MINDFULNESS AND MORAL BEHAVIOR IN THE ORGANIZATION: THE ROLE OF AWARENESS OF AND ATTENTION TO MORALITY

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Abstract

Mindfulness and Moral Behavior in the Organization:

The Role of Awareness of and Attention to Morality

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Mindfulness is an awareness of and attention to present events and experiences. This dissertation examines the relationship between mindfulness and moral behavior in employees. I draw on mindfulness theory (Brown & Ryan, 2003; Brown, Ryan, & Creswell, 2007; Glomb et al., 2011; Dane, 2011) to argue that because moral awareness is a matter of presence and attention, mindfulness will lead to moral behavior. More specifically, I argue that the relationship between mindfulness and moral behavior is mediated by moral awareness (Rest, 1986; Reynolds, 2006) and moderated by moral attentiveness (Reynolds, 2008). I also argue that long-term interventions (such as the eight-week Mindfulness Based Stress Reduction classes that are now offered by many organizations) significantly increase the moral behavior of employees by increasing their mindfulness. However, after conducting four empirical studies, I discovered limited evidence

that mindfulness (as narrowly defined as an awareness of and attention to present events and experiences) leads to moral behavior, or that this relationship is mediated by moral awareness and moderated by moral attentiveness, or that these constructs can be positively affected by mindfulness interventions. I discuss the implications of this lack of evidence for the theoretical development and managerial relevance of mindfulness. I conclude by exploring future directions for research based on the results of this dissertation.

Keywords: mindfulness, moral behavior, moral awareness, moral attentiveness, moral decision making, intervention.

DEDICATION

For my wife, Claudia Patricia González Eliseo, and my mother, Marcia Eliseo Donaldson.

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CHAPTER ONE: INTRODUCTION

Over the past decade, managers have become increasingly interested in the concept of mindfulness. Mindfulness is defined as a state of "receptive attention to and awareness of present events and experiences" (Brown, Ryan, & Creswell, 2007, p. 212). Mindfulness is an inherent human capacity (Brown & Ryan, 2003; Brown et al., 2007; Goldstein, 2002; Kabat-Zinn, 2005), and practices such as meditation are designed to increase an individual's dispositional mindfulness by teaching participants "the use of labeling or noting of thoughts and feelings to facilitate decentering and an awareness of thoughts, emotions, desires, and other phenomena that arise without latching onto or acting on them" in order to "foster insight into psychological and behavioral sources of suffering and thereby leverage well-being enhancement or actions taken to facilitate it" (Brown et al., 2007, p. 219). Companies such as Google, General Mills, Goldman Sachs, Medtonic, Target, and Aetna have created training programs around practices such as meditation and Mindfulness Based Stress Reduction in the workplace in order to help managers "gain focus and clarity in making their most important decisions, creativity in transforming their enterprises, compassion for their customers and employees, and the courage to go their own way" (George, 2014).

Managerial scholars have begun to examine mindfulness through various approaches, including scale development (e.g., Brown & Ryan, 2003), theoretical investigation into psychological mechanisms (e.g., Brown et al., 2007), theoretical investigation into employee outcomes (e.g., Dane, 2011; Glomb et al., 2011), and empirical investigation into employee outcomes (e.g., Wolever, Bobinet, et al., 2012). Furthermore, scholars have demonstrated the impact of mindfulness on a variety of important outcomes including job satisfaction (Hulsheger, Alberts, et al., 2013) and job performance and turnover intention in dynamic work environments

(Dane & Brummel, 2013). One area that has received only limited scholarly attention but seems particularly relevant to the study of mindfulness is that of moral decision making and moral behavior.

Rest (1986) theorized that moral decision making is a four step process: awareness of a moral issue, judgment of a moral issue, an intention to behave morally, and moral behavior. Ruedy and Schweitzer (2010) provided an initial examination of the relationship between mindfulness and moral behavior. As the initial study in this field, the authors were able to identify an association between mindfulness and moral behavior, but their work was atheoretical and exploratory in nature. Furthermore, while others have considered the relationship between mindfulness and moral behavior (Lampe & Engleman-Lampe, 2012; Shapiro, Jazaieri & Goldin, 2012), no existing research has examined the causal mechanism between mindfulness and moral behavior and the possible boundary conditions of that relationship.

I draw on mindfulness theory to argue that because moral awareness is a matter of presence and attention, mindfulness will lead to moral behavior. Accordingly, the present research expands the domain of knowledge by investigating how state and trait mindfulness leads to greater moral behavior through its relationship to moral awareness and moral attentiveness. In this dissertation, I hypothesize that individuals who have greater mindfulness will behave more morally. Additionally, I hypothesize that this relationship is mediated by moral awareness and moderated by moral attentiveness (Figure 1). This research contributes to management scholars' understanding of how human awareness of and attention to our environment influences our moral behavior in the organization and the effectiveness of current interventions to improve our awareness and attention. Specifically, it first contributes to moral cognitive theory by investigating the mechanisms and boundary conditions between mindfulness

and moral behavior. Second, it contributes to mindfulness theory by investigating how mindfulness interventions such as Mindfulness Based Stress Reduction impact the moral decision making of employees. Finally, it contributes to the general investigation of morality by examining how the understanding and practice of an ancient activity called mindfulness can contribute to modern morality and moral behavior.

CHAPTER TWO: LITERATURE REVIEW

SECTION ONE: 2500 YEARS OF MINDFULNESS AND MORALITY

Mindfulness is defined as a "receptive attention to and awareness of present events and experiences" (Brown, Ryan, & Creswell, 2007, p. 212). The concept of mindfulness originates with The Buddha and Buddhist philosophy (Gethin, 1998). The Buddha taught that the cessation of suffering could be accomplished through an eightfold path that included meditation as a practice to cultivate mindfulness (Goldstein, 1976; Hanh, 1976; Walpola, 1974). The purpose of the cultivated practice of mindfulness is to allow the individual a clear perception of reality that leads to right or moral conduct. The concept of mindfulness and the cultivation of mindfulness through meditation became a key part of Buddhist thought and practice for the next 2500 years. A particular branch of Buddhism, the Vipassana or Insight Movement, focused on mindfulness and the clear perception of reality as the foundation of their philosophy, to the exclusion of other practices such as concentration or focus meditation. In the late 1960s, a loosely related group of American Buddhist Monks and laity brought the Vipassana movement to the United States. Now, over forty years later, Vipassana is the foundation of the Insight Meditation Society and serves as the inspiration for many mindfulness based practices in the workplace, including Mindfulness Based Stress Reduction (Kabat-Zinn, 1990). Contemporary scholarship into mindfulness also uses Vipassana and Insight Meditation as the theoretical foundation for investigation and has converged around a common conceptualization of mindfulness that is illustrated in Table 1 (Dane, 2011).

The connection between mindfulness and morality is central to the teachings of The Buddha and subsequent Buddhist thought. In one of his sermons, The Buddha said "Do good, refrain from doing evil, purify the mind" (Fronsdal, 2005). By doing good, The Buddha advised

his followers to exceed moral minimums. By refraining from doing evil, The Buddha advised his followers to refrain from immoral behavior. By purifying the mind, The Buddha advised his followers to be mindful and practice mindfulness through meditation. Although The Buddha and subsequent Buddhist scholars investigated the relationship between moral conduct and mindfulness in great detail, the core of the teaching is that mindfulness is the key to understanding reality and that it allows people to exceed moral minimums and refrain from immoral behavior (Gethin, 1998). In the following sections, I develop the social scientific basis for this general relationship by drawing on mindfulness theory to argue that because moral awareness is a matter of presence and attention, mindfulness will lead to moral behavior.

SECTION TWO: MINDFULNESS AND AWARENESS AND ATTENTION

Brown, Ryan, and Creswell (2007) argued that mindfulness has six overlapping and mutually supporting characteristics that follow from the definition of mindfulness as a receptive attention to and awareness of present events and experiences: (1) clarity of awareness, (2) nonconceptual, nondiscriminatory awareness, (3) flexibility of awareness and attention, (4) empirical stance towards reality, (5) present-oriented consciousness, and (6) stability or continuity of awareness and attention. These characteristics are important since they form the bedrock of mindfulness theory by describing how mindfulness is a separate type of awareness and attention that is differentiated from other types. First, clarity of awareness is a clear understanding of what is happening to the individual internally and externally. This awareness is unbiased and defined as bare attention or pure awareness (Gunaratana, 2002). Second, non-conceptual, non-discriminatory awareness fosters a different relationship between awareness and thought (Niemiec, Brown & Ryan, 2010). Instead of a tight coupling of awareness and thought mindfulness promotes a gap between awareness and thought. It allows for a pre-conceptual

awareness of the environment, and then the choice to attach a particular thought or conceptual framework to that awareness (Brown & Ryan, 2003; Teasdale, 1999). Third, flexibility of awareness and attention is a "mode of processing that involves a voluntary, fluid regulation of states of attention and awareness" (Brown et al., 2007; p. 213). This means that the individual can be aware of the salient features of the environment and pay attention to a particular stimulus without becoming entirely focused on it (Kornfield, 1993). Fourth, mindfulness' empirical stance towards reality means that the individual can best understand reality by having all of the facts (Brown et al., 2007). This stance has been called an unprejudiced receptivity (Nyaniponika, 1973), but it is the stance of a participant observer instead of a disinterested spectator (Marcel, 2003). Fifth, the present-oriented consciousness of mindfulness keeps awareness and attention anchored to the present. An individual in a mindful state is not fantasizing about the future or reminiscing about the past, but is instead fully immersed in the present moment (Brown et al., 2007). Sixth, the stability of attention and awareness of mindfulness is a characteristic of the full expression of mindfulness. In very mindful individuals (i.e., those with a disposition towards mindfulness) this state is frequent and rarely interrupted (Brown et al., 2007). In sum, the very simple definition of mindfulness as a receptive attention to and awareness of present events and experiences profoundly affects individuals' awareness of and attention to stimuli in the environment.

State and Trait Mindfulness

Brown and Ryan (2003) argue that "mindfulness is inherently a state of consciousness" (p. 824). In addition to this argument, I also recognize that there are dispositional based individual differences that allow mindfulness to be thought of as a trait (Baer, Smith, et al., 2006; Brown & Ryan, 2003; Brown et al., 2007; Dane, 2011; Dane & Brummel, 2013; Giluk, 2009;

Hulsheger et al., 2013; Lau, Bishop, et al; 2006). Given its ability to be understood and assessed as both a state and trait, mindfulness is similar to other psychological concepts such as positive and negative affect (Dane, 2011; Dane & Brummel, 2013; George, 1996; Hulsheger et al., 2013; Watson, Clark, & Tellegen, 1988). In essence, mindfulness is an inherent human capacity that people have to a greater or lesser degree (Brown & Ryan, 2003; Brown et al., 2007; Kabat-Zinn, 2005). Brown and Ryan designed an instrument, the Mindful Attention and Awareness Scale, to assess this dispositional tendency, but the scale can also be used to measure state mindfulness, i.e., mindfulness at a discrete point in time. Subsequently, a growing body of empirical work has shown that mindfulness can be meaningfully assessed as both a state and trait construct (e.g., Brown & Ryan, 2003; Dane & Brummel, 2013; Hulsheger et al., 2013; Tipsord, 2009). In this research, I will treat mindfulness as an inherent human capacity that can be expressed both as a state and a trait.

