Keep calm and carry on:
charting the effects of mindfulness on
work performance

by

Adam A. Kay
B.Com., University of Victoria, 1996
J.D., University of Victoria, 2005
LL.M., York University, 2007

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ABSTRACT

Interest in mindfulness in the workplace is nascent and booming. Early research has associated mindfulness with some indicators of work performance, but the relationship with numerous other performance indicators remains unexplored. Research to date also suffers from a paucity of studies that test whether mindfulness causally affects work performance, as well as the psychological mechanisms by which it does so. The present research seeks to fill these gaps by examining the effect of mindfulness on two key performance-related outcomes: (a) conflict avoidance, and (b) interpersonal organizational citizenship behaviors. In so doing, it works within the framework of affective events theory and extends it by examining the role of affect regulation on work behavior. Building upon recent theorizing that mindfulness has a multi-faceted influence on affective experience, this research also seeks to test the effect of mindfulness on two broad types of affect regulation: (a) antecedent-focused, and (b) response-focused. On the one hand, this research posits that mindfulness can serve to enhance eudaimonic well-being and the positive affect it entails, thereby increasing interpersonal organizational citizenship behaviors; on the other, it contends that mindfulness increases emotion acceptance, thereby mitigating negative affect in the face of conflict and reducing the avoidance thereof. Across two series of three multi-methods studies each, this research seeks to test these and other hypotheses in the hope of enriching and expanding the literature on mindfulness in the workplace, and to do so in ways that are methodologically original, practically relevant, and theoretically meaningful. It concludes that mindfulness can indeed improve work performance, and that a key mechanism by which it does so is through its impact on affective experience.
LAY SUMMARY

This research seeks to explicate whether and how mindfulness affects work performance. It is divided into two projects, each with three studies. The first project examines the effect of mindfulness on conflict avoidance, which is regarded as the most damaging orientation to workplace conflict. It shows that mindfulness decreases the tendency to avoid conflict, and that it does so by enhancing people’s acceptance of negative emotions. The second project looks at the different effects of mindfulness on well-being depending on people’s level of authenticity, and its subsequent impact on interpersonal helping behaviors. It shows that dispositional mindfulness is positively associated with well-being and helping behaviors, but only for people who are relatively authentic. By contrast, it shows that mindfulness training increases well-being, which mediates its relationship with helping behaviors, but only for people who are relatively inauthentic. In so doing, this research not only shows that mindfulness works, but also how it does so.
PREFACE

As lead on this research, I hold primary responsibility for all aspects of the work that has gone into this dissertation, including (a) idea conception; (b) study design; (c) data collection; (d) data analysis; and (e) writing. However, others have made important contributions as well. In particular, Professor Daniel Skarlicki of the University of British Columbia was involved at every stage of the research process, and offered invaluable guidance and support throughout. In addition, as co-author of a paper upon which Chapter 3 is based, Andy Hafenbrack of Catolica University – Lisbon played an instrumental role in writing and editing portions of that chapter. Dr. Samantha Sim of Singapore Management University also assisted with the confirmatory factor analysis in Study 3.1. In addition, Dr. Geoffrey Soloway of MindWell·U was responsible for running the mindfulness training programs in Studies 2.2 and 3.3. Finally, various research assistants were instrumental in gathering data for Studies 2.3 and 3.3. Both of the substantive chapters of this dissertation have been submitted to journals for publication, and approval for the research in this dissertation was received from the UBC Behavioural Research Ethics Board, which entailed the following project titles and certificate numbers: (a) Mindfulness and Workplace Performance (H14-00325); (b) Emotion Acceptance and Conflict Avoidance (H15-00182); (c) Eudaimonia (H15-03392); and (d) MindWell (H15-02479). Any errors or shortcomings in this research or in its presentation are the sole responsibility of the first author.
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DISCLOSURE STATEMENT

In accordance with the standards endorsed by the Center for Open Science, for all experiments in this dissertation, the author has reported all measures, conditions, data exclusions, and an explanation of how sample size was determined. Due to the terms of consent provided by the UBC Behavioral Research and Ethics Board for conducting this research, the author is not permitted to make the data publically available.
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DEDICATION

I dedicate this dissertation to my parents, William and Judith Kay – giants in my world – upon whose shoulders I stand.
CHAPTER 1
INTRODUCTION

Interest in mindfulness – defined as receptive attention to and awareness of present-moment events and experiences (Brown & Ryan, 2003) – has grown rapidly in recent years. In the Western world, recent decades have seen meditation and yoga rise from almost obscurity to a regular part of everyday life, with the number of Americans who engage in such practices in 2012 estimated to be 9.5%. Mindfulness training has spread to the business world and is being offered by an increasingly wide array of Fortune 500 companies including Apple, Google, and General Motors, to name a few (Tan, 2012). Concomitantly, academic interest in mindfulness has been exploding. In 2010 a peer-reviewed academic journal called *Mindfulness* emerged, which is devoted exclusively to the advancement of mindfulness theory, research, and clinical practice. Between 2014-2016 numerous handbooks on various aspects of mindfulness were published, and in October 2015 *American Psychologist* published a special issue on the topic. This increase in scholarly attention has been reflected in organizational research. The first papers to be published on mindfulness in the workplace appeared only a few years ago (see Dane, 2011; Glomb, Duffy, Bono, & Yang, 2011) and a number of subsequent papers have been published since (for a review, see Good et al., 2015).

Indeed, interest among management scholars is now so strong that at the time of writing *Organizational Behavior and Human Decision Processes* had a call out for papers for a special issue on “mindfulness at work”. Research to date suggests that mindfulness is

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1 Although a stream of research on “organizational mindfulness” appeared in the 1990s, such research is based on Langer’s (1989) conceptualization of mindfulness, which is defined as a cognitive style that facilitates creativity through the formation of new conceptual categories and meanings, openness to new information, and an orientation towards process rather than outcome. By contrast, the present research is based on a conceptualization of mindfulness that is more in line with its Buddhist heritage, which in organizational research first appeared in the papers cited here.
positively associated with work performance (for a review, see Kay & Skarlicki, 2017). However, no research has yet established a causal connection between the two. This begs the question: does mindfulness causally affect work performance?

Work performance is associated with well-being (Wright & Cropanzano, 2000), and an abundance of research shows that mindfulness is not only positively associated with psychological well-being (Brown & Ryan, 2003; Brown, Ryan, & Creswell, 2007), but that mindfulness causally improves numerous indicators of psychological health (for reviews, see Baer, 2003; Chiesa, Calati, & Serretti, 2011; Eberth & Sedlmeier, 2012; Grossman, Niemann, Schmidt, & Walach, 2004; Khoury et al., 2013; Sedlmeier et al., 2012). While research to date has linked dispositional mindfulness with task performance (Zhang, Ding, Li, & Wu, 2013; Zhang & Wu, 2014), organizational citizenship behaviors (Reb, Narayanan, & Ho, 2015), and counter-productive work behaviors (Krishnamukar & Robinson, 2015), there is a relative paucity of research on the mechanisms by which mindfulness training might yield such outcomes (Sedlmeier et al., 2012). Although recent efforts have started to give more careful consideration to the mechanisms of mindfulness in psychological health (Gu, Strauss, Bond, & Cavanah, 2015), research on the means by which mindfulness affects work performance is lagging (Miksch, Lindeman, & Varghese, 2015). In response to recent calls for more detailed study of mindfulness training in the workplace (Allen et al., 2015), the present research will not only examine whether or not mindfulness causally affects performance, but how it does so.

This research examines two performance-related outcomes in particular: (a) conflict avoidance, defined as the tendency to withdraw from or sidestep conflict, or to avoid situations in which conflict is likely to arise; and (b) interpersonal organizational
citizenship behaviors (OCBI), defined as helping behaviors directed at co-workers within an organization that go above-and-beyond the formal requirements of the job (Williams & Anderson, 1991). While each is a distinct and highly relevant performance-related outcome in its own right, the present research posits that they are bound to mindfulness by a common mediating mechanism – namely, emotion regulation. Emotion regulation is broadly defined as the process of influencing which, when, and how emotion is experienced and expressed (Gross, 1998a). According to the modal model of emotion (Gross, 1998b), emotion regulation strategies can be broadly divided into two types: (a) antecedent-focused, which regulate affect-eliciting cues; and (b) response-focused, which regulate responses to emotion after it has already been elicited (Gross, 2002). An abundance of research has shown that mindfulness enhances emotion regulation (Arch & Landy, 2015; Chambers, Guillone, & Allen, 2009; Williams, 2010). However, emotion regulation is an umbrella term that enfolds a wide variety of strategies for modulating affective experience (Gross & Thompson, 2007), and research in the organizational sciences has generally neglected to differentiate between them (Diefendorff, Richard, & Yang, 2008; Lawrence, Troth, Jordan, & Collins, 2011). To account for this shortcoming, the present research builds from recent theorizing that mindfulness might be unique in that it implicates both antecedent- and response-focused emotion regulation strategies (Farb, Anderson, Irving, & Segal, 2014). In particular, this research posits that mindfulness increases OCBI via antecedent-focused emotion regulation, and that it decreases conflict avoidance via response-focused emotion regulation.

The present research not only explores how mindfulness affects work performance, but also for whom it does so. Mindfulness has been shown to moderate the
effects of contextual variables on behavioral outcomes, such as retaliatory behaviors in response to perceived injustice to third parties (Long & Christian, 2015). However, no published research has looked at the possibility that mindfulness might interact with other individual difference variables to impact affective experience and behavioral outcomes. Interesting possibilities in this regard exist. For example, although mindfulness is positively associated with well-being and the positive affect it entails (Brown & Ryan, 2003), is it possible that individuals who are high in mindfulness might experience different levels of well-being when they have other dispositional qualities that are also associated with well-being? The present research posits that it is, and examines the possibility that one such disposition – namely, authenticity – interacts with mindfulness to predict well-being.

The present research also juxtaposes the implications of mindfulness depending on how it is operationalized. The word mindfulness can be used to describe a disposition, a state, or a practice (Vago & Silbersweig, 2012). While this research examines the possibility that dispositional mindfulness interacts with dispositional authenticity to influence well-being and downstream work behaviors, it further investigates the differential interaction of mindfulness training with authenticity on these same outcomes. Research has found variation in a number of factors that influence the efficacy of mindfulness training. For example, meta-analytic findings reveal that the effects of mindfulness training can vary depending on the nature of the training, the experience level of the trainees, or type of control groups employed (Sedlmeier et al., 2012). Four studies to date have examined the effect of mindfulness training as a function of the big five personality traits, and overall results indicate that mindfulness training is most
effective for individuals who are high in neuroticism (Dreison, Salyers, & Sliter, 2015). The present research moves beyond the big five personality traits and examines instead the effect of mindfulness training as a function of dispositional authenticity. Specifically, it investigates the possibility that just as the benefits of dispositional mindfulness on well-being might be enhanced by authenticity, the benefits of mindfulness training on well-being might be stifled by authenticity. In so doing, this research seeks to enrich the literature by showing that the effects of mindfulness can vary depending on how it is operationalized, thereby demonstrating the importance for researchers to be specific and clear about the way they conceptualize it when running studies and reporting results.

This research stands to contribute to theory in various ways. First, it seeks to add to affective events theory (AET; Weiss & Cropanzano, 1996) by furnishing evidence for its refinement and elaboration. AET posits that affective reactions mediate the influence of workplace events and dispositions on affect-driven behaviors. The present research, however, will show that it is not necessarily affective reactions per se that mediate this link, but rather the management of those reactions through emotion regulation. This distinction has received little attention in research to date. AET also posits only two sources of influence on affective reactions – namely, (a) workplace events and (b) dispositions. It does not, however, specify a role for practice and training. As such, AET leaves little room for individual agency in affective attitudes and behaviors in the workplace. By testing whether and to what extent mindfulness influences conflict avoidance and OCBI through its affective consequences, this research seeks to highlight a potential role for practice and training in AET and in so doing create theoretical room for personal agency in modulating affective reactions to workplace events.
Second, the present research stands to add nuance to the literature on emotion regulation in the organizational sciences. The disambiguated reference to *emotion regulation* that characterizes most organizational research to date has generated confusion about what this term means and how it works (Diefendorff et al., 2008; Lawrence et al., 2011). In contrast, the present research will focus on the specific role of both antecedent- and response oriented emotion regulation as mediator between mindfulness and downstream performance outcomes. In so doing, it seeks to test recent theorizing that mindfulness has broad implications for emotion regulation (Farb et al., 2014), and furnish evidence that organizational research should examine the relationship between the two in more precise terms than it has to date.

Third, this research seeks not only to show *whether or not* mindfulness affects performance, but also *how* it does so. Mindfulness research to date has been criticized for paying insufficient attention to exploring the mechanisms by which mindfulness works (Miksch et al., 2015; Sedlmeier et al., 2012). The present research seeks to enrich the literature by specifying mediating mechanisms by which mindfulness influences affective experience and, in turn, performance outcomes. In particular, it seeks to test the two mediating mechanisms – namely, (a) emotion acceptance, and (b) eudaimonic well-being. Both mechanisms are understudied yet potentially important to the organizational sciences. In exploring their mediating effect between mindfulness and performance, this research adds to the fledgling body of research on emotion acceptance in the workplace (c.f., Bond & Bunce, 2000; 2003), and attempts to introduce eudaimonic well-being into the literature on work performance.
Fourth, this research seeks not only to reveal how mindfulness works but also for whom it does so. Specifically, it looks to test whether people who are already high in authenticity are less likely to gain affective benefits as a result of mindfulness training. In other words, it seeks to test if mindfulness training can be less impactful for highly authentic people. This is the first research to explore the interaction between mindfulness training and an individual difference variable outside the scope of the big five (i.e. authenticity), whether in the organizational sciences or otherwise. This research adds to the nascent body of research that tests whether authenticity has any downsides (cf. Lister, Wohl, & Davis, 2015). While authenticity has an impressive array of benefits, critics have pointed out that it can come with certain disadvantages (e.g., Ibarra, 2015; Potter, 2010). The present research seeks to enrich authenticity research by shedding empirical light on its limits, and opening the way for further research along these lines.

Finally, this research will show that all of the foregoing is relevant not only to individuals’ affective experience, but that it also has repercussions for their workplace performance. While previous research has linked dispositional mindfulness with task performance (Beach et al., 2013; Dane & Brummel, 2013; Grepmaier et al., 2007; Zhang et al., 2013; Zhang & Wu, 2014) and extra-role performance (Reb et al., 2015), the present research seeks to move into uncharted territory by examining the impact of mindfulness training on two particular performance outcomes – namely, (a) conflict avoidance, and (b) OCBI. In so doing, it answers calls for research that not only links mindfulness training with performance outcomes, but that establishes a causal connection between them (Choi & Tobias, 2015; Dane, 2011).
The present research also stands to make a number of practical contributions to organizations and to managers. First, by furnishing evidence that dispositional mindfulness is associated with hitherto unexplored performance outcomes, this research seeks to add to the growing body of empirical evidence showing that mindfulness matters in the workplace. Second, while a number of studies have shown that mindfulness is *associated* with performance, no research to date has yet shown that mindfulness *causally* affects performance (Choi & Tobias, 2015). The present research fills this gap, and in so doing seeks to furnish evidence about whether or not the effects of mindfulness training as revealed by research in clinical psychology and neuroscience impact work performance. Third, the present research seeks to demonstrate that such results can be achieved via different forms of mindfulness training, and tests a web-based mindfulness training program involving minimal time, expense, and effort, and delivered at the convenience of managers and employees alike. This makes online mindfulness training particularly conducive to busy, high-functioning working populations like professionals, executives, and organizational leaders. Finally, by examining the differential effects of mindfulness training as a function of individual differences, the present research seeks to furnish evidence showing that the effectiveness of such training depends on the objectives of the training and the characteristics of the individuals to be trained. As mindfulness training is now a billion dollar business in the United States alone (Wieczner, 2016), this has the potential to give employers reason to pause and consider whether and how to allocate their training resources.

In summary, the present research seeks to establish a causal connection between mindfulness and work performance via two types of emotion regulation. It will do so in
two series of three studies each. The first series of studies (Chapter 2) will investigate the
effect of mindfulness on conflict avoidance through emotion acceptance – a highly
specific and heretofore under-explored form of emotion regulation in organizational
research. The second series of studies (Chapter 3) will examine the interaction between
mindfulness and authenticity on OCBI through eudaimonic well-being – a hitherto
unexplored construct in the organizational sciences, and a potent indicator of positive
affective experience. The following chapters will develop the theory underlying this
research, specify the hypotheses, describe the studies conducted to test them, report the
results, and comment on the implications of the findings.
CHAPTER 2
MINDFULNESS, CONFLICT AVOIDANCE, AND ACCEPTANCE-BASED EMOTION REGULATION

Whenever you’re in conflict with someone, there is one factor that can make the difference between damaging your relationship and deepening it. That factor is attitude. ~ William James

INTRODUCTION

Conflict is a pervasive and inescapable part of organizational life (De Dreu, 2011). Due to the stress that it entails (Spector & Jex, 1998), however, people commonly avoid conflict (De Dreu, 1997; Tjosvold, 2008). Conflict avoidance refers to the tendency to withdraw from or sidestep conflict, or to avoid situations in which conflict is likely to arise. Avoidance can be appropriate in some circumstances, such as when waiting for a more suitable time to address a conflict (Roloff & Ifert, 2000) or when safeguarding against relational or other potential damage (Barsky & Wood, 2005). However, as William James suggests in the epigraph, an aversive attitude toward conflict can have damaging consequences. The tendency to avoid conflict can have negative outcomes both personally and organizationally (Rahim, 2015). Indeed, scholars agree that avoidance is generally the least constructive orientation to workplace conflict, as a willingness to deal with conflict is often essential for managing it effectively (Rubin, Pruitt, & Kim, 1994). Thus, an important question for research and practice is: how can the tendency to avoid conflict be mitigated?

The dual concern model of conflict management proposes that people avoid conflict when they have a low level of concern for both their own interests and those of the other party (Pruitt & Rubin, 1986), and frames the decision to avoid conflict as a rational choice (De Dreu & Carnevale, 2003). However, conflict is not only rational but
also inherently emotional (Bodtker & Jameson, 2001), and a fundamental principle of human motivation is that people typically avoid the perceived source of negative feelings (Higgins, 1997). In the present chapter, it is posited that in avoiding conflict people do not necessarily seek to avoid conflict per se; rather, they seek to avoid the negative emotions associated with conflict.

Avoiding the negative emotions associated with conflict by avoiding conflict itself is a form of emotion regulation, which refers to the process of influencing which, when, and how emotions are experienced and expressed (Gross, 1998). While conventional approaches to emotion regulation focus on avoiding or suppressing emotion, the present research examines a fundamentally different form of emotion regulation termed emotion acceptance. Rather than avoiding or suppressing negative emotions, emotion acceptance involves acknowledging and accepting negative emotions as they are (Hayes, Strosahl, & Wilson, 1999). Considered a healthier, more adaptive manner of dealing with negative emotions (Alberts, Schneider, & Martjin, 2012), emotion acceptance reduces avoidance of anxiety-provoking stimuli (Eifert & Heffner, 2003), and is associated with less avoidant workplace behaviors (Bond & Bunce, 2003). As such, emotion acceptance has a potentially important role to play in mitigating the tendency to avoid conflict.

While a nascent literature shows that emotion acceptance can benefit managers and employees in the workplace (Bond & Bunce, 2000, 2003), an important question concerns how they might come to be more accepting of their negative emotions? One promising approach that has been gaining interest among organizational scholars in recent years can be found in mindfulness (Good et al., 2015). Mindfulness involves
paying attention to present moment experience with an accepting, non-judgmental attitude (Bishop et al., 2004). Research has shown that mindfulness is robustly associated with emotion regulation (Sedlmeier et al., 2012), particularly the ability to experience negative emotions in an open and accepting manner (Chambers, Gullone, & Allen, 2009). Accordingly, it is proposed that emotion acceptance can be facilitated with mindfulness. Across three-mixed methods studies, the present chapter will present evidence that mindfulness reduces conflict avoidance, and that the key mechanism by which it does so is emotion acceptance.

The present research has important implications for both theory and practice. From a theoretical perspective, it challenges the dual process model of conflict management (Pruitt & Rubin, 1986) by positing that conflict avoidance is not just the result of a rational choice, but also the product of emotion and people’s ability to regulate it. In so doing, it extends affective events theory (Weiss & Cropanzano, 1996) by demonstrating that the regulation of affective reactions to negative workplace events like conflict is not only dictated by contextual factors and individual differences, but can also be addressed with training. To the extent that individuals and organizations are motivated to be more “conflict positive” (Tjosvold, 2008), the present research further assesses the efficacy of mindfulness training to reduce conflict avoidance.

