to prisoner-of-war camps. According to his experiences and observations, symbolic immortality could be reached in five ways: (a) continuing one's lineage by having children; (b) embracing the vastness of the universe and the idea that one's physical matter will always exist; (c) placing one's faith in spirituality, religion, or a higher power; (d) believing that one's creativity, work, and mentorship will leave a legacy; and (e) experiencing life to its fullest and engaging in optimal, peak experiences.

Of these five modes, creativity is explicitly mentioned in one (leaving a legacy) but is also related to others. For example, optimal, peak experiences, sometimes called *flow* (Csikszentmihalyi, 1990, 1996), are often centered around creativity. Sometimes flow occurs in the midst of actually being creative, such as writing a scientific article or painting a picture. It can also happen while one is engaged in the arts (such as playing a challenging piece on the piano) or physical activity (from sports to dance), both of which are considered potential domains for creativity (e.g., Kaufman, Glăveanu, & Baer, 2017). A third mode, continuing one's lineage with children, speaks to biological evolution. Gabora and Steel (2017) suggest that when early hominins evolved into *Homo erectus* and developed the capacity to create mental representations of concepts, a comparable cultural evolution became possible. A person may make a creative contribution that becomes part of future iterations of the species. Such a creative act may go beyond the need for a legacy and equally fulfill the need to pass on one's lineage; in this

situation, however, ideas or work is passed down to future generations instead of genetic material.

Current Creativity Theory and Meaning

How creativity can help improve finding meaning in one's work has already been examined in the organizational research literature. Broad factors that influence meaningful work include such variables as the goodness of fit with one's work role, the significance with which work tasks are viewed, and the belief that one's work climate is prosocial, moral, and helps other people (Schnell, Höge, & Pollet, 2013). Lepisto and Pratt (2017) synthesized the literature to propose two models of meaningful work: realization and justification.

Realization occurs when work is a way to meet one's own needs and personal goals; organizations that want to enrich their employees' experiences along these lines should focus on issues related to the job itself (such as job design). According to this perspective, individuals find meaning in work that is not alienating. In contrast, according to the *justification* perspective, people find meaning by being able to articulate that their jobs and roles in the company are valuable and worthwhile. Even if the actual work process or experience itself is not considered enriching, individuals can find meaning in the accounts they use to talk about their work. Put another way, a realization perspective suggests that work can be made more meaningful by changing the tasks someone does, whereas the justification perspective suggests that work can be made more meaningful by changing the larger end goal surrounding the work itself.

Creativity is a crucial part of finding meaning in one's job. Simply having the freedom to be creative at work fits well in the realization model and has been recognized as a component of meaningful work (Lips-Wiersma & Morris, 2009). Being creative can affect meaningful work through engagement and positive affect (Sherman & Shavit, 2017; Tavares, 2016), although it is important to note that meaningful work is not inherently fun or enjoyable (Lepisto & Pratt, 2017). Empirical research is still sparse, but the role of meaning in organizational creativity has a prominent role in Amabile and Pratt's (2016) revision of Amabile's (1983) componential model of creativity. They discuss the progress principle (see also Amabile & Kramer, 2011): Of all the events that can lead people to feel happy and engaged at work, the most important is making progress in meaningful job activities. This principle can create a loop in which people make progress on important work, get excited about their progress, are thus intrinsically motivated, and then are better able to make further creative advances in the future.

Amabile and Pratt (2016) also discuss six possible work orientations (see also Wrzesniewski, McCauley, Rozin, & Schwartz, 1997): job, career, calling, kinship, craftsmanship, and passion (Lepisto, McArdle, & Pratt, 2016; Pratt, Pradies, & Lepisto, 2013). People with a *job* see it as a necessity to make money. People with a *career* orientation focus on advancement. Those who see work as a *calling* (or service) are focused on a larger purpose, such as helping people. *Kinship* workers value social interaction at work, whereas *craftsmanship* workers emphasize high quality. The people with a *passion* orientation are those who want to do something they love. Of course, people may gravitate to multiple orientations.