Types of Awareness

Mindfulness is related to and yet different from other types of awareness and attention (Brown et al., 2007; Dane 2011). Brown et al. (2007) suggest that "mindfulness can be seen as part of a long-standing tradition in the field [of social psychology] that recognizes the adaptive value in bringing consciousness to bear on subjective experience, behavior, and the immediate environment (e.g., Carver & Scheier, 1981; Csikszentmihalyi, 1997; Deci & Ryan, 1985; Derry & Tucker, 2006; Duval & Wicklund, 1972; Rothbart, Posner, & Kieras, 2006)" (Brown et al., 2007, p. 215). Dane (2011) situates mindfulness within a range of related awareness and attention concepts based on two dimensions—temporal orientation and attentional breadth (Figure 2). In this taxonomy, attentional breadth can be relatively wide or relatively narrow and present moment orientation can be high or low. Mindfulness, as a state of awareness and

attention, is highly present moment oriented and relatively wide in breadth (Dane, 2011). In contrast, when attentional breadth is relatively narrow yet still highly present moment oriented, an individual is in a state of absorption or flow. In the state of absorption, individuals are deeply focused on one particular activity (Agarwal & Karahanna, 2000; Rothbard, 2001; Wild, Kuiken, & Schopflocher, 1995). In a similar fashion, when individuals are in flow, they are extremely engaged with a single activity and have a strong feeling of mastery (Csikszentmihalyi, 1990; Csikszentmihalyi & LeFevre, 1989; Nakamura & Csikszentmihalyi, 2009).

Present moment orientation is an important and defining characteristic of mindfulness. For example, counterfactual thinking, prospection, fantasizing, and mind wandering have a low present moment orientation (Dane, 2011). A relatively narrow breadth of attention and awareness that is not present moment oriented allows individuals to engage in counterfactual thinking, prospection, and fantasizing. When engaging in counterfactual thinking, individuals are thinking about alternatives to the present factual reality—thinking about a sunny day instead of a cloudy one (Roese, 1997). When engaging in prospection, individuals are thinking about the possible results of a future action ("if I go get ice cream I will feel happier") (Gilbert and Wilson, 2007). When engaging in fantasizing, individuals are thinking about events that might happen in the future (e.g., a luxury vacation to Hawaii) (Oettingen & Mayer, 2002). However, when individuals have a relatively wide breadth of awareness and attention while still not being present moment oriented, they engage in mind wandering (Dane, 2011). Mind wandering occurs when attention shifts easily and often between various thoughts (Dane, 2011) in an undisciplined and unfocused fashion (Smallwood & Schooler, 2006). Nevertheless, Dane (2011) notes that this taxonomy is illustrative and not comprehensive and only serves to place mindfulness within the larger nomological network of awareness and attention related concepts.

SECTION THREE: MORALITY AND MINDFULNESS

Social scientific research into the relationship between mindfulness and morality is still in the nascent stage. Though limited, investigations of mindfulness and morality have focused on finding direct or indirect effects of mindfulness on moral behavior. To date, four articles have reported on different aspects of the relationship between mindfulness and moral behavior: Ruedy and Schweitzer (2010), Shapiro, Jazaieri, and Goldin (2012), Long and Christian (2015), and Eisenbeiss and Van Knippenberg (2015).

Ruedy and Schweitzer investigated the relationship between mindfulness, moral intention, and moral behavior (incidence and magnitude). They investigated this relationship with two studies. Study 1 was correlational study conducted with 97 participants in a laboratory setting. The correlation between mindfulness and intention was -0.43, $p<.001$. In a regression of variables in Study 1 (MAAS, formalism, consequentialism, and both factors of moral identity) on the variable of intention, only mindfulness was significant (beta = 0.58, $t(89) = 3.94$, $p < .001$). Study 2 was a laboratory experiment with 135 undergraduate participants where mindfulness was manipulated. Unfortunately, the manipulation failed, so the authors collapsed the conditions and investigated the relationships with correlations and regressions. In this study, the authors did not find a significant difference in the MAAS scores between those who cheated and those who did not. However, mindfulness did predict the magnitude of cheating (R-Squared = 0.06, $F(1,67) = 4.31$, $p = 0.04$). The regression coefficient was 0.98.

Shapiro, Jazaieri and Goldin (2012) conducted a field experiment of 25 adults in a university setting who participated in an eight week MBSR course. The authors surveyed the participants before the course, directly afterwards, and at two months after the completion of the course. Unfortunately, they did not include a control group in their experimental design. While

there was no attrition between Time 1 and Time 2, three people did not complete Time 3 for a final sample size of 22. Mindfulness was measured using the FFMQ and the MAAS, and moral reasoning was measured using the DIT-2, N2 score. Mindfulness by both the FFMQ and MAAS significantly increased from both baseline to post-MBSR and baseline to two month post-MBSR follow-up. Moral reasoning did not significantly increase between baseline and post-MBSR ($F(1, 24) = 1.14$, $p = .30$). Nevertheless, moral reasoning did significantly increase between baseline and two months post-MBSR ($F(1,21) = 5.24$, $p = .03$, eta-squared =0.20).

Long and Christian (2015) examined the relationship between injustice and retaliation through the mediating constructs of ruminative thought and negative emotion with mindfulness serving as a first stage moderator. These relationships were examined through two studies, a laboratory experiment with members of the university community and a correlational survey with working adults. Study 1 was a laboratory experiment with a sample size of 117 members of the university community. The participants were manipulated for mindfulness and injustice, and both manipulations were successful. Mindfulness was operationalized via the MAAS. Correlational analysis showed no significant relationship between mindfulness and retaliation intention or theft behavior. Examination of the means and standard deviations between the conditions in regards to theft behavior showed no significant differences. Study 2 had a sample of 270 employed adults that were recruited via mTurk. In this study, a significant correlation between mindfulness and reciprocal deviance emerged (-0.46, $p < .001$). Reciprocal deviance was operationalized via a self-report measure of workplace deviance. In the regression equations for the mediated moderation analysis, trait mindfulness was significant, the moderators were significant, and the overall model was significant.

Eisenbeiss and Van Knippenberg (2015) examined the relationship between ethical leadership and follower extra effort and follower helping behavior as moderated by follower mindfulness. The authors conducted one correlational survey in the setting of a German high technology company. The sample was 135 leader-follower dyads with 79 leaders and 135 followers. The authors controlled for organizational tenure and charismatic leadership in all analyses. Correlational analysis showed no significant relationship between mindfulness and ethical leadership, follower extra effort, or follower helping. The regression analysis of the moderating effects of mindfulness showed significance for the interactions, but none of the direct effects were significant.

Upon review, there is some initial evidence in the four studies that have investigated the relationship between mindfulness and morality to support the hypothesis that mindfulness affects moral behavior. However, that evidence is limited and sometimes contradictory. In the one direct examination of mindfulness and moral behavior (Ruedy and Schweitzer, Study 2), no significant relationship was discovered between mindfulness and commission of immoral behavior, but a significant relationship was discovered between mindfulness and the magnitude of immoral behavior. Shapiro, Jazaieri, and Goldin demonstrated that mindfulness positively impacts the moral reasoning of individuals, yet Long and Christian found no relationship between mindfulness and intention or behavior, nor did they find any evidence for their mediated moderation hypotheses. Nevertheless, in support of a connection between mindfulness and morality, they did find a significant relationship between mindfulness and self-reported reciprocal deviance. Eisenbeiss and Van Knippenberg found no significant relationship between mindfulness and ethical leadership, extra effort, or helping behaviors. In summary, I think that this literature review of the four studies that have examined the relationship between mindfulness

and morality lends some confidence to the assertion that a relationship between mindfulness and moral behavior may exist, but the details of this relationship must be carefully examined to determine the true nature of the effect. Therefore, in this dissertation I seek additional evidence to clarify the effect.

SECTION FOUR: MINDFULNESS, AWARENESS AND ATTENTION, AND MORAL BEHAVIOR AT WORK

Introduction

The research that I examined in the previous section has provided some initial and limited evidence about the connection between mindfulness and moral behavior. However, all four of these articles only examine the direct effect of this relationship—they do not examine the causal linkages or provide a theoretical framework for understanding the connection between mindfulness and moral behavior. In this dissertation, I draw from mindfulness theory (Brown & Ryan, 2003; Brown, Ryan, & Creswell, 2007; Dane, 2011; Glomb et al., 2011) to argue that because moral awareness is a matter of presence and attention, mindfulness will lead to moral behavior. More specifically, I use moral cognitive theory to argue that the relationship between mindfulness and moral behavior will be mediated by moral awareness (Rest, 1986; Reynolds, 2006) and moderated by moral attentiveness (Reynolds, 2008). In this section, I discuss Glomb et al.'s (2011) mindfulness at work model and lay a foundation for establishing a causal linkage between mindfulness and moral behavior through increased moral awareness.

General Perspective

Following Treviño, Weaver, and Reynolds (2006), I define moral behavior as "individual behavior that is subject to or judged according to generally accepted moral norms of behavior" (p. 952). The authors' definition encompasses three types of behavior: immoral behavior,

behavior that meets moral minimums, and behavior that exceeds moral minimums. Immoral behavior like lying or cheating specifically violates those norms. Behavior that meets moral minimums like honesty or obeying the law specifically does not violate those norms. Behavior that exceeds moral minimums like charitable giving and whistle-blowing is above and beyond the generally accepted norms of society. To connect this definition to the teaching of The Buddha (i.e., Do good, refrain from doing evil, purify the mind), I suggest that The Buddha is interested in his followers focusing on the first and third behaviors and using mindfulness to be aware of and attentive to those actions. Specifically, I suggest that mindfulness is positively related to moral behavior, in particular exceeding moral minimums and refraining from immoral behavior, through increased moral awareness. In the following section, I will review the mindfulness theory literature that examines the relationship between mindfulness and morality.

A Social Scientific Approach

From a social scientific perspective, moral behavior can be understood as a type of self-regulation to conform to societal norms of behavior (Haidt, 2012). Glomb et al. (2011) noted that "reviews of the mindfulness literature [(e.g., Cahn & Polich, 2006; Chiesa & Serretti, 2010; Treadway & Lazar, 2009)] converge in identifying the central outcome of mindfulness: improved self-regulation of thoughts, emotions, behaviors, and physiological reactions" (p.123). Glomb et al. (2011) built upon this body of knowledge to explore how mindfulness affects employees' self-regulation and the processes by which this self-regulation occurs (Table 2). Towards this end, Glomb et al. created a model that explains the mediating processes between mindfulness and the improved self-regulation of behavior (Figure 3). The authors defined three primary process and seven secondary processes that lead to work-related effects. The primary processes of mindfulness are: (1) decoupling of the self from experiences, events, and mental

processes, (2) decreased use of automatic processes, and (3) awareness of physiological regulation. These processes lead to more distal process that directly affect the self-regulation of individuals in an organization: (1) response flexibility, (2) decreased rumination, (3) empathy, (4) affective regulation, (5) increased self-determination and persistence, (6) increased working memory, and (7) more accurate affective forecasting. In the next section, I will use this theoretical model of mindfulness and expand upon it with insights from the literature on cognitive moral theory to examine how mindfulness causes increased moral behavior through increased moral awareness. Specifically, I will examine how the three primary process (decoupling, decreased automaticity, and physiological awareness) lead to two secondary process of interest (response flexibility and empathy) that lead to greater moral awareness and ultimately moral behavior.

Primary Processes

Decoupling

The first key process of a mindful quality of consciousness is the continual decoupling of the self from experiences and emotions (Glomb et al., 2011). This means that a mindful individual does not attach a sense of self to what happens in the outside world or what he/she may be feeling internally. For example, in the case of encountering an angry co-worker in the break room, an individual might also become angry. The unmindful individual would let this bad mood fester and let it color his/her perception of the day's events. In contrast, the mindful individual would separate him-herself from the other person's anger and his/her developing anger. This individual can then objectively assess the situation, become morally aware, and then self-regulate more effectively to behave morally.

