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## **Back to the Basics: How Attention Monitoring and Acceptance Stimulate Positive Growth**

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Mindfulness-to-meaning theory moves beyond asking how mindfulness reduces negative affective states (a dominant theme in the mindfulness literature) to a focus on how mindfulness might foster positive psychological processes and outcomes. Specifically, how might mindfulness cultivate personal growth and flourishing? Mindfulness is a practice of monitoring present-moment experiences with an orientation of acceptance, regardless of the content or affective tone of those experiences. But when we return to our daily lives, where the content of our thoughts and feelings does have self-relevant meaning and implications, how does mindfulness integrate with these evaluative processes to initiate a chain of positive growth? The target article by Garland, Farb, Goldin, and Fredrickson (this issue) addresses these questions by describing how mindfulness engenders positive reappraisal and savoring, and through multiple iterations of decentering and metacognitive awareness, a cascade of positive growth and meaning making is posited.

Despite a tremendous surge of empirical work on mindfulness and mindfulness training interventions over the last 15 years (Brown, Ryan, & Creswell, 2007; Creswell & Lindsay, 2014), there have been few organizing conceptual or theoretical models offered in the mindfulness literature (Brown, Creswell, & Ryan, 2015). Mindfulness-to-meaning theory offers a new conceptual lens that attempts to bridge mindfulness research with theoretical perspectives in positive psychology and affective science, and we welcome this important contribution to the literature. In our commentary, we first offer some questions raised by the mindfulness-to-meaning theoretical account and then turn to some considerations of what specific mechanisms of mindfulness may be important for triggering and propagating positive growth and meaning-making processes.

### **Mindfulness-To-Meaning: From the Cushion to Daily Life**

Mindfulness practice trains a unique orientation toward present experience, which has been shown to

mitigate negative affective experiences (see Keng, Smoski, & Robins, 2011). But in this issue, Garland and colleagues describe a plausible process model to explain how mindfulness generates an upward spiral of positive outcomes. We particularly resonate with their illustration of this process as an ongoing cycle of reengagement in decentering and metacognitive awareness, two key mindfulness skills that we expand on in the next section. Indeed, one strength of mindfulness-to-meaning is this framework that integrates mindfulness into daily life as an unfolding process that promotes positive outcomes.

There may be multiple levels at which mindfulness practice influences positive outcomes, and the target article suggests two. First, it's possible that engaging in meditation practice has acute aftereffects, serving to reset a person back to an affectively neutral baseline state, perhaps priming a more neutral (or benign) interpretation of the world. For example, mindfulness practice on a given day impacts behaviors and interactions in ways that promote relationship happiness for several days after practice (Carson, Carson, Gil, & Baucom, 2004). Second, after practicing formal mindfulness techniques that train a decentered stance of meta-awareness toward experience, mindfulness becomes a resource that can be actively applied "off the cushion" to experiences in daily life. For example, in an acute stress situation, it's possible to maintain a state of objective meta-awareness, in which the changing qualities of arising experiences are continuously monitored from a place of calmness and equanimity. Holding this quality of consciousness allows one to see a situation clearly, acknowledging distressing feelings while considering how to respond. Further, the target article illustrates how more formal mindfulness techniques may be utilized in response to stress; by dropping more fully into a decentered perspective, a state of calm awareness can return, and attention is broadened to include features beyond distress.

From here, mindfulness-to-meaning theory focuses on positive reappraisal as a key process linking mindfulness with positive growth, and some initial evidence supports this view (e.g., Garland, Gaylord, & Fredrickson, 2011). However, it may be a

leap to place positive reappraisal as a central mechanism for these outcomes. Indeed, it seems likely to us that many different downstream regulatory strategies are fostered with mindfulness, such that mindfulness can enhance one's regulatory flexibility (Bonanno & Burton, 2013). We suggest alternatives here, in the hopes that these possibilities spark further discussion and scientific inquiry.

