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Lumping and Splitting in the Study of Meaning in Life: Thoughts on Surfing, Surgery, Scents, and Sermons

Todd B. Kashdan
Department of Psychology and Center for the Advancement of Well-Being, George Mason University, Fairfax, Virginia

Jonathan Rottenberg
Department of Psychology, University of South Florida, Tampa, Florida

Fallon R. Goodman and David J. Disabato
Department of Psychology, George Mason University, Fairfax, Virginia

Ena Begovic
Department of Psychology, University of South Florida, Tampa, Florida

For thousands of years, philosophers have been debating what a meaningful life entails and the best way to create one. In their article, Garland, Farb, Goldin, and Fredrickson (this issue) offer a comprehensive account of one such pathway that originates with the act of mindfulness. Specifically, when people are faced with negative life events, they should deploy mindfulness techniques to receive a chain of benefits, which include a positive reappraisal of said events, that in turn increase the likelihood of positive emotions, which can then be savored and ultimately transformed into a greater sense of meaning and purpose in life (see Figure 1 in Garland et al., this issue). This pathway has been anointed the mindfulness-to-meaning theory. In this commentary, we place this theory in a wider perspective and consider several neglected issues regarding how mindfulness may relate to meaning and purpose in life.

First, meaning in life is irreducible to a single pathway. We reintroduce the concept of equifinality where diverse pathways, including chance events, can be substituted to attain the same goal (e.g., Cicchetti & Rogosch, 1996). We illustrate and lay out several different ways that meaning in life can be obtained. Mindfulness to meaning is integrated into a wider review of how people can create meaning in life.

Second, we reintroduce the concept of multifinality (e.g., Nolen-Hoeksema & Watkins, 2011) where the same initial conditions, in this case mindfulness and positive reappraisal, may lead to a variety of outcomes—and only one of them is a greater sense of meaning in life. We question whether science requires a new theory about each individual mindfulness outcome. In our view, it would be a greater scientific advancement to delineate the full range of outcomes afforded by a particular behavior (the benefits and the costs) and to specify the contexts that the benefits (or the costs) might be stronger or weaker.

Third, we question the widespread assumption about positivity that more is always better. Instead, we offer an alternative view on the importance of situational sensitivity, inspired by a growing body of work suggesting that psychological flexibility trumps allegiance to any single behavior or strategy such as mindfulness (Aldao, 2013; Bonanno & Burton, 2013; Kashdan & Biswas-Diener, 2014; Kashdan & Rottenberg, 2010). Taken together, we hope to integrate several isolated strands of study into a nuanced discussion of mindfulness and meaning.

The Architecture of Meaning

Experiencing a sense of meaning can be profound. Consider the new perspective of a cancer patient who was given decades of extra life following a successful surgery on her tumor. Meaning can also be mundane, as a teenager stares into the sky at a cloud formation that resembles a manatee. If you were to read articles and books by the leading researchers and theorists in psychology, philosophy, economics, and biology to understand the nature of meaning in life, there would be no single definition or structure. Rather than trying to create a single definition of meaning from this gigantic corpus of work, we would argue that it is more beneficial to view meaning in life within the context of personality development.

Garland et al.’s (this issue) article illustrates the difficulty of lumping the different operations of meaning into a single overarching construct. In this case, the construct is “eudaimonic meaning,” which “is characterized by a sense of purpose and
meaningful, positive engagement with life that arises when one’s life activities are congruent with deeply held values even under conditions of adversity” (p. 294). It is virtually impossible to unpack this sort of definition because nearly every one of the key terms—purpose, positive engagement, values, congruence between activities and values, and adversity, and even the term eudaimonia, is ambiguous, as there are literally dozens of potential defining features (Kashdan, Biswas-Diener, & King, 2008). Because the authors do not define the elements of “eudaimonic meaning,” we offer a different approach that captures the importance and diversity of meaning operations.

First, there is the difference between meaning derived from the extent to which people comprehend, make sense of, or see significance in their lives, and the presence of a purpose in life. These two features of meaning are not interchangeable. As a concrete example, one of us is ripped from the present moment almost every time they smell cow manure, as the scent evokes nostalgic memories of traveling through the Amish country, when their mother informed them of how this typically abhorrent smell is pleasant to her. It is a mixed emotional memory of sadness and love of a deceased parent. A reminder of times spent together and new memories that will never be forged. This reflexive reaction to the scent bypasses mindfulness and positive reappraisal, elements that are central to the mindfulness-to-meaning theory (Garland et al., this issue) and instead is based on a strong learning history. A life history of punishment and reinforcement leads a person to comprehend who they are; what is important in their past, present, and future; and in turn aids in the construction of their personal life narrative (McAdams, 2001).

