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Mindfulness Meditation Impairs Task Motivation but Not Performance

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ABSTRACT

A state of mindfulness is characterized by focused, nonjudgmental awareness of the present moment. The current research experimentally investigated how state mindfulness influences task motivation and performance, using multiple meditation inductions, comparison conditions, tasks, and participant samples. Mindfulness inductions, relative to comparison conditions, reduced motivation to tackle mundane tasks (Experiments 1–4) and pleasant tasks (Experiment 2). Decreased future focus and decreased arousal serially mediated the demotivating effect of mindfulness (Experiments 3 and 4). In contrast to changes in motivation, inducing a state of mindfulness did not affect task performance, as seen in all experiments but one (Experiments 2–5). Meta-analyses of performance experiments, including unreported findings (i.e., the file drawer), supported these conclusions. Experiment 5's serial mediation showed that mindfulness enabled people to detach from stressors, which improved task focus. When combined with mindfulness's demotivating effects, these results help explain why mindfulness does not alter performance.

1. Introduction

> "The idea that mindfulness would improve productivity is kind of an odd notion on the face of it, […] I think dogs have access to it by default. At any moment when I re-claim my doghood, I'm just sitting here dumb and happy. I'm not motivated, for better or for worse." U.S. meditation instructor Kenneth Folk[1] (quoted in Gershon, 2016, p.1).

Mindfulness meditation is a practice that cultivates non-judgmental awareness of experience in the present moment (Brown & Ryan, 2003). Corporate CEOs have spoken publicly about the personal benefits of practicing meditation (Carlock, 2014; Lockhart & Hicken, 2012). In order to manage the stresses they face at work, 13% of U.S. employees report engaging in mindfulness-enhancing activities (Olano et al., 2015). Mindfulness's popularity has shot up so rapidly that the *Harvard Business Review* concluded that it is "close to taking on cult status in the business world" (Brendel, 2015, p. 1).

Popularity in the corporate world mirrors a sharp uptick in scholarly interest, which overwhelmingly has focused on mindfulness's benefits (for reviews, see Good et al., 2016; Sutcliffe, Vogus, & Dane, 2016). Multiple investigations have tied mindfulness to desirable workplace outcomes. Several weeks of mindfulness training increases job satisfaction (Hülsheger, Alberts, Feinholdt, & Lang, 2013) and improves workers' sleep quality (Wolever et al., 2012). Trait mindfulness, a chronic disposition towards focusing on the present moment in a nonjudgmental and accepting fashion, predicts leadership outcomes (Reb, Narayanan, & Chaturvedi, 2014), ethical and prosocial behaviors (Gu, Zhong, & Page-Gould, 2013; Reb, Narayanan, & Ho, 2015; Ruedy & Schweitzer, 2010), and low levels of retaliatory and abusive tendencies (Liang et al., 2016; Long & Christian, 2015; see also Yu & Zellmer-Bruhn, 2018).

While the myriad advantages of mindfulness are well-established (Glomb, Duffy, Bono, & Yang, 2011; Kudesia, in press), its boundaries and limitations are only beginning to be uncovered (Dane, 2011). When a construct's documented effects are largely positive or negative, much theoretical traction can be gained by investigating effects in the opposing valance. That rationale, along with calls by mindfulness scholars to uncover the relationships among mindfulness, motivation, and performance (Choi & Tobias, 2015; Dane, 2015; Good et al., 2016), stimulated the current investigation on whether a state of mindfulness can harm goal motivation.

1.1. State mindfulness

A single 8–15 min session of meditation, aimed at invoking the situational state of mindfulness, can produce affective, cognitive, and

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[1] Wired magazine called Kenneth Folk a "power player in the mindfulness movement" who "popularized the notion of open source enlightenment, winning adherents in Silicon Valley" (Shachtman, 2013, p.1).

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behavioral changes thereafter. A single mindfulness induction can increase empathy (Winning & Boag, 2015) and improve reading comprehension (Clinton, Swenseth, & Carlson, in press) and negotiation outcomes (Reb & Narayanan, 2014; cf. Grapendorf, Sassenberg, & Landkammer, 2017). State mindfulness can impede the impact of potentially undesirable situational influences. Mindfulness inductions, compared to neutral states, boost resistance to the sunk cost bias (Hafenbrack, Kinias, & Barsade, 2014), prevent distraction (Mrazek, Smallwood, & Schooler, 2012), and encourage resilience in the face of distressing images (Arch & Craske, 2006).

State mindfulness inductions are found in studies using experimental design, wherein people are randomly assigned to perform a meditation or comparison exercise. The use of random assignment to condition gives credence to the interpretation that state mindfulness, which is able to be cultivated in a short enough time period to be amenable to the workplace, can evince changes in organizationally-relevant outcomes (Hafenbrack, 2017). Accordingly, in order to understand the psychological processes that follow from a mindfulness experience, we too used experimental design. This approach allows for greater confidence interpreting effects as being due to state mindfulness as opposed to unmeasured differences between people, as can be the case with trait mindfulness findings.