Extrapolating off the discussion in Amabile and Pratt (2016), some work orientations are more likely to facilitate creativity than others. For example, job and career orientations, given their extrinsic focus, are less likely to facilitate creativity than craftsmanship or service. However, as Amabile and Pratt note, some extrinsic motivation (synergistic) may facilitate creativity as well. It is also important to acknowledge that some workers' orientations will have no relationship whatsoever with their own creativity. Some individuals may pursue creativity in their everyday life or hobbies, and others may simply not value being creative.

These orientations also reinforce the idea that creativity is but one path to finding meaning at work. Factors related to different orientations include social interactions, altruism, authenticity, pride in work, ambition, and the ability to support a family—all of which are alternate roads to meaning. One theory of meaningful work (Rosso, Dekas, & Wrzesniewski, 2010) proposes a two-by-two grid with “agency” above “communion” on the *y*-axis and “self” and “others” on the *x*-axis, resulting in four categories. *Individuation* (top left of grid) is feeling in control and competent, *self-connection* (bottom left) is staying true to one's self and connecting with others, *contribution* (top right) is feeling as if one's work makes an impact beyond oneself, and *unification* (bottom right) is connecting and helping people.

In the psychological or educational literature, the link between creativity and meaning is studied or discussed on occasion (Glăveanu, 2010, 2011; Moran, 2015) but is not a common topic. Indeed, many positive potential outcomes of creativity are understudied. Forgeard and Kaufman (2016) found that less than 10% of articles about creativity even bothered to mention any reason for the importance of creativity or its worth for study. Of the ones that did give reasons, less than 10% included the theme of well-being; another small group (also less than 10%) discussed creativity's inherent value.

Three Pathways to Creative Meaning

Creativity plays a minor but consistent role in conceptions of meaning, and meaning plays an inconsistent but often important role in theories of creativity. How can this relationship be operationalized? I propose three broad categorizations of how creativity can lead to finding, maintaining, or increasing meaning. I use a common memory framework of the past, the present, and the future. Such temporal perspectives have been used to explore identity (Demblon & D'Argembeau, 2017), childhood development (Levy & McNeill, 2015), healthy aging (Gabrian, Dutt, & Wahl, 2017), and creativity itself (Glăveanu & Gillespie, 2015). The way that people look back on their lives, how they currently experience their lives, and how they envision and anticipate their future are not only the cornerstones of human memory but of life itself.

The past pathway of creativity

Creativity can be used to help people come to terms with their past—to seek coherence (Martela & Steger, 2016). Whether one is young or old, there are always moments from the past that can lead to nostalgia or regret. How one looks back on life decisions is a large part of self; Erikson's (1982) final stage of psychosocial development is the contrast between feeling despair at past choices versus feeling integrity from having led a worthwhile life. The past pathway of creativity is rooted in the self-esteem and certainty that are parts of the MMM (Heine et al., 2006). Creativity can be used to advance these goals by helping people reflect on and understand the events of their lives. They may be processing experiences from the week before or from 20 years ago. Indeed, positive nostalgia has been proposed as a way to help people find meaning in life (Sedikides & Wildschut, 2018). Reflection, nostalgia, and reaching an understanding of one's life requires imagination. It necessitates the combination and integration of distinct memories and events into a broader perception. Zittoun and de Saint-Laurent (2015) call this process “life-creativity.”

There are several ways that this pathway can help with meaning making. One way can be demonstrated by the “writing cure,” a concept developed by Pennebaker (1997) and others (Pennebaker & Beall, 1986; Travagin, Margola, & Revenson, 2015) that points to the many physical- and mental-health benefits associated with expressive writing (i.e., writing about emotional topics on a regular basis). Expressive writing does not need to specifically be creative—a diary that faithfully records one's experiences may serve the same purpose—but many creativity-associated traits improve its power.