This sense-making is distinct from what is referred to as a purpose in life. Comprehending life significance or meaning from clouds, scents, or books is far different from having a purpose, mission, or overarching life aim (e.g., George & Park, 2013). We rely on the definition from our prior work to offer clarity on the topic:

Purpose is defined as a central, self-organizing life aim. Central in that if present, purpose is a predominant theme of a person’s identity. If we envision a person positioning descriptors of their personality on a dartboard, purpose would be near the innermost, concentric circle. Purpose is self-organizing in that it provides a framework for systematic behavior patterns in everyday life. Self-organization should be evident in the goals people create, the effort devoted to these goals, and decision-making when confronted with competing options of how to allocate finite resources such as time and energy. A purpose motivates a person to dedicate resources in particular directions and toward particular goals and not others. That is, terminal goals and projects are an outgrowth of a purpose. As a life aim, a purpose cannot be achieved. Instead, there are continual targets for efforts to be devoted. (Kashdan & McKnight, 2009, p. 304)

Comprehending meaning from events does not necessarily offer insight into how one’s life should be led, and in contrast, a purpose in life does. Over the course of a 14-year longitudinal study, researchers have found that people endorsing a greater sense of purpose in life live longer than their peers (Hill & Turiano, 2014), and merely reflecting on one’s purpose in life leads to attenuated stress responses (Creswell et al., 2005). Using a methodology that captures what happens from one day to the next, researchers found that on days when people with anxiety disorders devote considerable effort or make progress toward a purpose in life, there is evidence of considerable increases in daily self-esteem, positive emotions, and a sense of meaning in life (Kashdan & McKnight, 2013). When guiding people toward greater well-being, the strategies used to enhance comprehension about events are different from those used to aid in the creation and commitment to a purpose in life (e.g., Hayes, Luoma, Bond, Masuda, & Lillis, 2006).

Second, the comprehension of life events can be further separated into the acts of detection and construction. Specifically, “people may readily connect an event to pre-existing beliefs (i.e., meaning detection) or engage in a constructive process to come to a sense of meaning (i.e., meaning construction)” (King & Hicks, 2009, p. 317). Detected meaning is akin to assimilating new experiences into preexisting ideas about oneself, others, and the world. Being completely immersed in a sermon given at one’s church, nodding and clapping at ideas that match your worldview, can be thought of as a moment where meaning is detected. These engaging behaviors in church reflect the more active variant of detecting meaning. The detection of meaning can also be more intuitive, such as the feeling one gets when an experience feels right (Heintzelman & King, 2014). There is the feeling of meaning when rushing to a surgery appointment, and after hitting three red lights, there is the sense that something or someone is conspiring against you, as if it would be better to avoid the surgery this time. Gut feelings and vibes are folk terms for the detection of everyday life meaning—immediate, visceral reactions of whether a bearded stranger is trustworthy or a walk in the dark woods is safe. These intuitive acts of meaning detection do not require mindfulness, positive reappraisal, or savoring (Garland et al., this issue) because, by definition, they occur on the fringes of conscious awareness and involve heuristic processing.
By contrast, the construction of meaning is a reflective, mental act. When reference is made to posttraumatic growth, this is the act of uncovering benefits as a result of struggling with an adverse event, such as an increased recognition of one’s psychological strengths, appreciating the quality of existing social relationships, or a deepening sense of spirituality. The act of creating or altering the meaning of events is at core of cognitive therapy techniques, where the goal is to help people view and experience internal and external events in such a way that irrational and maladaptive thoughts are minimized and healthier alternatives are given greater credence. These strategies allow people to change the meaning ascribed to a particular event or situation, from receiving intense criticism to a work proposal to receiving an HIV diagnosis.

Due to space constraints, we cannot discuss all of the variants in which people form meaning in their lives, including hybrid combinations. What should be clear is that equifinality prevails. Mindfulness is only one among dozens of psychological processes that may be relevant to creating meaning in life. Perhaps most strikingly, we see that more often than not the polar opposite of mindfulness processes (i.e., automatic or intuitive reactions) is involved in increasing meaning.

