Explaining these areas will strengthen future theorizing of mindfulness at work and increase its practical utility.

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A Deeper Dive Into the Relationship Between Personality, Culture, and Mindfulness

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The focal article by Hyland, Lee, and Mills (2015) ends with several important questions and suggestions for future research. Although the review opens new avenues of investigation for industrial and organizational (I-O)

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psychologists, the treatment of two questions may leave readers with the impression that research in these areas is nonexistent. Specifically, the authors posed the following inquiries: (a) Is mindfulness good for everyone (across personality and culture), and (b) is it appropriate to introduce mindfulness into the workplace? As a result, our commentary delves deeper into the current literature to investigate these questions, examining who is best served by mindfulness interventions (i.e., the relationship between personality traits and outcomes) and how cultural factors can facilitate success—or failure—of mindfulness programs. Following this examination, we address the question of whether mindfulness is a suitable workplace intervention and caution against a one-size-fits-all approach that may fail to target specific organizational and employee needs. In so doing, this commentary furthers the goal of the focal article, in which the authors expressed a hope for the I-O community to develop "a more comprehensive understanding of what we know—and what we still need to learn—about mindfulness at work" (Hyland et al., 2015, p. 578).

Who Benefits Most From Mindfulness Training Programs? The Role of Personality

Hyland et al. speculated that mindfulness training programs might benefit some individuals more than others, and they called for researchers to explore whether certain personality traits, such as neuroticism and conscientiousness, moderate intervention effectiveness. Although this area of research is still in its infancy, there are several studies that are beginning to elucidate the relationship between personality factors and the efficacy of mindfulness training. For example, in a recent issue of *Mindfulness* (a peer-reviewed journal dedicated to empirically exploring this program/lifestyle), de Vibe et al. (2015) reported results of a randomized controlled trial that assessed whether baseline levels of neuroticism, conscientiousness, extroversion, and trait mindfulness moderated the response to a 7-week mindfulness-based stress reduction (MBSR) program for medical and psychology students. The latter two variables (i.e., extroversion and trait mindfulness) were not significant moderators, but the researchers did find that students with higher baseline levels of either neuroticism or conscientiousness derived more benefit from the mindfulness program than those who scored lower on these personality traits. Specifically, the MBSR program had a greater effect on mental distress and subjective well-being in participants with higher baseline neuroticism scores. Participants with higher baseline conscientiousness scores had a significantly larger reduction in stress levels. It is notable that the types of outcomes affected were different for those high in neuroticism versus high in conscientiousness. Thus, in addition to identifying who benefits most from mindfulness interventions, it is also important for I-O researchers

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to consider the specific outcomes that are affected and how personality variables might interact with mindfulness to predict these outcomes.

Other researchers (e.g., Giluk, 2009; Lane, Seskevich, & Pieper, 2007; Shapiro, Brown, Thoresen, & Plante, 2011) have also examined the relationship between personality and the success of mindfulness interventions. These studies were conducted in a variety of settings with samples that included employees, students, and/or patients. Based on the results, neuroticism appears to be the most robust moderator. In other words, individuals who score high on measures of neuroticism are likely to reap the greatest benefit from mindfulness programs. Given that people who are high on this trait tend to experience excessive worry, guilt, and negative affect, de Vibe et al. (2015) hypothesized that mindfulness interventions like MBSR enhance emotion-regulation skills, which in turn counter negative patterns of reactivity. Conscientiousness also appears to be a fairly robust moderator of response to mindfulness training. However, considering that individuals high in this trait are characterized by a long-standing pattern of organized, careful, and deliberative behavior, the mechanism of action is likely different than for those high in neuroticism. For example, it may be that people who are highly conscientious benefit from exercises that reinforce being present in the moment (as opposed to fixating on the future, which can be stress inducing). Research on other personality factors, such as extroversion and trait mindfulness (i.e., dispositional qualities such as nonreactivity to inner experiences and nonjudgmental awareness of self and others), is mixed. That is, researchers have not consistently found that these traits moderate the effectiveness of mindfulness programs. Taken together, these findings begin to shed light on what works for whom and will ultimately help employers make more informed decisions about whether a mindfulness program is worth the investment, given the specific profile of their workforce and the outcomes they wish to achieve.

Who Benefits Most From Mindfulness Training Programs? The Role of Culture

In the focal article, Hyland et al. propose that culture (e.g., Eastern vs. Western) may impact the effectiveness of mindfulness programs, and they encourage those who are designing or implementing interventions to take this into account. However, the authors did not provide guidelines or resources in furtherance of their recommendation. We suggest that interested readers consult the 2013 special issue of *Cognitive and Behavioral Practice* (Volume 20, Issue 1), which features research on cultural adaptations for mindfulness-based practices. A number of valuable insights can be gleaned from this collection of work, but in the interest of brevity, we focus on two key considerations: cultural match and assessing (versus assuming).

