Examining workplace mindfulness and its relations to job performance and turnover intention

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Abstract

In recent years, research on mindfulness has burgeoned across several lines of scholarship. Nevertheless, very little empirical research has investigated mindfulness from a workplace perspective. In the study reported here, we address this oversight by examining workplace mindfulness – the degree to which individuals are mindful in their work setting. We hypothesize that, in a dynamic work environment, workplace mindfulness is positively related to job performance and negatively related to turnover intention, and that these relationships account for variance beyond the effects of constructs occupying a similar conceptual space – namely, the constituent dimensions of work engagement (vigor, dedication, and absorption). Testing these claims in a dynamic service industry context, we find support for a positive relationship between workplace mindfulness and job performance that holds even when accounting for all three work engagement dimensions. We also find support for a negative relationship between workplace mindfulness and turnover intention, though this relationship becomes insignificant when accounting for the dimensions of work engagement. We consider the theoretical and practical implications of these findings and highlight a number of avenues for conducting research on mindfulness in the workplace.

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For centuries, sages across many cultures have trumpeted the benefits of *mindfulness* – a psychological state in which one focuses attention on events occurring in the present moment (Brown and Ryan, 2003; Dane, 2011). While mindfulness is often associated with traditions that are more philosophical than scientific, recent years have witnessed a remarkable surge of research activity surrounding mindfulness across several fields, including clinical and counseling psychology (e.g. Bishop et al., 2004; Shapiro et al., 2008), social and personality psychology (e.g. Giluk, 2009; Niemiec et al., 2010), neuroscience (e.g. Creswell et al., 2007; Davidson et al., 2003), medicine (e.g. Epstein, 1999; Santorelli, 1999), and education (e.g. Burke, 2010; Napoli et al., 2005). As a whole, this body of work points to a myriad of benefits associated with mindfulness and supports historically-based claims concerning the merits of focusing on the present.

The rise of scholarly interest in mindfulness has spawned multiple lines of inquiry. A sizable body of work in this area focuses on linkages between mindfulness and psychological and physical well-being. For example, research indicates that mindfulness is positively related to vitality, life satisfaction, and interpersonal relationship quality and negatively related to depression, anxiety, and stress (for reviews, see Brown et al., 2007; Glomb et al., 2011). Accounting for these effects, scholars have argued that mindfulness permits people to view events more objectively and dispassionately (Shapiro et al., 2006; Weinstein et al., 2009) and enables them to regulate their thoughts, emotions, and physiological reactions more effectively (Lakey et al., 2007; Masicampo and Baumeister, 2007; Papies et al., 2012). In a different vein, a more limited but expanding body of work examines the effects of mindfulness on task performance. Through this research, scholars have demonstrated that mindfulness relates positively to judgment accuracy (Kiken and Shook, 2011), insight-related problem solving (Ostafin and Kassman, 2012), and academic performance (Shao and Skarlicki, 2009). Such findings resonate with research indicating that mindfulness enhances cognitive flexibility (Moore and Malinowski, 2009) and promotes executive functioning (Zeidan et al., 2010) – qualities instrumental to performance across a range of tasks.

Given these research findings, one might assume that mindfulness is beneficial within workplace settings. Unfortunately, however, evidence for this possibility is limited because mindfulness has received relatively little consideration in organizational scholarship. Although some have argued that mindfulness promotes key work outcomes (Dane, 2011; Glomb et al., 2011), empirical studies examining this claim are just beginning to emerge (e.g. Hülsheger et al., 2013; Reb et al., 2012). Furthermore, within the limited body of research on mindfulness in the organizational literature, some work adopts a collective, rather than individual, level of analysis (e.g. Rerup, 2009; Vogus and Welbourne, 2003; Weick et al., 1999). While insightful and informative, collective-level accounts of mindfulness implicate processes and mechanisms (e.g. specific forms of social interaction) beyond the scope of mindfulness as conceptualized here (see Vogus and Sutcliffe, 2012, for more detail).

Because empirical research on mindfulness in the workplace is quite limited, key questions remain unanswered. First, and most directly, it is unclear whether or to what degree mindfulness relates to work outcomes associated with the domains of mindfulness-related inquiry noted above – that is, psychological and physical well-being and performance-related behavior. While a small body of work suggests that mindfulness may prove beneficial along these lines – particularly with respect to well-being (Allen and Kiburz, 2012; Hülsheger et al., 2013; Leroy et al., 2013) – research in this area is nascent. In fact, very little empirical research has examined the work outcomes of (individual-level) mindfulness in a particularly notable context – dynamic work environments. Dynamic environments require individuals to make a series of interdependent decisions in real time (Gonzalez, 2005) and, according to some scholars, are the very type of setting in which mindfulness should be of practical concern and theoretical import (e.g. Dane, 2011; Vogus, 2011; Weick and Roberts, 1993). As mentioned, however, empirical assessments of such claims are lacking.

Second, while mindfulness has received relatively little investigation from a workplace perspective, researchers have hardly overlooked questions surrounding how individuals attend to and engage with the work they perform. In fact, organizational scholars have long displayed an interest in the degree to which people are 'engaged' (Kahn, 1990), 'present' (Kahn, 1992), or 'absorbed' (Rothbard, 2001) in their work. Relatedly, scholars have explored the phenomenon of 'flow' – intense concentration and complete engagement with an optimally challenging activity, job, or occupation (Csikszentmihalyi, 1990; Reid, 2011). Bringing together research along these lines, much recent scholarship focuses on the concept of work engagement and its dimensions – vigor, dedication, and absorption (e.g. Bakker, 2011; Macey and Schneider, 2008; Schaufeli et al., 2002). Because these dimensions are concerned with allocating mental resources to tasks and events unfolding in the present moment (Schaufeli et al., 2002), they may occupy a similar conceptual space to that of mindfulness. Researchers have connected work engagement and its dimensions to a number of work outcomes, including job performance and turnover intention (e.g. Christian et al., 2011; Halbesleben, 2010; Salanova et al., 2005). From a mindfulness research standpoint, the expanding body of research on work engagement begs a key question: does mindfulness carry unique variance beyond the dimensions of work engagement in terms of predicting work outcomes?