The Benefits of Mindfulness Beyond Meaning in Life

In the prior section, we focused on the various ways that meaning can be enhanced. In this section, we briefly discuss how greater meaning in life is only one of several benefits of mindfulness. This is the concept of multifinality, a process by which an initial condition or set of conditions may lead to several different outcomes. There are hundreds of high-quality scientific studies to suggest that mindfulness is linked to a wide range of psychological, social, and physical health benefits outside of meaning in life (e.g., Brown, Ryan, & Creswell, 2007; Grossman, Niemann, Schmidt, & Walach, 2004).

Meaning or purpose in life is only one facet of well-being. Depending on the well-being theory, there are dozens of different facets: self-esteem, environmental mastery, positive relations with others, personal autonomy, personal competence, personal growth, physical health, subjective happiness, life satisfaction, positive affect, (lack of) negative affect, (lack of) depression, vitality, personal expressiveness, and others (Diener, 2009; Joseph, Linley, Harwood, Lewis, & McCollam, 2004; Ryan, Huta, & Deci, 2008; Ryff & Singer, 2008; Waterman, 2013). This begs the question why Garland et al. (this issue) focus solely on meaning in life in their theory of mindfulness.

Is it because mindfulness relates uniquely to meaning in life? A quick review of the literature suggests that this position is untenable because trait mindfulness correlates moderately to strongly with positive affect, life satisfaction, vitality, autonomy, competence, positive relations with others, self-esteem, and others (Bowlin & Baer, 2012; Brown & Ryan, 2003). Further, mindfulness training predicts less anxiety, depression, perceived stress, somatization, and greater self-esteem, environmental mastery, positive relations with others, personal autonomy, and personal growth (Carmody & Baer, 2008; Grossman, Niemann, Schmidt, & Walach, 2004).

Indeed, it would be difficult to argue from our present knowledge that mindfulness more strongly relates to meaning in life compared to other well-being facets. One study found trait mindfulness correlated about the same with meaning in life as with other facets of well-being (Bowlin & Baer, 2012). Mindfulness training studies, however, have failed to find increases in meaning in life (e.g., Kieviet-Stijnen, Visser, Garssen, & Hudig, 2008). The lack of definitive studies on mindfulness and meaning in life suggests a gap in the psychological literature that Garland and colleagues (this issue) address.

Sometimes Lumping Is Wiser Than Splitting

Mindfulness is associated with a multitude of benefits. Is it wise to create a new theory each time we notice a connection between mindfulness and a benefit, and derive one or two possible mechanisms for this connection, such as mindfulness-to-weight-loss or mindfulness-to-vitality? This is the splitting approach. Splitting will help identify specific mechanisms for certain outcomes, but it will also lead to isolated strands of research, where people who are working on related problems do not learn from another, a state of affairs likely to hamper long-term scientific progress.

Mindfulness is associated with a better quality of life, adaptive self-regulation, better physical health, and high-quality social interactions and relationships. We suggest that the lumping approach will be more helpful to researchers, practitioners, and public policymakers. Fortunately, lumpers are winning out in contemporary research on the benefits of mindfulness, where it is becoming typical to include a range of mindfulness-related outcomes and posit a range of mechanisms to account for these effects (e.g., Baer, 2003; Brown et al., 2007; Grossman et al., 2004; Gu, Strauss, Bond, & Cavanagh, 2015; Hölzel et al., 2011).

Flexibility Trumps an Allegiance to Mindfulness

Mindfulness techniques have often been presented by researchers and practitioners, including in the
mindfulness to meaningfulness theory, as an alloyed good (e.g., Garland et al., this issue). The implication is, The more mindfulness is used, the better off one will be. This implication strikes us as premature in several ways. In fact, we propose that across the whole of psychological functioning there is almost no evidence for unmitigated positive behaviors and personality traits (e.g., Grant & Schwartz, 2011; Kashdan & Biswas-Diener, 2014).