Individuals who are able to decouple are more likely to understand the reasons for others' behavior since they are able to step back and look at the situation more objectively. In terms of cognitive moral theory, the relationship between decoupling and moral behavior is similar to that of perspective taking and moral behavior. Perspective taking is the tendency to take others' point of view (Davis, 1980). Perspective taking allows individuals to understand the perspective and emotions other people (Baron-Cohen & Wheelwright, 2004; Calvi 2011; Davis, 1980). Role taking (a.k.a., perspective taking) is a key process in Kohlberg's (1969) theory of moral reasoning (Treviño, Weaver, & Reynolds, 2006). Individuals who are more likely to take the perspective of others are more likely to become morally aware and engage in moral reasoning at a higher level. Empirically, a number of studies have demonstrated a modest relationship between perspective taking and prosocial behavior (see Eisenberg, 2000; Eisenberg & Miller, 1987; Miller & Eisenberg, 1988, for reviews).

Decreased Automaticity

The second key process of a mindful quality of consciousness is the decreased use of and reliance on automatic mental processes in regards to our awareness of and attention to present events and experiences (Glomb et al., 2011). This means that the mindful individual relies on more systematic thinking (System 2) instead of heuristic thinking (System 1) (Kahneman, 2011). System 2 is slow, effortful and logical, while System 1 is quick, effortless, and emotional. The use of System 1 allows individuals to quickly respond to a rapidly changing environment and has clear evolutionary advantages, but in our complex, social world an over-reliance on System 1 can result in a great deal of misinterpretation of social situations and a consequent failure to properly self-regulate in those situations.

Individuals who rely more heavily on System 2 are more likely to understand the connection between their choices and outcomes than those who automatically act without thinking. In terms of cognitive moral theory, the relationship between decreased automaticity and moral behavior is similar to that of locus of control and moral behavior. Locus of control (Rotter, 1966) is a disposition that describes individuals' beliefs about the relationship between their outcomes and their actions. Individuals with an internal locus of control attribute outcomes to their own actions and efforts, while individuals with an external locus of control attribute outcomes to an external source like luck, the environment, or other people. Treviño (1986) theorized that individuals with an internal locus of control would be more likely to take responsibility for outcomes since outcomes are seen as the result of their actions. As a result, when faced with the opportunity to act immorally, individuals with an internal locus of control will be more likely to become morally aware about their actions, then understand that their actions could be immoral, and then avoid that behavior. Conversely, individuals with an external locus of control are more likely to behave immorally since they will not be as morally aware due to the fact that they can more easily blame the outcomes on factors outside themselves. Empirical evidence supports this theoretical argument (G.E. Jones, 1992; Treviño & Youngblood, 1990). In a recent meta-analysis, locus of control was positively related to immoral choices (*rho* = .134, *k* = 11, *n* = 2,683) (Kish-Gephart, Harrison, & Treviño, 2010).

Physiological Awareness

The third key process of a mindful quality of consciousness is the increased awareness of the body and an ability to prevent automatic physical reactions like approach-avoidance or flight or fight (Glomb et al., 2011). The body has automatic systems that react and feed back into the automatic heuristic processes of the brain (Siegel, 2010). For example, the brain might quickly,

automatically, and heuristically identify some element of the environment as a threat and then activate the sympathetic nervous system to prepare the fight or flight response. This, in turn, can have multiple socially, non-advantageous effects: (1) other people in the environment can consciously or unconsciously react to the individual's automatic response, and (2) the individual can consciously respond to the body's stress. The situation therefore can escalate dramatically without the express intention of the participants. Faced with a similar situation, the mindful individual instead notices the reaction of the body and carefully works to non-judgmentally receive the information from the body and become aware of and attentive to automatic responses.

According to Glomb et al. (2011), individuals who are more physiologically aware are more likely to maintain a neutral attitude in stressful situations since they are aware of the automatic physical reactions that produce distressing responses like fight or flight. This argument is supported by concepts from theory on cognitive moral development. In terms of cognitive moral theory, the relationship between physiological awareness and moral behavior is similar to that of personal distress and moral behavior. Personal distress is self-oriented feelings of anxiety in tense situations (Davis, 1980). It results in a focus on the self instead of others. This focus on the self results in individuals being less likely to take the perspective of others (Davis, 1980; Eisenberg et al., 1994; Treviño et al., 2006; Tipsord, 2009). In turn, the lack of perspective taking results in individuals who are less morally aware, engage in moral reasoning at a lower level (Kohlberg, 1969), and are less likely to engage in prosocial behavior (see Eisenberg, 2000; Eisenberg & Miller, 1987; Miller & Eisenberg, 1988, for reviews).

Secondary Processes

I now will review the literature that examines how two of the secondary processes mindfulness—response flexibility and empathy—lead to greater moral awareness and ultimately moral behavior.

Response Flexibility

Response flexibility is theorized to have pro-social and pro-organizational effects (Glomb et al., 2011). Response flexibility is defined as "the ability to pause before taking verbal or physical action (Siegel, 2007)" (Glomb et al. 2011, p. 129). The root of response flexibility is that when someone is mindful, attention and cognition are not tightly coupled. Instead, the individual first becomes pre-conceptually aware of a stimulus in the environment and then attaches conceptual thought to that stimulus. In other words, a gap between awareness and conceptual thought allows conceptual thought (e.g., categories) to be used with more agency. (Brown et al., 2007). This manifests itself in the workplace in that "rather than responding to workplace events habitually and invariantly, response flexibility allows one the power to act in alignment with one's goals, needs, and values (Brown et al., 2007)" (Glomb et al. 2011, p. 129).

All three primary processes of mindfulness allow individuals to have greater response flexibility. Awareness of physiological regulation gives individuals the ability to become aware of environmental stimuli with the activation of the flight-or-flight response in stressful situations (Cozolino, 2006). Decoupling and decreased automaticity allow individuals to recognize that the emotions and cognitions that arise from an event are not the same as objective reality. Therefore, they do not require an immediate reaction (Chambers, Gullone, & Allen, 2009) which allows space for moral awareness to occur. Finally, "a growing body of evidence suggests that mindfulness plays a significant role in heightened response flexibility across a variety of situations ranging from gambling to interpersonal communication (e.g., Bishop, Lau et al., 2004;

Hagger & Chatzisarantis, 2007; Lakey, Campbell, et al., 2007; Wenk-Sormaz, 2005)" (Glomb et al. 2011, p. 129).

Empathy

Like response flexibility, empathy is also theorized to have pro-social and pro-organizational effects (Glomb et al., 2011). Empathy is defined as "a family of responses to another 'that are more other-focused than self-focused, including feelings of sympathy, compassion, tenderness, and the like (Batson, 1991, p. 86)'" (Quoted in Goetz, Keltner, & Simon-Thomas, 2010). The core similarity of these other-focused responses is "the ability to see life from another's perspective" which "allows us to be attuned to others, to resonate with them, and to have compassion (Cozolino, 2006)" (Glomb et al., 2011, p. 132).

Glomb et al. (2011) investigated how the three core process of mindfulness produce empathy. First, decoupling allows individuals to more effectively self-regulate negative emotions in themselves and in their response to the negative emotions of others (Tipsord, 2009). Second, the decreased use of automatic processes by the mindful individual allows that person to better understand their own cognitive and emotional process and, in turn, to better understand the cognitive and emotional processes of others. Third, increased awareness of physiological regulation promotes self-regulation through empathy by allowing the individual to engage "in the process of attuning and resonating with others" and "to literally feel what the other person is experiencing" (Glomb et al., 2011, p. 133). Finally, Glomb et al noted that "organizational members who have higher levels of empathy for their colleagues demonstrate higher levels of interactional justice (i.e., lower levels of sexual harassment and antisocial behavior; Douglas & Martinko, 2001; O'Leary-Kelly, Bowes-Sperry, Bates, & Lean, 2009), informational justice (Patient & Skarlicki, 2010), organizational citizenship behaviors (Kamdar, McAllister, &

Turban, 2006; Kidder, 2002), and positive leadership behaviors (Kellett, Humphrey, & Sleeth, 2002; Scott, Colquitt, Paddock, & Judge, 2010)" (p. 129).

Response Flexibility and Empathy Combined

Of all the secondary processes investigated by Glomb et al. (2011), response flexibility and empathy are of the greatest interest to scholars who are investigating the relationship between mindfulness and morality. The literature review of the scholarship surrounding secondary processes has laid a foundation for establishing a causal linkage between the three primary process (decoupling, decreased automaticity, and physiological awareness) and greater moral awareness and behavior through the two secondary process of interest (response flexibility and empathy).

Conclusion

This literature review has laid a foundation for establishing a causal linkage between mindfulness and moral behavior through increased moral awareness. This foundation has been constructed by reviewing the historical relationship between mindfulness and morality, how mindfulness relates to awareness and attention, the social scientific evidence about morality and mindfulness, and the mindfulness at work model. In sum, this review will allow me to develop hypotheses based on this literature and that investigate my thesis that because moral awareness is a matter of presence and attention, mindfulness will lead to moral behavior.

CHAPTER THREE: HYPOTHESIS DEVELOPMENT

Introduction

The previous chapter demonstrates that the literature on mindfulness, though ancient in origin, is not well developed, at least in terms of social scientific standards. This dissertation aims to add to the modern empirical investigation of mindfulness by examining the relationship between state and trait mindfulness and moral behavior in employees. Building on the literature review in the previous chapter, I draw on mindfulness theory to argue that because moral awareness is a matter of presence and attention, mindfulness will lead to moral behavior. More specifically, I argue that the relationship between mindfulness and moral behavior will be mediated by moral awareness (Rest, 1986; Reynolds, 2006) and moderated by moral attentiveness (Reynolds, 2008). Below are discussions leading to four hypotheses that investigate my thesis in detail (Figure 1).

Mindfulness, Moral Awareness, and Behavior

In the next section, I will use mindfulness theory and expand upon it with insights from cognitive moral theory to postulate how the primary and secondary processes of mindfulness cause increased moral behavior and awareness through presence and attention. Specifically, I will use the mindfulness at work model to argue that the three primary processes (decoupling, decreased automaticity, and physiological awareness) of mindfulness lead to two secondary processes of mindfulness (response flexibility and empathy) that lead to greater moral awareness and behavior through increased presence and attention.

In general, I suggest that individuals who are able to decouple, the first primary process of mindfulness, are more likely to be present and attentive since they are able to step back and look at the situation more objectively. In terms of cognitive moral theory, the relationship

between decoupling and moral behavior is similar to that of perspective taking and moral behavior. Perspective taking is the tendency to take others' point of view (Davis, 1980). Perspective taking allows individuals to be aware of and pay attention to the perspective and emotions other people (Baron-Cohen & Wheelwright, 2004; Calvi 2011; Davis, 1980). Role taking (a.k.a., perspective taking) is a key process in Kohlberg's (1969) theory of moral reasoning (Treviño, Weaver, & Reynolds, 2006). Individuals who are more likely to take the perspective of others are more likely to become morally aware and engage in moral reasoning at a higher level. Empirically, a number of studies have demonstrated a modest relationship between perspective taking and prosocial behavior (see Eisenberg, 2000; Eisenberg & Miller, 1987; Miller & Eisenberg, 1988, for reviews). Therefore, based on this theoretical argument and empirical support, I posit that decoupling, as a primary process of mindfulness, allows individuals to be more present and attentive and, therefore, behave morally due to increased moral awareness.