To address the questions outlined above, we conducted a study within a dynamic service industry context. In this study, we investigated the relationship between mindfulness and job performance, as well as the relationship between mindfulness and a work outcome associated with psychological and physical well-being, turnover intention. In doing so, we examined not only the fundamental relationships between mindfulness and job performance and turnover intention respectively, but also what happens to these relationships when accounting for the three dimensions of work engagement noted above. Collectively, the results reported here inform our understanding of mindfulness in the workplace and carry a number of implications for theory and practice.

Workplace mindfulness

Perhaps not surprisingly, the growth of scholarly interest in mindfulness has generated discussion concerning what, precisely, mindfulness is (e.g. Bishop et al., 2004; Brown

et al., 2007; Kabat-Zinn, 2005). Drawing together features of mindfulness common across a number of conceptualizations, Dane (2011: 1000) defined mindfulness as 'a state of consciousness in which attention is focused on present-moment phenomena occurring both externally and internally.' Similarly, Brown and Ryan (2003: 823) argued that mindfulness involves 'an open, undivided observation of what is occurring both internally and externally.' As these perspectives suggest, mindfulness may be considered a unique state of consciousness given its orientation to the present moment and its wide attentional breadth (Dane, 2011).

While mindfulness is often conceptualized as a state, several studies have revealed disposition-based differences in mindfulness across individuals (e.g. Baer et al., 2006; Brown and Ryan, 2003; Lau et al., 2006). These studies indicate that, all things being equal, some individuals tend to be more mindful than others. In this sense, mindfulness is analogous to positive and negative affect, which can be conceptualized and evaluated as both a state and a trait (Watson et al., 1988).

In line with this individual differences perspective, we expect that people differ in the degree to which they are mindful in their work settings – a concept we term *workplace mindfulness*. Though likely tied to one's dispositional tendency toward mindfulness, workplace mindfulness may be related to other factors as well. For example, research suggests that through practice or training individuals can learn to focus their attention more mindfully within a given performance context (Fehr and Gelfand, 2012; Hülsheger et al., 2013; Lee, 2012). Thus, some individuals may be more mindful at work than others as a result of specific experiences they have accrued. Furthermore, research suggests that contextual elements of one's workplace may exert a rather profound influence on how one behaves at work and, indeed, how one focuses attention within one's work setting (Elsbach and Pratt, 2007; George, 2009; Zhong and House, 2012). It is therefore possible that, for some individuals, certain features of the work environment 'cue' mindfulness. In other words, some people may be likely to focus their attention mindfully at work owing to contextual stimuli encountered within their workplace. Collectively, these observations suggest that due to a combination of dispositional, experiential, and contextual factors, individuals may differ, perhaps substantially, in workplace mindfulness. The arguments and hypotheses that follow build on this premise.

Workplace mindfulness and work outcomes

While a growing body of evidence indicates that mindfulness carries a number of benefits, little empirical research has investigated mindfulness from a workplace standpoint. It is therefore unclear whether or how mindfulness relates to key work outcomes. Addressing this oversight, we consider the relationships between workplace mindfulness and two work outcomes – job performance and turnover intention – associated with the two broad domains of mindfulness-related inquiry noted previously (task performance on the one hand and well-being on the other). Drawing on the observation that mindfulness is likely impactful in environments that are dynamic (see, e.g. Vogus, 2011), we situate our arguments and hypotheses in the context of dynamic work environments.

To begin, one of the most theoretically and practically important outcomes in workplace settings is job performance. While job performance commands much scholarly

attention (see Motowidlo, 2003, for a review), little research has empirically connected mindfulness to job performance. Nevertheless, an emerging body of research has demonstrated linkages between mindfulness and performance across a number of tasks (e.g. Ostafin and Kassman, 2012; Ruedy and Schweitzer, 2010; Shao and Skarlicki, 2009). As research in this vein suggests, mindfulness contributes to performance by improving cognitive flexibility and alertness (Moore and Malinowski, 2009; Zeidan et al., 2010) and guarding against distractions and performance blunders (Herndon, 2008). Taken together, these findings raise the possibility that workplace mindfulness facilitates job performance.

Building on this possibility, we predict that workplace mindfulness contributes to job performance in dynamic work environments. As noted earlier, dynamic environments require individuals to make a series of interdependent decisions in real time (Gonzalez, 2005). In such environments, it is critical to attend to a wide range of events because any given event might bring with it critical information and thus inform one's decisions about how to proceed (Dane, 2013; Endsley, 1995). Mindfulness should facilitate performance behavior in dynamic environments because it is characterized in part by a wide attentional breadth – a feature that attunes individuals to a large number of events and stimuli (Dane, 2011). Furthermore, mindfulness is likely to help individuals avoid the errors and mistakes that occur when attention departs from present moment events (Herndon, 2008).

Hypothesis 1: Within a dynamic work environment, workplace mindfulness is positively related to job performance.

Dynamic work environments tend to be associated with high levels of emotional arousal and stress – byproducts of the time pressure and unpredictability pervading such environments (Brehmer, 1992; Klein, 1998). Over time, these pressures may become difficult to bear, leading people to consider relinquishing their employment in the dynamic work setting. On this point, research demonstrates negative relationships between psychological and physiological job-related demands and people's intentions to leave their organizations (Begley, 1998; Kemery et al., 1987). With that said, intention to leave (i.e. turnover intention) is subject to a number of influences, including not only features of the work context, but also individual-level factors (Cardador et al., 2011; Meyer et al., 2002). As such, even within the same work setting, people may differ in their turnover intentions.