THEORETICAL BACKGROUND

Affective Events Theory

An important theoretical framework with which to examine the role of emotion in workplace conflict is provided by affective events theory (AET; Weiss & Cropanzano, 1996), depicted in Figure 2.1. AET affords affect a central role in the consequences of
workplace events (e.g., conflict), and posits that affective reactions mediate the influence of workplace events on subsequent attitudes and behaviors (Weiss & Cropanzano, 1996). According to AET, affect can have a *direct* effect on conflict-related workplace behaviors, such as through the automatic “fight or flight” response. In addition, affect can also have an *indirect* effect on conflict-related workplace behaviors by influencing attitudes, which consist of a combination of affect and cognition (Ajzen, 2001). In any given conflict, the stronger and more salient affect is relative to cognition, the stronger its influence is likely to be on attitudes and behaviors (Russell & Eisenberg, 2012; Wegge, van Dick, Fisher, West, & Dawson, 2006).

**Figure 2.1 Affective Events Theory Macro-Structure**

![Affective Events Theory Macro-Structure](image)

While AET provides a theoretical basis for the causes and consequences of affect in the workplace, it lacks precision to explain why, when, or how various individual-level factors influence the impact of workplace events like conflict on affective experience and subsequent attitudes and behaviors (Ashton-James & Ashkanasy, 2005). Accordingly, scholars have highlighted the need for research that explores the underlying processes implicated by the macro-structure of AET (Weiss & Beal, 2005). While some scholars
have theorized within the framework of AET that emotion regulation can play an important role in workplace conflict (Yang & Mossholder, 2004), no empirical research has examined individual orientations to conflict through an AET lens. The present research fills this gap by examining the influence of mindfulness and acceptance-based emotion regulation on attitudes and behaviors associated with workplace conflict.

**Mindfulness**

One individual-level factor with potentially broad implications for AET is mindfulness. The word *mindfulness* has ancient roots in Eastern religion and philosophy, dating back at least 2,500 years to the times of the historical Buddha. Originally stemming from the Pali word *sati* – which has been interpreted to mean *attention*, *awareness*, *retention*, and *discernment* – this word does not lend itself easily to translation. Accordingly, defining mindfulness for the purposes of scientific inquiry has been challenging and controversial. Numerous definitions have been proffered, each incorporating elements that are to varying degrees cognitive, conative, and attitudinal (for reviews, see Dane, 2011; Quaglia, Brown, Lindsay, Creswell, & Goodman, 2015). Every definition, however, shares at its core a common feature: awareness of and attention to present-moment experience. Brown and Ryan (2003) described *awareness* as “the background ‘radar’ of consciousness, continually monitoring the inner and outer environment”, and *attention* as “a process of focusing conscious awareness, providing heightened sensitivity to a limited range of experience” (p. 822). Therefore, paying attention to present-moment experience entails diverting attention away from the past and the future, directing it instead on experience as it is unfolding in the present-moment. This definition not only captures the most widely accepted aspect of mindfulness, but it
has resulted in what is arguably the most parsimonious operationalization of mindfulness to date – namely, the Mindful Attention and Awareness Scale (MAAS; Brown & Ryan, 2003) – which has received substantial empirical support. As such, it is the definition that will be adopted in the present research.

Even with mindfulness clearly defined, it is important to note that it can be operationalized in different ways. Specifically, mindfulness can be used to describe a disposition, a state, or a practice (Vago & Silbersweig, 2012). As a disposition, mindfulness refers to the fact that individuals vary in their natural tendency to be mindful across contexts and over time (Brown & Ryan, 2003). As a state, mindfulness refers to the fact that irrespective of their predispositions, individuals can move in and out of a mindful state at different times (Hafenbrack, 2017). As a practice, mindfulness refers to any number of exercises like meditation that individuals can engage in to place themselves in a more mindful state. While individuals who are more dispositionally mindful need not practice mindfulness, research shows that the more they do so the more attuned they become at remaining in a mindful state across contexts and over time (Brefczynski-Lewis, Lutz, Schaefer, Levinson, & Davidson, 2007).

A substantial body of research shows that mindfulness is highly relevant for affective experience. Whether operationalized as a disposition, state, or a practice, mindfulness has been shown to reduce negative affect and, conversely, increase positive affect (Arch & Landy, 2015; Sedlmeier et al., 2012). Indeed, research shows that mindfulness has broad implications for affective experience and alters its very lifecycle. Mindfulness not only dampens the onset of affect, but it also shortens the time affect takes to run its course (Williams, 2010). Dispositional mindfulness has been associated
with lower affective arousal in the face of social evaluative threat (Brown, Weinstein, & Creswell, 2012). Similarly, mindfulness training stimulates neurological changes that promote better handling of emotion under stress (Davidson et al., 2003). Even short periods of mindfulness training (e.g., 15 minutes) have been shown to result in less affective reactivity and emotional volatility (Arch & Craske, 2006). As such, mindfulness is known to be efficacious for the treatment of affective disorders (Baer, 2003; Irving, Farb, & Segal, 2015).

In light of the growing body of empirical research documenting the salutary effects of mindfulness (Brown et al., 2007), organizational scholars have started to turn their attention to studying mindfulness in the workplace (e.g., Dane, 2011; Glomb et al., 2012). In a burgeoning body of organizational research (for a review, see Good et al., 2015), three studies to date have shown that mindfulness is relevant to affective workplace events. First, Krishnakumar and Robinson (2015) showed that dispositional mindfulness is negatively associated with counter-productive workplace behaviors, and that this is explained by lower levels of hostile emotions like irritation and anger. Second, Long and Christian (2015) showed that state mindfulness reduces retaliation to perceived injustice by muting its effects on rumination and negative emotions. Third, Hülsheger, Alberts, Feinholdt, and Lang (2013) showed that mindfulness is associated with lower emotional exhaustion and higher job satisfaction, and that this effect is mediated by affect regulation. Thus, empirical grounds exist to reason that it is not only affect that mediates the link between affective workplace events and subsequent attitudes and behaviors, but rather the regulation thereof.
Manifestations of Conflict

Stressful workplace events like conflict provoke affective reactions (Brief & Weiss, 2002). As conflict is inherently stressful (Spector & Jex, 1998), it is also laden with affect (Jordan & Troth, 2004; Nair, 2008). Indeed, Kolb and Putnam (1992) regard as inextricable affect and workplace conflict, which they define as “real or perceived differences that arise in specific organizational circumstances and that engender emotion as a consequence” (p. 312). In addition, conflict expression theory holds that the negative emotions workplace conflict engenders are enhanced to the extent that the conflict is perceived as oppositionally intense (Todorova, Bear, & Weingart, 2014). AET further holds that the more intense the negative emotions aroused by conflict, the greater is their influence on subsequent attitudes and behaviors (Weiss & Cropanzano, 1996).

The affective tenor of any given workplace conflict depends on the type of conflict involved. Scholars have identified three main forms of workplace conflict: (a) task; (b) process; and (c) interpersonal conflict (De Wit, Greer, & Jehn, 2012). Task conflict arises when two or more people with conflicting interests need to work together towards a common goal, and involves disagreements about the tasks to be performed and the outcomes to be achieved (Jehn, 1995). Process conflict arises when views diverge about the logistics by which a task is to be accomplished, such as who the most appropriate people to perform the task are and how they might best work together (Jehn & Bendersky, 2003). Interpersonal conflict – also called affective conflict – refers to disagreement between two or more parties based on personal issues, such as clashing attitudes, values, or personalities (De Dreu & Van Vianen, 2001). The present research focuses on interpersonal conflict because it (a) often underlies and leads to other forms of
conflict (Jehn, 1995), (b) reduces people’s willingness to engage in more constructive conflict (Jehn & Chatman, 2000), and (c) is the form of conflict that is most charged with negative emotions, and where avoidance in most prevalent (Desilvilya & Yagil, 2005; Todorova et al., 2014).

Conflict Avoidance

Conflict management refers to the actions people take in approaching conflict (Tjosvold, Wong, & Chen, 2014). A widely accepted taxonomy of conflict management is provided by the dual concern model (Pruitt & Rubin, 1986), which builds on Blake and Mouton’s (1964) managerial grid to suggest that different approaches to conflict represent individuals’ intentions as to whether and how to satisfy their own and the other parties’ interests and goals. These approaches are broadly divided along two dimensions: (a) concern for the self; and (b) concern for others (Rahim & Bonoma, 1979), giving rise to five conflict management styles: (a) collaborating; (b) competing; (c) accommodating; (d) compromising; and (e) avoiding (Rahim, 1983). As noted above, dual concern theory suggests that adopting a conflict management style is the result of rational, cognitive processes (De Drue & Carnevale, 2003). Importantly, it does not contemplate emotion.

According to the dual concern model, a collaborating style – which denotes a high concern for both self and others – involves an open exchange between the parties, who mutually explore solutions that meet the needs of all parties. This has been labeled a “win-win” approach (Rahim, 2015). A competing style – which denotes a high concern for self but low concern for others – entails an often aggressive, single-minded pursuit of one’s own interests without regard for those of the other parties. This can be considered a “win-lose” approach. An accommodating style represents a low concern for self and high
concern for others. Attempts are made to minimize differences and highlight commonalities to appease the interests of the other parties, sometimes at the expense of one’s own interests. This is sometimes called a “lose-win” approach. A compromising style represents a moderate amount of concern for both self and others and entails a game of give-and-take between the parties such that they both give something up to achieve a mutually agreeable resolution. This can be thought of as a “give some, lose some” approach. Finally, an avoiding style – which denotes a low concern for both self and others – involves a reluctance to engage other parties to a conflict (Roloff & Ifert, 2000) such that the underlying interests of both parties go unresolved. Conflict scholars view this approach as the most deleterious. Accordingly, it has been labeled a “lose-lose” approach (Rahim, 2015).

Conflict avoidance can be thought of in terms of who and what is being avoided, as well as how it is avoided, and so can include various types of behaviors (Wang, Cai, & Fink, 2007). For example, people can pretend by continuing to engage with their opponent, while avoiding the topic of contention (Ting-Toomey & Oetzel, 2001). People can also outflank their opponent by avoiding them, yet taking the issue to a higher authority for resolution (e.g., going to the boss) (Tjosvold & Sun, 2002). In addition, people can yield to their opponent, not because they have a higher level of concern for their concerns (as in the accommodating style), but rather to preserve a relationship they value more than the particular issue in dispute (Roloff & Ifert, 2000). Finally, people can temporarily withdraw from a conflict situation to regain composure (e.g., take a break) (Oetzel, Ting-Toomey, Yokochi, Matsumoto, & Takai, 2000), or alternatively exit a relationship altogether (e.g., resign from a job) (Hirschman, 1970).
While conflict scholars decry avoidance as the least constructive *style* of conflict management (Rahim, 2015), it is clear that as a *strategy* it can be appropriate in certain situations, depending on context and individual objectives. For example, avoidance can be fitting in some cultural contexts – particularly in collectivist cultures that place a premium on more subtle and indirect communication and saving face (Holt & DeVore, 2005; Leung, Koch, & Lu, 2002; Tjosvold & Sun, 2002). Avoidance can also be appropriate when the underlying issues are trivial (Jehn, 1995), when conflict might lead to cycles of vengeance (Appelbaum, Abadallah, & Shapiro, 1999), when insufficient justification exists to take immediate action (Roloff & Ifert, 2000), or when the potential costs of a conflict are too great (Barsky & Wood, 2005).

Conflict avoidance, however, can also have negative consequences. Since avoiding conflict means leaving the underlying issues unaddressed, it deprives the disputing parties of the opportunity to problem-solve and learn. As such, it is the most likely of all approaches to result in a failure to satisfy the substantive interests of the parties (Rahim, 2015). In addition, avoiding conflict can lead to unhealthy conflict-provoking behaviors (e.g., passive aggression) and intensify a dispute over time (Hocker & Wilmot, 1991), thereby damaging interpersonal relations (Van de Vliert, Euwema & Huysmans, 1995) and detracting from important workplace outcomes (Rahim, 2015). It can further lead to a perceived lack of self-efficacy in dealing with subsequent disputes (De Dreu, 1997), and thus increase the risk that future conflicts continue to go unaddressed. Indeed, a basic readiness to deal with conflict is thought to be critical for managing it effectively (Rubin et al., 1994).
Thus, while conflict avoidance can be more or less appropriate in individual contexts, as a chronic orientation to workplace conflict it is highly problematic. The present research focuses on conflict avoidance as opposed to other conflict styles for at least three reasons. First, avoiding conflict serves as a hindrance to managing workplace conflict in other, potentially more constructive ways (e.g., collaboration). It is therefore important to ascertain whether it is possible to reduce this obstacle to other forms of managing conflict. Second, conflict avoidance is more pervasive than any other conflict management style, and is therefore a significant issue facing organizations (Rahim, 2015). Third, of all the conflict management styles avoidance is dominantly and uniquely associated with negative emotions (Desivilya & Yagil, 2005).

**Conflict Avoidance and Emotion Regulation**

According to approach-avoidance motivation theory (Higgins, 1997), people commonly seek to avoid negative emotion and the perceived source thereof (Elliott & Covington, 2001). Consistent with this theoretical perspective, people with an avoidant orientation to conflict tend to experience negative emotions such as anxiety and fear in conflict (Jehn, 1995). As such, one way in which people might overcome the tendency to avoid conflict is by regulating such emotions.

Emotion regulation refers to a heterogeneous set of strategies and processes by which people manage their emotional experiences (Gross & Thompson, 2007). Although different models of emotion regulation exist (for a review, see Lawrence, Troth, Jordan, & Collins, 2011), in recent years the dominant model in the social sciences has been Gross’ (1998) process-model of emotion regulation. This model focuses on the control and modulation of emotions by deliberately selecting or modifying contexts, shifting
attentional focus, changing perspectives, or otherwise suppressing emotions (Gross & Thompson, 2007). What these emotion regulation strategies have in common is the goal of actively avoiding or altering emotional experience.

Emotion acceptance, by contrast, emphasizes the functionality of emotions and the importance of accepting and valuing them as they are (Hayes et al., 1999; Linehan, 1993). Emotion acceptance means that people are willing to openly experience negative emotions without becoming embroiled in secondary emotions such as guilt, shame, remorse, or anger for experiencing such emotions to begin with (Gratz & Roemer, 2004). Instead of getting upset with themselves for the fear and anxiety they feel around conflict, people who seek not to avoid or control such emotions but rather to non-judgmentally experience and accept them are less likely to be afflicted by such secondary emotions. As a result, the intensity of their emotional reactions is softened (Eifert & Heffner, 2003; Gratz & Tull, 2010; Shallcross, Troy, Boland, & Mauss, 2010), thereby facilitating recovery from negative emotional experience (Campbell-Sills, Barlow, Brown, & Hofmann, 2006; Liverant, Brown, Barlau, & Roemer, 2008).

If an acceptance-oriented stance towards emotion reduces the intensity and lifespan of negative emotions, then consistent with AET it is likely also to influence subsequent attitudes and behaviors. Because the fear and anxiety associated with avoidance warn of danger and prime for flight (Öhman, 2008), any impulse to take flight in the face of conflict is more/less powerful when such emotions are heightened/dampened. Moreover, with a lower affective load to contend with, people who accept their negative emotions free up cognitive resources to pursue other goals (Alberts et al., 2012) – goals which might require them to override any automatic response tendency to
avoid conflict. Accordingly, emotion acceptance has been shown to reduce avoidance of anxiety-provoking stimuli (Eifert & Heffner, 2003; Levitt, Brown, Orsillo, & Barlow, 2004), and to elicit behaviors that are more aligned with individuals’ values and goals (Hayes, Wilson, Giffort, Follette, & Strosahl, 1996). Therefore, it is proposed that accepting the negative emotions that the prospect of conflict elicits in people will be associated with a lower level of conflict avoidance.

**Hypothesis 1**: Higher levels of emotion acceptance are associated with lower levels of conflict avoidance.

**Mindfulness and Emotion Acceptance**

To the degree that emotion acceptance is associated with lower levels of conflict avoidance, an important question for research and practice is: how might individuals learn to accept the negative emotions that underlie conflict avoidance? Theory and research suggest that a promising line of inquiry is to be found in mindfulness (Gratz & Tull, 2010). Mindfulness has been defined as the self-regulation of attention on present moment experience with an accepting, non-judgmental attitude (Bishop et al., 2004). Although some scholars see the cognitive and emotional benefits of mindfulness as separate factors of a common higher-order construct (e.g., Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), others have theorized that the emotional benefits of mindfulness flow secondarily from its primary effects on attention (e.g., Brown & Ryan, 2003; Good et al., 2015). This is because attention first directs the selection of stimuli to be observed, then directs the manner in which they are appraised, thereby shaping downstream emotional reactions (Wadlinger & Isaacowitz, 2011).

In line with this view, voluminous research suggests that mindful attention and awareness yields considerable benefits for psychological and emotional well-being.
Research on clinical populations has consistently shown that mindfulness training improves emotion regulation (Chambers et al., 2009; Gu et al., 2015; Sedlmeier et al., 2012). Mindfulness has been linked with lower emotional distress at the prospect of social evaluative threat (Brown, Weinstein, & Creswell, 2012), and neuroscience research has shown that mindfulness training helps individuals better manage emotions under stress (e.g., Davidson et al., 2003). Even brief periods of mindfulness training have been shown to result in less affective reactivity and emotional volatility (Arch & Craske, 2006). Accordingly, mindfulness has been shown to be efficacious for addressing emotional disorders (Baer, 2003).

A burgeoning body of research has begun to consider the effects of mindfulness in the workplace (for a review, see Kay & Skarlicki, 2017). Organizational scholars have theorized that mindfulness can have wide-ranging benefits in the workplace (Glomb, Duffy, Bono, & Yang, 2012), including improvements in performance (Dane, 2011) and reductions in “swift blame” (Skarlicki, Kay, Aquino, & Fushtey, 2017). Empirical research has shown that mindfulness is associated with better emotion regulation and related workplace outcomes. For example, dispositional mindfulness has been linked with psychological detachment from the job after work (Hülsheger et al., 2014) and lower retaliation to perceived injustice (Long & Christian, 2015). In addition, mindfulness training has been shown to reduce emotional exhaustion (Hülsheger, Alberts, Feinholdt, & Lang, 2013) and job burnout (Roeser et al., 2013). Hülsheger and colleagues (2013) found that improvements in emotional exhaustion brought about by mindfulness training were mediated by lower levels of surface acting – an emotion regulation strategy akin to
suppression (Grandey, 2000). Mindfulness at the team level has also been shown to dampen the association between task conflict and relationship conflict, and to mitigate social undermining between the disputing parties at the individual level (Yu & Zellmer-Bruhn, in press). However, the budding literature on mindfulness at work has been criticized for its lack of attention to the precise mechanisms by which mindfulness elicits its effects (Miksch, Lindeman, & Varghese, 2015).

The present chapter proposes that the key mechanism by which mindfulness buffers the influence of the negative emotions associated with conflict avoidance is emotion acceptance. Theory and research provide strong support for this assertion. Mindfulness training emphasizes the importance of experiencing emotions without evaluating them as either “good” or “bad”. Since such evaluations are the very essence of emotion non-acceptance, by reducing or eliminating such judgments mindfulness should increase emotion acceptance (Gratz & Tull, 2010). Empirical research further supports this contention. In clinical populations, mindfulness is associated with various forms of experiential acceptance (Baer et al., 2006), and a number of mindfulness-based interventions have been shown to yield specific improvements in the acceptance of negative emotions (Gratz & Gunderson, 2006; Hayes et al., 1999; Leahey, Crowther, & Irwin, 2008; Linehan, 1993). While clinical populations experience particular challenges in regulating negative emotions, negative emotional experience is also universal in non-clinical populations. As such, it is expected that mindfulness enhances emotion acceptance in working populations as well.

**Hypothesis 2:** Higher levels of mindfulness are associated with higher levels of emotion acceptance.
In summary, the present research proposes that higher levels of mindfulness are associated with higher levels of emotion acceptance, which in turn is associated with lower levels of conflict avoidance. If these predictions hold, then mindfulness is also expected to be associated with lower levels of conflict avoidance via emotion acceptance.

**Hypothesis 3:** Emotion acceptance mediates the relationship between mindfulness and conflict avoidance.

**Figure 2.2** Mindfulness Reduces Conflict Avoidance via Emotion Acceptance

**METHODS**

This model was tested in a series of three mixed-methods studies. To get a picture of the static variance structure between the variables of interest prior to testing in the field, Study 2.1 involved a cross-sectional examination of the relationships between the variables of interest. Study 2.2 consisted of an experimental field study that tested the effects of mindfulness training on conflict avoidance via emotion acceptance. Finally, Study 2.3 entailed a follow-up study in the lab to isolate the effect of emotion acceptance on conflict avoidance, thereby helping determine causality while simultaneously gaining a behavioral measure of conflict avoidance.

**Study 2.1**

The present research started by examining the discriminant validity among the constructs in the theoretical model through confirmatory factor analysis (CFA), and by testing emotion acceptance against other theoretically plausible mediating mechanisms.
Whereas exploratory factor analysis (EFA) would be appropriate to explore the underlying factor structure of a set of observed variables without imposing a pre-conceived structure on the outcome (Child, 1990), CFA was used as validated measures were used (see below) to test the fit of the hypothesized model (Harrington, 2009). In essence, this research sought to test whether mindfulness influences conflict avoidance in the hypothesized manner, and whether emotion acceptance explains this variance above and beyond other relevant factors.