Individuals who have decreased automaticity, the second primary process of mindfulness, are more likely to be present and attentive since they understand the connection between their choices and outcomes. In terms of cognitive moral theory, the relationship between decreased automaticity and moral behavior is similar to that of locus of control and moral behavior. Locus of control (Rotter, 1966) is a disposition that describes individuals' beliefs about the relationship between their outcomes and their actions. Individuals with an internal locus of control attribute outcomes to their own actions and efforts, while individuals with an external locus of control attribute outcomes to an external source like luck, the environment, or other people. Treviño (1986) theorized that individuals with an internal locus of control would be more likely to take responsibility for outcomes since outcomes are seen as the result of their actions. As a result,

when faced with the opportunity to act immorally, individuals with an internal locus of control will be more likely to become morally aware about their actions, then understand that their actions could be immoral, and then avoid that behavior. Conversely, individuals with an external locus of control are more likely to behave immorally since they will not be as morally aware due to the fact that they can more easily blame the outcomes on factors outside themselves. Empirical evidence supports this theoretical argument (G.E. Jones, 1992; Trevino & Youngblood, 1990). In a recent meta-analysis, locus of control was positively related to immoral choices (*rho* = .134, *k* = 11, *n* = 2,683) (Kish-Gephart, Harrison, & Treviño, 2010). Therefore, based on this theoretical argument and empirical support, I posit that decreased automaticity, as a primary process of mindfulness, allows individuals to be more present and attentive and, therefore, behave morally due to increased moral awareness.

Individuals who are more physiologically aware, the third primary process of mindfulness, are more likely to be present and attentive since they will maintain a neutral attitude in stressful situations because they are aware of the automatic physical reactions that produce distressing responses like fight or flight. I argue that in terms of cognitive moral theory, the relationship between physiological awareness and moral behavior is similar to that of personal distress and moral behavior. Personal distress is self-oriented feelings of anxiety in tense situations (Davis, 1980). It results in a focus on the self instead of others. Several scholars have demonstrated that this focus on the self results in individuals being less likely to take the perspective of others (Davis, 1980; Eisenberg et al., 1994; Treviño et al., 2006; Tipsord, 2009). In turn, the lack of perspective taking results in individuals who are less morally aware, engage in moral reasoning at a lower level (Kohlberg, 1969), and who are less likely to engage in prosocial behavior (see Eisenberg, 2000; Eisenberg & Miller, 1987; Miller & Eisenberg, 1988,

for reviews). Therefore, based on this theoretical argument and empirical support, I posit that physiological awareness, as a primary process of mindfulness, allows individuals to be more present and attentive and, therefore, behave morally due to increased moral awareness.

Individuals who have response flexibility, the first relevant secondary process of mindfulness, are more likely to be present and attentive since they will have options for their response to a situation. Response flexibility is defined as "the ability to pause before taking verbal or physical action (Siegel, 2007)" (Glomb et al. 2011, p. 129). The root of response flexibility is that when someone is mindful, attention and cognition are not tightly coupled. Instead, the individual first becomes pre-conceptually aware of a stimulus in the environment and then attaches conceptual thought to that stimulus. In other words, a gap between awareness and conceptual thought allows conceptual thought (e.g., categories) to be used with more agency. (Brown et al., 2007). Response flexibility is theorized to have pro-social and pro-organizational effects (Glomb et al., 2011). It manifests itself in the workplace in that "rather than responding to workplace events habitually and invariantly, response flexibility allows one the power to act in alignment with one's goals, needs, and values (Brown et al., 2007)" (Glomb et al. 2011, p. 129). I argue that the gap created by response flexibility, as secondary process of mindfulness, allows individuals to become morally aware and begin a cognitive moral decision-making process instead of reacting automatically.

All three primary processes of mindfulness allow individuals to have greater response flexibility and to be more present and attentive. Awareness of physiological regulation gives individuals the ability to become aware of environmental stimuli with the activation of the flight-or-flight response in stressful situations (Cozolino, 2006). Decoupling and decreased automaticity allows individuals to recognize that the emotions and cognitions that arise from an

event are not the same as objective reality and therefore do not require an immediate reaction (Chambers, Gullone, & Allen, 2009) which allows space for moral awareness to occur. Also, "a growing body of evidence suggests that mindfulness plays a significant role in heightened response flexibility across a variety of situations ranging from gambling to interpersonal communication (e.g., Bishop, Lau et al., 2004; Hagger & Chatzisarantis, 2007; Lakey, Campbell, et al., 2007; Wenk-Sormaz, 2005)" (Glomb et al. 2011, p. 129). Therefore, based on this theoretical argument and empirical support, I posit that response flexibility, as a secondary process of mindfulness, allows individuals to be more present and attentive and, therefore, behave morally due to increased moral awareness.

Individuals who have empathy, the second relevant secondary process of mindfulness, are more likely to be present and attentive since they will be other focused. Empathy is defined as "a family of responses to another 'that are more other-focused than self-focused, including feelings of sympathy, compassion, tenderness, and the like (Batson, 1991, p. 86)'" (Quoted in Goetz, Keltner, & Simon-Thomas, 2010). The core similarity of these other-focused responses is "the ability to see life from another's perspective" which "allows us to be attuned to others, to resonate with them, and to have compassion (Cozolino, 2006)" (Glomb et al., 2011, p. 132). Empathy and the other-focused responses that result are theorized to have pro-social and pro-organizational effects (Glomb et al., 2011). I argue that the focus on other people created by empathy, as a secondary process of mindfulness, allows individuals to become morally aware and begin a cognitive moral decision-making process instead of reacting automatically.

All three primary processes of mindfulness allow individuals to have greater empathy and to be more present and attentive. First, decoupling allows individuals to more effectively self-regulate negative emotions in themselves and in their response to the negative emotions of others

(Tipsord, 2009). Second, the decreased use of automatic processes by the mindful individual allows that person to better understand their own cognitive and emotional process and, in turn, to better understand the cognitive and emotional processes of others. Third, increased awareness of physiological regulation promotes self-regulation through empathy by allowing the individual to engage "in the process of attuning and resonating with others" and "to literally feel what the other person is experiencing" (Glomb et al., 2011, p. 133). Finally, Glomb et al. noted that "organizational members who have higher levels of empathy for their colleagues demonstrate higher levels of interactional justice (i.e., lower levels of sexual harassment and antisocial behavior; Douglas & Martinko, 2001; O'Leary-Kelly, Bowes-Sperry, Bates, & Lean, 2009), informational justice (Patient & Skarlicki, 2010), organizational citizenship behaviors (Kamdar, McAllister, & Turban, 2006; Kidder, 2002), and positive leadership behaviors (Kellett, Humphrey, & Sleeth, 2002; Scott, Colquitt, Paddock, & Judge, 2010)" (p. 129). Therefore, based on this theoretical argument and empirical support, I posit that empathy, as a secondary process of mindfulness, allows individuals to be more present and attentive and, therefore, behave morally due to increased moral awareness.

Moral Behavior

I propose that mindfulness is positively related to moral behavior due to the increased presence and attention afforded by the primary and secondary processes. Glomb et al. (2011) demonstrated that "in essence, mindfulness promotes healthy ways of relating to others in the workplace (Giluk, 2010), which includes taking another's perspective and reducing habitual reactions that may be dysfunctional or promote escalation" (p. 140). One of the primary healthy ways of relating to other individuals is by paying attention to the generally accepted norms of behavior. According to social-cognitive theory (Fiske & Taylor, 1991), individuals will pay

greater attention to certain aspects of the environment due in part by the accessibility of relevant categories. The most relevant categories for categorizing and then judging moral situations are consequentialism—ends based thinking—and formalism—means based thinking (Brady, 1985; Brady & Wheeler, 1996; Reynolds & Ceranic, 2007). Specifically, the increased presence and attention afforded by the primary and secondary processes of mindfulness will allow individuals to more accurately categorize and then judge how the violation of the norm will affect other individuals and will help individuals to judge how their actions may harm others in ways that initially might not be obvious. Therefore, based on the initial empirical evidence from the literature review presented in Chapter 2 and the arguments presented above, I postulate:

Hypothesis 1: Mindfulness is positively related to moral behavior.

Moral Awareness

I propose that mindfulness is positively related to moral awareness due to increased presence and attention afforded by the primary and secondary processes. Moral awareness is "a person's determination that a situation contains moral content and legitimately can be considered from a moral point of view" (Reynolds, 2006, p. 233). In his investigation of individual differences and the recognition of moral issues, Reynolds examined how individuals come to pay attention to the characteristics of moral issues. Building on Fiske and Taylor's (1991) social-cognitive theory and Jones' (1991) theory of moral intensity, Reynolds argued that two issue characteristics in particular, magnitude of consequences and social consensus, are positively associated with moral awareness. Magnitude of consequences involves harm, while social consensus involves the norms of social behavior. Harm is "the extent to which an individual or group is injured physically, psychologically, or economically (Collins, 1989)" and a norm is "a rule of conduct that specifies what should and should not be done by various kinds of actors in

various kinds of social situations (Bierstedt, 1963; Williams, 1960)" (Reynolds, 2006, p. 234). Specifically, a norm must be made salient through violation of that norm for moral awareness to be triggered (DeRidder & Tripathi, 1992; Reynolds, 2006).

The "receptive attention to and awareness of present events and experiences" (Brown, Ryan, & Creswell, 2007, p. 212) allows individuals to be present and pay attention to the characteristics of magnitude of consequences and social consensus in interactions. According to social-cognitive theory (Fiske & Taylor, 1991), individuals will pay greater attention to certain aspects of the environment due to the salience and vividness of those aspects. A stimulus in the environment is salient when it stands out relative to the other stimuli in the environment. A stimulus is vivid due to its inherent aspects that are independent of the environment. The clear, present-centered awareness of and attention to stimuli in the environment given by mindfulness allows the salience and vividness of stimuli to be fully apprehended by the individual. Mindfulness and the greater presence and attention that it affords allows thought to be stimulus-dependent instead of stimulus independent (Fiske & Taylor, 1991), and therefore, based on what is actually happening in the world and not our pre-conceived notions of what should be happening. Specifically, mindfulness will highlight norms and their violation by making the behavioral expectations held by others in social situations more salient and vivid. Mindfulness will highlight harm by making the injury felt by others in social situations more salient and vivid. Consistent with this argument, initial empirical evidence suggests that mindfulness is related to a greater awareness of and attention to the environment, including moral issues (Dimidjian & Lineham, 2003; Kabat-Zinn, 1990; Ruedy & Schweitzer, 2010). Therefore, based on the initial empirical evidence and the literature review presented in Chapter 2 and the arguments presented above, I postulate:

Hypothesis 2: Mindfulness is positively related to moral awareness.

Moral Awareness as a Mediator

Awareness of a moral issue is a key element in many models of moral decision making and moral behavior (e.g., Jones, 1991; Rest, 1986; Reynolds, 2006; Tenbrunsel & Smith-Crowe, 2008; Treviño, Weaver, & Reynolds, 2006). Moral awareness is seen as the first stage in a multi-stage process that leads to individual behavior. Only after an individual becomes morally aware can they use elements such as moral judgment to determine the issue at hand (Miller, Rodgers, & Bingham, 2014; Reynolds, 2006b; Reynolds & Miller, 2015).

Without moral awareness, individuals will not use a moral frame for their decision making and instead will use other types of non-moral decision-making frames to judge the situation (Tenbrunsel & Smith-Crowe, 2008). In their 2008 review, Tenbrunsel and Smith-Crowe argued that while decisions made without moral awareness can result in moral or immoral behavior that the decision-making process is amoral. In turn, this amoral decision-making process results in behavior that is necessarily unintentional in its morality or immorality. This unintentionality is important since without the moral intention given by moral awareness to action, then scholars cannot be theoretically or empirically confident that they are in fact investigating moral behavior.