For example, the telling and retelling of a life story can help by reorganizing the story in one's mind, thereby reducing the space occupied by the event in working memory and better allowing the processing and storage of the potentially upsetting memory (Klein & Boals, 2001). However, it is important to note that simply retelling or thinking about an upsetting event may lead to rumination, which is associated with depression (Nolen-Hoeksema, Larson, & Grayson, 1999). Indeed, the connection between depression and rumination has been proposed as a way that creativity and mental health may be connected, depending on the domain (Kaufman & Baer, 2002). What makes expressive writing more likely to decrease cognitive load rather than increase rumination? The key is the presence of a narrative. Having a recurring narrative prevents focusing exclusively on the same specific incident (Pennebaker & Seagal, 1999). Several studies have shown that narrative expressive writing reduces components of rumination associated with brooding but does not affect one's ability to reflect on the event (Gortner, Rude, & Pennebaker, 2006; Sloan, Marx, Epstein, & Dobbs, 2008). It is notable that although personal narratives, fiction, and essays may help people reflect on and process their lives, poetry may not have the same impact (Kaufman & Sexton, 2006). In one study, participants wrote either haikus or narratives on multiple occasions (Stephenson & Rosen, 2015). The haikus were written about nature, negative life events, or a neutral topic, whereas all narratives were written on neutral topics. The narrative group demonstrated reduced depression and anxiety over time, consistent with the writing cure. Although the groups who repeatedly wrote haikus about nature or negative life events showed an increase in the creativity of their poetry, there was no difference in their anxiety or depression. Thus, a memoir may provide a better vehicle for creativity to assist meaning than a series of poems.

A memoir may offer additional benefits in addition to those of expressive writing. Consider McAdams's (2013) three-stage model of the psychological self. People start as social actors, discovering who they are by observing other people. By middle childhood, they progress to being motivated agents as they explore their desires, goals, and values. Both of these stages are active throughout people's lives, but the final layer of the self is what McAdams (2013) dubs the autobiographical author. It is this self that constructs a life story that integrates the past, present, and future. These ideas are consistent with Bruner's (1986) conceptions of paradigmatic and narrative thought. Paradigmatic thought aims to concretely and logically describe the world, whereas narrative thought looks for connections and stories (e.g., Kaufman, 2002). Engaging in narrative thought is a key part of meaning making.

The physical manifestation of the self's narrative identity (McAdams & Pals, 2006) would be writing a memoir. Such an autobiographical narrative has been used as a research tool, often with the participants being interviewed about their lives (Germeten, 2013). Within this literature, three types of narratives have been proposed (Riessman, 2003). Someone can write an entire life history (i.e., a complete autobiography), but there are other ways of engaging in a memoir without this level of commitment. Other pathways include stories centered around a particular theme or topic or else focused on especially important life moments, such as key decisions that left a tremendous impact. These three types of narratives may offer a practical starting point for approaching the task of writing a personal essay or memoir. There are many ways beyond expressive writing or memoirs that people can use creativity to reach coherence and thereby better understand and reflect on past events. Sometimes traumatic and terrible things happen to people, and it may be hard to reach coherence and understanding. As mentioned earlier, creative thinking can help posttraumatic growth (Forgeard, 2013) for both personal and global tragedies, such as Hurricane Katrina (Metzl, 2009) or the Rwandan massacre (Forgeard et al., 2014).