Drawing on these observations, we consider whether workplace mindfulness relates to turnover intention within dynamic work environments. Here, research indicates that mindfulness leads people to cope with challenging or stressful situations proactively and adaptively (e.g. Shapiro et al., 2007; Weinstein et al., 2009). In particular, mindfulness facilitates self-regulation (Atkins and Parker, 2012; Glomb et al., 2011) and enables people to respond to potentially stressful events with greater equanimity and less rumination (Brown et al., 2007; Carlson, 2013; Shapiro et al., 2006). Consequently, mindfulness may guard against emotional exhaustion at work – a possibility supported by recent empirical research (Hülsheger et al., 2013). Given these lines of theory and evidence, mindfulness should enhance one's ability to cope with the stresses and strains of a

dynamic work environment. Accordingly, we predict that those high in workplace mindfulness will feel less compelled than others to permanently depart from such an environment.

Hypothesis 2: Within a dynamic work environment, workplace mindfulness is negatively related to turnover intention.

Workplace mindfulness versus work engagement

To merit scholarly attention, the relationships posited in Hypothesis 1 and 2 should account for variance over and above the performance-related effects of other constructs occupying the same broad conceptual space as workplace mindfulness. As noted earlier, recent years have witnessed accelerating interest in concepts comparable to mindfulness due to a steadily mounting body of research on work engagement (e.g. Christian et al., 2011; Macey and Schneider, 2008; Rich et al., 2010). Work engagement is often defined as the extent to which one feels invigorated, dedicated, and absorbed by one's work (e.g. Bakker, 2011; González-Romá et al., 2006; Schaufeli and Bakker, 2004). The first dimension, vigor, reflects the degree to which one approaches work with energy and mental resilience (Bakker, 2011). The second dimension, dedication, captures the degree to which one derives a sense of pride, inspiration, or significance from one's work (Schaufeli and Bakker, 2004). The third dimension, absorption, concerns the degree to which one concentrates fully and engrosses oneself deeply in one's work (Schaufeli et al., 2002). While some researchers have coupled absorption with the concept of flow (e.g. Rothbard, 2001; Salanova et al., 2006), flow may represent a specific form of absorption – one associated with optimally challenging activities and peak performance experiences (Schaufeli et al., 2002; see also Quinn, 2005, for a detailed discussion of flow).

The decomposition of work engagement into three distinct dimensions has garnered theoretical and empirical support (Macey and Schneider, 2008) and formed the basis for several scholarly investigations of work engagement (e.g. Bakker et al., 2005; Bakker et al., 2012; Salanova et al., 2005; Schaufeli et al., 2008). This research has examined both antecedents (e.g. job demands and resources – see Crawford et al., 2010) and outcomes of work engagement. On the latter, research indicates that, among other outcomes, work engagement is positively related to job performance and negatively related to turnover intention (see Halbesleben, 2010, for a meta-analysis involving effects specific to each dimension of work engagement).

In some respects, work engagement is comparable to workplace mindfulness. For example, like workplace mindfulness, the dimensions of work engagement lead people to direct mental resources toward work-related events and tasks (González-Romá et al., 2006; Leroy et al., 2013). Moreover, foundational research on work engagement emphasizes the merits of present-moment attentiveness (e.g. Kahn, 1992; May et al., 2004) – a key feature of mindfulness. With that said, workplace mindfulness differs from work engagement and its dimensions in subtle, though potentially important ways. Perhaps most notably, workplace mindfulness is a cognitive construct concerned with the degree to which one's attention tends to be focused on a wide breadth of events unfolding in

one's work context. By contrast, vigor, dedication and absorption implicate affective qualities that lack parallel with workplace mindfulness. It is perhaps because of the affective qualities of these dimensions that work engagement has been compared to (though differentiated from) attitudinal concepts like job satisfaction, job involvement, and affective commitment (see Christian at al., 2011; Macey and Schneider, 2008).

When it comes to predicting job performance and turnover intention, we believe these differences make a difference. Specifically, we expect that workplace mindfulness will contribute uniquely to each of these work outcomes when controlling for the dimensions of work engagement. Concerning job performance, researchers have argued that the effects of work engagement can be understood through a basic observation: engagement *motivates*. Insofar as they are invigorated, dedicated, and absorbed by their work, individuals are likely to exert high levels of effort with the aim of achieving high performance (Halbesleben and Wheeler, 2008). That is, work engagement should influence the 'persistence and intensity with which individuals pursue their task performance' (Christian et al., 2011: 101). Workplace mindfulness, in contrast, should influence performance through pathways that are more cognitive than motivational. As we have argued, mindfulness enables individuals to attend to a wide range of potentially critical stimuli in their work environment and guards against performance-related errors and mishaps. Therefore, while work engagement facilitates performance via increased effort, workplace mindfulness may spur performance in dynamic environments through the wide attentional net it casts across unfolding events.

Hypothesis 3: As a predictor of job performance in a dynamic work environment, workplace mindfulness accounts for variance beyond each dimension of work engagement (vigor, dedication, and absorption).

With respect to turnover intention, Schaufeli and Bakker (2004) found in a study of service organization employees that the degree to which one intends to leave one's organization was negatively related to all three dimensions of work engagement. Complementing this finding, scholars have suggested that engaged employees are highly invested in and identified with their work (e.g. Bakker, 2011; Halbesleben and Wheeler, 2008). These employees may be reluctant to abandon their membership in their organization because this membership provides them the opportunity to perform engaging work. This suggests that work engagement may influence turnover intention through its effects on organizational attachment, particularly affective commitment (Macey and Schneider, 2008). In contrast, and as discussed earlier, mindfulness may influence turnover intention by enhancing self-regulation and leading people to appraise events with equanimity (Glomb et al., 2011; Weinstein et al., 2009). As argued, these effects help people cope with the sources of stress found in dynamic work environments. Therefore, while both work engagement and workplace mindfulness may be negatively related to turnover intention, their effects may stem from different mechanisms. This suggests the following.