First, there is an assumption that *everyone* can share in the benefits of mindfulness because those who are low on trait mindfulness can be taught to be more mindful (based on preliminary evidence that mindfulness is malleable; e.g., Shapiro, Oman, Thoresen, Plante, & Flinders, 2008). The idea of universal benefits would be true only if (a) all people can be taught to be mindful and (b) the benefits of altering mindfulness are uniform. Given that most psychological interventions are characterized by large individual differences (Harkness & Lilienfeld, 1997; Westen, Novotny, & Thompson-Brenner, 2004), people are likely to vary considerably in how easily trait mindfulness can be increased. Even if all people received uniform increases in trait mindfulness, benefits to well-being are also unlikely to be uniform (some people may receive no benefits to well-being, or even decreases in well-being, even if well-being increases on average across a study sample). A number of variables may moderate *for whom* mindfulness may help. Indeed, in the broader literature on self-regulation, there is an increasing awareness of the fallacy of uniform consequences when deploying emotion regulatory responses (Bonanno & Burton, 2013).

A second, related implication of the argument is that the benefits of mindfulness apply across situations. This could not be true, in our view. Mindfulness loses its effectiveness when a person needs to use evaluative thinking to perform the task at hand. Mindfulness essentially prevents improvisation. For instance, would Garland and colleagues (this issue) advise a cardiac surgeon to “decenter” during a heart transplant? No, because the surgeon needs to evaluate how the procedure is going and plan the next step. What about an adolescent quarterback playing for his high school football team? No, because he needs to evaluate the opponent’s defense and decide whether to call an audible. One can come up with many examples where a mindful stance is inimical to situational demands—it will not ensure you hit a major league curveball, give a speech, write a report, play the piano, and so on. Although there is little systematic research on the lack of usefulness or harm of mindfulness, it is likely to be problematic in some respects. Evidently, it has a deleterious effect on implicit learning (Stillman, Feldman, Wambach, Howard, & Howard, 2014).

Even if we restrict the discussion of mindfulness to the favored case of responding to negative life events, it is doubtful that mindfulness is always the best response to deploy. For example, if an individual encounters a stressful event but does not possess the cognitive resources needed to engage in the taxing mental operation of mindfulness, a less cognitively demanding—but equally effective—emotion regulation strategy might be the most beneficial (Aldao, 2013; Bonanno & Burton, 2013). For example, if an individual experiences deep psychological pain, and consequently has depleted cognitive resources, deploying a less cognitive-demanding emotion regulation strategies (e.g., physical activity) may be a better approach for down regulating negative emotion than mindfulness (Hopko, Lejuez, Ruggerio, & Eifert, 2003). As we underscore elsewhere, the key to effective emotion regulation and increased well-being is not in adopting a mindful stance uniformly but rather flexibility in using the most appropriate strategy in a particular context (Kashdan & Rottenberg, 2010).

How do we know which situations are the ones best suited for mindfulness? Here mindfulness researchers offer little guidance. Although Garland et al. (this issue) acknowledge that “the optimal ‘dose’ or duration of decentering required may depend upon the intensity of the stressor and the strength of the conditioned response that the practitioner is attempting to moderate” (p. 298), it is impossible to act on this statement, because the relevant dependencies are not specified. Because mindfulness could be employed in most situations, but is only useful in some situations, research is urgently needed to provide guidance about when mindfulness could be deployed to good effect.

For example, is it wise to deploy mindfulness techniques when well-being is already being boosted, as during positive life events (e.g., Tamir, in press)? What is the effect of deploying mindful decentering during a marriage ceremony, receipt of a big promotion, or when one’s favorite sports team has won a championship? Unfortunately, the effects of mindfulness during positive event processing are less well studied than deploying mindfulness responses to stressors/negative events. It is plausible that deploying mindfulness during positive events and savoring experiences may override automatic responses that are helpful. Three concrete examples illustrate this point.

First, consider moments of flow (Csikszentmihalyi, 1975) when someone is deeply immersed in a task where the challenge is a near perfect match for their skills, and the experience involves a loss of self-awareness, effortless self-regulation, ignorance of the passage of time, a sense of control and intense concentration, and the pursuit of clear goals. This is a
common experience when surfing a 10-ft ocean swell or being swept into the rhythm of swaying and clapping peers during the house of worship sermon. This merger of actor and action when in flow has been shown by scientists to be antithetical to mindfulness (e.g., Sheldon, Prentice, & Halusci, 2015). The unintended consequences of strategic attempts to remain mindful include attenuating one’s experience of flow and the ingrained heuristics from years of training that allow for exceptional performance (Todd & Gigerenzer, 2000).