With moral awareness, individuals will engage in a cognitive decision process to judge the situation, intend to behave in a certain way, and then behave (Treviño, Weaver, & Reynolds, 2006). The key to moral behavior that is truly intentional is moral awareness, "an interpretive process wherein the individual recognizes that a moral problem exists in a situation, or that a moral standard or principle is relevant to the circumstances" (Treviño, Weaver, & Reynolds, 2006, p. 953). With this awareness moral decision making is initiated and the behavior, which is

the result of the moral decision-making process, can be defined as moral or immoral. Therefore, with moral awareness and intentional behavior scholars can be theoretically and empirically confident that they are in fact investigating moral behavior.

Since moral awareness is the first, necessary link in a chain of reasoning that includes moral judgment, moral intent, and moral behavior (Rest, 1986; Treviño, Weaver, & Reynolds, 2006), any cognitive moral decision making path will have to proceed through moral awareness. Therefore, moral awareness is the key mediator between mindfulness and moral behavior. Thus:

Hypothesis 3: Moral awareness mediates the relationship between mindfulness and moral behavior.

Moral Attentiveness as a Moderator

Moral attentiveness is "the extent to which an individual chronically perceives and considers morality and moral elements in his or her experience" (Reynolds, 2008, p. 1028). The construct has two components: perceptual and reflective. Perceptual moral attentiveness is the extent that experiences are automatically examined from a moral point of view, while reflective moral attentiveness is the extent that the moral point of view is used to think about experiences. This theory is built off of Fiske and Taylor's (1991) differentiation between normal and chronic sources of accessibility of the cognitive frameworks used to identify stimuli. Reynolds (2008) argued that chronic sources are more likely to dominate cognition and that morals represent a distinct cognitive framework. Importantly, moral attentiveness uses this cognitive framework to distinguish what is moral from non-moral instead of what is moral from immoral. It is "the process by which an individual actively screens and considers stimuli related to morality," while moral awareness is "a person's determination that a situation contains moral content and can legitimately be considered from a moral point of view" (Reynolds, 2008, p. 1028).

I propose that moral attentiveness moderates the relationship between mindfulness and moral awareness. Individual differences in moral attentiveness determine moral awareness (Reynolds, 2008). Individuals who are high in moral attentiveness are more likely to become morally aware than those who are low in moral attentiveness. This relationship is due to the chronic, active screening of the environment for morality related stimuli. The more active the screening, the more likely the individual is to recognize moral issues. The present centered awareness and attention afforded by the primary and secondary processes of mindfulness allows individuals to be in the position to receive the full range of incoming stimuli from the social environment. This present centered awareness interacts with the active screening for moral stimuli provided by moral attentiveness to determine the moral awareness of individuals. Individuals who have high moral attentiveness will be more morally aware than those individuals with low moral attentiveness (Figure 4). Consistent with this argument, empirical evidence has demonstrated that moral attentiveness is positively correlated with self-reported moral behavior, reports of other's moral behavior, and moral behavior reported by others (Reynolds, 2008). This initial empirical evidence combined with the reasoning above leads me to postulate:

Hypothesis 4: Moral attentiveness moderates the relationship between mindfulness and moral awareness. Specifically, this relationship is stronger for individuals with high moral attentiveness than individuals with low moral attentiveness.

Conclusion

This chapter has laid the foundation for an empirical exploration into mindfulness and morality by developing testable hypothesis that can be investigated using modern social scientific methods. I developed these hypotheses based on the literature review in Chapter 2 that laid a foundation for establishing a theoretical causal linkage between mindfulness and moral

behavior through moral awareness. Using mindfulness theory, I then argued in this chapter that because moral awareness is a matter of presence and attention, mindfulness will lead to moral behavior because it increases presence and attention through its primary and secondary processes. I then developed a model (Figure 1) that proposed that the relationship between mindfulness and moral behavior will be mediated by moral awareness (Rest, 1986; Reynolds, 2006) and moderated by moral attentiveness (Reynolds, 2008). In the next chapter, I will test this model empirically in a series of four studies.

CHAPTER FOUR: EMPIRICAL EXPLORATION

To test these hypotheses, I conducted four studies. Study 1 was a lab-based, short-term mindfulness intervention of business students. The study was a 1 x 2 design where a state of mindfulness was induced (15 minute guided awareness meditation vs. neutral recording). This study investigated the relationships between state mindfulness, moral awareness, moral attentiveness, and moral behavior. Study 2 was a survey of working adults to investigate the relationships between trait mindfulness, moral awareness, moral attentiveness, and moral behavior. Study 3 was a laboratory experiment that examined the effects of a strong manipulation over five days on the traits in question—mindfulness, moral awareness, moral attentiveness, and moral behavior—and the mediating role of moral awareness between mindfulness and moral behavior. Study 4 was a survey of working adults that investigated the relationship of trait mindfulness (operationalized by an alternative measure) and moral awareness, moral attentiveness, and moral behavior. In combination, these four studies provide a thorough investigation of my thesis that because moral awareness is a matter of presence and attention, mindfulness leads to moral behavior. Please see the appendix for the items and instructions for all the scales described below.

STUDY 1

Purpose

The purpose of Study 1 was to examine the effects of state mindfulness on moral behavior, the mediating effect of moral awareness, and the moderating effect of moral attentiveness. Although there are dispositional based individual differences that allow mindfulness to be thought of as a trait, mindfulness is primarily a state of awareness and

attention. Therefore, Study 1 provided an initial examination of this state of awareness and attention and how it affects individual moral decision making.

Sample

The sample was 116 undergraduate business students from the Foster School of Business MGMT 300 research pool. Five participants were excluded from the analysis for failing to complete the manipulation. Of the one hundred and eleven participants, 60 were in the experimental condition and 51 were in the control condition. By sex, 65 participants were female (58.6%) and 46 were male (41.4%). By ethnicity, 48 were Asian (43.2%), 3 were Black (2.7%), 3 were Hispanic (2.7%), 1 was Native American, and 56 were White (50.5%). The average age of the participants was 21.87 (SD = 3.8) with a minimum of 19 and a maximum of 40. The average work experience was 1.70 years (SD = 3.19) with a minimum of 0 and a maximum of 14. Participants also were asked to asked to self-report their experience with meditation (*Please indicate your experience with meditation. 1 = None to 5 = A Lot*). The average experience with meditation was 2.04 (SD = 1.1). Forty-six participants (41.4%) reported no experience with meditation and five participants (4.5%) indicated "a lot" of experience. Overall, the demographics of the sample match the usual demographics of the MGMT 300 research pool.

Procedure

The study was a 1x2 experimental design and the condition was induced mindfulness (i.e., a 15 minute guided awareness meditation vs. control). This manipulation was the same as that employed by Ruedy and Schweitzer (2010). Participants completed the experiment in the research laboratory in Paccar Hall. The experiment consisted of several steps. First, after check-in, participants were seated at a computer and gave informed consent. Second, they were instructed to follow via headphones either the guided meditation in the experimental group or the

neutral recording that served as a control. The guided mindfulness meditation instructed the participants to focus on their breathing, while the neutral recording instructed the participants to let their mind wander. Third, the participants completed a self-report measure of state mindfulness that served as a manipulation check. Fourth, the participants completed an inbox exercise where they had the chance to behave morally. Fifth, participants completed measures of moral awareness and moral attentiveness. Sixth, participants completed demographics questions. Finally, the participants were debriefed and then thanked for their time.

Measures

Manipulation Check

State Mindfulness: The effectiveness of the manipulation was determined by the participants' state mindfulness. This construct was measured by the state version of the Mindful Awareness and Attention Scale (Brown & Ryan, 2003). It is a 5-item scale that measures the participants' state mindfulness. Importantly, the scale is constructed so that a lower score indicates a more mindful participant. Cronbach's alpha of the measure was .66.

Dependent variable

Moral Behavior: Reynolds, Leavitt, and DeCelles (2010) developed an inbox exercise as a direct measure of immoral behavior. As part of the exercise, participants are given numerous tasks to complete. At one point, they are given the task of completing an insurance claim that allows then the opportunity to behave immorally. Specifically, the participants were informed that a shipment of product had been destroyed on route to a customer. They were to fill out an insurance claim where they could base their claim for reimbursement on the cost of the product, the advertised price, or the price of the product on the black market. Per the authors' recommendation, any claim submitted over the advertised price was coded as immoral. At

another point, they are given the chance to behave immorally in a negotiation. Specifically, the participants are given information with which to begin a negotiation with a supplier. They are informed that the best initial offer is $175 per unit. Right before the negotiation, however, the participants learn from a former employee of the supplier (who is bound by a Non-Disclosure Agreement) that the supplier will accept a much lower offer than $175 per unit. As any adjustment of price represented a breach of the non-disclosure agreement, any initial offer in the negotiation below $175 was coded as immoral. In their article, the authors note the robustness of both of these measures (Reynolds et al., 2010).

Mediator

Explicit Moral Awareness: Moral awareness, the individual's determination that a situation has moral content, was measured by the four vignettes developed by Reynolds (2006). The vignettes manipulate the presence of harm (present/not present) and a violation of a behavioral norm (present/not present). Each vignette was followed by three questions that determined to what extent the participant recognized that a moral issue was contained in each vignette. Moral awareness has been shown as a necessary theoretical and empirical antecedent to moral behavior (Rest, 1986). Cronbach's alphas of the measures were as follows: .75 (Control), .76 (Harm), .87 (Violation), and .73 (Harm X Violation).

Specific Moral Awareness: Specific moral awareness was measured immediately before participants indicated the value of the insurance claim or the opening bid. Participants were asked for their thoughts about the scenario (*Before indicating the value of your bid. Please answer a few questions about your thoughts about this situation.*). Participants indicated if they thought the situation has moral implications (*1 = Strongly Disagree* to *7 = Strongly Agree*). In

order to disguise the purpose of the question (to measure moral awareness), 4 other items were included (e.g., *This situation is complex, This situation is fun to think about, etc.).*

Implicit Moral Awareness: Implicit moral awareness is the level of activation of morality related concepts in the mind of participants. One of the advantages of measuring implicit moral awareness is that it allows researchers to measure moral awareness while removing the effects of social desirability (Gino et al., 2011). To measure implicit moral awareness, participants completed the word completion task of morally salient words employed by Gino et al. (2011). Participants were given fragments of words and then asked to complete the word (e.g., S_T could be completed as sat, sit, set, etc.). A total of six fragmented words were presented, three had moral content and three did not. The three words could be completed to create a word with moral content or a word without moral content (e.g., _ _ RAL could be completed as MORAL or MURAL). Each participant's response was then coded for moral content (0 = No and 1 = Yes). The individual codes were then added up to give a measure of implicit moral awareness that ranged from 0 (low implicit moral awareness) to 3 (high implicit moral awareness).

Moderator

Moral Attentiveness: Moral attentiveness, the extent to which an individual chronically notices and thinks about morality, was measured by Reynolds' (2008) 12-item scale. The scale is divided into two factors: perceptual (the individual's chronic noticing of moral issues) and reflective (the individual's chronic thinking about moral issues). Perceptual moral attentiveness has been shown to be associated with the recall and reporting of moral behavior, while reflective moral attentiveness has been associated with moral awareness and moral behavior (Reynolds, 2008). Cronbach's alphas of the factors were as follows: .89 (Perceptual), .83 (Reflective), and .88 (Combined).

Potential Controls

Although Study 1 was constructed as a laboratory experiment, some controls were included in the hopes that they might provide information on how the constructs related to and interacted with each other. The two constructs that theoretically provided the greatest explanatory power were trait mindfulness and social desirability bias.