As the authors mention, reappraisal is an evaluative process, which deviates from basic descriptions of mindfulness as nonlaborative awareness. Nonetheless, they argue that mindfulness broadens one's attention beyond a sole focus on negative thoughts and feelings to include momentary neutral and pleasant cues, and by restoring this balance, positive reappraisals are more easily accessed. But by the same token, once mindfulness helps to regulate negative emotion, room is made for a variety of other psychological strategies to enter and foster an appropriate response to a situation (Hölzel et al., 2011; Shapiro, Carlson, Astin, & Freedman, 2006). For example, simply exposing oneself to difficult thoughts, feelings, and sensations without reacting may be enough to extinguish an initial stress appraisal (Hölzel et al., 2011). Mindfulness allows one to tolerate difficult experiences, accept current circumstances as they are, and adjust accordingly. By viewing a situation and one's reactions objectively—rather than suppressing, avoiding, or automatically reacting—mindfulness facilitates accurate appraisals and provides a pause to select between many strategies (Bonanno & Burton, 2013), which might (but does not necessarily) include cognitive change strategies like positive reappraisal (Creswell & Lindsay, 2014).

In the context of major life events, when a person may need to readjust goals and make sense of adversity, positive reappraisal may be one pathway emerging from mindfulness and leading to a sense of meaningfulness. But it does not necessarily take major adversity to promote a sense of meaning in life (e.g., positive affect can increase a sense of meaning; King, Hicks, Krull, & Del Gaiso, 2006), and there may also be more direct paths from mindfulness to meaning. For example, mindfulness-to-meaning includes savoring in its model; this enhanced focus on subtle pleasurable sensations and emotions is more immediately linked with the application of mindfulness in daily life. Simply noting positive stimuli and appreciating them in the moment may facilitate positive affect and well-being—and again, there is no requirement for a positive reappraisal process in this context.

Finally, it is worth considering and testing the possibility that positive reappraisal is not a product of the active components specific to mindfulness but instead could result from nonspecific factors of mindfulness-based interventions. Positive reappraisal is

certainly not unique to mindfulness approaches but could result from a supportive class environment or instructor. Another potential mechanism for mindfulness treatments in increasing meaning is positive expectancies; for example, effortful engagement in mindfulness practice (or any active training approach) can foster positive views of achieving a goal, which fosters meaning. More research is needed to tease apart whether it is mindfulness or other nonspecific factors that may be driving positive reappraisal and meaning-making outcomes. To evaluate these questions, we hope this commentary encourages new studies. In particular, well-controlled mindfulness training intervention studies are needed that show increases in positive reappraisals following mindfulness training, which in turn mediate increases in meaning at follow-up (relative to an active control program that lacks training in mindfulness or reappraisal and controls for nonspecific factors of social interactions and positive expectancies).

### **The Role of Monitoring and Acceptance in Making Meaning**

We also resonate with the mindfulness-to-meaning idea that mindfulness fosters positive growth and meaning, as there are many anecdotal reports of growth and meaning after mindfulness training interventions (yet there is relatively little empirical research on this topic, an area this target article aims to stimulate). But an important question remains about what components of mindfulness (and mindfulness-training interventions) might kick-start the meaning making process. Here we build on mindfulness-to-meaning theory by expanding on the underlying mechanisms of mindfulness that may help to initiate and sustain this positive trajectory. In our ongoing work, we have described monitor-and-acceptance theory (MAT; Lindsay & Creswell, 2015), which predicts how mindfulness training uniquely impacts a broad range of cognitive, affective, and stress-related health outcomes via its basic components: attention monitoring and acceptance. These two features of mindfulness are common across conceptualizations of mindfulness (Bishop et al., 2004; Quaglia, Brown, Lindsay, Creswell, & Goodman, 2014) and are the central practices instructed in mindfulness training interventions. The target article aims to move beyond the simple description of mindfulness as “present-centered non-judgmental awareness” (Dreyfus, 2011), yet we see value in considering the interactions of these basic skills to predict the pathways leading from stressful events to positive growth and meaning. Indeed, MAT posits that there are distinct and synergistic effects of attention monitoring and acceptance on specific

outcomes reported in the mindfulness literature. We first explain the basic tenets of MAT, then explore how the two basic skills of attention monitoring and acceptance initiate and propagate the upward-spiraling process described in mindfulness-to-meaning.

Attention monitoring, an ongoing awareness of momentary sensory and perceptual experiences (e.g., sounds in the environment, specific body sensations, mental dialogue and images), is typically trained first in mindfulness interventions. Practice involves staying in contact with a chosen focus object (e.g., the breath) and redirecting attention back to that object when the mind wanders. As such, attention monitoring trains the entire attention system (Posner & Petersen, 1990), involving conflict monitoring to recognize when the mind wanders, orienting to bring attention back to the intended focus, and alerting to maintain this focus (Chiesa, Calati, & Serretti, 2011; Tang, Hölzel, & Posner, 2015). Indeed, meditation training focused on attention monitoring improves attentional performance in these domains (Jha, Krompinger, & Baime, 2007; Lutz, Slagter, Dunne, & Davidson, 2008).