Hypothesis 4: As a predictor of turnover intention in a dynamic work environment, workplace mindfulness accounts for variance beyond each dimension of work engagement (vigor, dedication, and absorption).

Method

Research context

To test our hypotheses, we collected survey data from service workers (servers) and managers in the American restaurant industry. We selected this industry as the context for our study for several reasons. First, and most fundamentally, the restaurant industry constitutes a workplace domain. This was important because, unlike research on mindfulness conducted within student and clinical populations, our research required collecting data from working people. Second, restaurant servers work in a dynamic environment – the type of environment relevant to our hypotheses. In performing their work, restaurant servers must pay attention to numerous targets, such as the customers seated in their sections, the food and drinks consumed by these customers, and the details of each customer's order. Moreover, the decisions servers make (e.g. spending time responding to a customer's request) shape their subsequent decision making (e.g. apologizing to other customers for delayed service). Third, although the overall quality of restaurants in the United States varies widely, the nature of service work in this industry tends to be relatively similar across many 'chain-operated' restaurants (see Stamper and Van Dyne, 2001). Thus, we recognized that the common features of the service work performed within this industry would permit us to combine data from multiple chain restaurants.

Background interviews

To gain a greater understanding of service work in the restaurant industry, the lead author began this project by interviewing 15 servers (recruited through an industry contact) who worked at a chain-operated restaurant in a large city in the American Southwest. All interviews were conducted with the voluntary consent of each server, as well as university-level institutional review board approval, and were transcribed in their entirety. Sample interview questions included, 'What are the most challenging parts of your job?' 'What are you paying attention to when you are working?' and 'What makes someone a skillful server?' These interviews reinforced our perception that restaurant servers work in a dynamic environment and highlighted the unrelenting pace of work in the restaurant industry. Table 1 includes representative quotes that speak to the dynamism of this line of work.

Besides familiarizing us with the research context, the background interviews helped us develop survey items to test our hypotheses (see 'Measures'). For example, in developing our measure of workplace mindfulness, we selected items that were relevant to the nature and features of service work performed in the restaurant industry as gleaned from our interviews. Furthermore, we learned during the course of our interviews that a key indication of a server's performance is the size of the section to which he or she is assigned by a manager. Simply put, managers tend to assign their best servers to the sections of the restaurant with the most customers (i.e. the busiest sections). Consequently, we based one of our measures of job performance on this practice of assigning high performing servers to busy sections.

Table 1. Restaurant service work: A dynamic environment.

There's a lot of pressure. We've got maybe a hundred things to do and a little time to do it in . . . You've got your traffic, you got other servers running around you . . . If we had blinkers it would be perfect.
– Server 01 (9 years)
You have food ready [to deliver], you have got to bring out drinks, someone wants a straw, someone wants extra cocktail sauce, someone is ready for their check. How many hands do you have?
– Server 02 (6 months)
Let's say I just ran food for somebody else. And that table, their table tells me, 'Well I need this, that, and the other. I need extra this and extra that and that.' And you don't see the waiter around, their waiter around. You go get it for them personally . . . But then, in the meantime, your tables are waiting there for a minute and a half or two minutes by the time you get there. 'I've been waiting here for like three minutes, man – and nobody's even talked to me.'
– Server 06 (4 years)
A lot of it has to do with time management. Basically you have to re-tea somebody and you're pretty sure that the people are ready for their check. You want to make sure that you've got that check with you when you go to re-tea so you can drop it off. And then on your way back you pick up the check that's got the credit card in it. And there's another table that's done with their food. You can pre-bus, put that stuff in the back, run your credit card, go back, and have another check for that table. That is big time.
– Server 08 (4 months)
I still get really, really, really busy . . . It's challenging because you're trying to make every single guest happy all at that one time. So it is still challenging, you know, to try to keep everyone happy, you know, when everybody's demanding here, demanding here, demanding here all at that one time.
– Server 14 (4 years, 2 months)

Note: Years/months refer to work experience within the focal restaurant.

Participants

We collected survey data from 102 servers across seven chain restaurants in the American Southwest. We selected these restaurants because they had the same general performance expectations and role responsibilities for their servers. While occupying the same market niche as the restaurant in which we conducted background interviews, these seven restaurants were separate from that restaurant. With the permission of restaurant managers (who we contacted through acquaintances who worked in the restaurant industry), as well as university-level institutional review board approval, we approached servers at each restaurant during shift changes and asked them to complete a survey questionnaire as part of our study. The largest number of server participants in any of the restaurants was 18; the smallest was 8. Of the servers who completed our survey, one provided incomplete responses to the survey questions. Also, we were unable to obtain performance data for three servers. Our analyses are therefore based on the 98 servers for whom we compiled complete data. Of these servers, 43 were male, 77 were white, 24 had a college degree, and the mean age was 26.5.

For each server who completed our survey, we collected performance ratings from one or more restaurant manager. Eight of the servers in our sample were rated by one manager, 27 were rated by two managers, 53 were rated by three managers, and 10 were rated by four managers (within each restaurant each server was rated by all managers at that restaurant who participated in the study). In total, 18 restaurant managers provided us with performance ratings. Of these managers, 11 were male, 15 were white, 12 had a college degree, and the mean age was 39.1.