Trait Mindfulness: Trait mindfulness is the individual's dispositional propensity towards mindfulness. It is most commonly measured by the Mindful Awareness and Attention Scale developed by Brown & Ryan (2003). This 15-item scale measures the participants' dispositional tendency to be aware of and pay attention to present experience (rather than other attributes sometimes associated with mindfulness such as acceptance or empathy). Participants were given the following prompt (*Below is a collection of statements about your everyday experience. Using the scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be.*). They then respond to the items using a 6-point Likert scale (*1 = Almost Always, 2 = Very Frequently, 3 = Somewhat Frequently, 4 = Somewhat Infrequently, 5 =Very Infrequently, 6 = Almost Never*). The scale items are constructed to measure a lack of mindfulness (e.g., *It seems I am "running on automatic" without much awareness of what I'm doing* or *I find myself doing things without paying attention.*). Brown and Ryan (2003) argue that behavior that results from a lack of mindfulness is easier to recall and therefore provides a better measure of trait mindfulness. The scale is uni-dimensional and Cronbach's alpha for the scale was .88.

Social Desirability Bias: Social desirability bias is the individual's dispositional propensity to present themselves to others in a positive light, regardless of their actual thoughts

or behavior (Paulhus, 1984; Randall & Fernandes, 1991). This propensity presents challenges in laboratory studies that utilize self-report measures in surveys. Therefore, I included a measure to control for this trait if it became necessary during analysis. Social desirability was measured with Paulhus' (1984) 40-item Balanced Inventory of Desirable Responding (BIDR). The measure includes two factors that can be analyzed separately or combined into one overall measure of social desirability bias. The first factor, self-deceptive positivity, measures the respondent's propensity to give self-reports that are believed but have a definite positive bias. The second factor, impression management, measures the respondent's propensity to present his or herself in a positive light to others. The BIDR is measured on a 7-point Likert scale (*1 = Not True, 4 = Somewhat True, 7 = Very True*). Paulhus (1984) suggests a novel way of scoring the BIDR. Responses from 1 to 5 are coded as 0 and the extreme responses (6-7) are coded as 1. Thus, the total scores for each sub-scale can range from 0 to 20 and the total scores for the BIDR can range from 0 to 40. Finally, the BIDR demonstrated acceptable reliability and had Cronbach's alpha of .81.

Analysis

Manipulation Check

I used a t-Test to test the effectiveness of the mindfulness induction. The experimental group (M = 2.96, SD = 0.84) was compared to the control group (M = 3.49, SD = 1.22) and the difference was significant $t[109] = -2.704$, $p < .01$. Importantly, the scale is constructed so that a lower score indicates a more mindful participant. Therefore, the experimental group was significantly more mindful than the control group, which indicates that the induction succeeded.

Hypothesis 1

To test Hypothesis 1 (i.e., mindfulness is positively related to moral behavior) I used t-Tests to compare the amount of money claimed in the insurance exercise and the initial negotiation bid offered between the two groups. In the claim exercise, the maximum moral claim is $8,000. In the analysis of the claim exercise, the experimental group (M = 8,593.33, SD = 9,087.00) was compared to the control group (M = 10,274.51, SD = 13,586.87) and the difference was not significantly less t[109] = -.776, p = .439. In the negotiation bid exercise, any offer below $175 is considered immoral. In the analysis of the negotiation bid exercise, the experimental group (M = 156.17, SD = 19.19) was compared to the control group (M = 160.88, SD = 16.30) and the difference was not significantly different t[109] = -1.382, p = .170. Therefore, Hypothesis 1 was not supported by either measure.

Hypothesis 2

To test Hypothesis 2 (i.e., mindfulness is positively related to moral awareness) I used t-Tests to compare the moral awareness between the groups using six different measures. I first analyzed the results from the implicit measure of awareness. In this measure higher numbers indicate a greater level of implicit moral awareness. In the analysis of the implicit awareness measure, the experimental group (M = 1.23, SD = 1.08) was compared to the control group (M = 1.67, SD = 0.97) and the difference was significant t[109] = -2.205, p = .03. However, the control group had a higher level of implicit moral awareness. This result contradicted Hypothesis 2.

I then analyzed the measures of specific moral awareness. In the analysis of specific moral awareness in regards to the insurance claim, the experimental group (M = 4.90, SD = 1.65) was compared to the control group (M = 4.98, SD = 1.35) and the difference was not significant t[109] = -0.277, p = .782. In the analysis of the specific awareness measure in regards to the

negotiation bid, the experimental group (M = 6.18, SD = 1.32) was compared to the control group (M = 6.33, SD = 0.89) and the difference was not significant t[109] = -0.689, p = .492. Therefore, Hypothesis 2 was not supported by specific moral awareness.

In the analysis of the explicit awareness measures, I analyzed the results from the four vignettes separately and combined to form an overall measure of explicit moral awareness. In the analysis of the overall measure, the experimental group (M = 5.11, SD = 0.70) was compared to the control group (M = 5.26, SD = 0.62) and the difference was not significant t[109] = -1.150, p = .253. In the analysis of the control vignette (no harm or violation), the experimental group (M = 3.13, SD = 1.40) was compared to the control group (M = 3.49, SD = 1.39) and the difference was not significant t[109] = -1.341, p = .183. In the analysis of the harm vignette, the experimental group (M = 5.91, SD = 0.87) was compared to the control group (M = 5.85, SD = 1.13) and the difference was not significant t[109] = .323, p = .747. In the analysis of the violation vignette, the experimental group (M = 5.59, SD = 1.13) was compared to the control group (M = 5.78, SD = 1.24) and the difference was not significant t[109] = -.840, p = .403. In the analysis of the combined vignette (violation and harm), the experimental group (M = 5.82, SD = 1.10) was compared to the control group (M = 5.92, SD = 0.95) and the difference was not significant t[109] = -.500, p = .618. Therefore, Hypothesis 2 was not supported by any of the six measures of moral awareness.

Hypothesis 3

Hypothesis 3 (i.e., moral awareness mediates the relationship between mindfulness and moral behavior) was not directly tested due to the failure to find any support of Hypotheses 1 and 2.

Hypothesis 4

Hypothesis 4 (i.e., moral attentiveness moderates the relationship between mindfulness and moral awareness) was not directly tested due to the failure to find any support of Hypotheses 1 and 2.

Discussion

The purpose of Study 1 was to examine the effects of state mindfulness on moral behavior, the mediating effect of moral awareness, and the moderating effect of moral attentiveness. Although there are dispositional based individual differences that allow mindfulness to be thought of as a trait, mindfulness is primarily a state of awareness and attention. Therefore, Study 1 provides a very important insight into the proposed relationships between the constructs.

The results demonstrate that state mindfulness was successfully induced in the participants. Beyond the induction, however, the results show no support for Hypotheses 1 and 2. Additionally, the one measure of moral behavior or awareness that was significant indicated that the control group had significantly higher levels of implicit moral awareness than those participants who had been manipulated into state mindfulness. This result suggests that those individuals who are mindful are in fact less morally aware. Also, while looking at the correlations, most relationships between trait mindfulness and the other constructs are not significant. However, the relationship between mindfulness and perceptual moral attentiveness is significant (-.202, $p < .05$). This correlation suggests that those who were more mindful were less chronically perceptive to moral issues in the environment. Taken together, these three items of evidence (no support for the hypothesis, the implicit moral awareness, and the perceptual moral attentiveness) suggest that state mindfulness might make individuals less morally aware. This suggestion, while provocative, contradicts the proposed theory of mindfulness and morality. It

also should be treated with skepticism since Study 1 only looked at the state of mindfulness not the dispositional trait. It is possible that the effects of the trait of mindfulness could overwhelm any state induction of mindfulness. As a result, what initially may appear to be a contradictory result (state mindfulness makes individuals less morally aware), is in-fact caused by the trait mindfulness of the participants. Therefore, to further explore the theorized relationships, Study 2 will examine trait mindfulness and morality.

STUDY 2

Purpose

The purpose of Study 2 was to examine the effects of trait mindfulness on moral behavior, the mediating effect of moral awareness, and the moderating effect of moral attentiveness in a sample of working adults. Although mindfulness is primarily a state of awareness and attention, there are dispositional based individual differences that allow mindfulness to be thought of as a trait. Therefore, Study 2 provided an initial examination of dispositional mindfulness and how it affects individual moral decision making.

Sample

The sample was 198 English speaking, employed adults living in the United States. The participants were recruited from Amazon's online survey service, mTurk. Two participants were excluded from the analysis for failing to faithfully complete the survey. By sex, 85 participants were female (43%) and 113 were male (57%). By ethnicity, 16 were Asian (8%), 19 were Black (10%), 18 were Hispanic (9%), 2 were Native American (1%), and 143 were White (72%). The average age of the participants was 34.3 (SD = 11.7) with a minimum of 18 and a maximum of 72. The average work experience was 12.4 years (SD = 10.4) with a minimum of 0 and a maximum of 50. Participants also were asked to asked to self-report their experience with

meditation (*Please indicate your experience with meditation. 1 = None to 5 = A Lot*). The average experience with meditation was 2.11 (SD = 1.14). Seventy-four participants (37.4%) reported no experience with meditation and 11 participants (5.6%) indicated "a lot" of experience. Overall, the demographics of the sample match the typical demographics of an mTurk sample (Huff, 2015).

Procedure

The participants, who had previously registered to complete social science surveys on mTurk, logged-on to the service and selected this study from a list of social science studies offered by researchers from around the world. After giving informed consent, the participants first completed a self-report measure of trait mindfulness. Second, the participants completed an inbox exercise where they had the chance to behave morally. Third, participants completed measures of moral awareness and moral attentiveness. Fourth, participants completed self-report measures that serve as controls and demographics questions. Last, participants were debriefed, thanked, and then compensated for their time.

Measures

Independent variable

Trait Mindfulness: The construct of mindfulness was measured by the Mindful Awareness and Attention Scale (Brown & Ryan, 2003). Cronbach's alpha of the measure was .94.

Dependent Variable

Moral Behavior (negative): Moral behavior (negative) was measured with the same inbox exercise employed in Study 1 (Reynolds et al., 2010).

Moral Behavior (positive): Given Treviño, Weaver and Reynolds (2006) discussion of the different forms of moral behavior, I included a second positive measure of behavior, a three-item scale of charitable behavior (Reynolds & Ceranic, 2007). The participants were asked how often during the past year that they had volunteered for a charitable cause, donated non-money items, and given money to charity on a four point Likert scale (1 = *never*, 4 = *many times*). This scale has been established as reliable and valid (Reynolds & Ceranic, 2007). Cronbach's alpha of the measure was .81.

Moral Behavior at Work: In order to measure moral behavior in organizations, I focused on the recall and reporting of moral behavior. This was measured with Newstrom and Ruch's (1975) 17-item scale. For this scale, participants self-report relatively how often the engage in immoral behaviors at work. This scale has been widely used in business ethics research as a measure of immoral behavior (Akaah, 1996; Ford & Richardson, 1994; Moon & Franke, 2000; Reynolds 2008). Cronbach's alpha of the measure was .95.

Mediator

Explicit Moral Awareness: Moral awareness was measured with Reynolds' (2006) scale. Cronbach's alphas of the measures were as follows: .86 (Control), .83 (Harm), .86 (Violation), .85 (Harm & Violation), and .77 (Combined).

Specific Moral Awareness: Specific moral awareness was measured immediately before participants indicated the value of the insurance claim or the opening bid with the same measure used in Study 1.

Implicit Moral Awareness: Implicit moral awareness was measured as in Study 1.

Moderator

Moral Attentiveness: Moral attentiveness was measured by Reynolds' (2008) scale. Cronbach's alpha of the measure was .94.