By training attention, monitoring skills enhance and intensify experience. Without an orientation of acceptance toward monitored experience, though, monitoring heightens the experience of salient distressing stimuli and exacerbates symptoms (e.g., Ehlers & Breuer, 1996). In the context of stress, monitoring one's momentary distress can narrow the focus of attention to rest on negative cognitions while excluding neutral sensory and interoceptive cues (Farb et al., 2010). Although paying attention to what you're doing in the present is associated with happiness (Killingsworth & Gilbert, 2010), monitoring negative thoughts in the present may be detrimental unless they are monitored with acceptance. Indeed, there is a growing body of evidence suggesting that merely paying attention to present moment experiences heightens reactivity among those unfamiliar with mindfulness techniques. By itself, attention monitoring correlates with heightened stress symptoms and anxious arousal (Brown, Bravo, Roos, & Pearson, 2015; Desrosiers, Klemanski, & Nolen-Hoeksema, 2013; Hamill, Pickett, Amsbaugh, & Aho, 2015; Pearson, Lawless, Brown, & Bravo, 2015), and among nonmeditators, monitoring predicts a strong association between negative life events and ensuing distress (Neale-Lorello & Haaga, 2015).

On the other hand, monitoring positive cues can intensify pleasurable experiences. Preliminary correlational evidence supports the idea that attention monitoring facilitates positive outcomes: self-reported monitoring skills correlate with satisfaction with life and positive growth following trauma exposure (Chopko & Schwartz, 2009; Christopher &

Gilbert, 2010), and increases in monitoring skills following mindfulness training predict positive affect (Schroevers & Brandsma, 2010). Considered together, MAT posits that training in attention monitoring alone underlies the effects of mindfulness on improved cognitive and attentional performance, and also heightens affective experience and reactivity.

Acceptance, an objective and nonreactive orientation toward momentary experiences, is typically trained after initial practice in monitoring one's experiences. No matter the content of monitored experience, acceptance allows all experiences to arise and pass without further reactivity, and even unpleasant or stressful experiences are approached with an attitude of gentle curiosity and interest (Bishop et al., 2004; Desbordes et al., 2014). This mental stance of nonjudgment, openness, and equanimity serves as a dynamic emotion regulation skill, and MAT posits that it is a critical mechanism for mindfulness training effects on mitigating affective and stress reactivity. An accepting mindset has been shown effective for adjusting to chronic pain (McCracken, 1998), coping with stress (Stone, Kennedy-Moore, & Neale, 1995), and reducing anxiety and depression symptom severity (Arch et al., 2012; Forman, Herbert, Moitra, Yeomans, & Geller, 2007).

Because mindfulness training programs do not teach acceptance in isolation, but rather train acceptance techniques as a way of approaching or greeting monitored experiences, MAT focuses on the synergistic effects of monitoring and acceptance. Indeed, training in mindfulness meditation increases coupling between monitoring and acceptance (Baer et al., 2008), and among experienced meditators high in attention monitoring skills, the occurrence of stressful life events does not predict distress (Neale-Lorello & Haaga, 2015). Further, acceptance has been shown to moderate the effects of monitoring on exacerbating negative reactivity, such that high self-reported monitoring skills are associated with lower psychological distress only at high levels of self-reported acceptance (Barnes & Lynn, 2010; Pearson et al., 2015). Although paying close attention to feelings of stress and anxiety symptoms can exacerbate those symptoms, greeting these experiences with acceptance moderates negative reactivity. This important orientation of acceptance and nonreactivity toward distressing thoughts and feelings allows them to be acknowledged as no more or less important than other present stimuli. Acceptance thus modifies how an individual relates to monitored experiences, such that negative experiences are less potent, neutral sensations are a source of rest and subtle pleasure, and positive experiences can be savored in the moment. As such, the combined skills of attention monitoring and acceptance are posited to explain how mindfulness reduces affective and stress reactivity, as well as grasping of positive experiences (e.g., craving).

MAT's framework aims to predict how mindfulness impacts downstream outcomes. The basic skills of attention monitoring and acceptance may play an important role both in kick-starting the mindfulness-to-meaning process and in encouraging the ongoing cycle of positive growth. In isolation, monitoring one's experiences is not sufficient to eliminate negative states, and experiential acceptance is not sufficient to generate positive states. Instead, the interaction of these two components may be necessary at each stage, with acceptance of monitored experience particularly important in regulating emotional distress, which allows attention to broaden beyond negative symptoms (making room for more flexible responding, including positive reappraisal processes), and subsequent monitoring of a broader range of cues enhancing one's savoring of positive experiences.