The past pathway of creativity can help people find meaning in tragedy; it can also help people reach a deeper understanding as they reach the end of their life. The Four C model (Kaufman & Beghetto, 2009) proposes a developmental trajectory of creativity that advances from personal creativity (*mini-c*) to everyday creativity (*little-c*) to expert creativity (*Pro-c*) to genius creativity (*Big-C*). *Mini-c* creativity may be never appreciated—or even seen—by other people (Beghetto & Kaufman, 2007); it may be an insight or thought that stays in the head of the creator. Most discussions of the theory emphasize the transition from *mini-c* to *little-c* creativity, in which creativity grows from an internal, personal idea to an articulated concept that is not only shared but also recognized as being original and valuable by other people (e.g., Beghetto & Kaufman, 2009, 2014). Other research focuses on the growth of *little-c* to *Pro-c* creativity (in which someone reaches a level of creative expertise and that is recognized and appreciated by a large group of people) or even *Big-C* creativity (in which creative contributions live on beyond the creator; Sternberg & Kaufman, 2012; Sternberg, Kaufman, & Pretz, 2001). Yet an often overlooked component of the original theory is that not all *mini-c* creativity must develop into *little-c* or *Pro-c* creativity, and a lifetime of *mini-* or *little-c* creativity is still associated with numerous personal benefits. Although some creators may practice, work with mentors, and strive for continual improvement, others prefer to use their creativity to express themselves and explore their own

ideas, emotions, and experiences. The reaction of other people to their creativity is of less importance. This trajectory leads to a state of reflection and represents using creativity to reach personal coherence (Kaufman & Beghetto, 2009; see also Ardel, 2003, who makes this connection in the wisdom literature). Older adults who volunteered to help patients receiving palliative care participate in creative activities saw increased personal reflection in both the patients and themselves as a crucial benefit (Allen et al., 2016); some showed an increase in self-reported life meaning (Allen et al., 2014).

Eminent creators can also continue to create later in life, potentially reaching reflection in ways that can be enjoyed by the world. Simonton (1989) studied the last works of composers and argued that although these “swan songs” were less original, they were more popular and aesthetically significant. Meredith and Kozbelt (2014) did not replicate Simonton’s work, however, and argue instead that later creative achievement often comes in smaller increments. Further, they posit that later-life creative success is associated with creators who value expertise and aim at expanding past traditions instead of creating new ones (e.g., Durmysheva & Kozbelt, 2010; Galenson, 2006; Kozbelt, 2012). Regardless of whether creators end with a final beloved salvo or a series of smaller contributions (or somewhere between), these last bursts are often syntheses of a lifetime of creative work. Even the eminent feel the need to make sense of a lifetime of creativity.

The past pathway of creativity makes sense of a life. There are many potential routes; such creative activities can be a vehicle of self-expression, a way to understand and process one’s past, or a method to heal earlier traumas or upsetting events.

The present pathway of creativity

The present pathway of creativity is most connected to Martela and Steger’s (2016) significance facet. Creativity used in this way helps people manage their moods, activities, and relationships. It demonstrates that creativity can be a beacon in someone’s life that provides meaning and value while also minimizing sensations of mortality salience.

The creative process itself can be joyful and exciting. Csikszentmihalyi’s (1990, 1996) concept of flow (discussed previously) is a good example. Flow occurs when someone is actively doing a favorite activity (often a creative one) that requires skill and effort. There is an optimum level of effort needed; people who try to achieve something too simple or too difficult are more likely to become frustrated than to enter flow. This pleasure involved in being creative is a common

concept in many theories. Lepisto and Pratt’s (2017) concept of realization is finding the joy in being creative at work, similar to Amabile and Pratt’s (2016) discussion of the passion-oriented worker. The happiness of creative flow underlies the intrinsic motivation that many people feel to create. The initial burst of mini-c creativity, a personally meaningful insight (Beghetto & Kaufman, 2007), can trace its roots to flow. Such joy is also found in theories of meaning; consider Lifton’s (2011) idea of living life to its fullest as one way to achieve symbolic immortality. Beyond the pleasurable act of creating, this pathway can also remind people that their life has worth, value, and the potential to help others.