*Participants and procedures.* Study 2.1 consisted of 1007 adults registered on Amazon Mechanical Turk (MTurk). The average age of the participants was 36.25 years ($SD = 10.68$), and 523 (51.9%) were male. The participants were predominantly Caucasian (79.1%), and all were located in the United States. Since sampling participants with strong reputations on MTurk has been shown to yield high quality data (Peer, Vosgerau, & Acquisti, 2014), only those who had participated in at least 500 previous studies and received an approval rating of at least 99% were allowed to participate.

Each of the variables under investigation is phenomenological and therefore most reliably measured by self-report. To mitigate the potential for common method variance, a number of procedural safeguards (see Podsakoff, MacKenzie, & Podsakoff, 2003, 2012). First, participants were motivated to pay careful attention to the survey by including attention checks and warning them that they would not be remunerated until all responses were vetted. Second, to create proximal separation between the measures, “filler” items were added between all measures of the substantive constructs of interest. For example, as recommended by Podsakoff et al. (2003) a scale of a theoretically unrelated “marker” variable was added between measures of the independent and
dependent variables. Third, to account for the possibility that participants might present themselves in an unduly favorable light, socially desirable responding was measured and controlled.

*Measures.* Mindfulness was measured with the 15-item Mindful Attention and Awareness Scale (MAAS; Brown & Ryan, 2003). The MAAS is a purely cognitive scale that measures present-moment attention and awareness. The MAAS is the most widely used measure of mindfulness and is regarded by some as the most reliable and valid measure available (Qu, Dasborough, & Todorova, 2015). A sample item is: “I find myself doing things without paying attention.” Responses were given on a 6-point Likert-type scale ranging from 1 (*almost always*) to 6 (*almost never*). Responses were averaged such that higher scores signify higher levels of mindfulness ($\alpha = .92$).

Emotion acceptance was assessed with the six-item emotion non-acceptance sub-scale of the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). Prior research has shown that the MAAS and the DERS measure overlapping but independent aspects of reactions to negative emotions like anxiety (Roemer et al., 2009). Consistent with our theorizing, the items from the emotion non-acceptance sub-scale reflect a tendency to experience harmful secondary responses to negative emotions, or non-accepting reactions to distress. A sample item is: “When I am upset, I become irritated with myself for feeling that way.” Responses were given on a 5-point Likert-type scale ranging from 1 (*almost never*) to 5 (*almost always*). The discriminant validity and both internal and test-retest reliability of the DERS has been reported in clinical and non-clinical populations (Gratz & Tull, 2010), showing that it is also sensitive to changes in scores over time (Gratz, Lacroce, & Gunderson, 2006). This scale has been shown to
predict behavioral avoidance (Gratz, Bornovalova, Delany-Brumsey, Nick, & Lejuez, 2007). The scores were reversed and averaged such that higher values signify higher levels of emotion acceptance (α = .94).

Conflict avoidance was measured with the six-item sub-scale from the Rahim Organizational Conflict Inventory – II (ROCI-II; Rahim, 1983). A sample item is: “I usually avoid open discussion of my differences with my colleagues”, and responses were given on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree). This scale demonstrates reliability and validity, and prior research suggests that it is relatively free from social desirability or response distortion bias (Rahim & Magner, 1994). Higher scores signify a greater tendency to avoid workplace conflict (α = .82).

To assess whether and to what extent emotion acceptance accounts for the relationship between mindfulness and conflict avoidance above-and-beyond other theoretically plausible mediating mechanisms, two other potential mediators were measured: (a) non-reactivity to aversive experience, and (b) negative affect. Non-reactivity is the tendency to allow thoughts and feelings to come and go without reacting impulsively to them. As non-reactivity is associated with mindfulness (Baer, Smith, Hopkins, Kiethemeyer, & Toney, 2006) and has been shown to reduce experiential avoidance (Reynolds, Consedine, & McCambridge, 2014), it serves as a useful alternative explanation to our theory; that is, individuals who are high (versus low) in mindfulness might be less conflict avoidant because they are less likely to react to the impulse to flee from conflict. Non-reactivity was measured with the seven-item subscale from the Five Facets Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Kriemeyer, & Toney, 2006), a sample item of which is: “I watch my feelings without
getting lost in them.” Responses were given on a 5-point Likert-type scale ranging from 1 (never or very rarely true) to 5 (very often or always true) (α = .92).

As a second alternative mediating mechanism, negative affect was measured. Negative affect is inversely associated with mindfulness (Brown & Ryan, 2003), and is more associated with conflict avoidance than any other conflict style (Desilvilya & Yagil, 2005). Therefore, an alternative explanation to the theory underlying this research is that mindfulness could reduce conflict avoidance by lowering negative affect. To account for this possibility, negative affect was measured with the 10-item negative affect sub-scale of the Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988). Participants indicated the extent to which they tend to feel negative emotions (e.g., fear, shame, and irritability). Responses were given on a 5-point Likert-type scale from 1 (slightly or not at all) to 5 (extremely). Higher scores signify more intensely negative affective experience (α = .93).

To account for the potential for socially desirable responding, impression management was controlled with a 10-item measure from the Balanced Inventory of Desirable Responding (Paulhus, 1984), a sample item of which is: “I never swear.” Responses were given on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) (α = .80). Finally, as a marker variable for the purposes of CFA a measure was used that is theoretically unrelated to any of the variables in the model (Williams, Hartman, & Cavazotte, 2010) – namely, a five-item scale from the Epistemological Beliefs Measure (Conley, Pintrich, Vekiri, & Harrison, 2004). A sample item is “Ideas in science sometimes change”, and responses were given on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree) (α = .86).
Results. The means, standard deviations, correlations and scale reliabilities are given in Table 2.1.

Table 2.1  Means, Standard Deviations, Correlations and Reliabilities of the Variables (Study 2.1)

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mindfulness</td>
<td>4.40</td>
<td>.91</td>
<td>(.92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Emotion Acceptance</td>
<td>3.88</td>
<td>1.01</td>
<td>.48**</td>
<td>(.94)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Non-Reactivity</td>
<td>2.99</td>
<td>.78</td>
<td>.22**</td>
<td>.29**</td>
<td>(.85)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Negative Affect</td>
<td>1.58</td>
<td>.70</td>
<td>-.46**</td>
<td>-.53**</td>
<td>-.24**</td>
<td>(.93)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Conflict Avoidance</td>
<td>3.29</td>
<td>.81</td>
<td>-.19**</td>
<td>-.22**</td>
<td>-.09**</td>
<td>.19**</td>
<td>(.82)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Impression Management</td>
<td>3.68</td>
<td>1.05</td>
<td>.31**</td>
<td>.18**</td>
<td>.09**</td>
<td>-.19**</td>
<td>-.04</td>
<td>(.80)</td>
<td></td>
</tr>
<tr>
<td>7. Epistemological Beliefs</td>
<td>4.23</td>
<td>.66</td>
<td>.02</td>
<td>.04</td>
<td>.18**</td>
<td>-.05</td>
<td>.21**</td>
<td>-.17**</td>
<td>(.86)</td>
</tr>
</tbody>
</table>

Note. Pearson correlations. N = 999. *p < .05. **p < .01

Before testing the theoretical model, CFA was conducted to assess the discriminant validity of the measures. The model generated a significant chi-square, \( \chi^2(198) = 296.11, p < .001, \) but showed indications of a strong fit (CFI = .988; TLI = .979; RMSEA = .022; SRMR = .031). Models with good fit are represented by CFI and TLI values of .95 or higher, RMSEA values less than .05, and SRMR values less than .08 (Hu & Bentler, 1999). Therefore, it was concluded that the measures demonstrated discriminant validity, and that the hypothesized model provided a good fit to the data.

Because all the items were self-reported, in addition to the procedural measures noted above a further test was conducted for common method variance. In line with previous research the fit of the hypothesized model was compared against a model in
which the items were allowed to load onto a common method variable (Podsakoff et al., 2003). Item loadings were constrained to 0 in the original model, while in the common method model they were free to vary. The common method model also generated a significant chi-square, \( \chi^2(176) = 249.15, p < .001 \), and the fit indices marginally improved over our original model (CFI = .991, TLI = .983; RMSEA = .020; SRMR = .028).

Comparing these two models revealed that allowing the items to load onto a common method factor significantly improved the model fit, \( \Delta \chi^2(22) = 53.59, p < .001 \). However, since the chi-square test is vulnerable to larger sample sizes such as these, following Byrne’s (2001) recommendation, practical significance was investigated by comparing the CFI of the two models. The difference in CFI scores between the models was .003, which is far less than the value of .05 recommended by Bagozzi and Yi (1990). As such, it was concluded that common method variance was not a significant concern in these data.

To test the model while simultaneously examining the explanatory power of emotion acceptance compared to non-reactivity and negative affect, mediation analysis was conducted using Hayes’ (2012) PROCESS mediation macro (Model 4) with 10,000 bootstrap samples, including each of emotion acceptance, non-reactivity, and negative affect as parallel mediators. As indicated in Table 2.2, results supported the model. First, emotion acceptance was associated with lower levels of conflict avoidance, \( b = -.11, t(989) = -3.52, p < .001 \), supporting Hypothesis 1. Second, mindfulness was associated with higher levels of emotion acceptance, \( b = .52, t(992) = 16.09, p < .001 \), supporting Hypothesis 2. Third, of all three parallel mediators only emotion acceptance mediated the
relationship between mindfulness and conflict avoidance, \( b = -0.06, SE = 0.02, 95\% CI [-0.091, -0.026] \), supporting Hypothesis 3. All results held with and without including non-reactivity and negative affect in the model, as well as with and without the control.

Table 2.2  
**Indirect Effects of Mindfulness on Conflict Avoidance (Study 2.1)**

<table>
<thead>
<tr>
<th></th>
<th>Emotion Acceptance</th>
<th>Conflict Avoidance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( B )</td>
<td>( SE )</td>
</tr>
<tr>
<td>Total Effects</td>
<td>1.46***</td>
<td>0.15</td>
</tr>
<tr>
<td>Constant</td>
<td>0.52***</td>
<td>0.03</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>0.03</td>
<td>0.03</td>
</tr>
<tr>
<td>Emotion Acceptance</td>
<td>-0.11***</td>
<td>0.03</td>
</tr>
<tr>
<td>Non-reactivity</td>
<td>0.01</td>
<td>0.03</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>0.08</td>
<td>0.04</td>
</tr>
<tr>
<td>Direct Effect X -&gt; Y</td>
<td>-0.09**</td>
<td>0.08</td>
</tr>
<tr>
<td>Indirect Effect X -&gt; M1 -&gt; Y</td>
<td>-0.06***</td>
<td>0.02</td>
</tr>
<tr>
<td>Indirect Effect X -&gt; M2 -&gt; Y</td>
<td>-0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Indirect Effect X -&gt; M3 -&gt; Y</td>
<td>-0.03</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Discussion. Study 2.1 showed that the constructs in the hypothesized model have discriminant validity and that the model demonstrates good fit with the data. Specifically, (a) mindfulness is associated with higher levels of emotion acceptance; (b) emotion acceptance is associated with lower levels of conflict avoidance; and (c) emotion acceptance mediates the relationship between mindfulness and conflict avoidance. Moreover, results showed that emotion acceptance mediates the relationship between mindfulness and conflict avoidance over-and-above the effects of two theoretically plausible alternative mediators – namely, non-reactivity and negative affect.

In support of the claim that emotion acceptance is particularly relevant for regulating the negative emotions associated with conflict avoidance, as shown in Table 2.3 post-hoc analysis revealed that emotion acceptance was more strongly and negatively associated with conflict avoidance than any other conflict style. Post-hoc analysis further
revealed that mindfulness explained a greater portion of the variance in conflict avoidance via emotion acceptance (as controlling for the same parallel mediators) than any other conflict management style, $R^2 = .06$, $F(4, 991) = 16.73$, $p < .001$.

Table 2.3  
Correlations Between Independent Variables and All Conflict Management Styles (Study 2.1)

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mindfulness</td>
<td>4.40</td>
<td>.91</td>
<td>(.92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Emotion Acceptance</td>
<td>3.78</td>
<td>1.01</td>
<td>.48**</td>
<td>(.94)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Avoiding</td>
<td>3.28</td>
<td>.81</td>
<td>- .19**</td>
<td>- .22**</td>
<td>(.82)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Accommodating</td>
<td>3.40</td>
<td>.64</td>
<td>- .05</td>
<td>- .13**</td>
<td>.46**</td>
<td>(.83)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Competing</td>
<td>2.77</td>
<td>.80</td>
<td>- .08*</td>
<td>.01</td>
<td>- .16**</td>
<td>- .02</td>
<td>(.83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Compromising</td>
<td>3.68</td>
<td>.73</td>
<td>.18**</td>
<td>.13**</td>
<td>.16**</td>
<td>.47**</td>
<td>.08*</td>
<td>(.82)</td>
<td></td>
</tr>
<tr>
<td>7. Collaborating</td>
<td>3.83</td>
<td>.73</td>
<td>.25**</td>
<td>.19**</td>
<td>.07</td>
<td>.50**</td>
<td>.12**</td>
<td>.79**</td>
<td>(.90)</td>
</tr>
</tbody>
</table>

* Fisher r-to-z transformation indicates that the correlation with both Mindfulness and Emotion Acceptance is significantly different for all conflict styles than is the case for Avoiding.

Despite finding support for the model, Study 2.1 was cross-sectional and hence did not allow a test of causality between the variables. Study 2.2 was conducted to provide a causal test of the underlying theory to this research.

---

2 Mediation analysis with the same parallel mediators indicates that emotion acceptance did not mediate the link between mindfulness and the following conflict management styles: (a) compromising: $b = -.02$, $SE = .01$, 95% CI [-.0466, .0116]; (b) competitive: $b = -.01$, $SE = .02$, 95% CI [-.0393, .0264]; (c) collaborating: $b = -.01$, $SE = .01$, 95% CI [-.0396, .0181]. However, it did mediate the relationship between mindfulness and accommodation: $b = -.06$, $SE = .01$, 95% CI [-.0905, -.0327], $R^2 = .04$, $F(4, 992) = 11.55$, $p < .001$. 
Study 2.2

To test the causal relationship between mindfulness and emotion acceptance, as well as to replicate our findings in a different population, a longitudinal field experiment involving mindfulness training was conducted.

Participants and procedures. The participants consisted of managers, employees, and faculty at the University of British Columbia. Participants were recruited in partnership with the university’s Human Resources Department. To maximize statistical power, as many participants as possible were recruited. A total of 84 participants signed up for the study. Their average age was 37.5 years ($SD = 7.92$), with an average of 10.8 years of work experience ($SD = 6.4$), and 68 (81%) were female. The study design consisted of a mindfulness training group and a waitlist control group, with participants randomly assigned to condition. The training consisted of a six-week program in which the participants met with an instructor for two hours each week, as well as attended a four-hour silent retreat between weeks four and five. Modeled after the Mindfulness-Based Stress Reduction program (MBSR), the training included mindfulness meditation, yoga, as well as journaling and class discussions (for greater detail about MBSR training, refer to Kabat-Zinn, 1990). In addition to class time, participants were asked to engage in a 10-20 minute daily mindfulness practice outside of work, as well as a three-to-five minute daily practice at work.

Measures. The same measures were used as in Study 2.1. To assess whether the training was effective, participants completed the MAAS (Brown & Ryan, 2003) immediately prior to and following the training ($\alpha_{T1} = .81$; $\alpha_{T2} = .91$). Emotion acceptance was again measured with the emotion non-acceptance subscale of the DERS
(Gratz & Roemer, 2004) ($\alpha_{T1} = .84; \alpha_{T2} = .92$), while conflict avoidance was measured with the ROCI-II (Rahim, 1983) ($\alpha_{T1} = .86; \alpha_{T2} = .79$). To test whether emotion acceptance would predict conflict avoidance above-and-beyond the alternative mediators identified in Study 1, we again measured non-reactivity with the relevant sub-scale from the FFMQ (Baer et al., 2006) ($\alpha_{T1} = .85; \alpha_{T2} = .84$), as well as negative affect with the PANAS (Watson et al., 1988) ($\alpha_{T1} = .90; \alpha_{T2} = .88$).

**Controls.** To reduce concerns about common method bias, as well as to obtain a measure of change in conflict avoidance over time, in all analyses we controlled for conflict avoidance prior to the start of training.

**Results.** Matched pre- and post-training surveys were received for 55 participants (65% response rate). At baseline, no significant differences between the groups were observed in any of the variables of interest: dispositional mindfulness, $F(1, 48) = .09, p = .77$, emotion acceptance, $F(1, 53) = .32, p = .58$, or conflict avoidance, $F(1, 53) = .28, p = .60$. The means, standard deviations, correlations and scale reliabilities are given in Table 2.4.
To test whether the training was effective, ANCOVA was conducted with post-training mindfulness as the dependent variable, training condition as the independent variable, and pre-training mindfulness as the covariate. A significant effect of training condition was observed, $F(1, 45) = 21.49, p < .001$, showing that the training was effective at increasing mindfulness.

To test the model, mediation analysis was conducted using Hayes’ (2012) PROCESS mediation macro (Model 4) with 10,000 bootstrap samples. As in Study 2.1, emotion acceptance, non-reactivity, and negative affect were all included as parallel
mediators. As Table 2.5 shows, results again supported the hypothesized model. First, emotion acceptance was associated with lower levels of conflict avoidance, $b = -0.36, t(49) = -4.05, p < .001$, even while controlling for pre-training levels of conflict avoidance, supporting Hypothesis 1. Second, mindfulness training increased emotion acceptance as compared to the control condition, $b = .56, t(52) = 2.88, p < .01$, supporting Hypothesis 2. Third, of the three parallel mediators only emotion acceptance mediated the relationship between mindfulness training and conflict avoidance, $b = -0.20, SE = .11, 95\% \text{ CI} [-0.4080, -0.0750]$. As such, results indicate that mindfulness training had a negative indirect effect on conflict avoidance by enhancing emotion acceptance, supporting Hypothesis 3. All results held with and without including non-reactivity and negative affect as parallel mediators, or controlling for pre-training levels of conflict avoidance.

**Table 2.5** Indirect Effects of Mindfulness Training on Conflict Avoidance via Emotion Acceptance (Study 2.2)

<table>
<thead>
<tr>
<th></th>
<th>Emotion Acceptance</th>
<th>Conflict Avoidance (T2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE$</td>
</tr>
<tr>
<td>Total Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.44</td>
<td>0.43</td>
</tr>
<tr>
<td>Training Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotion Acceptance</td>
<td>0.56**</td>
<td>0.19</td>
</tr>
<tr>
<td>Non-reactivity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Affect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict Avoidance (T1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X -&gt; Y</td>
<td>-0.20</td>
<td>0.11</td>
</tr>
<tr>
<td>Indirect Effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X -&gt; M1 -&gt; Y</td>
<td>-0.01</td>
<td>0.03</td>
</tr>
</tbody>
</table>

*Note: $N = 55$. X = Mindfulness; M1 = Emotion Acceptance; M2 = Non-Reactivity; M3 = Negative Affect; Y = Conflict Avoidance. CI = 95\% Confidence Interval; LLCI = Lower Level; ULCI = Upper Level.

$p < .05$, $**p < .01$, $***p < .001$.

1 Training Group is coded control (0) and training (1).

2 T1 = Pre-training, T2 = Post-training.

3 Mediation analysis with the same parallel mediators indicates that emotion acceptance did not mediate the link between mindfulness training and the following conflict management styles: (a) accommodating: $b = -0.02, SE = 0.04, 95\% \text{ CI} [-0.1197, 0.0635]$; (b) compromising: $b = 0.00, SE = 0.07, 95\% \text{ CI} [-0.1271, 0.1451]$; (c) competitive: $b = -0.02, SE = 0.05, 95\% \text{ CI} [-0.1597, 0.0565]$. However, it did mediate the relationship between mindfulness training and collaboration: $b = -0.08, SE = 0.06, 95\% \text{ CI} [-0.2416, -0.0005]$. 

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Discussion. The results of Study 2.2 provide additional support for the model, furnishing evidence that mindfulness training lowered conflict avoidance, and that this effect was explained by increases in emotion acceptance. In addition, Study 2.2 enriched the results by testing the causal effect of mindfulness training on conflict avoidance via emotion acceptance in a longitudinal field experiment involving six weeks of mindfulness training, and by accounting for changes in conflict avoidance over time. Together with Study 2.1, these results furnish evidence that in contrast to other theoretically plausible mediating mechanisms, emotion acceptance explains the greatest proportion of the variance between mindfulness and conflict avoidance.

Nonetheless, a third study was warranted for at least three reasons. First, mindfulness training involves a number of elements that can potentially influence conflict avoidance through more than just emotion acceptance. Therefore, it was necessary to isolate the effects of emotion acceptance and examine its causal relationship with conflict avoidance. Second, the emotion acceptance measure in Studies 2.1 and 2.2 was not specific to the types of emotional reactions typically involved in conflict situations. Conflict can trigger a variety of emotions such as anxiety and fear, which are particularly relevant for avoidance (Waung & Highhouse, 1997). Hence, the theory needed testing with a measure that focused more specifically on the emotions people experience in conflict. Third, a potential limitation of Studies 2.1 and 2.2 is that conflict avoidance was measured by self-report. Thus, alternate measures of conflict avoidance in the context of a real conflict were sought.
Study 2.3

The third study involved a follow-up laboratory experiment, and was conducted to isolate the effect of emotion acceptance on conflict avoidance, to determine causation between the two, as well as to gain a behavioral measure of conflict avoidance.