Mindfulness-to-meaning theory begins by addressing how mindfulness minimizes the impact of stressful life events (and then transforms these experiences into opportunities for positive reappraisal and growth). Once an initial stress appraisal is made, the target article describes a process of mindfulness promoting decentering, which stimulates metacognitive awareness of a broader range of experience, including neutral sensory and perceptual information. We view decentering and acceptance as related and complementary processes. In low-arousal contexts, decentering techniques (e.g., viewing thoughts as transient states of mind; Papiés, Barsalou, & Custers, 2012) may inhibit resistance to or suppression of thoughts, temporarily inducing a sense of acceptance and receptivity toward experiences. However, in more distressing situations, acceptance may be a prerequisite to the ability to decenter and allow oneself to recognize and step back from maladaptive thought patterns. In one large correlational study, acceptance skills uniquely predicted decentering, which initiated a chain of psychological processes that predicted lower depressive, stress, and anxiety symptoms (Brown et al., 2015; see Shapiro et al., 2006). These results support the notion that decentering, this shift in perspective or orientation toward one's experiences, is key for reducing the impact of psychological distress, but that this shift is made possible when an attitude of acceptance is first present.

Once acceptance and decentering allow for disidentification with distressing experiences, mindfulness-to-meaning suggests that awareness is broadened beyond those negative cognitions to monitor ongoing sensory and perceptual information. At this point, attention monitoring skills are crucial for noticing these neutral stimuli alongside any residual negative thought patterns, opening opportunities to experience sensations as subtly pleasant or relaxing. Acceptance plays a role in transforming previously tagged negative sensations (e.g., emotional sensations

of excitement, racing heart), stripping them of their conditioned associations with stress and replacing that with openness, curiosity, and equanimity. This more balanced, broadened perspective of context surrounding an initial stress appraisal then opens doors for flexible responding, including (but not limited to) positive reappraisal processes.

As the authors note, reappraisal is not congruent with the basic description of mindfulness incorporating present-focused attention monitoring and acceptance. However, to the degree that acceptance can reduce distress, thus expanding the content of monitored experience to involve neutral and pleasant sensory and perceptual information, cognitive resources are freed to consider and implement adaptive reappraisal or other coping strategies. At this stage, ongoing acceptance softens distress that may otherwise encourage avoidant strategies, and purposefully engaging in attention monitoring provides opportunities to notice other perspectives for coping with the stressor, perhaps even recognizing the experience's potential to be transformative for encouraging personal growth.

In addition, once the balance shifts from focusing solely on negative reactivity to encompass neutral and positive inputs, mindfulness-to-meaning suggests that attention becomes tuned to a plentiful array of positive cues. MAT suggests that monitoring skills are particularly important at this stage of the positive growth process, because just as monitoring enhances awareness of negative stimuli in a stressful context, monitoring enriches the experience of positive stimuli. Savoring involves noticing and appreciating subtle and diverse sensations and feelings states, which is facilitated by careful monitoring of ongoing sensory and perceptual events. Noticing and observing these pleasant cues amplifies their effects.

One caution noted in the target article is that tuning to positive experiences may lead one to seek these experiences at the expense of recognizing actual ongoing phenomena, or to grasp on to positive experiences when they do occur. MAT predicts that acceptance of experience helps to reduce clinging, allowing positive experiences to come and go without attachment to any content. In this way, one can monitor and appreciate the subtle changing nature of pleasant experiences, and perhaps derive further pleasure or contentment from this practice.

## Conclusion

This target article generates exciting opportunities to investigate long-term positive effects of mindfulness practice. The authors extend beyond the effects of mindfulness training on reducing negative affective outcomes to consider how mindfulness is applied

in our daily lives in ways that promote positive growth and meaningful experiences. Indeed, mindfulness training interventions are proving to be unique in their association with long-term maintenance of benefits (e.g., Kuyken et al., 2015), even though many people don't continue to practice formally after the training period (e.g., Taren et al., 2015). This suggests that the skills of attention monitoring and acceptance as instructed in mindfulness interventions retrain habitual patterns of observing and greeting the world in ways that translate to flexible and adaptive strategies for continued personal growth.

### Note

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