Measures

Workplace mindfulness. Coinciding with the growth of scholarly interest in mindfulness, researchers have developed a number of self-report measures designed to assess individual differences in mindfulness (for reviews, see Baer, 2011; Bergomi et al., 2012). One of the most commonly used measures is the Mindful Attention Awareness Scale (MAAS: Brown and Ryan, 2003) – a scale aligned with the conceptualization of mindfulness advanced here. As opposed to scales developed specifically for use in clinical applications and interventions (e.g. Walach et al., 2006), the MAAS is geared toward assessing mindfulness across a wide range of settings and audiences. While frequently employed in mindfulness research, the MAAS is not without limitations (Grossman, 2011). For example, some of the items that comprise this scale permit very little differentiation across respondents (Van Dam et al., 2010) and some items may not be relevant to certain respondents or performance settings (e.g. 'I drive places on "automatic pilot" and then wonder why I went there.'). These limitations notwithstanding, the items underlying the MAAS accord with our view that mindfulness entails attunement to present moment events. Further, as some have suggested, these items provide a basis for making empirical comparisons between mindfulness and other work-related states of consciousness (e.g. 'mind wandering' – see Mrazek et al., 2012). Accordingly, we elected to use items from the MAAS as a foundation for constructing our measure of workplace mindfulness.

As noted, some of the MAAS items are not relevant to all performance settings. Given our focus on mindfulness within a specific workplace context, we carefully assessed the content of each item in the MAAS, considering its relevance to our research context in light of insights gained through the background interviews described above. For example, because many servers discussed work-related errors and mishaps during their interviews, we recognized the relevance of the item, 'I break or spill things because of carelessness, not paying attention, or thinking of something else,' and included it in our workplace mindfulness scale. In assessing and selecting items based on their relevance to our research context, we ultimately selected seven items by which to assess workplace mindfulness (see 'Appendix' for a delineation of these items and related details). Consistent with our focus on mindfulness *at work* – and reflecting the nature of the work performed by our participants – we added a stem to these questions: 'When working as a server' (e.g. 'When working as a server, I find it difficult to stay focused on what's happening in the present.'). Our measure of workplace mindfulness demonstrated adequate internal consistency reliability ($\alpha = .73$).

Work engagement dimensions. We measured three dimensions of work engagement using a 17 item scale developed by Schaufeli et al. (2002). This measure includes sub-scales that

Table 2. Summary of manager-based server ratings across restaurants.

Restaurant	Servers	Managers	$Perform_1$			$Perform_2$		
			Mean	SD	ICC	Mean	SD	ICC
1	8	1	3.63	0.52	–	2.38	0.74	–
2	17	3	3.73	0.76	.81	2.31	0.53	.68
3	16	2	4.16	0.77	.62	2.38	0.59	.73
4	18	3	3.62	0.68	.83	2.44	0.40	.66
5	18	3	3.20	0.63	.76	2.41	0.75	.93
6	11	2	3.31	0.78	.77	2.14	0.55	.33
7	10	4	3.05	0.61	.66	2.08	0.57	.76

Note: The low ICC (.33) for $Perform_2$ in Restaurant 6 results from the two managers' complete disagreement for one server (i.e. a server received a '1' from one manager and a '3' from the other manager).

capture each dimension of work engagement discussed earlier: vigor (6 items), dedication (5 items), and absorption (6 items). Participants responded to these items on a scale from 1 (*never*) to 7 (*every day*). Sample items included, 'When I get up in the morning, I feel like going to work' (*vigor*), 'I am enthusiastic about my job' (*dedication*), and 'Time flies when I am working' (*absorption*). As with the reliabilities reported in the scale development article (Schaufeli et al., 2002), all three sub-scales demonstrated adequate internal consistency reliability (vigor: $\alpha = .70$; dedication: $\alpha = .83$; absorption: $\alpha = .80$).

Job performance. Managers rated each server on two performance-related items. First, managers rated the job performance of the server on a scale from 1 (*poor*) to 5 (*excellent*). Second, drawing on a key observation from our background interviews (see above), managers indicated the relative level of section 'busyness' they would typically assign to the server on a scale from 1 (*low busyness*) to 3 (*high busyness*). For restaurants in which multiple managers provided ratings of the same server (six out of seven restaurants; 90 out of 98 servers), the consistency between managers' ratings as assessed by intraclass coefficients (ICCs) was generally moderate to high. Thus, we averaged managers' ratings to calculate single ratings for each performance-related item. Table 2 provides summary data for the averaged managers' ratings – including the mean, standard deviation (SD), and ICC – of each performance-related item across all seven restaurants. In this table, as well as the observations that follow, $Perform_1$ refers to the first performance-related item discussed above (the item based on a 1 to 5 scale) and $Perform_2$ refers to the second performance-related item (the item concerning 'busyness,' which is based on a 1 to 3 scale).

In principle, the average level of server performance across these restaurants should be approximately the same because, as previously noted, we purposefully collected all of our data from restaurants that had the same general performance expectations and role responsibilities for their servers. Nonetheless, we expected that the mean performance ratings – as provided by managers – would vary across restaurants because we did not have an opportunity to train managers on performance ratings or the patterns of bias associated with them (e.g. leniency, severity, and central tendency patterns). In line with this expectation, a one-way ANOVA revealed significant differences in mean performance ratings across restaurants for $Perform_1$ ($F(6, 91) = 4.07$; $p = .001$). Post

hoc comparisons of individual restaurants using the Scheffé correction for multiple comparisons indicated that the mean rating of $Perform_1$ in Restaurant 3 was significantly higher than the mean rating in both Restaurant 5 ($p = .020$) and Restaurant 7 ($p = .023$). While it is possible that the average level of server performance in Restaurant 3 was, in fact, higher than in other restaurants included in our study, it is also possible that the differences we observed resulted from a leniency bias in Restaurant 3. To account for this possibility and, more generally, to correct for any possible differences in how the performance rating scales were interpreted or applied from one restaurant to the next, we standardized managers' averaged ratings of $Perform_1$ and $Perform_2$.[1] Observing that the standardized ratings of $Perform_1$ and $Perform_2$ are highly correlated ($r = .80$), we summed these two variables to create an aggregate measure of job performance for each server. The analyses and results that follow are based on this aggregate measure of job performance.