Participants and procedures. Study 2.3 participants consisted of 131 undergraduate business students registered in the subject pool for behavioral research at the University of British Columbia’s Sauder School of Business. Their average age was 20.63 years ($SD = 1.43$), and 77 (58.7%) were male. The participants were ethnically diverse, and were comprised of 22.9% Caucasians, 40.5% East Asians, 12.2% South Asians, and 24.4% other ethnicities. The participants were randomly assigned to experimental and control conditions. All participants played a modified version of the ultimatum game (described below) and were paired with one of two professionally trained confederate actors – one male and one female – who posed as fellow students. To eliminate the potential for cross-gender effects, participants were paired with the confederate of the same gender. The confederates were blind to both the purpose of the study and the treatment groups, and were carefully trained to ensure the same treatment across individuals and between conditions.

Participants in the experimental condition listened to an audio recording developed to stimulate anxiety/fear, since these emotions signal danger and trigger flight (Öhman, 2008). After stimulating fear, the audio recording then led participants to accept their anxiety/fear (for the text of the audio recording, see Appendix 2.2). To replicate and extend the results from Study 2.2, participants in the control condition did not undergo any emotional manipulation. This approach is consistent with prior experimental research
in emotion acceptance, which has used a no-emotion control group (e.g., Wolgast, Lundh, & Viborg, 2011). Participants in the control condition listened to an audio recording of white noise from a coffee shop and were asked to “imagine [themselves] in the coffee shop engaging in a normal, everyday sort of experience.” After listening to their respective audio recordings (each approximately 10 minutes in length), the participants completed a measure of emotion acceptance.

The participants then took part in a modified ultimatum game in which they were asked to divide $10 between themselves and their confederate adversary. The ultimatum game is a well-studied economic decision-making paradigm that has been shown to provoke conflict and elicit emotion-based behaviors (Sanfey, Rilling, Aronson, Nystrom, & Cohen, 2003). If the participants were able to reach an agreement with the confederate, they would receive their portion of the funds. However, if they were unable to reach agreement they would not receive any money. The game was set up so that the participants were assigned the role of the offeror through what appeared to be random assignment, with the confederates given the role of receiver. Whereas the standard ultimatum game ends after the receiver accepts or rejects the first offer, the game was modified the game so that the offeror (participant) could make multiple follow-up offers after the receiver (confederate) rejected the first offer. To standardize the game across participants and between conditions, the confederate could only accept or refuse the offer; no bargaining or counter-offers were allowed.

The rules of the game precluded the participants from working together towards a common objective, or from otherwise working on the logistics by which a solution might be found; therefore, it was not possible for either task or process conflict to arise. To
simulate interpersonal conflict, the confederates refused the offers in such a way as to convey a negative emotional reaction personally directed at the participants. They did this not through the words they said (which were restricted to “yes” or “no”), but rather in the way they said them (e.g., tone of voice, facial expressions, and body language). The confederate actors were instructed to respond as consistently as possible to all participants, and to refuse all offers until the participants offered at least $7 out of the $10 available. On average, the game lasted one minute and 16 seconds.

Measures. As in Studies 2.1 and 2.2, the DERS (Gratz & Roemer, 2004) was used to measure emotion acceptance. To focus on the specific emotional states that the participants actually felt (as opposed to a general reference in the DERS to being “upset”), the participants were asked to indicate the dominant emotion they experienced during the exercise. Their responses were then automatically transposed into the measure. For example, if the participants indicated that they experienced “fear”, then the item from the DERS that normally reads “When I’m upset, I feel guilty for feeling that way” appeared as follows: “I feel guilty for feeling [fear] during that exercise.” Response options ranged from 1 (strongly disagree) to 7 (strongly agree). All six items were reverse coded and averaged to yield an aggregate emotion acceptance score (α = .78).

Conflict avoidance was measured in two ways. First, the participants were asked to indicate which of the five conflict management styles they had used most in the game: (a) collaborating; (b) competing; (c) accommodating; (d) compromising; or (e) avoiding. Second, a behavioral measure of conflict avoidance was obtained by asking the participants the following question: “If you were given another chance to earn a real cash reward of up to $10 for playing a different game, would you be willing to be partnered
with the same student in another study?” A “yes” response indicated that the participants were willing to risk another conflict with the confederate. Consistent with the dual concern model (Pruitt & Rubin, 1986), this was taken to show concern for their own interests (i.e., earn money), those of their confederate adversary, or both. By contrast, a “no” response indicated that they were not willing to risk engaging in another conflict with the other party.

Controls and exclusions. As the participants were assigned to the confederate of the same sex, gender was controlled. Despite random assignment to condition, post-hoc analysis revealed a disproportionate number of South Asians assigned to the control condition, \( \chi^2(1) = 3.47, p = .06 \). As the disproportionate assignment was limited only to South Asians, who generally prefer non-avoidant conflict management styles (Morris et al., 1998), ethnicity was controlled. Further, to separate the effects of emotion acceptance and mindfulness on conflict avoidance, dispositional mindfulness was controlled with the MAAS (Brown & Ryan, 2003). Finally, because emotion acceptance entails the acceptance of negative emotion, six participants were excluded for indicating that the dominant emotion elicited by the manipulation was positive (e.g., amusement, peace, triumph). In addition, three participants were excluded for reporting suspicion that their bargaining partner was a confederate. The final sample consisted of 122 participants – 60 in the experimental condition and 62 in the control condition.

Results. Table 2.6 shows the means, standard deviations, and correlations among the study variables. A one-way ANOVA revealed that participants in the experimental condition scored significantly higher on emotion acceptance than those in the control
condition, \( F(1, 120) = 86.92, p < .001 \), thereby indicating that the manipulation was effective.

**Table 2.6** Means, Standard Deviations, Correlations and Reliabilities of the Variables (Study 2.3)

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender( ^a )</td>
<td>0.43</td>
<td>0.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ethnicity( ^b )</td>
<td>0.88</td>
<td>0.33</td>
<td>-.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Mindfulness</td>
<td>3.83</td>
<td>0.66</td>
<td>-.01</td>
<td>-.01</td>
<td></td>
<td></td>
<td>(.85)</td>
<td></td>
</tr>
<tr>
<td>4. Emotion Acceptance</td>
<td>2.97</td>
<td>1.25</td>
<td>-.02</td>
<td>.09</td>
<td>.23*</td>
<td></td>
<td>(.78)</td>
<td></td>
</tr>
<tr>
<td>5. Self-Reported Conflict Avoidance( ^c )</td>
<td>0.07</td>
<td>0.25</td>
<td>.03</td>
<td>-.00</td>
<td>.02</td>
<td>-.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Conflict Avoidant Behavior( ^d )</td>
<td>0.79</td>
<td>0.41</td>
<td>-.13</td>
<td>-.23*</td>
<td>.11</td>
<td>.16</td>
<td>-.14</td>
<td></td>
</tr>
<tr>
<td>7. Condition( ^e )</td>
<td>0.49</td>
<td>0.50</td>
<td>.09</td>
<td>.17</td>
<td>.06</td>
<td>.65**</td>
<td>-.20*</td>
<td>.13</td>
</tr>
</tbody>
</table>

Note. Pearson correlations. \( N = 122 \); \( p < .05 \); \( ^* p < .01 \)

\( ^a \) Gender is coded: male (0), female (1)

\( ^b \) Ethnicity is coded: non-South Asian (0), South Asian (1)

\( ^c \) Self-reported conflict avoidance is coded: non-avoidant (0), avoidant (1)

\( ^d \) Conflict avoidant behavior is coded: non-avoidant (0), avoidant (1)

\( ^e \) Condition is coded: control (0), experimental (1)

A Pearson chi-square test revealed that participants in the experimental condition were significantly less likely to report that they had avoided the conflict in comparison with the control condition, \( \chi^2(1) = 4.61, p = .032 \).\(^4\) No significant differences were observed between conditions on any of the other conflict management styles. This result shows that compared to participants in the control condition, those in the experimental condition saw themselves as having been less avoidant of the conflict.

\(^4\) Analysis without exclusions indicates that participants in the experimental condition were marginally less likely to report that they had avoided the conflict, \( \chi^2(1) = 4.61, p = .058 \).
Next, tests were conducted to ascertain whether the participants in the experimental condition reported a higher willingness to engage in another game with the other party. Because this was a dichotomous “yes” or “no” question logistic regression was used, entering against their responses the control variables in Step 1 and the experimental condition in Step 2. As shown in Table 2.7, results indicated that emotion acceptance predicted less conflict avoidance, $b = -1.05, SE = .51, p = .042$. Since the model with the main effect of experimental condition added to the control variables fit the data significantly better, $\chi^2(1) = 13.06, p = .011$, results revealed that the participants in the experimental condition were significantly less likely to avoid another conflict than those in the control condition.

### Table 2.7 Effect of Experimental Condition on Conflict Avoidant Behaviour (Study 2.3)

<table>
<thead>
<tr>
<th></th>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Constant</td>
<td>2.99</td>
<td>1.46</td>
</tr>
<tr>
<td>Mindfulness</td>
<td>-.44</td>
<td>.36</td>
</tr>
<tr>
<td>Gender$^a$</td>
<td>.60</td>
<td>.48</td>
</tr>
<tr>
<td>Ethnicity$^b$</td>
<td>-1.36</td>
<td>.59</td>
</tr>
<tr>
<td>Condition$^c$</td>
<td>-.105</td>
<td>.51</td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td></td>
<td>.05</td>
</tr>
<tr>
<td>-2LL</td>
<td>117.34</td>
<td></td>
</tr>
<tr>
<td>$\Delta$-2LL</td>
<td>4.48</td>
<td></td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>8.58*</td>
<td></td>
</tr>
</tbody>
</table>

*Note: N = 122. *$p < .05$, **$p < .01$, ***$p < .001$.

$^a$ Gender is coded: Male (0), Female (1).
$^b$ Ethnicity is coded: Non-South Asian (0), South-Asian (1).
$^c$ Condition is coded: Control (0), Experimental (1).

**Discussion.** Study 2.3 provided further support for the model, and utilized a behavioral context to test the underlying predictions. The results show that immediately after experiencing a conflict, participants in the emotion acceptance condition were

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5 Analysis without exclusions indicates that the effect of emotion acceptance on conflict avoidant behaviors was marginally significant, $b = -.83, SE = .49, p = .088$.
6 Analysis without exclusions indicates that the model with the main effect of experimental condition added to the control variables still fit the data significantly better, $\chi^2(1) = 10.57, p = .032$. 

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significantly less likely to report that they had avoided it, as well as less likely to avoid the risk of another conflict. These results replicate and extend the findings of Studies 2.1 and 2.2 by showing that emotion acceptance *causally reduced* conflict avoidance in a real conflict situation, as measured both by self-report and a behavioral measure.

**GENERAL DISCUSSION**

Conflict is a pervasive and emotionally-charged workplace phenomenon. Of the different tendencies for handling workplace conflict, the most common and problematic is avoidance (Rahim, 2015). While scholars have recently begun to pay greater attention to the role of emotion in conflict (Nair, 2008), little attention has been paid to the role of emotion in conflict avoidance. Indeed, the dual concern model does not contemplate a role for emotion in conflict management (De Dreu & Carnevale, 2003). To address this theoretical gap, the research in the present chapter tested the potential for emotion acceptance – an unconventional emotion regulation strategy that has been shown to be associated with less avoidant workplace behaviors (Bond & Bunce, 2003) – to reduce conflict avoidance. This is a unique approach because while conventional strategies focus on avoiding, altering, or suppressing negative emotions (Gross, 1998), this research considered the opposite – namely, accepting negative emotions as they are. Because avoidance is often fuelled by negative emotions like anxiety and fear (Waung & Highhouse, 1997), it is uniquely suited to emotion acceptance. Moreover, since mindfulness involves receptive attention to present moment experience with an accepting attitude (Bishop et al., 2004) and can be cultivated with practice (Vago & Silbersweig, 2012), it is well-suited to improving emotion acceptance (Gratz & Tull, 2010). In integrating these literatures, across three mixed-methods studies the present research has
shown that acceptance-based emotion regulation: (a) reduces conflict avoidance; (b) improves with mindfulness training; and (c) mediates the relationship between mindfulness and conflict avoidance.

**Theoretical Contributions**

The theoretical contributions of the present research are three-fold. First, it demonstrates that when people avoid conflict they are not necessarily avoiding conflict *per se*; rather they are avoiding the negative emotions associated with conflict. It does so by showing that the more accepting of their negative emotions people are, the less likely they are to be conflict avoidant. In so doing, this research integrates the literatures on emotion regulation and conflict management, and contributes to the dual concern model by demonstrating that individual conflict management styles are not only the result of rational deliberation, but also the product of emotion.

Second, this research extends AET (Weiss & Cropanzano, 1996). AET posits only two sources of influence on emotional reactions – namely, workplace events and individual differences. Importantly, it does not contemplate a role for practice or training in the regulation of emotional reactions to workplace events. By showing that mindfulness training reduces conflict avoidance via emotion acceptance, the present research highlights a role for training in AET. In so doing, it creates room in AET for individual agency in modulating affective reactions to workplace events.

Third, mindfulness research has been criticized for its lack of attention to the mechanisms by which mindfulness training works (Miksch et al., 2015; Sedlmeier et al., 2012). The present research responds to such criticisms by revealing the precise mechanism by which mindfulness training influences emotional experience and its
subsequent impact on conflict avoidance. In so doing, it offers greater theoretical precision by examining not just what mindfulness training can do for workplace-relevant attitudes and behaviors, but also how it does so.

**Practical Implications**

The present research also has practical implications. Employees are commonly avoidant of workplace conflict, which entails a chronic tendency to ignore the underlying problems and disengage from co-workers. While conflict avoidance as a strategy in a specific context can be appropriate in particular circumstances, avoidance as an overarching orientation to conflict is highly problematic. To the degree that organizations wish to reduce conflict avoidance and encourage a more “conflict positive” workplace (Tjosvold, 2008), and insofar as they wish to cultivate a workforce that is able to regulate negative emotions in a healthier way, the present research shows that they have at least two options: (a) offer mindfulness training, and (b) test for dispositional mindfulness or emotion acceptance during employee selection. These options are likely to be especially important for jobs that involve high levels of conflict, such as jobs in customer or legal services.

**Limitations, Strengths, and Future Research**

The present research is also subject to some limitations. First, participants in the mindfulness training study were aware that they were in the training program (or waitlist control); hence, it is possible that the results of Study 2.2 might have been a partial function of test-effects (Sitzmann, Ely, Brown, & Bauer, 2010). This is a pervasive challenge in mindfulness research (Davidson & Kazniak, 2015). However, given that the measures were taken six weeks apart, and in light of the fact that all scales and survey
items were presented in random order, the chances that the participants could have calibrated their post-training answers based on their pre-training responses was mitigated. The fact that the results of Study 2.2 were consistent with underlying theory and replicated the results of Study 2.1 (in which there were no training effects) lends additional credence to these findings.

Second, consistent with other studies manipulating emotion acceptance (e.g., Levitt et al., 2004), in Study 2.3 the control condition was designed to elicit as little emotion as possible. Nonetheless, other controls could have been used. For example, instead of having the participants experience little emotion (to replicate the conditions of Study 2.2), it could have been possible to increase their negative emotion and leave them in a state of non-acceptance. The present research design, however, provides a more conservative test of the hypotheses. Fear makes people more conflict avoidant. In contrast to participants in the experimental condition, those in the control condition were not induced to experience fear. The fact that they were nonetheless more avoidant of conflict on two measures serves to underscore the influence of emotion acceptance on conflict avoidance.

This research also has several notable strengths. In particular, it adopted mixed-methods across three studies to test new theory. These studies involved diverse samples including students from a variety of nationalities and ethnic backgrounds as well as workers of a wide range of ages and at various levels of their organizational hierarchies in a number of fields. Such diversity enhances the generalizability of the findings. In addition, the three research designs complement one another in several respects. The findings based on cross-sectional data in Study 2.1 were replicated in a longitudinal field
experiment in Study 2.2, and extended in the laboratory in Study 2.3. The measures of conflict avoidance in Studies 2.1 and 2.2 were complemented by two alternate measures obtained in the context of an experimentally induced conflict in Study 2.3. Although conflict scholars deem self-report to be the most appropriate means of assessing conflict avoidance (De Dreu et al., 2001), these alternative measures not only serve to diversify measurement but also to clarify the causal ordering of emotion acceptance and conflict avoidance.

This research also opens up several avenues for future research. First, it shows that, contrary to the rationalist account proffered by the dual concern model (Pruitt & Rubin, 1986), people’s orientation to conflict is informed by emotion and their ability to regulate it. As such, future research needs to account for emotion in conflict management. Second, and in a related vein, although this research focused on conflict avoidance, post-hoc analysis of Study 2.1 revealed that mindfulness is positively associated with collaboration (see Table 2.3). This link was not investigated further, as acceptance-based emotion regulation is specific to negative emotions whereas collaboration is dominantly associated with positive emotions (Desilvilya & Yagil, 2005), which likely explains why emotion acceptance did not mediate the relationship between mindfulness and collaboration. By contrast, As such, future research might examine the link between mindfulness and collaboration via other emotion regulation strategies that can increase positive affect (as opposed to reduce negative affect), such as cognitive reappraisal. Third, boundary conditions of the effects of emotion acceptance on conflict avoidance need to be explored. Individual differences might have a role to play. For example, the effects observed in the present research might be weaker for those high versus low in
neuroticism. Situational contingencies might also be relevant. For example, emotion acceptance might be more efficacious at reducing avoidance in high pressure workplace conflicts, when emotions are running high. Future research should focus on moderators of the relationship between emotion acceptance and conflict avoidance, as well as explore the role of emotion regulation in conflict management more generally.

**Conclusion**

Avoidance is a pervasive and problematic orientation to workplace conflict. Although conflict avoidance is associated with negative emotions, the role of emotion regulation in conflict management has received little scholarly attention. This chapter theorized that beyond the rational concerns proffered by the dual concern model, the conflict avoidance reflects an aversion not just to conflict *per se*, but to the negative emotions associated with it. Initial support for this theorizing was found, furnishing evidence for the efficacy of mindfulness as a way to reduce conflict avoidance through emotion acceptance.
CHAPTER 3
AUTHENTICITY, EUDAIMONIC WELL-BEING, MINDFULNESS AND INTERPERSONAL ORGANIZATIONAL CITIZENSHIP BEHAVIOR

INTRODUCTION

As the previous chapter demonstrated, mindfulness can help minimize the impact of negative emotions after they have arisen via emotion acceptance. This is what Gross (1998a) refers to as “response-focused” emotion regulation. But what, if anything, can mindfulness do to help increase positive emotions ahead of time – a process that Gross (1998a) calls “antecedent-focused” emotion regulation? Recent theorizing suggests that mindfulness might be unique in that it implicates both antecedent- and response-focused emotion regulation strategies (Farb et al., 2014). As such, the present chapter seeks to test whether this might in fact be true by building off the previous chapter and exploring whether and how mindfulness can also stimulate positive states of affective well-being.

In so doing, this chapter starts with the following question: how does one lead a good life? Philosophers across cultures have pondered this question for thousands of years. In the *Nicomachean Ethics*, for instance, Aristotle surveyed ancient Greek accounts of the “good life” (*eudaimonia*) including pleasure (*hēdonē*), wealth, reputation, health, honor, and intellectual inquiry, and concluded that eudaimonia is characterized by the actualization of one’s best intrinsic potentials (Aristotle, *Nicomachean Ethics* 1.5-6; Crisp, 2000). Only recently have social scientists weighed in with empirical attempts to describe what it might be like to live a eudaimonic life. Building on earlier research to identify the psychological processes involved in optimal living (e.g., Ryff, 1989, 1995), Ryan and Deci (2001) coined the term “eudaimonic well-being” (EWB) as the byproduct of intrinsic motivation and healthy psychological functioning. Waterman et al. (2010)
defined EWB as the “quality of life derived from the development of a person’s best potentials, and their application in the fulfillment of personally expressive, self-concordant goals” (p. 41). The study of eudaimonia and the conditions that promote it is considered by some to be “among the most important agendas in contemporary behavioral science” (Ryan, Huta, & Deci, 2008, p. 166). Despite its clear implications for work outcomes little is known about EWB in the workplace. Accordingly, this research addresses the following questions: how might EWB be enhanced, and what difference might this make to workplace performance?