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First, cultural adaptations become more effective as the fit between intervention characteristics and the culture of the participant increases (La Roche, 2013). Although this may seem obvious, the requisite knowledge for this to occur is often overlooked. Namely, researchers must possess an awareness of the cultural assumptions of an intervention and then compare these assumptions with those of participants. This leads to the second point, which is that rather than operating based on generalizations, researchers must *assess* the culture of participants. In adapting an MBSR program for low-income African-American women, Dutton, Bermudez, Matas, Majid, and Myers (2013) did just that, successfully utilizing focus groups to identify a number of helpful modifications (e.g., shortening the length of the sessions, accentuating the secular nature of the intervention, and providing childcare). Other articles in the special issue provide examples of how mindfulness metaphors were modified to be consistent with the cultural values of participants (Hinton, Pich, Hofmann, & Otto, 2013) and how mindfulness interventions were adapted based on the degree to which participants endorsed an individualist or collectivist viewpoint (Sobczak & West, 2013). Although this body of research is not specific to mindfulness in the workplace, the general principles and ideas can easily be applied to work settings. Indeed, very different occupations, and even organizations, might have subcultures that need to be (a) understood, (b) assessed, and (c) taken into account. For instance, an MBSR program for firefighters would be very different from a program for accountants.

Is Mindfulness an Appropriate Workplace Intervention?

In addition to considering who derives the greatest benefit from mindfulness programs, an even more fundamental question is whether or not mindfulness is an apt workplace intervention. This matter is raised in the penultimate section of the focal article, and examples of various concerns, such as debasing the original intent of mindfulness practice and using the intervention to manipulate employees, are provided. Although these concerns are certainly worthy of consideration, we were surprised there was not a discussion on whether mindfulness addresses problems of actual significance to employees. In other words, is mindfulness the most appropriate and/or relevant approach to improving employee well-being? Based on lessons learned during the course of our own research, it is our contention that an assessment of employee needs ought to be performed prior to deciding whether mindfulness is an appropriate intervention for a given organization.

Over the past several years, we have conducted a number of studies on burnout interventions for mental health employees. As part of this research, we run BREATHE (Burnout Reduction: Enhanced Awareness Tools, Handouts, and Education) workshops, which teach participants mindfulness,

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relaxation, and other stress management skills. Although this intervention has been shown to significantly reduce mean levels of burnout (Salyers et al., 2011), qualitative feedback suggests that some participants were not experiencing burnout, and while they may have learned new skills, the program may not show benefits or relevance for particular individuals. The idea that workplace interventions may not be addressing the most pressing needs of employees was further supported in our recent meta-analysis on the effectiveness of burnout interventions for mental health employees (Dreher & Salyers, 2015). We found that the average level of burnout in many of the samples was relatively low. A meta-regression of this data showed that lower baseline levels of burnout were associated with smaller intervention effect sizes and accounted for upward of 50% of the variance in intervention effectiveness.

In a related vein, many of the researchers of studies included in the meta-analysis described how organizational problems such as work overload, lack of administrative support, and other job demands had hampered interventions. The irony of this is striking. That is, the most pressing needs of employees subverted the successful implementation of arguably irrelevant interventions. These findings underscore the importance of assessing specific employee concerns and tailoring interventions accordingly. Mindfulness may be a relevant and appropriate program for some organizations (e.g., job sectors in which the nature of the work is extremely stressful and cannot be better addressed through environmental modifications) and for certain employees (e.g., highly burnt-out workers), but in order to maximize resources and efficacy, it is imperative that mindfulness not be relied on as a one-size-fits-all intervention.

Conclusions

Hyland et al. provided a broad overview of mindfulness and raised a number of excellent points with respect to utilizing mindfulness interventions in the workplace. That said, the article failed to highlight available research on what types of people derive the greatest benefit from mindfulness training, possibly leaving readers with the false impression that no work has been done in this area. Furthermore, the article was superficial in its coverage of what is perhaps the most foundational question: Is mindfulness an appropriate workplace intervention? Accordingly, our commentary helped to fill these gaps. Specifically, we briefly summarized recent findings on the relationship between personality traits and mindfulness outcomes, describing how individuals high in either neuroticism or conscientiousness seem to benefit more from mindfulness training than those who score lower on these traits. We also provided readers with resources pertaining to cultural adaptations for mindfulness and discussed the importance of cultural match and

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assessment. Last, we cautioned against blindly implementing mindfulness programs and argued in favor of first assessing the specific needs of employees. These recommendations were supported using examples from our own line of research. Given that mindfulness programs are becoming increasingly popular in the workplace, we are pleased that the I-O community is taking more of an interest in this intervention and look forward to the advances likely to follow.

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