Potential Control

Social Desirability Bias: Social desirability bias is the individual's dispositional propensity to present themselves to others in a positive light, regardless of their actual thoughts or behavior (Paulhus, 1984; Randall & Fernandes, 1991). This propensity presents challenges in surveys that utilize self-report measures, in particular self-report measures of moral behavior. Therefore, I included a measure to control for this trait during analysis. Social desirability was measured with Paulhus' (1984) 40-item Balanced Inventory of Desirable Responses. Cronbach's alpha of the measure was .89.

Attention Check

At the end of the instrument, I included a check of participant attention. The measure was included in order to have an indication of each participant's state mindfulness while completing the survey. This construct was measured by the state version of the Mindful Awareness and Attention Scale (Brown & Ryan, 2003), but the prompt was adapted to serve as an attention check (*Please indicate to what degree you were having each experience described while taking the survey. Please answer according to what really reflected your experience rather than what you think your experience should have been.*) Again, it is important to note that the scale is constructed so that a lower score indicates a more mindful participant. Cronbach's alpha of the measure was .81.

Analysis

Correlations

A correlation matrix of the data is presented in Table 3.

Hypothesis 1

To test Hypothesis 1 (i.e., mindfulness is positively related to moral behavior), I first examined the correlations between the mindfulness (MAAS) and positive and negative moral behavior (donation behavior, moral behavior at work, amount claimed on the insurance exercise, and the opening bid in the negotiation exercise). Two correlations were significant. The correlation between the MAAS and self-reported donation behavior was .143 ($p < .05$) and the correlation between the MAAS and self-reported moral behavior at work was -.339 ($p < .01$). The correlations were consistent with what would be expected by theory. Higher MAAS (higher mindfulness) was associated with high donation behavior, while higher MAAS (higher mindfulness) was associated with less immoral behavior at work. These results provide initial evidence for Hypothesis 1.

It is important to note, however, that there were a total of four measures of moral behavior. The two that were significant were self-reported, while the two that were not significant were actual measures of behavior in the inbox exercise. This fact combined with the correlation (.458, $p < .01$) between the MAAS and Social Desirability (i.e., more mindfulness is associated with higher social desirability) lead me to wonder about the robustness of these results. To examine this issue in more depth, I conducted regression analyses with each self-reported measure as the dependent variable, the MAAS as the independent variable, and social desirability as the control variable. In regards to donation behavior, with the addition of social desirability as a control variable the relationship between mindfulness and donation behavior is not significant ($p = .275$). In regards to immoral behavior at work, with the addition of social desirability as a control variable the relationship between mindfulness and donation behavior is still significant ($p < .01$). Therefore, results provide only limited support for Hypothesis 1.

Hypothesis 2

To test Hypothesis 2 (i.e., mindfulness is positively related to moral behavior) I first examined the correlations between the mindfulness (MAAS) and moral awareness (moral awareness in the insurance claim, moral awareness in the negotiation exercise, implicit moral awareness, overall explicit moral awareness, and the four individual conditions of control, harm, violation, and combined). Of these eight relationships, only the relationship between mindfulness and the control condition (no harm or violation) was significant (-.231, $p < .01$). This result suggests that people who are more mindful were perhaps more sensitive to a lack of moral content in the control condition than those who are less mindful. This result is interesting, but as there is no larger pattern of correlations between mindfulness and moral awareness, the result is perhaps a case of random significance. Therefore, Hypothesis 2 is not supported.

Hypothesis 3

Hypothesis 3 (i.e., moral awareness mediates the relationship between mindfulness and moral behavior) was not directly tested due to the failure to find any support of Hypotheses 2 and only partial support for Hypothesis 1.

Hypothesis 4

Hypothesis 4 (i.e., moral attentiveness moderates the relationship between mindfulness and moral awareness) was not directly tested due to the failure to find any support of Hypotheses 1 and 2.

Discussion

The purpose of Study 2 was to examine the effects of trait mindfulness on moral behavior, the mediating effect of moral awareness, and the moderating effect of moral attentiveness in a sample of working adults. Although mindfulness is primarily a state of

awareness and attention, dispositional based individual differences allow mindfulness to be thought of as a trait. In light of the results from the examination in Study 1 of state mindfulness, I hoped that an exploration of trait mindfulness would provide some evidence of the proposed theoretical relationships. Therefore, Study 2 provided a needed examination of dispositional mindfulness how it affects individual moral decision making.

At first glance, the results provide some evidence of a relationship between trait mindfulness, moral behavior, and moral awareness. However, upon deeper examination, Study 2 provides very little support for the hypotheses. The significant relationship between self-reported donation behavior and mindfulness disappeared when social desirability was taken into account. Nevertheless, the relationship between self-reported moral behavior at work and mindfulness was still significant even when social desirability was taken into account. However, given that both measures of actual moral behavior failed to correlate with mindfulness, I have little confidence that this one significant result provides support for the connection between dispositional mindfulness and moral behavior.

In regards to moral awareness, seven of the measures did not correlate with mindfulness. One measure, the control vignette (no harm or violation) was significant (-.231, $p < .01$). This result could suggest that people who are higher in mindfulness are better able to judge when a situation has no moral content. While this result is interesting, given that fact that mindfulness did not correlate with any other measure of moral awareness, I have little confidence that this result provides support for a connection between dispositional mindfulness and moral awareness.

The results of Study 1 and Study 2 provide scant support for a connection between mindfulness (as a trait or state) and moral behavior or moral awareness. However, a long lineage of Buddhist thought and the contemporary trainings that reflect this lineage suggest it is possible

for mindfulness to be taught (Gethin, 1998; Gunaratana, 2002; Hanh, 1976). According to this tradition, people can be taught to be more dispositionally mindful or at the very least become state mindful more easily. In this sense, mindfulness is like a skill that can be learned. Once that skill has been learned and then internalized, it becomes part of everyday living and changes the mindfulness of the individual (Kabat-Zinn, 1990; 2005). Therefore, to further explore the theorized relationships, Study 3 will examine mindfulness and morality in the context of a strong and long-term manipulation.

STUDY 3

Purpose

The purpose of Study 3 was to examine the effects of mindfulness on moral behavior, the mediating effect of moral awareness, and the moderating effect of moral attentiveness. The study involved a sample of undergraduate business school students in an extended experimental study with a strong manipulation. Given that neither Study 1 nor Study 2 provided any compelling support for Hypotheses 1 and 2 (i.e., a relationship between mindfulness, moral awareness, and moral behavior), Study 3 was designed to test these hypotheses with an especially strong manipulation.

Sample

The sample was 65 undergraduate business students from the Foster School of Business MGMT 300 research pool. Four participants were excluded from the analysis for failing to faithfully complete the experiment. Of the 61 remaining participants, 29 were in the experimental condition and 32 were in the control condition. By sex, 31 participants were female (50%) and 31 were male (50%). By ethnicity, 26 were Asian (42%), 2 were Black (3%), 6 were Hispanic (10%), 1 (2%) was Native American, and 27 were White (44%). The average age of the

participants was 22.2 (SD = 4.6) with a minimum of 18 and a maximum of 51. The average work experience was 1.9 years (SD = 4.4) with a minimum of 0 and a maximum of 28. Participants also were asked to asked to self-report their experience with meditation (*Please indicate your experience with meditation. 1 = None to 5 = A Lot*). The average experience with meditation was 1.9 (SD = 1.1). Thirty participants (49%) reported no experience with meditation and 2 participants (3%) indicated a lot of experience. Overall, the demographics of the sample match the usual demographics of the MGMT 300 research pool.

Procedure

The study was a 1x2 experimental design where the condition was induced mindfulness. The laboratory experiment was conducted over five days. On the first day, participants came to the laboratory in Paccar Hall, watched a 30 minute video, and completed a survey. The video consisted of brown bag seminars given at Google University to interested employees. In the experimental condition, participants watched a video of Jon Kabat-Zinn discussing mindfulness at work and leading a 20 minute meditation. The participants were asked to participate in the meditation. In the control condition, participants watched a video about organizational and time management skills. After the video, the participants completed the state version of the MAAS to test for induced mindfulness. The rest of the survey was similar to the surveys in Studies 1 and 2. As the participants were leaving the laboratory, they were encouraged, depending on condition, to incorporate mindfulness or organization into their lives for the next five days. On days two, three, and four, participants were sent a survey that measured their mindfulness over the preceding 24 hours, given the opportunity to re-watch the video, and again encouraged to incorporate mindfulness or organization into their lives. On day five, participants completed the same survey as on day one.

Measures for Time 1

Attention Check

At the end video, I included a check of participant attention. The measure was included in order to have an indication of each participant's state mindfulness while completing the survey. This construct was measured by the state version of the Mindful Awareness and Attention Scale (Brown & Ryan, 2003). Cronbach's alpha of the measure was .82.

Manipulation Check

The construct of mindfulness was again measured with the Mindful Awareness and Attention Scale (Brown & Ryan, 2003). Cronbach's alpha of the measure was .85 (Time 1) and .89 (Time 5).

Dependent variable

Moral Behavior: Moral behavior was measured by a negotiation based inbox exercise that was used in Study 1 (Reynolds et al., 2010)**.**

Mediator

Explicit Moral Awareness: Explicit moral awareness was measured the control vignette (no harm or violation) and the both vignette (harm and violation) of Reynolds' (2006) scale. Cronbach's alphas of the measures were as follows: .75 (Control at Time 1) and .72 (Harm & Violation at Time 1) and .77 (Control at Time 5) and .85 (Harm & Violation at Time 5).

Specific Moral Awareness: Specific moral awareness was measured immediately before participants indicated their opening bid in the negotiation exercise.

Implicit Moral Awareness: Implicit moral awareness is the level of activation of morality related concepts in the mind of participants.

Moderator

Moral Attentiveness: Moral attentiveness was measured by Reynolds' (2008) scale. Cronbach's alpha of the measure was .94 (Time 1) and .95 (Time 5).

Control

Social Desirability: Social desirability was measured by an eight-item version of Crowne and Marlow's (1960) scale. Participants responded to the prompt (*Please read each item and indicate whether you agree or disagree with each.*) on a seven-point Likert scale (*1 = Strongly Disagree, 4 = Neutral, 7 = Strongly Agree*). The scale included standard coded items (e.g., You are always willing to admit when you make a mistake.) and reverse coded items (e.g., There have been occasions when you took advantage of someone). I used this social desirability scale for Study 3 instead of Paulhus' (1984) scale for two reasons. First, since the participants would be taking a total of five surveys, I wanted to use a shorter scale in the hope of preventing survey fatigue. Second, given the interesting findings about the relationship between mindfulness and social desirability suggested in the results of Study 1 and Study 2 studies one and two, I wanted to confirm the effect with a different measurement. Finally, this scale has shown acceptable reliability and validity in previous research (Andrews & Meyer, 2003; Ballard, 1992; Loo & Thorpe, 2000) and the Cronbach's alpha of the measures were .71 (Time 1) and .73 (Time 5).

Measures for Times 2, 3, and 4

On the second, third, and fourth day of the experiment, participants were emailed a link to a Qualtrics survey. After entering their anonymous participant number for tracking purposes, participants were offered the opportunity to re-watch the video they viewed on the first day (experimental or control). They were then given the opportunity to self-report their mindfulness over the previous 24 hours. Finally, the participants were again encouraged to incorporate

mindfulness or organization into their lives, depending on the experimental condition. Cronbach's alpha of the measures were .87 (Time 2), .85 (Time 3), and .89 (Time 4).