Truly, the present pathway of creativity stands in defiance of mortality salience. Creativity can sometimes be a solitary activity, such as when someone creates alone and does not share the work. However, when the process or the products of creativity are shared, it can be the ultimate connection. To create or to be exposed to another’s creativity can be an interactive experience. Despite Arndt et al.’s (1999) distinction between social and creative activities, the two are often merged. Indeed, people with larger social networks and stronger friendships are more likely to be creative (Kéri, 2011; McKay, Grygiel, & Karwowski, 2017). Higher social connectedness has been empirically linked to people reporting higher levels of meaning of life (Stavrova & Luhmann, 2016).

There is also strong theoretical grounding for creativity and social connectivity. In Glăveanu’s (2015) *perspectival model*, creativity is viewed as a dialogue that requires seeing the world from someone else’s point of view. Part of this model is the *We paradigm*. People tend to think in terms of an *I paradigm* (being creative yourself) or a *He paradigm* (creative genius). The *We paradigm* is rooted in collaboration and also encompasses creating with people from other cultures and disciplines. The *perspectival model* goes further, arguing that being creative entails taking on new perspectives and that such an action requires understanding and integrating the perspectives of others. Both offering one’s own perspective to other people and integrating other people’s perspectives into one’s own are ways of feeling attached to the world. Adopting the *perspectival model’s* approach is the creative equivalent of walking a mile in someone else’s shoes. It creates links with other people.

There are many other ways to feel connected with others; one example could be in physical places of creativity, such as museums. Smith’s (2014a, 2014b) “museum effect” examines how people see the world through the experiences of going to a museum (usually art). He measured how people related to others, from

their fellow art lovers to people around the world. Most visitors enter feeling somewhat disconnected but peak midway through their visit. Even with a slight decline in their feelings of inter-relatedness as they leave, Smith's work suggests that aesthetic experiences increase feelings of connection, which should theoretically also combat any feelings of mortality salience.

Creativity can further fight mortality salience not only through connection but also through distraction. Drawing pictures improves mood more than simply copying shapes (De Petrillo & Winner, 2005), yet unlike expressive writing, the improvement does not come because of emotional expression. Across multiple studies, visual art improves mood when it is used to distract someone from bad thoughts as opposed to trying to be a vehicle for venting a negative emotion (Drake, Coleman, & Winner, 2011; Drake & Winner, 2012, 2013). Such findings are consistent with the findings of Routledge, Arndt, and Sheldon's (2004) study, which indirectly showed that people who performed a creative task were less likely to hold tight to their existing world view when primed to think about death compared with those who did a conforming or control task. In other words, creativity and art can serve as much-needed distractions during difficult times.

Many people are able to not think about death or their eventual mortality, but for others, death anxiety can be a serious issue (Iverach, Menzies, & Menzies, 2014). Indeed, death anxiety is associated with both eating disorders (Le Marne & Harris, 2016) and obsessive-compulsive disorder (Menzies & Dar-Nimrod, 2017). People with greater death anxiety are more likely to be focused on mortality salience. Again, creativity can help. Just as expressive writing can organize thoughts and free up working memory (Klein & Boals, 2001), engaging in creative activity that prevents someone from focusing on impending mortality may also free up cognitive resources. Any type of anxiety has been shown to increase cognitive load in some circumstances (such as in stereotype threat; Schmader & Johns, 2003). Reducing mortality-related anxiety may well free up mental resources to pursue meaning in many other ways.

Older adults can retain feelings of significance through creative activity. A study of women in their eighties found that arts and crafts specifically enhanced both well-being and meaning of life (Liddle, Parkinson, & Sibbritt, 2013). In addition, participation in the arts has been shown to stave off dementia in older adults (Roberts et al., 2015); even for those people with dementia, creative activities can still improve cognition (Maguire, Wanschura, Battaglia, Howell, & Flinn, 2015). Bellas et al. (2018) argue that it is important to move beyond simple arts-based practices. The key to using creativity to help people with dementia retain meaning

is not in the art production itself but in the patients' engagement with the task. Finding the best way that a patient can engage in a creative task (regardless of domain), they argue, should increase the benefits. Art production can bring additional positive outcomes for older adults. Those with past experience with the domain (regardless of their level of creative achievement) can tap into their abilities and have the prospect of creating something (again, regardless of competency) that can be enjoyed by their children, friends, and (potentially) future generations. It is possible that for an older adult, engaging in creative activity may activate the past, present, and future pathways of creativity to lead to an extremely high level of meaning-making.