Second, strategically aiming for mindful nonjudgment and nonattachment to the object of one’s attention in the present moment may reduce people’s ability to indulge in the anticipation and consumption of pleasurable events (Gard, Gard, Kring, & John, 2006). It is a source of well-being, not a problem, to get excited about an upcoming party with friends by intentionally pulling for fantasies of intense laughter and romantic liaisons (cognitively processing what might happen), and replaying the events on the way home, pushing for details from every interesting moment from whoever is still around (cognitively processing what did happen). These moments of judgment and attachment with what might go right (the anticipation phase) or did go right (the consumption phase) deviates from mindfulness and yet is a source of healthy emotions, cognitions, personal growth, and relationships.

Third, there is surprising evidence that people can produce meaningful social interactions without mindful processing of the world. For instance, researchers tested the idea that pairing the physical motion of approach with positive, harmless images of Black strangers might lead to the belief that they are as approachable, important, and worthy of care and concern as any White human being. People that had repeatedly been trained to physically pull a joystick toward them while being exposed to images of strangers of a different race (essentially bringing a Black child holding a puppy toward them) showed a 46.5% drop in prejudicial beliefs compared to adults without any physical movement training (Kawakami, Phillips, Steele, & Dovidio, 2007; Phillips, Kawakami, Tabi, Nadolny, & Inzlicht, 2011). Moreover, upon walking into a room, these same White adults sat six times closer to a Black stranger (an actor trained to sit down first), smiled more often, and made greater eye contact when talking. With careful consideration of equifinality, there is growing evidence that automatic responding, which reflect a different mode of mental functioning than mindfulness, may lead to meaningful, prosocial social behaviors.

Beyond the context-dependent use of emotion regulation strategies, the value of all emotion states, positive and negative, requires explicit consideration (Kashdan & Biswas-Diener, 2014; Tamir, in press). Our view is that some circumstances call for eliciting and maintaining (at least temporarily) negative emotions and thoughts, and that such cultivation of negative emotion may actually be needed for long-term well-being. For instance, exposure therapy, the gold standard for treating various anxiety-based disorders, is effective despite promoting an approach that stands in stark contrast to “decentering” (Powers & Emmelkamp, 2008; Rauch, Eftekhari, & Ruzek, 2012). Despite the lack of psychological distance and promotion of positive reappraisal, being exposed to and fully immersed in a distressing experience can nonetheless aid in the meaning-making process and increase well-being (Mendlowicz & Stein, 2000).

**Concluding Thoughts**

Mindfulness represents an important tool to augment psychological health. That said, there is sufficient theory, research, and common real-life situations to suggest that it would be problematic to train individuals to rely solely on mindfulness as opposed to developing a strong sense of situational awareness and a broad repertoire of self-regulation strategies to obtain the most desired outcomes in varied contexts. We need research designed to achieve a better understanding of when and where exactly mindfulness is helpful (and hurtful) to human functioning. We note that this research cannot advance on this front without stronger more convincing assessments of when mindfulness is present in the first place (state mindfulness). Mindfulness remains largely an occult construct. Not only are the most commonly used self-report measures of mindfulness error-prone because humans have difficulty reporting on complex psychological constructs without considerable error and bias (e.g., Grossman, 2011; Kashdan, Barrett, & McKnight, 2015; Robinson & Clore, 2002), the neurological patterns discussed in the mindfulness-to-meaning theory as alternative measures of mindfulness are far from fully established; such neurological patterns have only a probabilistic relationship to other metrics of mindfulness, leaving the field without a “gold standard” measure.

After the measurement of mindfulness has progressed, a clearer understanding of how a person moves from acts of mindfulness to a sense of meaning and purpose in life is required. We have delineated the complexity of describing meaning in life as a single psychological phenomenon. There is sufficient theory and research to distinguish the comprehension of life from the presence and pursuit of a purpose in life. Furthermore, there is value in separating the detection and creation of meaning in life, as the most common acts of making sense of the world involves automatic reactions, heuristics, and intuition.
which involve operations that often run counter to mindfulness. With greater connective tissue to prior work, much is to be gained by fleshing out why and when mindfulness and meaning in life are linked, and how these paths may differ as we consider a range of psychological, physical, and social benefits.

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Address correspondence to Todd B. Kashdan, Department of Psychology, MS 3F5, George Mason University, Fairfax, VA 22030. E-mail: tkashdan@gmu.edu

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