Turnover intention. We measured turnover intention using a four item scale developed by Kelloway et al. (1999). Participants responded to these items on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items included, 'I am thinking about leaving this organization' and 'I am planning to look for a new job.' This scale demonstrated adequate internal consistency reliability ($\alpha = .88$).

Server experience. We included one control variable in our data analysis. Given that mindfulness may be especially beneficial for domain experts (Dane, 2011), we asked participants to report the length of time (in months) they had worked as a server for their employing restaurant as a proxy for expertise within the performance domain.

Construct independence

To examine the empirical distinctiveness of the self-reported focal variables in this study, we compared three theoretically viable models through confirmatory factor analysis (CFA). Prior to constructing these models, we created item parcels. Item parceling can help generate stable and efficient indicators of latent constructs (Little et al., 2002) and has been recommended for studies that feature a relatively large number of estimated parameters and a relatively small sample size (Landis et al., 2000; Williams and O'Boyle, 2008). By randomly assigning each item from a given scale into a parcel associated with that scale, we created 11 parcels (3 parcels for workplace mindfulness and 2 parcels for vigor, dedication, absorption, and turnover intention) consisting of two or three items each.

We assessed the fit of each CFA model in line with standards discussed by Hu and Bentler (1998). In particular, we looked for a model with a root mean squared error of approximation (RMSEA) close to .06 and a comparative fit index (CFI) close to .95. In the first CFA, we tested the fit of a one-factor model, which included all the item parcels. The fit statistics of this model were poor ($\chi^2(44) = 260.7$, $p < .001$; RMSEA = .224; CFI = .590). Next, we tested the fit of a three-factor model that treated the three dimensions of work engagement as a single factor. The fit statistics of this model were fairly poor ($\chi^2(41) = 110.8$, $p < .001$; RMSEA = .132; CFI = .868). Finally, we tested the fit of

Table 3. Descriptive statistics and correlations.

		Mean	SD	1	2	3	4	5	6	7
1.	Server experience	24.35	29.57	–						
2.	Workplace mindfulness	4.38	0.85	.05	*.73*					
3.	Vigor	5.87	0.83	−.07	.43**	*.70*				
4.	Dedication	4.48	1.61	.04	.33**	.58**	*.83*			
5.	Absorption	4.52	1.42	.23*	.17	.50**	.57**	*.80*		
6.	Turnover intention	2.51	1.14	.03	−.25*	−.23*	−.44**	−.09	*.88*	
7.	Job performance	0.02	1.84	.29**	.23*	.05	.02	.11	−.20	*.89*

Note: Internal consistency reliabilities are presented on the diagonal.
*$p < .05$ **$p < .01$.

a five-factor model that included workplace mindfulness, vigor, dedication, absorption, and turnover intention. This model exhibited good fit statistics ($\chi^2(34) = 46.8$, $p = .071$; RMSEA = .062; CFI = .976). Additionally, the five-factor model fit the data significantly better than the three-factor model ($\Delta\chi^2(7) = 64.0$, $p < .001$). These results provide evidence for the discriminant validity of workplace mindfulness and support our decision to include each dimension of work engagement as a separate factor in our data analysis.

Results

Table 3 presents the correlations between all variables included in our analysis. As seen in this table, the control variable, server experience, is significantly (and positively) related to job performance ($r = .29$, $p = .004$). The positive yet moderate (and, in one case, not significant) correlations between workplace mindfulness and the three dimensions of work engagement – vigor ($r = .43$, $p < .001$), dedication ($r = .33$, $p = .001$), and absorption ($r = .17$, $p = .103$) – accord with our claim that these constructs are related but distinct. Further examining Table 3, we see that the correlation between workplace mindfulness and job performance is positive and significant ($r = .23$, $p = .021$). In addition, the correlation between workplace mindfulness and turnover intention is negative and significant ($r = -.25$, $p = .013$), as are the correlations between turnover intention and two dimensions of work engagement: vigor ($r = -.23$, $p = .022$) and dedication ($r = -.44$, $p < .001$).

Hypothesis 1 proposed a positive relationship between workplace mindfulness and job performance. We tested this hypothesis through hierarchical regression (Cohen, 2008). In the first step, we entered server experience; in the second step, we entered workplace mindfulness (see Table 4). This analysis indicates that workplace mindfulness is positively related to job performance ($\beta = .22$, $p = .024$). Thus, Hypothesis 1 is supported.

Hypothesis 2 posited a negative relationship between workplace mindfulness and turnover intention. We tested this hypothesis through hierarchical regression, first entering server experience and then entering workplace mindfulness (Table 4). This analysis reveals that workplace mindfulness is negatively related to turnover intention ($\beta = -.25$, $p = .013$). Thus, Hypothesis 2 is supported.

Table 4. Hierarchical regression analysis.

Predictor	Job performance		Turnover intention	
	ΔR^2	β	ΔR^2	β
Step 1	.084**		.001	
Server experience		.28**		.04
Step 2	.048*		.063*	
Workplace mindfulness		.22*		−.25*
Total R^2	.132**		.064*	

Note: Beta weights are standardized and refer to the full model.
*p < .05 **p < .01.

Table 5. Hierarchical regression analysis.