The present pathway of creativity reminds people of the good components of their current lives while simultaneously protecting them from potential intruding negative thoughts or anxiety. It can be a way to experience the pure joy of creating and a way of engaging and connecting with people. Such creative activities can remind people of their worth and importance in the world.

The future pathway of creativity

The future pathway of creativity is connected to the role of purpose in meaning making. It affects people of all ages, from helping younger people discover purpose to letting older people consider their legacy. In considering creativity from a Big-C perspective, this legacy may entail a story, theory, product, or idea that can last for generations after one's death (Simonton, 2009). At the Pro-c level, creative contributions may still survive their makers, even if they do not ultimately stand the test of time.

In addition, there may be Big-C projects that multiple Pro-c people helped create. One such example is the Hoover Dam; it is still considered a major accomplishment and is a National Historical Landmark many decades after its completion. Ross and Wolfe (2016) analyzed the language used in articles, quotes, and speeches about the Hoover Dam before, during, and after its construction and found strong evidence that mortality salience was a motivating factor for people involved at all levels of the project. The importance of being a part of a larger project that continues to help later generations can also be related to Gabora and Steel's (2017) cultural evolution: Passing along ideas to the future can offer the same personal gratification and symbolic immortality as seeing one's genetic progeny live on.

A wide variety of types and forms of creativity may be motivated by the need to leave a legacy. In children and young adults, creativity can be a way of finding a

direction in life. Shoshani and Russo-Netzer (2017) constructed a meaning-of-life questionnaire based on Frankl's (1946/2006) original work. One of the three resulting factors (along with attitude and experiences) was using creativity for prosocial reasons. Children with high scores for this factor would see their creativity as a way to help other people and give them a sense of purpose, and such high scores were correlated with a greater number of positive emotions, more prosocial behavior, and life satisfaction. Nell (2014) asked university students what gave them meaning in life. Personal relationships were rated as most important, but creative expression also scored highly. Follow-up interviews revealed that students were particularly focused on how their creativity might help other people or the world in general.

Lengelle, Meijers, and colleagues conducted a series of studies exploring the power of creative writing on helping college students develop a career narrative. Lengelle, Meijers, Poell, and Post (2013) piloted a workshop in which students about to begin a work-related internship were guided in creative, reflective, and expressive writing. The authors found tentative evidence that the students in the workshop wrote about their prospective careers using language with a greater number of positive-emotion words and greater insight than did students in a control group. A follow-up study (Lengelle, Meijers, Poell, & Post, 2014) tracked the workplace evaluations of some of the participants. Although the sample size was small, those in the experimental group did receive higher evaluations than those in the control group. Lengelle, Meijers, and Hughes (2016) conducted a qualitative study specifically on creative writing and its role in developing a career narrative. They found that the use of creativity in the process helped students find meaning in planning out their careers.

It is not only the young who can use creativity as a source of purpose. The most relevant of Erikson's (1982) stages of psychosocial development is the contrast between generativity and stagnation that occurs in adulthood (McAdams, de St. Aubin, & Logan, 1993). Generativity includes many different concepts, such as parenting or mentoring other people, but creative production is a crucial component as well (Peterson & Stewart, 1996). Generativity is associated with higher life satisfaction (McAdams et al., 1993), as well as a strong connection to one's community and the next generation (McAdams & Guo, 2015). It has been theorized that this relationship is due to generativity's association with Lifton's (1979) symbolic immortality. Indeed, Huta and Zuroff (2007) found empirical support for the notion that symbolic immortality serves as a mediator for generativity's connection to well-being. Generativity's link to symbolic

immortality is not necessarily rooted in noble reasons—narcissism has also been shown to play a role in people's desire to leave a legacy behind (Newton, Herr, Pollack, & McAdams, 2014). However, regardless of the underlying cause, the need for a legacy plays a key role in meaning making. Remember that Sligte et al.'s (2013) study, discussed earlier, found that introducing the idea of a legacy undid any negative impact of TMT on creativity. People's need for a legacy allows them to handle the inevitability of death by achieving symbolic immortality, and creative production is one way to leave such a legacy.