In addressing these questions, the present research examines two theoretically derived antecedents of EWB – namely, authenticity and mindfulness – and tests whether EWB predicts work performance. Authenticity refers to the extent to which people are in touch with their inner experiences, self-concordant in their behaviors, and resistant to external influence (Wood, Linley, Maltby, Baliousis, & Joseph, 2008). Mindfulness involves a receptive attention to and awareness of present-moment events and experience as they unfold (Brown & Ryan, 2003). Although mindfulness and authenticity tend to be positively correlated (Heppner & Kernis, 2007; Kernis & Goldman, 2006; Lakey, Kernis, & Heppner, 2008), this research posits that they not only predict EWB but that in so doing they also interact with one another. Hence, it endeavors to tease apart the relationships among these variables to gain a more precise understanding of their relationship with EWB. In so doing, this research seeks to enrich the literature on EWB by furnishing a nuanced account of the factors that contribute to it, and by offering the first evidence that it can be causally enhanced – in this case via mindfulness training.
But why should this matter to organizations? Apart from the obvious benefits of having a psychologically healthy workforce, theory and research suggest that EWB should relate positively with performance. The present research seeks to test how authenticity, mindfulness, and EWB combine to predict performance in terms of interpersonal organizational citizenship behaviors (OCBI). It focuses on OCBI because it has been theorized to be positively related to health and well-being (Organ, 1988), as well as meaningfulness at work (Grant, 2007). These relationships were examined using mixed methods across a series of three studies: (a) a cross-sectional survey study; (b) a time-lagged field study conducted in a classroom setting; and (c) a quasi-experimental mindfulness training intervention conducted online with managers and employees from multiple organizations. The following sections develop the theory underlying the hypotheses and describe the studies conducted to test them.

THEORETICAL BACKGROUND

Eudaimonic Well-Being

Interest in well-being is on the rise. At the time of writing, a Google Scholar search for the term "well-being" returned 3.94 million results, 45% of which were generated in the last decade alone. Well-being is a topic of particular interest to managers and organizational scholars alike (Kuoppala, Lamminpää, Liira, & Vainio, 2008; McKee-Ryan, Song, Wanberg, & Kinicki, 2005). As much as 25% of variation in life satisfaction can be accounted for by job satisfaction (Campbell, Converse, & Rodger, 1976), and positive emotions and perceptions in the workplace have been associated with higher productivity, lower turnover, stronger customer loyalty, and even higher profitability
Clearly, well-being is an important area of organizational research (for a review, see Danna & Griffin, 1999).

Various conceptions of well-being exist. Early well-being research was dominated by a preoccupation with subjective well-being, which is comprised of a number of components, including: (a) high levels of positive affect; (b) low levels of negative affect; (c) perceived life satisfaction; and (d) satisfaction with important life domains (e.g. work) (Diener & Lucas, 1999). Subjective well-being is considered to be an indicator of a *hedonic* life, which is characterized by the attainment of pleasure and avoidance of pain (Ryan & Deci, 2001). A sense of subjective well-being can arise from any source – whether it be a delicious meal, a new relationship, or a high-status job (Waterman, 1993). That is, subjective well-being results from attaining desired *outcomes* that make one *feel good* about life.

More recently, well-being research has moved beyond this conceptualization of well-being as *feeling good about life* and has started to consider well-being to be a reflection of *functioning well in life* (Keyes & Annas, 2008). Rather than focusing on the feelings associated with desired outcomes, such research is oriented around the substantive content of life and the processes involved in living well (Ryan et al., 2008). A number of models fall within this area of research. Psychological well-being is characterized by the conditions that allow people to thrive amidst the challenges of life (Keyes, Schomotkin, & Ryff, 2002; Ryff, 1989, 1995). Similarly, self-determination theory examines the conditions that nurture intrinsic motivation and the healthy integration of personality (Ryan, Kuhl, & Deci, 1997; Ryan & Deci, 2000). Referring to
Aristotle’s original work on eudaimonia, Ryan and Deci (2001) noted that these conditions give rise to a sense of what they termed “eudaimonic well-being.”

While recognizing psychological well-being and self-determination theory as invaluable psychological models of human flourishing, Waterman (2008) questioned their fidelity to the concept of eudaimonia as originally conceptualized by Aristotle, and therefore the validity of referring to them as eudaimonic well-being. In particular, he impugned their reliance on purely objective elements of psychological functioning, ignoring the subjective experiences of personal expressiveness that are meant to characterize eudaimonia (Waterman, 2008). After all, EWB does contain an affective, hedonic dimension (Kashdan, Biswas-Diener, & King, 2008), as Aristotle himself recognized (Annas, 2008). Waterman et al. (2010) developed and validated the Questionnaire for Eudaimonic Well-being (QEWB), identifying six aspects of EWB: (a) engaging in activities for the purpose of self-discovery, (b) developing what one perceives to be one’s best potentials, (c) having a sense of meaning and purpose in life, (d) investing significant effort in pursuit of excellence, (e) being intensely involved in the activities one engages in, and (f) enjoying the self-expressive nature of such activities.

The present research focuses on Waterman et al.’s (2010) conceptualization of EWB for three reasons. First, as noted it is more consistent with the original meaning of eudaimonia as conceived by Aristotle (Waterman, 2008). This enables researchers to move beyond the solution proffered by psychological well-being and self-determination theory as to how to promote optimal psychological functioning, and explore the age-old question of how to realize what the ancient Greeks referred to as “a good life”, as well as its relevance for workplace performance. Second, given that this research is not only
interested in testing the effect of mindfulness on EWB but also in examining the role of authenticity therein, the central role of personal expressiveness in this conception of EWB makes it particularly well suited to this pursuit. Third, this conceptualization of EWB has not yet been explored in the organizational sciences. Given the implications of EWB for motivation (Waterman, Schwartz, & Conti, 2008), the relationship between EWB and performance is a potentially important issue that warrants exploration.

**Authenticity and Eudaimonic Well-Being**

The ideal of eudaimonia is closely related to the concept of authenticity. Historically, the word *daimon* can signify each individual’s unique potentialities in life (Waterman, 1990) – their so-called “highest potential”. According to contemporary eudaimonist ethics, individuals can only realize their highest potential (i.e., eudaimonia) by knowing and living in alignment with their daimon. Some scholars locate this ethic in ancient sayings, such as the Delphic injunction to “know thyself” and “become what you are” (Norton, 1976). In other words, only by knowing oneself and living in accordance with who one knows oneself to be can one realize one’s highest potential. In contemplating this ancient inderdiction, the mind naturally elides towards the more contemporary virtue of authenticity (Varga, 2011). While the notion of authenticity has a rich philosophical lineage (for a review, see Varga & Guignon, 2016) and is viewed as fundamental to healthy psychological functioning and well-being (Kernis, 2003), it is only recently that social scientists have attempted to define and operationalize it. In developing the Authenticity Inventory, for instance, Kernis and Goldman (2006) defined authenticity as “the unobstructed operation of one’s true or core self in one’s daily enterprise” (p. 294). More recently, in designing the Authenticity Scale, Wood et al.
(2008) operationalized authenticity as involving three components: (a) low self-alienation, (b) self-concordant behaviors, and (c) resistance to external influence.

The characteristics of EWB described by Waterman et al. (2010) reveal potential associations with authenticity. For example, individuals who are high in EWB make efforts to develop their best potentials, and authentic people are not only more likely to know what their best potentials are, but also to align their actions with those potentials. In addition, individuals high in EWB tend to pursue and enjoy activities that are self-expressive, and as self-aware and self-concordant individuals, those who are highly authentic are more likely to do the same (Ryff & Singer, 2008). Similarly, the high self-concept accessibility that characterizes highly authentic individuals relates to a greater sense of perceived meaning in life (Schlegel, Hicks, Arndt, & King, 2009). It may be for this reason that authenticity is strongly associated with a sense of meaningfulness (Ménard & Brunet, 2011).

**Mindfulness and Eudaimonic Well-Being**

Like eudaimonia, mindfulness stems from a philosophical tradition dating back thousands of years, and that is centrally concerned with personal development and the pursuit of a virtuous life (Wallace & Shapiro, 2006). Strong grounds exist to support the contention that mindfulness is positively related to EWB. First, mindfulness is robustly associated with psychological well-being (Brown & Ryan, 2003; Brown et al., 2007). As such, insofar as EWB is positively correlated with psychological well-being, it is likely also to be associated with mindfulness. Second, research shows that mindfulness is positively associated with self-awareness (Carlson, 2013; Dahl, Lutz, & Davidson, 2015; Hölzel et al., 2011; Tang, Hölzel, & Posner, 2015) and self-actualization (Brown & Ryan,
Thus, to the extent that individuals regulate their attention towards present-moment experience, they are likely to satisfy one of the key aspects of EWB – namely, to be engaged in an activity for self-discovery. Third, mindfulness has been theorized to be associated with flow (Bishop et al., 2004; Dane, 2011), and empirical research exists to support this view (Aherne, Moran, Lonsdale, 2011; Kee & Wang, 2008). As such, mindfulness may help individuals become more intensely involved in the activities in which they are engaged, which is a second aspect of EWB. Finally, mindfulness has been theorized as a means by which individuals can gain a sense of purpose and meaning (Garland, Farb, Goldin, & Fredrickson, 2015), and research has shown that it is positively associated with a sense of purpose in life (Howell, Dopko, Passmore, & Buro, 2011), a third aspect of EWB. Indeed, being mindful and acting with awareness has been theorized to be one of the distinguishing characteristics of eudaimonic living (Ryan et al., 2008). Accordingly, it is hypothesized that dispositional mindfulness shares a positive association with EWB.

**Hypothesis 1a:** Dispositional mindfulness is positively associated with EWB.

No research to date, however, has examined whether mindfulness causally increases EWB by way of mindfulness training. A growing body of organizational research shows that mindfulness training can improve various indicators of well-being of interest to organizations (for reviews, see Good et al., 2016; Kay & Skarlicki, 2017), including enhanced emotion regulation (Chambers et al., 2009), psychological detachment from the job outside of work hours (Hülsheger; Feinholdt, & Nübold, 2015; Hülsheger et al., 2014), as well as lower emotional exhaustion (Hülsheger et al., 2013), stress (Allen et al., 2015; Wolever et al., 2012) and burnout (Krasner et al., 2009; Roeser
et al., 2013). Mindfulness training has also been shown to reliably improve psychological health and well-being outside of the workplace. For example, a broad range of studies has shown that mindfulness training reduces indicators of psychological mal-being, such as anxiety, negative affect, and emotional volatility (Eberth & Sedlmeier, 2012; Grossman et al., 2004; Sedlmeier et al., 2012). Conversely, studies have also consistently shown that mindfulness training improves indicators of positive psychological functioning, such as compassion for self and others (Birnie, Speca, & Carlson, 2010), and positive self-concept (Hölzel et al., 2011; Sedlmeier et al., 2012). Thus, building upon the aforementioned theory and research, it is hypothesized that mindfulness training increases EWB.

**Hypothesis 1b**: Mindfulness training increases eudaimonic well-being.

**The Interaction of Mindfulness and Authenticity on Eudaimonic Well-Being**

Given the theoretical linkage between each of authenticity and mindfulness on the one hand, and, on the other, EWB, an important question for theory and practice is: under what conditions might authenticity and mindfulness have a stronger versus weaker association with EWB? It is proposed that authenticity and mindfulness interact to predict EWB, but that the nature of this interaction depends on how mindfulness is operationalized. As stated in the previous chapter, mindfulness can be considered a disposition, a state, as well as a practice (Vago & Silbersweig, 2012). As a disposition, mindfulness refers to the fact that individuals vary in their tendency to be mindful across contexts and over time (Brown & Ryan, 2003). As a state, mindfulness refers to the fact that irrespective of their dispositions, individuals can move in and out of a mindful state at different times (Hafenbrack, Kinias, & Barsade, 2014; Tanay & Bernstein, 2013). As a
practice, mindfulness refers to any number of exercises that individuals can engage in to place themselves in a more mindful state, such as meditation (Sedlmeier et al., 2012).

Since eudaimonia is said to be the product of a lifetime of effort (Norton, 1976), EWB is ill-suited for examination at the state-level. Therefore, the present research rules out a state-level investigation of authenticity and mindfulness. By contrast, dispositional mindfulness is associated with a more stable and heightened attention and awareness – one that has been shown to increase with mindfulness training (Sedlmeier et al., 2012); therefore, this research examines the interaction between mindfulness and authenticity at the dispositional level. Since dispositional mindfulness is associated with a heightened sense of self-awareness, as well as a sense of purpose and meaning, more mindful individuals are likely to have a clearer understanding of who they are and the extent to which their behaviors are more or less in alignment with their sense of self. However, this relationship is likely to depend on authenticity. Individuals are unlikely to feel that they are living in alignment with their daimon – or higher self – if they are fundamentally out of touch with that self in the first place. As such, to the extent that mindfulness enhances their sense of EWB, this likely requires a minimum threshold of authenticity without which a sense of EWB would be hindered. Therefore, it is posited that individuals who are both highly aware of present-moment experience and highly authentic will have a higher sense of EWB.

**Hypothesis 2a:** The positive association between dispositional mindfulness and eudaimonic well-being is moderated by authenticity, such that dispositional mindfulness heightens eudaimonic well-being only for individuals who are high (vs. low) in authenticity.

In contrast to mindfulness as a disposition, mindfulness training is likely to interact differently with authenticity to predict EWB. Scholars have posited that the
positive self-concept and optimal psychological functioning that result from mindfulness training represent the very essence of authenticity (Kernis, 2003). If this is true, then people who are already high in authenticity may be relatively less able to increase their EWB in comparison to people who are less self-concordant and psychologically healthy. This is because there is an upper-bound to positive psychological resources (Fredrickson & Losada, 2005); thus, there is also likely an upper-limit to how authentic and psychologically healthy people can be. Stated differently, ceiling effects are likely to occur on the influence of mindfulness training on EWB. As such, people who are already high in authenticity will likely benefit less from mindfulness training in terms of improvements to EWB. In addition, one of the sub-factors of authenticity shows that by definition authentic people accept less external influence from others (Wood et al., 2008). Mindfulness training, however, requires that individuals learn new information from others and assimilate that information into their own thoughts, emotions, and behaviors. If highly authentic people are less open to this new information, the impact of mindfulness training on them could be attenuated.

**Hypothesis 2b**: Mindfulness training enhances eudaimonic well-being, but only for individuals who are low (vs. high) in authenticity.

**Eudaimonic Well-Being and Interpersonal Organizational Citizenship Behaviors**

Although the impact of authenticity and mindfulness on EWB has ramifications for individuals and society at large, it is likely to be of particular significance to organizations because of its implications for performance. The sense of meaningfulness that lies at the core of EWB is highly associated with positive affect (King, Hicks, Krull, & Del Gaiso, 2006), and as the deepest form of well-being EWB represents a highly positive affective experience (Keyes et al., 2002; Waterman, 2011), even more so than
subjective well-being (Coatsworth, Palen, Sharp, & Ferrer-Wreder, 2006; Palen & Coatsworth, 2007). Broaden-and-build theory holds that such a positive affective experience broadens individuals’ thought-action repertoires, thereby allowing them to build physical, intellectual, and social resources (Fredrickson, 1998). One of the ways in which individuals can build social resources is by helping others, and an extensive body of research shows that the positive affect that accompanies EWB does indeed increase the likelihood that individuals will go out of their way to help others (for reviews, see Isen, 1987; George & Brief, 1992; Lyubomirsky, King, & Diener, 2005). Such helping behaviors have been shown to extend to the workplace in the form of organizational citizenship behaviors (OCB; Williams & Shiaw, 1999). OCBs have been associated with subjective well-being (Dávila & Finkelstein, 2013) and generally fall into two types: (a) those directed at individuals within the organization (OCBI), and (b) those directed at the organization itself (OCBO) (Williams & Anderson, 1991). Research shows that positive affect is more highly associated with OCBIIs than it is to OCBOs (Lee & Allen, 2002). As such, it is hypothesized that EWB relates positively with OCBI.

**Hypothesis 3:** Eudaimonic well-being predicts interpersonal organizational citizenship behaviors.

**Summary: Moderated-Mediation**

The theoretical model underlying this research is presented in Figure 3.1. As a unification of the aforementioned theory and hypotheses, this model predicts that mindfulness interacts with authenticity to affect EWB, which in turn predicts OCBI. It is further theorized that mindfulness training will have a stronger effect on EWB among individuals who are low (versus high) in authenticity.
METHODS

The hypotheses were tested in a series of three mixed-methods studies. Study 3.1 involved a cross-sectional examination of the relationships between the variables of interest, in which a snapshot of the theoretical model was obtained before testing it further. Study 3.2 entailed a time-lagged replication of the model in a classroom setting, in which OCBI was measured by way of peer-report. Study 3.3 consisted of a quasi-experimental, longitudinal field study that tested the effects of mindfulness training on EWB and OCBI. Taken together, these studies involved a large and diverse sample, including MTurk workers, university undergraduates, and a broad and varied working population. The diversity and size of the methods employed, as well as the sample drawn upon, enhance the validity and generalizability of the results.

Study 3.1

This study tested the discriminant validity of the measures and the fit of the hypothesized model via confirmatory factor analysis (CFA). Whereas exploratory factor
analysis (EFA) would have been appropriate to explore the underlying factor structure of a set of observed variables without imposing a pre-conceived structure on the outcome (Child, 1990), CFA was used as validated measures were used (see below) to test the fit of the hypothesized model (Harrington, 2009). In so doing, it examined the relationships between dispositional mindfulness, authenticity, EWB, and OCBI at a single point in time, as well as investigated the relationship between EWB and other indicators of psychological well-being: (a) trait positive affect, (a) trait negative affect, and (c) psychological capital. In essence, this study identified whether these four constructs share variance in a way that is consistent with the moderated-mediation model proposed by this research, as well as compared how EWB fits in the model as compared to other indicators of positive psychological functioning.

Participants and procedures. Applying the rule that there should be at least 10 cases for each item in a model to undergo CFA (Everitt, 1975), 1,250 working adults were recruited on Amazon’s Mechanical Turk (MTurk) in the United States (53.2% male, $M_{age} = 35.4, SD = 10.9$). Participants were required to have paid jobs outside of MTurk that require at least 20 hours of their time per week. Participation was further restricted to those who had received at least a 95% approval rate for responses given across all previous MTurk studies, which has been shown to yield higher quality data (Peer et al., 2014). Scales were presented in the order in which they appear in the model, and the items they contained were randomized.

Three of the four variables in the model are phenomenological and therefore are best measured by self-report. While it is sometimes possible to measure OCBI by third parties, the nature of this particular online platform precluded this possibility. To mitigate
the potential for common method variance that can be associated with self-report studies, a number of procedural safeguards were employed (see Conway & Lance, 2010; Podsakoff, MacKenzie and Podsakoff, 2012). First, participants were motivated to pay careful attention to the survey by including three attention checks and warning them up-front that failure to respond correctly to these items could result in a denial of payment. Forty-six participants were excluded for failing to respond to the attention checks correctly (although they were paid nonetheless). Second, to create proximal separation between the measures, filler items were added between all measures of the substantive constructs of interest. Third, to account for the possibility that participants might present themselves in an unduly favorable light, socially desirable responding was controlled.

Measures. Mindfulness was measured with the same scale as used in the studies on conflict avoidance (see Chapter 2) – namely, the 15-item Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003) ($\alpha = .93$).

Authenticity was measured with the 12-item Authenticity Scale (Wood et al., 2008). This measure assesses the three factors of authenticity: (a) self-alienation, (b) authentic living, and (c) accepting external influence. A sample item is “I live in accordance with my values and beliefs.” Responses are given on a 7-point Likert-type scale ranging from 1 (does not describe me at all) to 7 (describes me very well). Responses to the ‘self-alienation’ and ‘accepting external influence’ items were reverse-coded, then all responses were averaged and aggregated into a total authenticity score ($\alpha = .90$).

EWB was measured with the 21-item QEWB (Waterman et al., 2010). This measure reflects the six aforementioned inter-related aspects of EWB, and although it
was initially validated as having a single factor structure (Waterman et al., 2010), recent research proposes a three-factor structure (Schutte, Wissing, & Khumalo, 2013). A sample item is “I believe I know what my best potentials are and I try to develop them whenever possible.” Participants report how much they agree with each item on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). The QEWB has shown strong reliability (Waterman et al., 2010), as well as convergent and discriminant validity (Schutte et al., 2013). Responses were averaged such that higher scores indicate higher levels of EWB ($\alpha = .88$).

OCBI was measured using Williams and Anderson’s (1991) scale, which consists of seven items. A sample item is, “I am a person who helps others who have been absent from work.” Participants indicated the degree to which they agree or disagree with each statement on a scale from 1 (strongly disagree) to 7 (strongly agree). The items were averaged such that higher scores indicate higher levels of OCBI ($\alpha = .91$).

To examine the relationship between EWB and other indicators of psychological well-being in the workplace, two other measures that are extraneous to the model were included: (a) the 10-item Positive and Negative Affect Scale, which measures trait positive ($\alpha = .81$) and negative ($\alpha = .87$) affectivity (Thompson, 2007); and (b) the 12-item Psychological Capital Questionnaire, which measures self-efficacy, hope, resilience, and optimism in the workplace (Luthans, Avolio, Avey, & Norman, 2007) ($\alpha = .91$).

To control for socially desirable responding, the impression management sub-scale of the Balanced Inventory of Desirable Responding was used (Paulhus, 1984) ($\alpha = .80$). Finally, as a “marker variable” for the purposes of CFA (Williams, Hartman, &
Cavazotte, 2010), a measure that is theoretically unrelated to any of the variables in the model was used – namely, the Epistemological Beliefs Measure (Conley, Pintrich, Vekiri, & Harrison, 2004) ($\alpha = .86$).