	Job performance		Turnover intention	
Predictor	ΔR^2	β	ΔR^2	β
Step 1	.084**		.001	
Server experience		.27*		.00
Step 2	.007		.232**	
Vigor		−.02		.01
Dedication		−.11		−.54**
Absorption		.07		.23
Step 3	.049*		.010	
Workplace mindfulness		.25*		−.12
Total R^2	.140*		.243**	

Note: Beta weights are standardized and refer to the full model.
*p < .05 **p < .01.

Hypothesis 3 maintained that, with respect to predicting job performance, workplace mindfulness accounts for variance unique from that associated with three dimensions of work engagement – vigor, dedication, and absorption. To test this hypothesis, we again used hierarchical regression (see Table 5). In this case, we entered server experience in the first step and entered the three work engagement dimensions in the second step. In the third step, we entered workplace mindfulness. As this analysis indicates, workplace mindfulness is positively related to job performance (β = .25, p = .024) when accounting for the effects of vigor, dedication, and absorption (as well as server experience). Thus, Hypothesis 3 is supported.

Hypothesis 4 submitted that, with respect to predicting turnover intention, workplace mindfulness accounts for variance unique from that associated with each dimension of work engagement. We tested this hypothesis through the same three-step method of hierarchical regression described above and found that the negative relationship between workplace mindfulness and turnover intention becomes insignificant (β = -.12; p = .260)

when accounting for the effects of vigor, dedication, and absorption (Table 5). Thus, Hypothesis 4 is not supported. On a final note, it is worth observing that, as shown in Table 5, dedication is negatively and significantly related to turnover intention ($\beta = -.54$, $p < .001$).[2]

Discussion

Despite surging interest in mindfulness across several fields of study, organizational scholars have paid little attention to individual-level mindfulness and its consequences in the workplace. Addressing this oversight, we examined workplace mindfulness – the degree to which individuals are mindful in a given work context – and investigated its relations to job performance and turnover intention in a dynamic work environment. We found support for a positive relationship between workplace mindfulness and job performance that remains significant even when accounting for the influence of three dimensions of work engagement on performance. Further, we found support for a negative relationship between workplace mindfulness and turnover intention, though this relationship becomes insignificant when the dimensions of work engagement are accounted for. Finally, and consistent with prior research, we found that a specific dimension of work engagement, dedication, is negatively related to turnover intention. Collectively, these findings carry implications worth considering.

To begin, through this study we demonstrated a positive relationship between workplace mindfulness and job performance. While recent research has linked the mindfulness of leaders to the performance of followers (Reb et al., 2012) and connected mindfulness and job performance through a spirituality framework (Petchsawang and Duchon, 2012), to our knowledge no empirical research has investigated the effects of mindfulness on performance in a dynamic workplace context. Addressing this deficiency, our study provides support for the previously untested claim that, in dynamic work environments, mindfulness facilitates job performance (Dane, 2011). Thus, our results show why organizational scholars and managers should care about mindfulness – namely, because it relates to an outcome associated with the bottom line.

In spotlighting performance-related benefits of mindfulness in the workplace, our study contributes to an emerging body of organizational scholarship concerned with attention (for a review, see Ocasio, 2011). As such work suggests, various forms of attention can be assessed in terms of specific qualities or features (Levinthal and Rerup, 2006; Rerup, 2009; Weick and Sutcliffe, 2006). Mindfulness, for example, is concerned with attending to the present moment while maintaining a wide breadth of attention (Dane, 2011). While scholars have documented numerous benefits of achieving and maintaining the qualities of attention that characterize mindfulness (see Glomb et al., 2011), research indicates that the human mind is prone to wander away from the present and take hold of any number of objects including memories of the past or thoughts about the future (Gilbert and Wilson, 2007; Smallwood and Schooler, 2006). In light of the mind's tendency to wander, we view mindfulness (in the workplace and elsewhere) as a remarkable feat: situating the mind in present moment time despite psychological pressures to the contrary. In performing this mental feat in a dynamic work environment, individuals attend to a number of stimuli and events and, as a result, perform effectively.

Buttressing the case for a positive relationship between workplace mindfulness and job performance, our results suggest that this relationship cannot be dismissed as an artifact of the link between work engagement and job performance that has been identified in previous research. As our data show, workplace mindfulness is significantly related to job performance even when accounting for all three dimensions of work engagement. This suggests that in at least some work environments, there is value not only in being engaged by one's work, but also in focusing attention mindfully. More specifically, in the context of restaurant service work, mindfulness appears to be an important (though perhaps unheralded) determinant of job performance – a finding that challenges the notion that in service work settings (and elsewhere), performance is primarily a matter of enthusiasm, passion, and other manifestations of work engagement (see Boverie and Kroth, 2001; Robinson, 2009).

That being said, we find it curious that none of the dimensions of work engagement were significantly related to job performance in our research context, particularly given previous research findings concerning the engagement/performance link (see Christian et al., 2011). While discussion along these lines is necessarily speculative, we believe that certain features of the research context may have contributed to our results. Notably, as we learned through our background interviews, some aspects of working as a server may be engaging but not especially relevant to performance. On this point, several servers mentioned that, while at work, they routinely engage in social activities that are energizing but not performance related (e.g. gossiping and flirting). This suggests that within a given job, organization, or occupation, the strength of the link between work engagement and job performance may depend on how closely tied the activities prompting engagement are to job performance itself.

It is also worth noting that a specific dimension of work engagement – dedication – was significantly and negatively related to turnover intention. This result aligns with previous research findings (Schaufeli and Bakker, 2004) and thus provides some level of assurance that study participants understood and provided thoughtful responses to the work engagement items. If this were not the case, the absence of significant relationships between the dimensions of work engagement and job performance could be explained and dismissed on methodological grounds. Thus, our results concerning turnover intention help to rule out an alternative explanation for the job performance results.