Legacy-seeking creativity sounds as if it might be restricted to the Big-C or Pro-c creators mentioned at the beginning of this section. Yet those at mini-c or little-c level can still create in a way that gives them purpose. At the mini-c level, such creative activity may better serve the present pathway by offering pleasure and enjoyment. Conversely, someone may engage in mini-c creativity with the intention of sharing it with family or friends posthumously, which may become little-c creativity. If people engage in little-c creativity (or higher) and share their stories, drawings, ideas, scrapbooks, videos, inventions, or anything else with an appreciative audience (even if that audience is only family and friends), such creative work would potentially still offer a strong creative connection with others that could increase one's meaning later in life. In addition, if such contributions are held onto, future generations may have the benefit of better understanding their ancestors and being able to better place their own lives in a greater familial or historical context.

Conclusions: Reaching for the Big Questions

The fields of creativity and meaning share some similarities: Both are fundamental ideas that have been discussed for centuries yet have only become a scientific topic in the past century. It makes sense that creativity and meaning may share a connection. Being creative can yield both personal and societal good, making the creator potentially feel both empowered and benevolent. These are all outcomes associated with meaning. It is also easy to argue that many of the creative accomplishments throughout history have occurred as part of humankind's search for meaning in life.

Nonetheless, a specific synthesis that can be practically applied has yet to be proposed or studied. In this article, I offer the temporal model of past, present, and future pathways to creativity, all of which can spur someone to find meaning in life (see Table 1). The past pathway of creativity helps someone make sense of one's past. It encourages a deeper understanding of

Table 1. The Temporal Model of Past, Present, and Future Pathways to Creativity

Key components	Creativity pathway		
	Past	Present	Future
Meaning component (Martela & Steger, 2016)	Coherence	Significance	Purpose
Comparable wisdom pathway (Ardelt, 2003; Baltes & Staudinger, 2000)	Life review/reflection	Life management/affective	Life planning/cognitive
Meaning pathway (Heine, Proulx, & Vohs, 2006; Lifton, 1979, 2011)	Self-esteem/certainty	Optimal experience	Symbolic immortality/legacy
Examples in creativity research	The Writing Cure; creativity and posttraumatic growth; later-life creativity (at any of the Four C stages)	Flow; the museum effect; perspective-taking; art participation in older adults; mechanisms of art therapy	Creative legacies; developing creative skills in thinking about career; prosocial creativity
Example of creative activity	Expressive writing; blogs; personal narratives or memoirs; general creative thinking about life events	Challenging oneself in any creativity activity; participation in the arts; drawing; creating with others	Career narratives; everyday creative activity
Possible additional benefits	Recovery from trauma; positive physical and mental health; self-expression	Improved mood; stronger connection with other people; maintaining cognition and health in later life; decreased anxiety	Career insights; familial and social connections

one's life. The present pathway of creativity engages one in life, offering reminders of enjoyment and connections with others. The future pathway of creativity speaks to people's desire to live on after death, suggesting ways to connect with future generations.

This model is but a beginning and a call for future empirical studies. Are the possible activities associated with each creative pathway indeed the best methods of expression? Does one pathway offer a better connection to meaning than another? How will individual differences affect each pathway's possible association with meaning? These are but a few of the questions that can be answered. Even beyond asking specific questions, there is the more general chance to better understand the deep roots and connections between creativity and meaning. The more people learn, the closer they get to reaching further insight and epiphanies on how to maximize the true value of life.

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