Minimizing common method bias. As noted earlier, because of its cross-sectional and self-report nature, this study employed a number of procedural remedies recommended by Podsakoff et al. (2012) to mitigate the potential for common method bias. First, participation was restricted to individuals who had received at least a 95% approval rate for responses given across all previous MTurk studies, which has been shown to yield higher quality data (Peer et al., 2014). Second, participants were motivated to pay careful attention to the survey by including three attention checks and warning them up-front that failure to respond correctly to these items could result in a denial of payment. Third, scales for the variables of substantive interest were separated by filler items designed to obfuscate the participants’ ability to recognize the relationships between them.

Results and discussion. The means, standard deviations, correlations among the variables, and scale reliabilities are provided in Table 3.1.
Before testing the model, CFA was conducted to assess the discriminant validity of the measures. Adopting the one-factor model validated by Waterman et al. (2010) generated a significant chi-square, $\chi^2(1208) = 2214.03, p < .001$, and revealed a marginally good fit, $CFI = .926$, $TLI = .909$, $RMSEA = .026$; $SRMR = .051$. Models with optimal fit are represented by $CFI$ and $TLI$ values of .95 or higher, $RMSEA$ values less than .05, and $SRMR$ values less than .08 (Hu & Bentler, 1999). To determine whether the three-factor model of EWB recommended by Shutte et al. (2013) would improve the fit, further tests were conducted. The model with the three-factor structure of EWB generated an improved chi-square, but which was still significant, $\chi^2(1218) = 2065.83, p < .001$. In
larger samples such as these the likelihood of chi-square significance is high, and a chi-square to degrees of freedom ratio between three and five can indicate a permissible fit (Hu & Bentler, 1999). The other fit indices of the three-factor model showed improvement over the one-factor model, CFI = .938, TLI = .924, RMSEA = .024; SRMR = .053. Therefore, it was concluded that this model demonstrated adequate fit.

Because all the items were self-reported, common method variance was further tested. In line with previous research, model fit was compared against a model in which the items were allowed to load onto a common method variable (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Williams et al., 2010). Item loadings were constrained to 0 in the original model, while in the common method model they were free to vary. The common method model also generated a significant chi-square, $\chi^2(1163) = 1611.01$, $p < .001$, and the fit indices improved over the original model, CFI = .967, TLI = .958, RMSEA = .018; SRMR = .035.

Comparing these two models revealed that allowing the items to load onto a common method factor significantly improved the model fit, $\Delta \chi^2(55) = 796.67$, $p < .001$. However, since the chi-square difference test is vulnerable to larger sample sizes such as these, practical significance was investigated by comparing the CFI of the two models, as recommended by Byrne (2001). The difference in CFI scores between the models was .029, which is less than the value of .05 recommended by Bagozzi and Yi (1990). As such, it was concluded that common method variance, though present, was not a significant concern in these data.

To test the hypotheses, moderated-mediation analysis was conducted with 10,000 bootstrap samples using Hayes’ (2012) PROCESS macro (Model 7). As shown in Table
results indicated that dispositional mindfulness was positively associated with EWB, $b = .07, SE = .02, p < .001$, supporting Hypothesis 1a. In addition, this relationship was moderated by authenticity, $b = .03, SE = .01, p < .05$. As shown in Figure 3.2, the interaction pattern revealed that individuals high in both dispositional mindfulness and authenticity reported the highest levels of EWB, such that those who were high (vs. low) in both mindfulness and authenticity were significantly higher in EWB. This provided support for Hypothesis 2a. Moreover, EWB was positively associated with OCBI, $b = .99, SE = .06, p < .001$, supporting Hypothesis 3. Overall, the moderated-mediation model held, $b = .03, SE = .01, 95\% CI [.0009, .0594]$.

Although authenticity also moderated the relationship between mindfulness and both (a) positive affect, $b = .04, SE = .02, p < .01$, and (b) psychological capital, $b = .05, SE = .02, p < .05$, the moderated-mediation model as a whole held with neither positive affect, $b = .02, 95\% CI [-.0066, .0469]$, nor psychological capital, $b = .03, SE = .02, 95\% CI [-.0060, .0736]$ as mediator. When the model was run with all three mediators in parallel, results indicated that EWB remained the most significant mediator, $b = .01, SE = .01, 95\% CI [.0009, .0224]$, with positive affect showing marginal significance, $b = .01, SE = .00, 95\% CI [.0007, .0155]$ and psychological capital remaining non-significant, $b = .03, SE = .02, 95\% CI [-.0049, .0552]$. This result indicates that EWB mediates the link between mindfulness and OCBI (as moderated by authenticity) above-and-beyond indicators of subjective well-being.

Insofar as any common method variance in the data might have influenced these results, it should be noted that it could not have served to exaggerate the moderating effect of authenticity on the link between mindfulness and EWB. The reason for this is
that while common method variance has the potential to either inflate or deflate bivariate linear relationships, it can only deflate interaction effects (Siemsen, Roth, & Oliveira, 2010). Therefore, to the extent that common method variance might be present in these data, the interaction between authenticity and mindfulness can only be understated.

Table 3.2  Conditional Indirect Effects of Dispositional Mindfulness on Interpersonal Organizational Citizenship Behaviors (Study 3.1)

<table>
<thead>
<tr>
<th></th>
<th>Eudaimonic Well-Being</th>
<th>Interpersonal Organizational Citizenship Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Total Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
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<td>.05</td>
</tr>
<tr>
<td>Impression Management</td>
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<td>.01</td>
</tr>
<tr>
<td>Dispositional Mindfulness</td>
<td>.07***</td>
<td>.02</td>
</tr>
<tr>
<td>Authenticity</td>
<td>.31***</td>
<td>.02</td>
</tr>
<tr>
<td>Mindfulness x Authenticity</td>
<td>.03*</td>
<td>.01</td>
</tr>
<tr>
<td>Eudaimonic Well-Being</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Effect: X -&gt; Y</td>
<td>-0.01</td>
<td>.03</td>
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<tr>
<td>Conditional Indirect Effect: X -&gt; Y at values of Authenticity</td>
<td></td>
<td></td>
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<tr>
<td>10th percentile</td>
<td>.03</td>
<td>.03</td>
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<td>25th percentile</td>
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<tr>
<td>75th percentile</td>
<td>.09</td>
<td>.02</td>
</tr>
<tr>
<td>90th percentile</td>
<td>.11</td>
<td>.02</td>
</tr>
<tr>
<td>Indirect Effect: X -&gt; M -&gt; Y</td>
<td>.03</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note: N = 1,207. *p < .05, **p < .01, ***p < .001. X = mindfulness; M = eudaimonic well-being; Y = interpersonal organizational citizenship behaviors. CI = 95% Confidence Interval; LLCI = Lower Level; ULCI = Upper Level.

Figure 3.2  Dispositional Mindfulness Enhances Eudaimonic Well-Being When Authenticity is High (Study 3.1)
Study 3.2

Study 3.2 tested the model in a time-lagged field study conducted in a classroom setting, in which common method variance concerns from Study 3.1 were addressed by way of peer-report OCBI.

Participants and procedures. The participants consisted of 136 undergraduate students at the University of British Columbia enrolled in various courses in which group work forms an integral part of their grade. Their average age was 20.1 years ($SD = 2.3$), and 65.4% were female. The participants were ethnically diverse, consisting of 33.1% Caucasians, 33.8% East Asians, 8.1% South Asians, with the remaining 25% spread out among various other ethnic groups. At the start of the semester (T1), the participants completed measures of dispositional mindfulness and authenticity. Three months later, at the end of the semester (T2), they completed a measure of EWB. At the same time a member of their work-group over the course of the semester completed a measure of OCBI for them. Matched surveys from T1 and T2 were received for 92 participants. As in Study 3.1, all measures and items they contained were presented in randomized order.

Measures. The participants completed the same measures as in Study 3.1 for mindfulness ($\alpha = .81$), authenticity ($\alpha = .83$), and EWB ($\alpha = .84$). The measure for OCBI was adapted for peer-report, as well as for a classroom setting ($\alpha = .85$). For example, after the participants entered the name of their teammate, the item that normally reads “I am a person who helps others who have been absent from work” was altered to read “[Teammate name] is a person who helps others who have been absent from class.”

Results and discussion. The means, standard deviations, correlations among the variables, and scale reliabilities are provided in Table 3.3.
To test the hypotheses, moderated-mediation analysis was conducted with 10,000 bootstrap samples using Hayes’ (2012) PROCESS macro (Model 7). As shown in Table 3.4, results largely supported the model. Overall, dispositional mindfulness at T1 was not associated with EWB at T2; however, as shown in Figure 3.3 dispositional mindfulness did interact with authenticity such that it was associated with EWB at T2 for individuals who were high in authenticity, \( b = .25, SE = .10, p = .013 \). Thus, Hypothesis 2a was supported. In turn, EWB further was also associated with peer-report OCBI, \( b = .31, SE = .14, p = .034 \), thereby supporting Hypothesis 3. As such, the overall moderated-mediation model held, \( b = .08, SE = .07, 95\% \text{ CI} [.0002, .2617] \).
Table 3.4  Conditional Indirect Effects of Dispositional Mindfulness on Interpersonal Organizational Citizenship Behaviors (Study 3.2)

<table>
<thead>
<tr>
<th></th>
<th>Eudaimonic Well-Being</th>
<th>Interpersonal Organizational Citizenship Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
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<td>Total Effects</td>
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</tr>
<tr>
<td>Constant</td>
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<tr>
<td>Dispositional Mindfulness</td>
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<td>.10</td>
</tr>
<tr>
<td>Authenticity</td>
<td>.39***</td>
<td>.06</td>
</tr>
<tr>
<td>Mindfulness x Authenticity</td>
<td>.25*</td>
<td>.10</td>
</tr>
<tr>
<td>Eudaimonic Well-Being</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Effect: X -&gt; Y</td>
<td>.31*</td>
<td>.14</td>
</tr>
<tr>
<td>Conditional Indirect Effect: X -&gt; Y at values of Authenticity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th percentile</td>
<td>-.08</td>
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<td>.08</td>
</tr>
<tr>
<td>Indirect Effect: X -&gt; M -&gt; Y</td>
<td>.08</td>
<td>.07</td>
</tr>
</tbody>
</table>

Note: N = 92; X = mindfulness; M = eudaimonic well-being; Y = interpersonal organizational citizenship behaviors. CI = 95% Confidence Interval; LLCI = Lower Level; ULCI = Upper Level. "p < .05," "p < .01," and "p < .001" indicate significance levels.

Figure 3.3  Dispositional Mindfulness Enhances Eudaimonic Well-Being when Authenticity is High (Study 3.2)
The results of Study 3.2 provided further support for the model, while accounting for concerns stemming from the cross-sectional design of Study 3.1. Nonetheless, because neither study involved a manipulation of the independent variable, causality could not be determined. To ascertain the causal ordering of the variables, as well as to test the alternative hypothesized effect of authenticity on the relationship between mindfulness training (as opposed to dispositional mindfulness) and EWB, a third study was required.

**Study 3.3**

Study 3.3 was conducted to test whether (a) mindfulness training causally increases EWB, (b) authenticity stifles the effect of mindfulness training on EWB, and (c) the downstream effect on post-training OCBI would hold while controlling for pre-training OCBI. It consisted of a quasi-experimental, longitudinal field study involving one month of online mindfulness training in various organizations.

**Participants and procedures.** To maximize statistical power, as many participants as possible were recruited. Participants consisted of 921 managers and employees across all levels of five organizations located across North America, each involved in a different industry (e.g., airline, health services, food and beverages, education, and government). Participants were predominantly female (72.7%) and Caucasian (80.7%), and were an average age of 44.1 years ($SD = 16.0$).

Mindfulness training was delivered online through a standardized program specifically designed for employees who are not able to commit to more traditional forms of mindfulness training. Participants logged in every day for approximately 5 minutes of instruction, which was delivered in audio and video form. Unlike most mindfulness
training programs, which place a heavy emphasis on meditation, this program asked participants to take five mindful breaths at least five times per day for a period of one month, which they were prompted to do by automated text.

In order to approach random assignment to condition while working within the constraints posed by the host organizations, participants were presented with the option of attending one of two training periods staggered one month apart. Unbeknownst to the participants, these slots represented a mindfulness training and waitlist control condition, respectively. Participants completed measures of the constructs of interest at the beginning (T1) and end (T2) of the first one-month training period.

**Measures.** As a manipulation check for the training, participants completed the 6-item short-form version of the MAAS (Black, Sussman, Johnson, & Milam, 2012) \( \alpha_{\text{Time1}} = 0.82; \alpha_{\text{Time2}} = 0.84 \). As in the previous studies, authenticity was measured with the 12-item Authenticity Scale (Wood et al., 2008) \( \alpha_{\text{Time1}} = 0.87; \alpha_{\text{Time2}} = 0.88 \), EWB was measured with the 21-item QEWB (Waterman et al., 2010) \( \alpha_{\text{Time1}} = 0.85; \alpha_{\text{Time2}} = 0.86 \), and OCBI was gauged with Williams and Anderson’s (1991) scale \( \alpha_{\text{Time1}} = 0.78; \alpha_{\text{Time2}} = 0.79 \).

**Results and discussion.** Matched pre- and post-training surveys were received for 416 participants. As recommended by Meade and Craig (2012), thirty participants were excluded for failing an attention check. The result was a total of 386 complete surveys: 224 in the training group and 162 in the control group. At baseline, no significant differences between the groups were observed in any of the demographic variables, or indeed in any of the variables in the model. The means, standard deviations, correlations, and scale reliabilities are given in Table 3.5.
As a manipulation check, ANCOVA was conducted with T2 mindfulness as the dependent variable, mindfulness training condition as the independent variable, and T1 mindfulness as a covariate. The omnibus test was significant, $F(2, 383) = 131.79, p < .001$. A significant effect of training condition, $F(1, 383) = 6.96, p < .01$, was also
observed, as was a significant effect of dispositional mindfulness at T1, $F(1, 383) = 257.55, p < .001$.\(^7\) This showed that the training was effective at increasing mindfulness.

As in the previous studies, in order to test the model, moderated-mediation analysis was conducted with 10,000 bootstrap samples using Hayes’ (2012) PROCESS macro (Model 7). Although there were no significant differences between the training and control groups at baseline, to account for potential concerns about common method variance and to obtain an indication of change in the dependent variables of interest over time, baseline scores for each of psychological capital, EWB, and OCBI were controlled. As shown in Table 6, results supported the model. Mindfulness training increased EWB, $b = .16, SE = .04, p < .001$, supporting Hypothesis 1b. In addition, authenticity moderated the effect of mindfulness training on EWB, $b = -.10, SE = .05, p = .025$. As shown in Figure 4, the interaction pattern reveals that authenticity stifled the effect of the training such that only those who were relatively low in authenticity experienced significant increases in EWB. Thus, Hypothesis 2b was supported. In addition, OCBI at T2 was positively associated with EWB, $b = .22, SE = .07, p < .01$, even while controlling for OCBI at T1, thereby supporting Hypothesis 3. Accordingly, the moderated-mediation model was supported, $b = -.02, SE = .01, 95\% CI [-.0619, -.0023]$, even when including psychological capital as a parallel mediator.\(^8\)

\(^7\) Analysis without exclusions indicates that the omnibus test was still significant, $F(2, 413) = 148.53, p < .001$, with a significant effect of training condition, $F(1, 413) = 9.30, p < .01$, and a significant effect of dispositional mindfulness, $F(1, 413) = 287.53, p < .001$.

\(^8\) Analysis without exclusions indicates that mindfulness training still increased EWB, $b = .17, SE = .04, p < .001$, supporting Hypothesis 1b; authenticity had a marginally significant moderating effect on the link between mindfulness training and EWB, $b = -.09, SE = .05, p = .059$, supporting Hypothesis 2b; OCBI at T2 was still positively associated with EWB, $b = .18, SE = .07, p = .013$, supporting Hypothesis 3; and the overall moderated-mediation model still held, $b = -.02, SE = .01, 95\% CI [-.0509, -.0005]$. 
Table 3.6  Conditional Indirect Effects of Mindfulness Training on Interpersonal Organizational Citizenship Behaviors via Eudaimonic Well-Being (Study 3.3)

<table>
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<tr>
<th></th>
<th>Psychological Capital (T2)</th>
<th>Eudaimonic Well-Being (T2)</th>
<th>Interpersonal Organizational Citizenship Behaviors (T2)</th>
</tr>
</thead>
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<tr>
<td></td>
<td>$B$</td>
<td>SE</td>
<td>$R^2$</td>
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<tr>
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<td>.59***</td>
</tr>
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<td>.16***</td>
</tr>
<tr>
<td>Authenticity (T1)</td>
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<td>.03</td>
</tr>
<tr>
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<td>.06</td>
<td>.10*</td>
</tr>
<tr>
<td>Authenticity (T1)</td>
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<td>.04</td>
<td>.68***</td>
</tr>
<tr>
<td>Psychological Capital (T2)</td>
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<td>.03</td>
<td>-.04</td>
</tr>
<tr>
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<td>-.1195</td>
</tr>
<tr>
<td>Conditional Indirect of X→M1→Y at values of Authenticity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th percentile</td>
<td>.09</td>
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<td>25th percentile</td>
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<td>-.0022</td>
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<tr>
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</tr>
<tr>
<td>Indirect Effect: X→M2→Y</td>
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<td>.01</td>
<td>.0019</td>
</tr>
</tbody>
</table>

Note: X = mindfulness training; M₁ = psychological capital; M₂ = eudaimonic well-being; Y = interpersonal organizational citizenship behaviors. T₁ = pre-training, T₂ = post-training. Mindfulness training coded: waitlist control group (0), mindfulness training group (1). CI = 95% confidence interval; LLCI = Lower Level; ULCI = Upper Level. $p < .05$, $p < .01$, $p < .001$. 

Figure 3.4  Mindfulness Training Enhances Eudaimonic Well-Being When Authenticity is Low (Study 3.3)
Study 3.3 extended the findings of Studies 3.1 and 3.2 to provide support for the model in the context of a mindfulness training intervention: results suggest that mindfulness training increased T2 EWB (Hypothesis 1b), but only for individuals who were low in authenticity (Hypothesis 2b), and this in turn was positively associated with T2 OCBI, even controlling for T1 OCBI (Hypothesis 3). These results were consistent with the overall model and supported the notion that in contrast to dispositional mindfulness, which enhances EWB only for individuals who are high in authenticity, mindfulness training enhances EWB but only for those who are low in authenticity.

**GENERAL DISCUSSION**

EWB is an underexplored and potentially important construct for the organizational sciences. Prior well-being research has focused primarily on subjective well-being in the form of emotions (Kelly & Barsade, 2001) and stress-reduction (Sonnentag & Frese, 2003), or other job-centric, related variables such as job satisfaction (Judge, Thoreson, Bono, & Patton, 2001), pro-social motivation (Grant, 2008), and affective organizational commitment (Allen & Meyer, 1990). The present research examined the effect of EWB on interpersonal citizenship behaviors within work groups, and among managers and employees across a number of organizations. This research breaks new ground by examining not just whether EWB can be enhanced in a working population but also how this might be achieved, as well as who is most likely to benefit. The results suggest that EWB is positively associated with dispositional mindfulness, but only for those who are high in authenticity. The results also suggest that EWB can be increased via mindfulness training, but only for those who are low in authenticity. EWB was further shown to positively relate to OCBI over and above the influence of alternate...
measures of psychological well-being, and results suggest that EWB precedes OCBI, not the other way around.

**Theoretical Contributions**

This research makes several notable contributions to theory and research. First, although prior research shows that dispositional mindfulness relates to psychological well-being in general (e.g., Brown & Ryan, 2003), a robust form of well-being that remains understudied in organizational research was explored – namely EWB. This is important because unlike its counterparts – subjective and psychological well-being – EWB expressly incorporates such workplace relevant features as the development of best potentials, investment of significant effort in pursuit of excellence, and intense involvement in activities. Moreover, this research offers evidence that mindfulness training bolsters EWB. This is important because it suggests that EWB is not only the product of our *actions in* the world, but also of our *perceptions of* it. That is, this research suggests that the quality and content of our attention can significantly affect the extent to which we consider ourselves to be living self-expressive, meaningful lives, and the implications this has for the extent to which we engage in interpersonal citizenship behaviors at work.

Second, the present research not only offers evidence about *whether or not* mindfulness affects EWB, but also *how* it does so. Mindfulness research to date has been criticized for paying insufficient attention to exploring the mechanisms by which mindfulness works (Miksch et al., 2015; Seditmeier et al., 2012). This research enriches the literature by specifying a novel individual difference variable with which mindfulness interacts to influence EWB – namely, authenticity. Results show that dispositional
mindfulness is positively associated with EWB, but that this effect is moderated by authenticity such that the more authentic individuals are, the stronger the influence of dispositional mindfulness on EWB.