From an organizational perspective, our study hints at the importance of helping workers develop greater mindfulness. After all, our data indicate that workplace mindfulness is not only positively related to job performance, but also predictive of the degree to which individuals are attached to their employer (as measured by turnover intention). As noted earlier, research suggests that as a result of specific forms of training, practice, or experience, individuals may become more adept at focusing attention mindfully within a given performance context (e.g. Hülsheger et al., 2013). In particular, scholars have demonstrated the utility of meditation-based programs, such as mindfulness-based stress reduction (MBSR; see Kabat-Zinn, 2003), designed to help people focus attention on the present (see Hölzel et al., 2011, for a neural perspective on mindfulness meditation). Insofar as workplace mindfulness can be improved through training, this concept differs in notable respects from other individual-level antecedents to job performance, such as cognitive ability (Kuncel et al., 2004) and

personality (Barrick and Mount, 1991), which are often depicted as relatively stable and enduring attributes. With that said, consistent with our individual differences perspective on workplace mindfulness, we expect that some individuals are more mindful at work than others owing to dispositional tendencies (see Brown and Ryan, 2003). Consequently, we see potential in research that examines not only whether or to what degree workplace mindfulness can be developed through training, but also whether such training benefits some individuals more than others.

Limitations and future research directions

Given that our results are based on cross-sectional data, questions remain concerning the causal direction of the relationships between workplace mindfulness and job performance and turnover intention, respectively. Although we developed our hypotheses concerning these relationships theoretically, it is possible that these relationships may work in the opposite direction (i.e. the more strongly individuals intend to leave their organization, the less mindful they are). Longitudinal research may help unpack issues concerning causal directionality.

Next, research is needed to determine whether the relationships between workplace mindfulness and the work outcomes we studied hold in other work settings, including dynamic environments beyond the restaurant industry, as well as less dynamic – or static – settings. In carrying out such research, scholars could investigate relationships between workplace mindfulness and various dimensions of job performance. That is, given that we used a global measure of job performance in our study, researchers could connect workplace mindfulness to more specific components of performance, including contextual work performance and counterproductive work behavior (for distinctions, see Motowidlo and Van Scotter, 1994; Rotundo and Sackett, 2002).

Along related lines, scholars could examine whether or how workplace mindfulness relates to other work outcomes of interest to organizations and their members. Although research suggests that mindfulness fosters ethical decision making (Ruedy and Schweitzer, 2010), enhances creativity (Ostafin and Kassman, 2012), and improves the accuracy of affective forecasting (Emanuel et al., 2010), little if any research has investigated connections between mindfulness and these outcomes in work settings. In demonstrating relationships between workplace mindfulness and work-related outcomes including but not limited to those noted above, scholars could demarcate the range of outcomes pertinent to workplace mindfulness and illuminate further the benefits – and, perhaps, the limitations – of mindfulness in organizations.

Finally, while our study assesses workplace mindfulness and its consequences, our methodology does not permit us to account for why individuals differ in workplace mindfulness. As suggested above, we believe workplace mindfulness is partially attributable to dispositional differences in mindfulness though, consistent with scholarly observations (Glomb et al., 2011; Weick and Putnam, 2006), we also believe workplace mindfulness can also be developed through training. Through future research, scholars could investigate connections between mindfulness training and workplace mindfulness and thus examine the degree to which workplace mindfulness, as an intra-person attribute, is malleable.

Conclusion

Although research across several disciplines is rife with interest in mindfulness, research on mindfulness from a workplace standpoint has lagged well behind other lines of mindfulness-related investigation. In examining workplace mindfulness and its relations to job performance and turnover intention in a dynamic work environment, our study helps to reduce key theoretical and empirical blind spots in this area and highlights the importance of conducting further research on mindfulness in work settings. Through such research, organizational scholars may not only maintain pace with other lines of mindfulness inquiry, but also help chart the course of this burgeoning field of study.

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Notes

1 The correlations between the non-standardized and standardized ratings are .85 for $Perform_1$ and .93 for $Perform_2$.

2 In addition to the analyses reported here, we tested for two-way interactions between workplace mindfulness and server experience with regard to job performance and turnover intention. Neither of these interactions was significant. We also tested for two-way interactions between workplace mindfulness and each dimension of work engagement with regard to job performance and turnover intention. None of these interactions was significant either. Also, we should note that, besides controlling for server experience, we included a measure of conscientiousness in our study (a scale adopted from John and Srivastava, 1999). Perhaps not surprisingly – given robust support for a link between conscientiousness and job performance (Barrick and Mount, 1991) – we found that adding conscientiousness to the regression analyses reported here reduces the strength of the relationship between workplace mindfulness and job performance, such that this relationship becomes statistically insignificant. Of course, as we have discussed, this study was not intended to show that workplace mindfulness accounts for variance beyond conscientiousness; rather, our intent was to demonstrate significant performance-related effects of workplace mindfulness over and above the dimensions of work engagement.

Appendix

Workplace mindfulness scale: Restaurant service work

Below is a collection of statements about your work experience. Please answer according to what **really reflects** your work experience rather than what you think your experience should be.

When working as a server . . .

1. I break or spill things because of carelessness, not paying attention, or thinking of something else.
2. I find it difficult to stay focused on what's happening in the present.
3. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.
4. I forget a person's name almost as soon as I've been told it for the first time.
5. I rush through activities without being really attentive to them.
6. I find myself preoccupied with the future or the past.
7. I find myself doing things without paying attention.

In line with Brown and Ryan (2003), participants responded to these items using the following scale: 1 (*almost always*); 2 (*very frequently*); 3 (*somewhat frequently*); 4 (*somewhat infrequently*); 5 (*very infrequently*); 6 (*almost never*). This implies that an individual who responds 'almost never' to the items listed above is high in workplace mindfulness and an individual who responds 'almost always' to these items is low in workplace mindfulness.

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