1.2. Could mindfulness reduce task motivation?

There is an inherent tension between being accepting of one's present experience and motivated to achieve something new. A main aim of mindfulness is to get people to be content with their current state (Bishop et al., 2004), whereas task motivation could be cast as being the opposite of that (Locke & Latham, 2006). That is, motivation is about attaining a future state that is different (often better) than the current one. Laboratory research suggests that motivation could be reduced to the extent that people concentrate on the present moment. Compared to people who had been instructed to compare their current state to a desired future state, people who considered only the current situation reported being less motivated to work (Oettingen et al., 2009). These ideas suggest that to the extent that mindfulness draws attention away from the future and promotes acceptance of the status quo, it may interrupt goal-achievement processes. Hence, one key reason why state mindfulness could impair task motivation is by reducing future focus.

Reducing future focus may lead to reduced arousal. Arousal, being the physiological and emotional feeling of energy (Schachter & Singer, 1962; Smith & Ellsworth, 1985), may seem an inherent consequence of anticipating future events, and there is evidence in support of that idea. People experience heightened arousal before performing challenging tasks such as negotiating (Brooks & Schweitzer, 2011), giving a speech, or singing in public (Brooks, 2014). Moreover, a recent experience sampling study found that thoughts focused on the future were associated with concomitantly higher levels of subjective arousal (Baumeister, Hofmann, & Vohs, 2015). We therefore sought to test whether one of the key consequences of mindfulness, reduced future focus, also could impair state arousal.

A state of mindfulness could then impair task motivation through reductions in arousal. As arousal is an indicator of energy that can be directed towards accomplishing upcoming tasks (Brooks, 2014), it is known to increase motivation (Brehm & Self, 1989; Buck, 1985; Schupp et al., 2000)—and indeed some scholars even use the words arousal and motivation interchangeably (Humphreys & Revelle, 1984). Physiological arousal is a central component of motivational effects (Gendolla, Brinkmann, & Silvestrini, 2012). Since mindfulness can reduce arousal (Sutcliffe et al., 2016), it may influence how much energy people feel they have to devote to upcoming tasks. This rationale led us to expect that inducing a state of mindfulness would reduce arousal and, consequently, task motivation.

In summary, we predicted that an induction of mindfulness meditation, compared to a non-meditative state, would reduce future focus, arousal, and task motivation. We further predicted that the psychological states of reduced future focus and arousal would account for the conditional effect on task motivation in a serial fashion. That is, we predicted:

Hypothesis 1.. The mindfulness condition would reduce task motivation.

Hypothesis 2.. The effect of the mindfulness condition on task motivation would be serially mediated by reduced future focus leading to reduced state arousal.

1.3. Mindfulness and task performance

While motivation is an important workplace outcome (Ryan & Deci, 2000; Hackman & Oldham, 1976; Herzberg, 1966), task performance, arguably, is just as or more important. To that end, we measured task performance as well.

The motivation to perform well on a task often is a strong and positive driver of performance (Ajzen, 1991). The literatures on expectancy theory (Porter & Lawler, 1968; Vroom, 1964) and goal-setting theory (Latham & Locke, 1979), bolstered by support from more than 400 studies (Locke & Latham, 2006), point to the prediction that motivation influences performance. Scholars generally accept that a reduction in task motivation ordinarily also reduces performance on that task. These rationales suggest that if mindfulness reduces task motivation, mindfulness would also reduce task performance. Our initial prediction therefore was:

Hypothesis 3a.. The mindfulness condition would impair task performance.

Next we considered the combined effects of mindfulness on motivation and performance outcomes. There are several reasons to predict that a state of mindfulness may impair task performance less than it impairs task motivation. A single session of mindfulness training may weaken the relation between motivation and behavior, as seen in a recent study (Papies, Pronk, Keesman, & Barsalou, 2015). We theorized that mindfulness may produce countervailing psychological processes on task performance. As reflected in Hypothesis 3a, one pathway would be mindfulness's reduction in task motivation, which would be expected to harm task performance.

Yet at the same time, there are reasons to think that mindfulness could nonetheless aid task performance. Mindfulness allows people to psychologically detach from stressors, such as concerns, problems, and obligations (Hülsheger, Feinholdt, & Nübold, 2015; Hülsheger et al., 2014). Off-task concerns and worries can impair performance on cognitive tasks (Mikulincer, 1989) and tests of intelligence and knowledge (Ramirez & Beilock, 2011; Steele & Aronson, 1995). Attention to the present moment during meditation reduces mind-wandering during subsequent tasks (Mrazek et al., 2012), which is germane because mind-wandering has been found to be a source of error in a variety of tasks (Smallwood & Schooler, 2015). To the extent that detaching from stressors allows people to focus more fully on the task, these consequences of mindfulness may help task performance. These rationales led to two additional predictions about performance:

Hypothesis 3b.. The mindfulness condition would have a stronger (negative) effect on task motivation than on task performance, as seen in an interaction between the mindfulness condition (between participants) and motivation versus performance outcomes (within participants).

Hypothesis 4.. The mindfulness condition would reduce concerns over stressors, which then would increase task focus, resulting in a serial mediation pathway between the mindfulness condition and task performance.