Third, this research not only reveals how mindfulness works but also for whom it does so. Specifically, the results suggest that people who are already high in authenticity are less likely to increase in EWB as a result of mindfulness training. It is also worth noting that those who were high in authenticity were also less likely to increase in psychological capital. These results offer further support the notion that mindfulness training can be less impactful for highly authentic people due to ceiling effects on well-being. In other words, mindfulness training can be less impactful for highly authentic people. While authenticity has an impressive array of benefits, critics have pointed out that it can come with certain disadvantages (e.g., Ibarra, 2015; Potter, 2010), and this is among the first research to offer empirical evidence of a potential downside to authenticity (c.f., Lister et al., 2015) – namely, that highly authentic people are unlikely to reap benefits from mindfulness training in terms of eudaimonic well-being and OCBI.

Finally, this research shows that the foregoing is relevant not only to people’s personal sense of EWB, but that it also has repercussions for their work performance. While previous research has linked dispositional mindfulness with task performance (Beach et al., 2013; Dane & Brummel, 2014; Grepmair et al., 2007; Reb, Narayanan, Chaturvedi, & Ekkirala, 2016; Zhang et al., 2013; Zhang & Wu, 2014) and extra-role performance (Reb et al., 2015), this research goes one step further by highlighting the impact of dispositional mindfulness on OCBI via EWB. Moreover, the present research makes a novel contribution by examining the impact of mindfulness training on extra-
role performance, showing an indirect effect via EWB. In so doing, it answers calls for research that links mindfulness training with performance-related outcomes (Choi & Tobias, 2015; Dane, 2011), and provides evidence that mindfulness training improves extra-role performance.

**Practical Implications**

The present research has practical value for managers. First, insofar as well-being is important to organizations, this research suggests that EWB can be enhanced by changing the manner in which employees regulate their attention. Thus, enhancing EWB in managers and employees potentially need not require drastic changes in external life circumstances, such as changing jobs, careers, or organizations to feel more aligned and purposeful at work. Second, this research shows that EWB can be of value to organizations because it is positively associated with extra-role performance. In light of the motivational significance of EWB (Waterman et al., 2008), this conception of well-being could have significant ramifications for other workplace relevant outcomes such as engagement, absenteeism, and turnover. Third, these benefits can potentially be achieved through web-based mindfulness training, which involves less time, expense, and effort than more established programs like Mindfulness-Based Stress Reduction (Kabatt-Zinn, 1990), with the added advantage of being delivered flexibly and “on-the-spot” when needed (Hafenbrack, 2017). This makes online mindfulness training particularly conducive to busy, high-functioning working populations like professionals, executives, and organizational leaders.

Finally, this research suggests that mindfulness training can benefit some employees more than others. In light of the fact that mindfulness is now a billion dollar
business in the United States alone (Wieczner, 2016), this research can aid organizations in considering which employees might benefit most when it comes to mindfulness training, and how to make the most of their resources for employee training and development. This does not mean that organizations should not consider mindfulness training for all their members; rather, it suggests that the benefits in terms of EWB and other indicators of positive psychological functioning are likely strongest for employees who are relatively low in authenticity.

Limitations, Strengths, and Future Research

In terms of potential limitations, Study 3.1 gathered self-report data based on a cross-sectional survey design; hence, it is subject to concerns about common method bias. Nonetheless, efforts were taken to minimize common method bias in administering this study, and CFA showed that it was not a significant concern. In addition, Study 3.2 addressed this concern by using a peer-report measure of OCBI. Second, in the mindfulness training study (Study 3.3) pure random assignment to condition was not possible because the host organizations required that their employees be free to sign up for training according to their availability. Nonetheless, it should be noted that at the time of registration the participants did not know whether they were signing up to be part of the training or control group, and were blind to training methods and hypotheses. In addition, post-hoc analysis revealed no significant differences in the composition of the training and control groups, and all analyses controlled for pre-training levels in all variables of interest, thereby neutralizing potential differences between the groups.

This research also has notable strengths. First, a multi-methods research design was employed across three studies to test new theory. The fact that the time-lagged,
multi-source findings of Study 3.2 replicated and extended the cross-sectional findings of Study 3.1 allows for greater confidence in the results. Second, the results of Study 3.2 were based on third-party ratings of OCBI, as indicated by members of the work-teams in which the participants had been involved over the previous three months. These data substantially increase the validity of the findings. Third, taken together this research involved a large and diverse sample, including 1,253 MTurk workers, 136 university undergraduates, and 921 members of a working population. In particular, Study 3.3 involved managers and employees at all levels of five large organizations located across North America, each in a different industry. As such, this was one of the largest mindfulness training interventions yet to be conducted for research purposes in an organizational context. The diversity and size of this sample enhances the generalizability of the results.

These findings open up a number of interesting avenues for future research. First, given the relevance of EWB to motivation and in light of its impact on extra-role performance, future research would do well to explore its downstream effects on other workplace relevant outcomes such engagement and burnout, absenteeism, task performance, and turnover. Second, in light of evidence that mindfulness training can improve performance via EWB, future research should examine other potential impacts of mindfulness training on other dimensions of work performance, and the mechanisms by which it functions. Third, future research should measure mindfulness, EWB, and OCBI at three or more points in time in order to further examine the shape of the relationships between these variables (Ployhart & Vandenberg, 2010).
Conclusion

This chapter has presented research that empirically explores the antecedents and consequences of EWB. It showed that dispositional mindfulness is positively associated with EWB, but only for individuals who are high in authenticity. It further offered evidence that both EWB and OCBI can potentially be enhanced with mindfulness training, but that such enhancements are only likely to be realized by individuals who are low in authenticity. In so doing, this research highlights the different implications of dispositional mindfulness as opposed to mindfulness training, and untangles the roles of authenticity, mindfulness, and EWB in predicting OCBI. In sum, this chapter showed that the mindful self-regulation of attention provides a partial answer to the age-old question about how to lead a “good life”, and that it also has positive implications for performance in the workplace.
CHAPTER 4
OVERALL CONCLUSION AND DISCUSSION

This dissertation was guided by the overarching question: what are the implications of mindfulness on work performance? Across two series of three multi-methods studies each, it examined the effects of mindfulness on two work performance outcomes – namely, conflict avoidance and OCBI – via the mediating mechanism of emotion regulation. These outcomes were chosen because they have important implications for organizational life, and because they are each driven by affect. This dissertation tested recent theorizing that mindfulness is unique insofar as it can give rise to each of two broad classes of emotion regulation: (a) response-focused emotion regulation, by which individuals regulate their emotions after they arise; and (b) antecedent-focused emotion regulation, by which individuals regulate their affective experience ahead of time (Farb et al., 2014). On the one hand, Chapter 2 offered evidence that mindfulness can reduce conflict avoidance in the workplace by enhancing emotion acceptance – a response-focused emotion regulation strategy. On the other hand, Chapter 3 showed that mindfulness interacts with authenticity to enhance eudaimonic well-being, a psychological state robustly associated with positive affect, and thus an example of antecedent-focused emotion regulation. Importantly, this dissertation has offered evidence that both classes of emotion regulation and their respective outcomes are not only associated with mindfulness, but that they can be enhanced with mindfulness training.

In addition to demonstrating how mindfulness affects work performance, this dissertation also showed for whom it does so. Specifically, Chapter 3 examined the moderating effect of authenticity on the link between mindfulness and eudaimonic well-
being. On the one hand, it found evidence that authenticity amplifies the relationship between of dispositional mindfulness on OCBI via eudaimonic well-being. Results revealed that individuals who are high in mindfulness experience significantly higher levels of EWB (and, as such, engage in more OCBI) when they are also high (versus low) in authenticity. On the other hand, this dissertation also found evidence that, in contrast to its amplifying effect on dispositional mindfulness, authenticity appears to stifle the effect of mindfulness training on eudaimonic well-being. In so doing, this dissertation suggests that the manner in which mindfulness is operationalized (i.e., as a disposition, a state, or a practice) is critically important to the outcome of interest, and offers evidence to suggest that future research must be attentive to these differences.

This dissertation has made a number of contributions to theory and, in so doing, opened up a number of potentially fruitful avenues of future research. First, having furnished evidence suggesting that mindfulness reduces conflict avoidance via emotion acceptance, it informs and extends dual concern theory (Pruitt & Rubin, 1986) by suggesting that the style of conflict individuals adopt – in particular, conflict avoidance – can be influenced by more than just rational considerations; rather, it can also be influenced by emotion and the regulation thereof. Accordingly, future research would do well to examine how mindfulness and other forms of emotion regulation affect conflict management. For example, mindfulness has been theorized to be associated with cognitive re-appraisal (Garland et al., 2015) – a specific form of antecedent-focused emotion regulation by which individuals change the way they look at a situation, and the meaning they imbue to it (Gross, 1998a). As the emotional reaction conflict elicits in some is likely to be affected by the meaning they ascribe to it, mindfulness might also
have implications for conflict management via this particular emotion regulation strategy – which, unlike emotion acceptance, applies to both negative and positive emotions alike. As such, future research should also examine the effect of mindfulness on other conflict management styles, as well as downstream outcomes.

Second, this dissertation has contributed to Affective Events Theory (AET; Weiss & Cropanzano, 1996) by demonstrating that individuals’ affective reactions are not only the result of workplace events and their individual dispositions, but that they can also be regulated through practice and training. By showing that mindfulness practice enhances both antecedent and response-focused emotion regulation, this dissertation creates room for organizational and individual agency in AET for modulating affective reactions to workplace events. For example, in showing that mindfulness training reduces conflict avoidance via emotion acceptance, it offers grounds to consider that mindfulness training also has the potential to buffer other important affect-driven workplace outcomes via emotion acceptance – outcomes such as abusive supervision, incivility, absenteeism, and turnover. Future research examining such possibilities is likely to bear fruit.

Third, this dissertation has demonstrated not only that mindfulness can enhance workplace performance, but also how it does so. In particular, it has shown that mindfulness improves workplace performance via both antecedent- and response-focused emotion regulation. In so doing, it responds to criticism that mindfulness research must do more to explore the mechanisms by which mindfulness works (Sedlmeier et al., 2012), particularly insofar as it implicates workplace outcomes (Miksch et al., 2015). However, more work needs to be done. For example, while Chapter 3 demonstrated that mindfulness enhances eudaimonic well-being – thereby suggesting that it is a form of
antecedent-focused emotion regulation – it did not drill down into greater detail on the specific mechanism by which mindfulness relates to eudaimonic well-being. It is here contended that cognitive reappraisal is likely to mediate this link, and future research should examine this issue further. In addition, mindfulness has been theorized to involve a number of other mechanisms beyond emotion regulation (Vago & Silbersweig, 2012), any number of which might have implications for organizational research (Kay & Skarlicki, 2017). Such mechanisms include conative regulation, attention regulation, and meta-cognition. Future work should examine these and other mechanisms explaining why and how mindfulness matters in the workplace.

Organizational research on mindfulness is in its nascency. This dissertation has been an attempt to shed early light on whether and how mindfulness matters for individual work performance. In the process, it has revealed just a few of the many ways in which mindfulness is relevant in an organizational context, and admittedly has stimulated more questions than it has answered. Rather than seeing this as a failing, it is hoped that this might instead be taken as a source of inspiration for future work on a construct that clearly matters not only to organizations, but to the individuals that comprise them.
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APPENDICES

Appendix A  List of Measures in Randomized Controlled Mindfulness Training Study (Study 2.1)

1. Mindful Attention & Awareness Scale (Brown & Ryan, 2003)

Below is a collection of statements about your everyday experience. Please indicate how frequently you have these experiences. Please treat each item separately from every other item (Response options: 1. Almost Always, 2. Very Frequently, 3. Somewhat Frequently, 4. Somewhat Infrequently, 5. Very Infrequently, 6. Almost Never).

1. I could be experiencing some emotion and not be conscious of it until some time later.
2. I break or spill things because of carelessness, not paying attention, or thinking of something else.
3. I find it difficult to stay focused on what's happening in the present.
4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.
6. I forget a person's name almost as soon as I've been told it for the first time.
7. It seems I am "running on automatic", without much awareness of what I'm doing.
8. I rush through activities without being really attentive to them.
9. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.
10. I do jobs or tasks automatically, without being aware of what I'm doing.
11. I find myself listening to someone with one ear, doing something else at the same time.
12. I drive places on "automatic pilot" and then wonder why I went there.
13. I find myself preoccupied with the future or the past.
15. I snack without being aware that I'm eating.

2. Mini-IPIP Big-5 Personality (Goldberg, 1999)

Please use the rating scale provided to indicate how accurately each statement describes your character (Response options: 1. Not at all like me, 2. Not like me, 3. Neutral, 4. Like me, 5. Just like me).

1. I am the life of the party.
2. I sympathize with others' feelings.
3. I get chores done right away.
4. I have frequent mood swings.
5. I have a vivid imagination.
6. I don't talk a lot.
7. I am not interested in other people's problems.
8. I often forget to put things back in their proper place.
9. I am relaxed most of the time.
10. I am not interested in abstract ideas.
11. I talk to a lot of different people at parties.
12. I feel others' emotions.
13. I like order.
15. I have difficulty understanding abstract ideas.
16. I keep in the background.
17. I am not really interested in others.
18. I make a mess of things.
19. I seldom feel blue.
20. I do not have a good imagination.

3. GMAT Logical Reasoning Problems

In this section you will be given 7 minutes to solve 4 logical reasoning problems, which is an average of 1 minute and 45 seconds per question. Once you are ready, please click "Yes, I'm ready" immediately below.

1. The cost of producing radios in Country Q is ten percent less than the cost of producing radios in Country Y. Even after transportation fees and tariff charges are added, it is still cheaper for a company to import radios from Country Q to Country Y than to produce radios in Country Y.

The statements above, if true, best support which of the following assertions?

a. Labor costs in Country Q are ten percent below those in Country Y.
b. Importing radios from Country Q to Country Y will eliminate ten percent of the manufacturing jobs in Country Y.
c. The tariff on a radio imported from Country Q to Country Y is less than ten percent of the cost of manufacturing the radio in Country Y.
d. The fee for transporting a radio from Country Q to Country Y is more than ten percent of the cost of manufacturing the radio in Country Q.
e. It takes ten percent less time to manufacture a radio in Country Q than it does in Country Y.

2. Music industry executives have claimed that online file-sharing networks are significantly hurting their business because potential consumers are getting music for free that they would otherwise purchase. However, after the file-sharing networks started to become popular, CD sales actually increased.

Which of the following, if true, best explains the apparent contradiction described above?

a. File sharing networks carry a more complete variety of music than most traditional music stores.
b. The few people using file-sharing networks already purchase more music than most people.
c. Many people prefer to store their music as computer files rather than maintain large CD collections.
d. Many consumers have purchased music by artists they discovered through file-sharing networks.
e. Music available on the file-sharing networks is of the same audio quality as music on commercially produced CDs.

3. To avoid the appearance of a conflict of interest, the board of a major U.S. stock exchange is considering a policy that would ban former top executives of the exchange from taking positions at publicly traded companies for a period of two years after leaving the stock exchange. Critics of the plan say the policy is unfair because it would likely prevent former top executives of the exchange from earning a decent living.

Which of the following statements, if true, would most strengthen the prediction made by critics of the proposed company policy?

a. The labour union that represents most of the stock exchange's employees has made public statements that threaten a strike if the policy is adopted.
b. Former employees of the exchange most often work for publicly traded companies after leaving the exchange.
c. Low-level managers at the exchange have an average tenure of 13 years, one of the longest in the industry.
d. Low-level managers at the exchange most often leave their jobs for positions with the state or federal government.
e. Former top executives of the exchange have a particular set of skills such that they are usually only able to find work with publicly traded companies.

4. At a large manufacturing corporation, the ratio of annual job-related injury insurance premium per employee to average annual net pay increased between 1978 and 2003. Yet, the annual number of job-related injuries per employee during that time decreased by more than 30%.

Which of the following, if true, best explains the discrepancy outlined above?

a. From 1978 to 2003, the severity of job-related injuries at the corporation decreased significantly due to compliance with new workplace safety rules.
b. The number of employees at the corporation decreased between 1978 and 2003.
c. During the 1978-2003 period, inflation significantly eroded the purchasing power of the dollar.
d. The corporation did not change its insurance provider during the 1978-2003 period.
e. Between 1978 and 2003, health care costs per job-related injury rose sharply.
4. Interpersonal Reactivity Index (Davis, 1980)

The following statements inquire about your thoughts and feelings in a variety of situations. Please indicate how well each item describes you. (Response options: 1. Not at all like me, 2. Not like me, 3. Neutral, 4. Like me, 5. Just like me).

1. I often have tender, concerned feelings for people less fortunate than me.
2. I sometimes find it difficult to see things from the "other guy's" point of view.
3. Sometimes I don't feel very sorry for other people when they are having problems.
4. Other people's misfortunes do not usually disturb me a great deal.
5. I sometimes try to understand my friends better by imagining how things look from their perspective.

5. Oldenburg Burnout Inventory (Demerouti, Bakker, Vardakou, & Kantas, 2003)

Please indicate the degree to which you agree with each of the statements below (Response options: 1. Strongly Disagree, 2. Disagree, 3. Agree, 4. Strongly Agree).

1. It happens more and more often that I talk about my work in a negative way.
2. After work, I tend to need more time than in the past in order to relax and feel better.
3. Lately, I tend to think less at work and do my job almost mechanically.
4. During my work, I often feel emotionally drained.
5. For this statement, please select "agree".
6. I feel more and more engaged in my work.

6. PANAS (Watson, Clark, & Tellegen, 1988)

Below you will find a number of words that describe different feelings and emotions. Please indicate to what extent you feel this way in general in your day-to-day life (Response options: 1. Slightly or Not at All, 2. A Little, 3. Moderately, 4. Quite a Bit, 5. Extremely).

1. Interested
2. Distressed
3. Excited
4. Upset
5. Strong
6. Guilty
7. Scared
8. Hostile
9. Enthusiastic
10. Proud
11. Irritable
12. Alert
13. Ashamed
14. Inspired
15. Nervous
16. Determined
17. Attentive
18. Jittery
19. Active
20. Afraid

7. **Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1994)**

The series of questions below ask you about your feelings and thoughts. For each question please indicate how often you felt or thought a certain way in the LAST TWO MONTHS (Response options: 1. Never, 2. Almost Never, 3. Sometimes, 4. Fairly Often, 5. Very Often).

1. Felt that you were effectively coping with important changes that were occurring in your life?
2. Felt confident about your ability to handle your personal problems?
3. Found that you could not cope with all the things that you had to do?
4. Been able to control the irritations in your life?
5. For this question, please select "Almost Never".
6. Been able to control the way you spend your time?

8. **Logical Reasoning: Syllogisms**

In this section you will have 3 minutes to complete 4 logical reasoning questions. This gives you an average of 45 seconds per question. If you are unsure of the answer please move on to the next question.

1. **Statements:**
   (A) Some workers are managers.
   (B) All managers are executives.

   **Conclusions:**
   (1) Some workers are executives.
   (2) No managers are workers.

   a. Only (1) follows.
   b. Only (2) follows.
   c. Either (1) or (2) follows.
   d. Neither (1) nor (2) follows.
   e. Both (1) and (2) follow.

2. **Statements:**
   (A) All customers are clients.
   (B) All clients are shareholders.

   **Conclusions:**
   a. Only (1) follows.
   b. Only (2) follows.
   c. Either (1) or (2) follows.
   d. Neither (1) nor (2) follows.
   e. Both (1) and (2) follow.
Conclusions:
(1) All shareholders are clients.
(2) All customers are shareholders.

a. Only (1) follows.
b. Only (2) follows.
c. Either (1) or (2) follows.
d. Neither (1) nor (2) follows.
e. Both (1) and (2) follow.

3. Statements:
(A) Some products are on sale.
(B) Some programs are products.

Conclusions:
(1) Some products are games.
(2) Some programs are on sale.

a. Only (1) follows.
b. Only (2) follows.
c. Either (1) or (2) follows.
d. Neither (1) nor (2) follows.
e. Both (1) and (2) follow.

4. Statements:
(A) Some understandings are contracts.
(B) All deeds are contracts.

Conclusions:
(1) Some contracts are deeds.
(2) Some contracts are understandings.

a. Only (1) follows.
b. Only (2) follows.
c. Either (1) or (2) follows.
d. Neither (1) nor (2) follows.
e. Both (1) and (2) follow.
9. Five Facet Mindfulness Questionnaire (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006)

Below is a collection of statements about your everyday experience. Please indicate how frequently or infrequently you have each experience (Response options: 1. Never or very rarely, 2. Not often, 3. Sometimes, 4. Often, 5. Very often or always).

1. I watch my feelings without getting carried away by them.
2. I tell myself that I shouldn't be feeling the way I'm feeling.
3. I pay attention to physical experiences, such as the wind in my hair or sun on my face.
4. I make judgments about whether my thoughts are good or bad.
5. I find it difficult to stay focused on what's happening in the present moment.
6. When I have distressing thoughts or images, I don't let myself be carried away by them.
7. Generally, I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.
8. It seems I am "running on automatic" without much awareness of what I'm doing.
9. When I have distressing thoughts or images, I feel calm soon after.
10. For this statement, please select "Not often".
11. I tell myself I shouldn't be thinking the way I'm thinking.
12. I notice the smells and aromas of things.
13. I rush through activities without being really attentive to them.
14. Usually when I have distressing thoughts or images I can just notice them without reacting.
15. I think some of my emotions are bad or inappropriate and I shouldn't feel them.
16. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
17. When I have distressing thoughts or images, I just notice them and let them go.
18. I do jobs or tasks automatically without being aware of what I'm doing.
19. I find myself doing things without paying attention.
20. I disapprove of myself when I have illogical ideas.

10. Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004)

The following is a series of statements about the way you experience emotions. Please indicate how commonly each statement applies to you and the way you experience emotions (Response options: 1. Almost never (0-10%), 2. Sometimes (11-35%), 3. About half the time (36-65%), 4. Most of the time (66-90%), 5. Almost always (91-100%).

1. I am clear about my feelings.
2. I pay attention to how I feel.
3. I experience my emotions as overwhelming and out of control.
4. I have difficulty making sense out of my feelings.
5. I care about what I am feeling.
6. I am confused about how I feel.
7. When I'm upset, I acknowledge my emotions.
8. When I'm upset, I become angry with myself for feeling that way.
9. When I'm upset, I have difficulty getting work done.
10. When I'm upset, I believe that I will remain that way for a long time.
11. When I'm upset, I have difficulty focusing on other things.
12. When I'm upset, I feel out of control.
13. When I'm upset, I can still get things done.
14. When I'm upset, I feel ashamed with myself for feeling that way.
15. When I'm upset, I know that I can find a way to eventually feel better.
16. When I'm upset, I feel like I am weak.
17. When I'm upset, I feel like I can remain in control of my behaviors.
18. When I'm upset, I feel guilty for feeling that way.
19. When I'm upset, I have difficulty concentrating.
20. When I'm upset, I have difficulty controlling my behaviors.
21. When I'm upset, I become irritated with myself for feeling that way.
22. When I'm upset, I start to feel very bad about myself.
23. When I'm upset, I believe that wallowing in it is all I can do.
24. When I'm upset, I take time to figure out what I'm really feeling.
25. When I'm upset, my emotions feel overwhelming.

11. Self-Compassion Scale (Neff, 2003)


1. I'm disapproving and judgmental about my own flaws and inadequacies.
2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.
3. When I fail at something important to me I become consumed by feelings of inadequacy.
4. When something upsets me I try to keep my emotions in balance.
5. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
6. When I'm going through a very hard time, I give myself the caring and tenderness I need.
7. When I'm feeling down, I tend to feel like most other people are probably happier than I am.
8. When something painful happens I try to take a balanced view of the situation.
9. I try to see my failings as part of the human condition.
10. I try to be understanding and patient towards those aspects of my personality I don't like.
12. Rahim Organizational Conflict Inventory II (Rahim, 1983)

In this section, please indicate the frequency with which the following statements are true for you (Response options: 1. Almost never true, 2. Rarely true, 3. Occasionally true, 4. Often true, 5. Almost always true)

1. I try to investigate an issue with my colleagues to find a solution acceptable to us.
2. I attempt to avoid being "put on the spot" and try to keep my conflict with my colleagues to myself.
3. I use my authority to make a decision in my favor.
4. I generally try to satisfy the needs of my colleagues.
5. I try to find a middle course to resolve an impasse.
6. I try to integrate my ideas with those of my colleagues to come up with a decision jointly.
7. I usually avoid open discussion of my differences with my colleagues.
8. I use my expertise to make a decision in my favor.
9. I usually accommodate the wishes of my colleagues.
10. I usually propose a middle ground for breaking deadlocks.
11. I try to work with my colleagues to find solutions to a problem which satisfy our expectations.
12. I try to stay away from disagreement with my colleagues.
13. I am generally firm in pursuing my side of the issue.
14. I give in to the wishes of my colleagues.
15. I negotiate with my colleagues so that a compromise can be reached.
16. I exchange accurate information with my colleagues to solve a problem together.
17. I avoid an encounter with my colleagues.
18. I usually allow concessions to my colleagues.
19. I use "give and take" so that a compromise can be made.
20. I try to bring all our concerns out in the open so that the issues can be resolved in the best possible way.
21. I try to keep my disagreement with my colleagues to myself in order to avoid hard feelings.
22. I sometimes use my power to win a competitive situation.
23. I often go along with the suggestions of my colleagues.
24. I collaborate with my colleagues to come up with decisions acceptable to us.
25. I try to avoid unpleasant exchanges with my colleagues.
26. I try to satisfy the expectations of my colleagues.
27. I try to work with my colleagues for a proper understanding of a problem.
28. I use my influence to get my ideas accepted.
13. GMAT Math Questions

In this section you will be given 8 minutes to solve 4 mathematical problems, which is an average of 2 minutes per question. You will need a pen/pencil, a piece of scrap paper, and a calculator to do these questions. Please take a moment to gather these materials.

1. To meet a government requirement a bottler must test 5% of its spring water and 10% of its sparkling water for purity. If a customer ordered 120 cases of spring water and 80 cases of sparkling water, what percent of all the cases must the bottler test before it can send the water out?
   a. 6.5%
   b. 7.0%
   c. 7.5%
   d. 8.0%
   e. 8.5%

2. Helpers are needed to prepare for the party. Each helper can make either 2 large cakes per hour, or 35 small cakes per hour. The kitchen is available for 3 hours and 20 large cakes and 700 small cakes are needed. How many helpers are required?
   a. 10
   b. 15
   c. 20
   d. 25
   e. 30

3. Sheila works 8 hours per day on Monday, Wednesday and Friday, and 6 hours per day on Tuesday and Thursday. She does not work on Saturday and Sunday. She earns $324 per week. How much does she earn in dollars per hour?
   a. 11
   b. 10
   c. 9
   d. 8
   e. 7

4. Courier charges for packages to a certain destination are 65 cents for the first 250 grams and 10 cents for each additional 100 grams or part thereof. What could be the weight in grams of a package for which the charge is $1.55?
   a. 1155
   b. 1145
   c. 1040
   d. 950
   e. 259
14. Demographic Questions

1. What is your age in years?
   a. Younger than 25
   b. 25-29
   c. 30-34
   d. 35-39
   e. 40-44
   f. 45-49
   g. 50-54
   h. 55-59
   i. 60-64
   j. 65-69
   k. 70-74
   l. 75 or older

2. What is your gender?
   a. Male
   b. Female

3. What is your ethnicity?
   a. White
   b. East Asian
   c. South Asian
   d. Hispanic
   e. Black
   f. Middle Eastern
   g. First Nations
   h. Other

4. How many years of managerial work experience do you have?
   a. None
   b. 1-5
   c. 6-10
   d. 11-15
   e. 16-20
   f. 21-25
   g. More than 25

5. What is your job/profession?
6. Which of the following mindfulness practices do you have experience with? For each type of mindfulness practice please indicate your level of experience (in terms of overall hours of practice) (Response options: 1. 0, 2. 1-24, 3. 25-99, 4. 100-249, 5. 250-499, 6. 500-999, 7. 1,000-2,499, 8. 2,500-4,999, 9. 5,000-9,999, 10. >10,000)

a. Yoga
b. Meditation
c. Tai Chi
d. Qi Gong
e. Other
Appendix B  
Text of Emotion Acceptance Manipulation (Study 2.3)

Take a moment to situate yourself in your seat… Sit up tall, spine straight, feet flat on the ground, knees at 90 degrees, shoulders back, chest out, chin tilted slightly up so that your gaze rests gently on that place where the wall meets the ceiling… Close your eyes, and take three deep breaths, in through your nose and out through your mouth…

Now with your mind’s eye envision yourself sitting in the middle of a movie theatre, all alone… Take a moment to look around you, noticing all the empty seats in front and behind you, the exit signs above the doors glowing red in the darkness, and a beam of white light above you drawing a crisp line from the projector to the big screen before you… As you look at the screen, notice that it’s projecting an image of you… There you are, in full color on the big screen, the star of the show… What clothes is this image of you wearing? What colors do you see? Now clinch your fists and clench your teeth. Nice and tight. Notice on the screen that this image of you looks frightened… Something has clearly upset this person. Notice the face as it strains under the emotional load of the fear… What do you see in that face? Notice the posture, the body language, all of it showing unmistakable signs of terror. Now notice the sounds spilling out of this horrifying scene? What do you hear? What is it about these noises that makes the scene so terrifying? Notice the image. Hear the sounds. Really focus in on the chilling feeling of the entire scene…

With this image in sharp focus before you, in your minds eye see yourself now getting up from your seat in the movie theatre, and walking slowly towards the screen, the image of you growing larger and larger with every step. There you are now, standing right in front of the big screen, that fearful image looming large right in front of you… Now holding that image in sharp focus, hearing all the scary sounds of the scene as it unfolds, step into the image… Become that frightened person on the screen before you…

What does it feel like to be there? Where in your body is the feeling coming from? Could be your stomach. Could be your chest. Could be your shoulders. Could be anywhere. Find that place where the fear in your body is being expressed. What does the sensation feel like? Could be a cold sensation. Could be a throbbing sensation. Could be a tingly sensation. Could be any sensation at all. Whatever the feeling, just notice it. If the fear is too strong, just turn it down as if with the volume knob on a stereo. If it’s too weak, turn it up so that you can feel the fear without being overwhelmed by it… There you go. Now as you really focus in on the fear, remember that it’s perfectly normal for people to feel the way you do now… Know that many other good people have felt the exact same fear as you’re feeling at this very moment… Nothing wrong. No need to judge it. Just accept the emotion, as if it were a scared friend in need of companionship. Just be present with it. Accept it for who and what it is: a natural emotion. What does that do to the feeling? How does it change? Whatever it does, just feel it without reacting to it.

Now focus in one last time on that feeling, noticing it there in your body as you tend to it. Really pay attention to the feeling as you hold it in a warm embrace and begin to say goodbye… Now on the count of three, you’re going to step out of this scene and return to
your seat right here in the lab… One… Two… Three… Come back! Now open your eyes and look at all the things in the room around you. Take your time. Nice and easy. And when you’re ready, continue on with the survey.
Appendix C  List of Measures in Lab Study (Study 2.3)

1. Mindful Attention & Awareness Scale (Brown & Ryan, 2003)

Below is a collection of statements about your everyday experience. Please indicate how frequently you have these experiences. Please treat each item separately from every other item (Response options: 1. Almost Always, 2. Very Frequently, 3. Somewhat Frequently, 4.Somewhat Infrequently, 5. Very Infrequently, 6. Almost Never).

1. I could be experiencing some emotion and not be conscious of it until some time later.
2. I break or spill things because of carelessness, not paying attention, or thinking of something else.
3. I find it difficult to stay focused on what's happening in the present.
4. I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.
6. I forget a person's name almost as soon as I've been told it for the first time.
7. It seems I am "running on automatic", without much awareness of what I'm doing.
8. I rush through activities without being really attentive to them.
9. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.
10. I do jobs or tasks automatically, without being aware of what I'm doing.
11. I find myself listening to someone with one ear, doing something else at the same time.
12. I drive places on "automatic pilot" and then wonder why I went there.
13. I find myself preoccupied with the future or the past.
15. I snack without being aware that I'm eating.

2. Audio Exercise

In the following portion of the survey, you will be taken through a guided audio exercise. Follow the instructions in the audio carefully and be sure to do everything it asks you to do. When you are ready to continue in your room and click through to the next screen.

[Participant listens to the audio recording]

3. What was the main emotion you experienced over the course of that exercise?

4. Answer the following questions on a scale of 0 to 10 by sliding the bars you see below to the right of each question. The lower the score, the weaker the emotion; the higher the score, the stronger the emotion.

   a. In that exercise, how strongly did you feel [inserted emotion] at its peak?
b. How strongly did you feel [inserted emotion] at the end of that exercise? 
c. How strongly do you feel [inserted emotion] now?

5. Indicate the extent to which you agree or disagree with each of the following statements about the way you are feeling right now. Please be completely open and honest about the way you are feeling. Nobody will judge you for it. (Response options: 1. Strongly disagree, 2. Disagree, 3. Somewhat disagree, 4. Neither Agree nor Disagree, 5. Somewhat Agree, 6. Agree, 7. Strongly Agree).

a. I am angry with myself for the [inserted emotion] I felt during that exercise.
b. I am embarrassed about the [inserted emotion] I felt during that exercise.
c. I am ashamed with myself for the [inserted emotion] I felt during that exercise.
d. I feel like I am a weak person for having felt [inserted emotion] during that exercise.
e. I feel guilty for feeling [inserted emotion] during that exercise.
f. I am irritated with myself for feeling [inserted emotion] during that exercise.
g. I am able to accept the [inserted emotion] I felt during that exercise, without judging myself for it.

You have now come to the end of the first part of this study. Please open the door to your room and wait for the lab instructor to come guide you to the next part of the study… [Participants engage in modified ultimatum game with confederate actor]

6. In the game you just played, how many offers did you make before the game was ended?
   a. 0
   b. 1
   c. 2
   d. 3
   e. 4
   f. 5

7. What result did you and the other student come to at the end of the game? If the exact result does not appear in the list of options below, please choose the next closest option.
   a. $10 for me, $0 for my partner.
   b. $9 for me, $1 for my partner.
   c. $8 for me, $2 for my partner.
   d. $7 for me, $3 for my partner.
   e. $6 for me, $4 for my partner.
   f. $5 for me, $5 for my partner.
   g. $4 for me, $6 for my partner.
   h. $3 for me, $7 for my partner.
   i. $2 for me, $8 for my partner.
   j. $1 for me, $9 for my partner.
   k. $0 for me, $10 for my partner.
1. Not applicable. We did not reach an agreement.

8. Are you aware that during the game that you and the other student had been forced into a conflict?
   a. Yes, I am aware of that
   b. No, I am not aware of that

9. How would you characterize your response to the conflict overall?
   a. Competitive
   b. Collaborative
   c. Avoidant
   d. Accommodating
   e. Compromising

10. Answer the following question on a scale of 0 to 10 by sliding the bar you see below to the right. The lower the score, the less intense the conflict; the higher the score, the more intense the conflict. Question:
    a. "How intense do you perceive the conflict to have been?"

11. Answer each of the following questions on a scale of -5 (strongly negative) to +5 (strongly positive). The default position of zero means that you feel neutral.
    a. How do you feel about your own performance in that game?
    b. How do you feel about your partner's performance in that game?
    c. How do you feel about your joint performance?
    d. How do you feel about yourself after that game?
    e. How do you feel about your partner after that game?

12. Once again, take yourself back to the place in the audio recording you listened to earlier, and how it made you feel. Now take a minute to immerse yourself in that feeling again... Please note that the survey will be paused for one minute to allow you sufficient time to read what you wrote and immerse yourself in that feeling again. You may continue when the button re-appears in the bottom right-hand corner of your screen.

13. Now consider this: if you were given another chance to earn a real cash reward of up to $10 for playing a different game, would you be willing to be partnered with the same student in another study?
    a. Yes
    b. No

14. What is your age (in years)?

15. What is your gender?
    a. Male
    b. Female
    c. Other (please specify)

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16. What is your ethnicity?
   a. Caucasian
   b. East Asian
   c. South-East Asian
   d. South Asian
   e. Latin American
   f. African American
   g. First Nations
   h. Other (please specify)

17. How strong is your English ability?
   a. Poor
   b. Moderate
   c. Proficient
   d. Fluent
   e. Native speaker

18. What do you think this study was about, please specify in the box below. If not, just leave it blank.
Appendix D  List of Measures in Quasi-Experimental Online Mindfulness Training Study (Study 3.3)

Demographic Questions

1. What is your age? (please enter in numeric form)

2. What is your gender?
   a. Male
   b. Female
   c. Other (Please specify)

3. What is your ethnicity?
   a. Caucasian
   b. East Asian
   c. South Asian
   d. South-East Asian
   e. African American
   f. Latin American
   g. Middle Eastern
   h. Other (Please specify)

4. What is the name of your work organization?

5. What is your general level within your organization's hierarchy?
   a. Lower level
   b. Mid-Low level
   c. Middle level
   d. Mid-High level
   e. High level

Questionnaire for Eudaimonic Well-Being (Waterman et al., 2010)

The following are a series of statements that refer to how you may feel things have been going in your life. Read each statement and decide the extent to which you agree or disagree with it. Respond to each statement according to your own feelings about how things are actually going, rather than how you might wish them to be. (Response options: 1. Strongly Disagree -> 7. Strongly Agree)

1. I find I get intensely involved in many of the things I do each day.
2. I believe I have discovered who I really am.
3. I think it would be ideal if things came easily to me in my life.
4. My life is centered around a set of core beliefs that give meaning to my life.
5. It is more important that I really enjoy what I do than that other people are impressed by it.
6. I believe I know what my best potentials are and I try to develop them whenever possible.
7. Other people usually know better what would be good for me to do than I know myself.
8. I feel best when I'm doing something worth investing a great deal of effort in.
9. I can say that I have found my purpose in life.
10. If I did not find what I was doing rewarding for me, I do not think I could continue doing it.
11. As yet, I've not figured out what to do with my life.
12. I can't understand why some people want to work so hard on the things that they do.
13. I believe it is important to know how what I'm doing fits with purposes worth pursuing.
14. I usually know what I should do because some actions just feel right to me.
15. When I engage in activities that involve my best potentials, I have this sense of really being alive.
16. I am confused about what my talents really are.
17. I find a lot of the things I do are personally expressive for me.
18. It is important to me that I feel fulfilled by the activities that I engage in.
19. If something is really difficult, it probably isn't worth doing.
20. I find it hard to get really invested in the things that I do.
21. I believe I know what I was meant to do in life.

**Mindful Attention & Awareness Scale (Short-Form) (Black et al., 2012)**

Below is a collection of statements about your everyday experience. Indicate how frequently or infrequently you currently have each experience. Answer according to what really reflects your experience rather than what you think your experience should be. (Response options: 1. Almost Never -> 6. Almost Always).

1. I could be experiencing some emotion and not be conscious of it until some time later.
2. I rush through activities without being really attentive to them.
3. I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.
4. I do jobs or tasks automatically, without being aware of what I'm doing.
5. I find myself preoccupied with the future or the past.
6. I find myself doing things without paying attention.

**Expressed Humility (Owens, Johnson, & Mitchell, 2013)**

Indicate the extent to which you agree or disagree with the following statements (Response options: 1. Strongly Disagree -> Strongly Agree).

1. I actively seek feedback from others, even if it is critical.
2. I admit it when I don't know something.
3. I acknowledge it when others have more knowledge and skills than I do.
4. I take notice of others' strengths.
5. I often compliment others on their strengths.
6. I show appreciation for the unique contributions of others.
7. I am willing to learn from others.
8. I am open to the ideas of others.
9. I am open to the advice of others.

**Moral Identity (Aquino & Reed, 2002)**

Here are some characteristics that might describe a person: Caring, Compassionate, Fair, Friendly, Generous, Helpful, Hardworking, Honest, Kind. The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, answer the following questions. (Response options: 1. Strongly Disagree -> 7. Strongly Agree)

1. It would make me feel good to be a person who has these characteristics.
2. Being someone who has these characteristics is an important part of who I am.
3. I would be ashamed to be a person who had these characteristics.
4. Having these characteristics is not really important to me.
5. I strongly desire to have these characteristics.

**Interpersonal Organizational Citizenship Behaviors (Williams & Anderson, 1990)**

Indicate the extent to which you agree or disagree with the following statements. (Response options: 1. Strongly Disagree -> 7. Strongly Agree)

1. I am a person who helps others who have been absent from work.
2. I am a person who helps others when they have heavy work loads.
3. I am a person who goes out of my way to help new employees.
4. I am a person who takes a personal interest in other employees.
5. I am a person who readily passes along information to my co-workers.

**Authenticity (Wood et al., 2008)**

Indicate the extent to which each of the following statements accurately describes you. Try to respond in such a way that truly describes you, not the way you wish you were. (Response options: 1. Not at all like me -> 7. Exactly like me).

1. I think it is better to be yourself than to be popular.
2. I don't know how I really feel inside.
3. I am strongly influenced by the opinions of others.
4. I usually do what other people tell me to do.
5. I always feel I need to do what others expect me to do.
6. Other people influence me greatly.
7. I feel as if I don't know myself very well.
8. I always stand by what I believe in.
9. I am true to myself in most situations.
10. I feel out of touch with the "real me".
11. I live in accordance with my values and beliefs.
12. I feel alienated from myself.

**Psychological Capital (Short-Form) (Luthans, Avolio, Avey, & Norman, 2007)**

Below are some statements about how you may think about yourself in general in a workplace setting. Indicate the extent to which you agree or disagree with each statement. (Response options: 1. Strongly Disagree -> 7. Strongly Agree)

1. I feel confident in representing my work area in meetings with management.
2. I feel confident contributing to discussions about the company's strategy.
3. I feel confident presenting information to a group of colleagues.
4. If I should find myself in a jam at work, I could think of many ways to get out of it.
5. I see myself as being pretty successful at work.
6. I can usually think of many ways to reach my work goals.
7. I always meet the work goals that I set for myself.
8. I can be “on my own” so to speak at work if I have to.
9. I usually take stressful things at work in stride.
10. I can get through difficult times at work because I've experienced difficulty before.
11. I always look on the bright side of things regarding my job.
12. I’m optimistic about what will happen to me in the future as it pertains to work.