Mindfulness

This construct was measured by the state version of the Mindful Awareness and Attention Scale (Brown & Ryan, 2003). However, the prompt was adapted to help the scale serve as an attention check (*Please indicate to what degree you were having each experience described during the past 24 HOURS. Please answer according to what really reflected your experience rather than what you think your experience should have been.*) Cronbach's alpha of the measures were .85 (Time 1) and .89 (Time 5).

Measures for Time 5

The measures on the Time 5 survey instrument were the same as the Time 1 survey instrument except for a few minor changes. The prompts for the mindfulness, moral attentiveness, and social desirability scale were slightly modified to focus the participants on their experiences over the past five days (i.e., *Please think about the previous FIVE DAYS when answering these questions.*).

Analysis

Manipulation Check

I used a t-Test to test the effectiveness of the mindfulness induction. The experimental group (M = 2.88, SD = 1.08) was compared to the control group (M = 3.57, SD = 1.41); the difference was significant $t[59] = -2.133$, $p = .037$. Importantly, the scale is constructed so that a lower score indicates a more mindful participant. Therefore, the experimental group was significantly more mindful than the control group and the induction was a success. The lack of a significant difference in trait mindfulness, as measured by the MAAS before the manipulation,

provided additional evidence of the effectiveness of the manipulation. The experimental group (M = 3.92, SD = 0.61) was compared to the control group (M = 3.77, SD = 0.74) and the difference was not significant t[60] = 0.916, p = .363. I interpret this result to mean that there was no significant difference in trait mindfulness in the randomly assigned groups, and that mindfulness was induced by the manipulation.

I also used mindfulness to test the longevity of the mindfulness manipulation at Time 2, Time 3, Time 4, and Time 5. At Time 2, the experimental group (M = 4.83, SD = 1.16) was compared to the control group (M = 4.61, SD = 1.20) and the difference was not significant t[60] = 0.739, p = .463. At Time 3, the experimental group (M = 4.80, SD = 1.05) was compared to the control group (M = 4.82, SD = 1.14) and the difference was not significant t[59] = -0.067, p = .947. At Time 4, the experimental group (M = 4.97, SD = 1.22) was compared to the control group (M = 4.84, SD = 1.46) and the difference was not significant t[60] = 0.374, p = .710. At Time 5, the experimental group (M = 3.70, SD = 0.69) was compared to the control group (M = 3.73, SD = 0.83) and the difference was not significant t[60] = -0.122, p = .904. The most likely interpretation of these results is that the manipulation had little longevity and lasted less than 24 hours.

Hypothesis 1

To test Hypothesis 1 (i.e., mindfulness is positively related to moral behavior) I used independent t-Tests to compare the initial negotiation bid offered between the experimental and control groups and dependent t-Tests to compare the Time 1 and Time 2 results in the experimental group. In the negotiation bid exercise, any offer below $175 is considered immoral. In the Time 1 analysis of the negotiation bid exercise, the experimental group (M = 158.62, SD = 19.03) was compared to the control group (M = 159.24, SD = 19.73) and the difference was not

significantly different $t[60] = .590$, $p = .570$. In the Time 5 analysis of the negotiation bid exercise, the experimental group ($M = 156.38$, $SD = 21.54$) was compared to the control group ($M = 158.18$, $SD = 23.81$) and the difference was not significantly different $t[60] = -0.311$, $p = .757$. In the analysis of the results between the experimental group at Time 1 and Time 2, the Time 1 result ($M = 158.62$, $SD = 19.03$) was compared to the Time 2 result ($M = 156.38$, $SD = 21.54$) and the difference was not significant $t[28] = .648$, $p = .523$. Therefore, Hypothesis 1 was not supported by either independent or dependent t-Tests.

Hypothesis 2

To test Hypothesis 2 (i.e., mindfulness is positively related to moral awareness) I used t-Tests to compare the moral awareness between the groups using three different measures: specific, implicit, and explicit moral awareness. Specifically, I used independent t-Tests to compare the three different measures of moral awareness between the experimental and control groups and dependent t-Tests to compare the Time 1 and Time 2 results in the experimental group.

I first analyzed the results from the implicit measure of awareness. In this measure higher numbers indicate a greater level of implicit moral awareness. In the analysis of the implicit awareness measure at Time 1, the experimental group ($M = 0.68$, $SD = 0.29$) was compared to the control group ($M = 0.61$, $SD = 0.23$) and the difference was not significant $t[109] = -2.205$, $p = .03$. In the analysis of the implicit awareness measure at Time 2, the experimental group ($M = 0.64$, $SD = 0.36$) was compared to the control group ($M = 0.60$, $SD = 0.29$) and the difference was not significant $t[60] = 1.099$, $p = .276$. In the analysis of the results between the experimental group at Time 1 and Time 2, the Time 1 result ($M = 0.68$, $SD = 0.29$) was compared to the Time 2 result ($M = 0.61$, $SD = 0.23$) and the difference was not significantly

different $t[28] = .902$, $p = .375$. Therefore, Hypothesis 2 was not supported by the measure of implicit awareness.

In the analysis of specific moral awareness in regards to the negotiation bid at Time 1, the experimental group ($M = 6.10$, $SD = 1.42$) was compared to the control group ($M = 5.88$, $SD = 1.56$) and the difference was not significant $t[60] = 0.590$, $p = .557$. In the analysis of the specific awareness measure at Time 2, the experimental group ($M = 5.76$, $SD = 1.48$) was compared to the control group ($M = 5.30$, $SD = 1.51$) and the difference was not significant $t[60] = 1.196$, $p = .236$. In the analysis of the results between the experimental group at Time 1 and Time 2, the Time 1 result ($M = 6.10$, $SD = 1.42$) was compared to the Time 2 result ($M = 5.76$, $SD = 1.48$) and the difference was not significantly different $t[28] = 1.307$, $p = .202$. Therefore, Hypothesis 2 was not supported by specific moral awareness.

In the analysis of the explicit awareness control (no harm and no violation) measure at Time 1, the experimental group ($M = 3.25$, $SD = 1.14$) was compared to the control group ($M = 2.76$, $SD = 1.01$) and the difference was not significant $t[60] = 1.813$, $p = .075$. Although the Time 1 t-Test between the groups is significant at the .1 level, it is most likely a random occurrence of significance since there is no pattern of significant difference between the groups at Time 1. In the analysis of the explicit awareness control measure at Time 2, the experimental group ($M = 3.54$, $SD = 1.24$) was compared to the control group ($M = 3.34$, $SD = 1.37$) and the difference was not significant $t[60] = 0.590$, $p = .558$. In the analysis of the results between the experimental group at Time 1 and Time 2, the Time 1 result ($M = 3.25$, $SD = 1.14$) was compared to the Time 2 result ($M = 3.54$, $SD = 1.24$) and the difference was not significantly different $t[28] = -1.296$, $p = .206$. Therefore, Hypothesis 2 was not supported by the explicit awareness control.

In the analysis of the explicit awareness combined (harm and violation) measure at Time 1, the experimental group (M = 5.68, SD = 1.12) was compared to the control group (M = 5.64, SD = 1.26) and the difference was not significant t[60] = 0.137, p = .892. In the analysis of the combined explicit awareness measure at Time 2, the experimental group (M = 5.62, SD = 1.23) was compared to the control group (M = 5.46, SD = 1.23) and the difference was not significant t[60] = 0.498, p = .621. In the analysis of the results between the experimental group at Time 1 and Time 2, the Time 1 result (M = 5.68, SD = 1.12) was compared to the Time 2 result (M = 5.64, SD = 1.26) and the difference was not significantly different t[28] = 0.243, p = .810. Therefore, Hypothesis 2 was not supported by the measure of combined explicit awareness.

Hypothesis 3

Hypothesis 3 (i.e., moral awareness mediates the relationship between mindfulness and moral behavior) was not directly tested due to the failure to find any support of Hypotheses 1 and 2.

Hypothesis 4

Hypothesis 4 (i.e., moral attentiveness moderates the relationship between mindfulness and moral awareness) was not directly tested due to the failure to find any support of Hypotheses 1 and 2.

Discussion

The purpose of Study 3 was to examine if a strong, long-term manipulation could increase mindfulness in an experimental population. In turn, I expected that the strength of the manipulation would significantly affect the moral behavior and awareness in the participants. Unfortunately, this expectation not supported by any of the results of Study 3.

In terms of mindfulness, I had hoped that the manipulation would continue over the five days of the study. I expected that there would be some decrease over the week, but instead the effect of the mindfulness manipulation disappeared after the first day. Looking at the daily averages of the mindfulness check, the level of mindfulness dropped significantly during Time 1 and Time 2 and remained consistently low during Time 3 and Time 4. Then, during Time 5, when participants had to complete the entire survey, the level of mindfulness rebounded slightly. This suggests that participants were likely mindful as long as the manipulation was top-of mind, but as soon as other daily concerns manifested themselves, a focus on mindfulness was forgotten and the participants returned to their standard patterns of awareness and attention.

In terms of moral behavior and awareness, Study 3 provided no support for the hypotheses. While examining the between-group results and the within-group results for the experimental group, no significant results were found in the measures of moral behavior. In regards to moral awareness, all six measures of awareness failed to have a significant correlation with mindfulness when comparing the groups at Time 2 or when comparing the experimental groups between Time 1 and Time 5. Therefore, despite the theory and my hopes for the support of the hypotheses through a strong manipulation, there is no evidence for the connection between mindfulness and morality in Study 3.

Therefore, after three studies that have looked at state mindfulness, trait mindfulness, and a strong manipulation to promote mindfulness, almost no evidence has been found to support a connection between mindfulness and morality. This consistent lack of evidence leads to me question the core theoretical and empirical assumptions of this research. After examining these assumptions and returning to the literature for a fresh perspective, I created Study 4 to help test

these assumptions and perhaps provide some evidence of a connection between mindfulness and morality.

STUDY 4

Purpose

The results of these three studies produce little to no support for the four hypotheses. I identified two possibilities that explain this lack of positive results. First, it is possible that mindfulness does not impact moral behavior. This seems plausible given that over three studies with different samples and experimental methods that there has been a consistent lack of meaningful results. If an effect truly did exist, it is very likely that it would have been detected in at least one of the studies. Second, it might be that mindfulness does impact moral behavior, but that these experimental methods do not capture that effect. In light of this possibility, I conducted a fourth study that employed an alternative approach to measuring mindfulness.

In the first three studies, I used a uni-dimensional construct, the MAAS, to measure mindfulness. In Study 4, I used the Five Factor Mindfulness Questionnaire (FFMQ) to measure mindfulness (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Baer, Smith, Lykins, et. al, 2008; Baer, Samuel, & Lykins, 2010). Along with the MAAS, the FFMQ is the most widely used and accepted scale used by experts for measuring mindfulness. While the MAAS focuses on parsimony, the FFMQ focuses on completeness. Additionally, the MAAS in contained within the FFMQ as a separate factor and can be analyzed separately.

Sample

The sample was 295 English speaking, employed adults living in the United States. The participants were recruited from Amazon's online survey service, mTurk. Five participants were excluded from the analysis for failing to faithfully complete the survey. By sex, 124 participants

were female (42%) and 171 were male (58%). By ethnicity, 28 were Asian (10%), 20 were Black (7%), 20 were Hispanic (7%), 1 was Native American, and 226 were White (77%). The average age of the participants was 33.73 (SD = 11.21) with a minimum of 18 and a maximum of 72. The average work experience was 12.14 years (SD = 10.67) with a minimum of 0 and a maximum of 46. Participants also were asked to asked to self-report their experience with meditation (*Please indicate your experience with meditation. 1 = None to 5 = A Lot*). The average experience with meditation was 2 (SD = 1.15). In total, 129 participants (44%) reported no experience with meditation and 12 participants (4.1%) indicated a lot of experience. Overall, the demographics of the sample match the usual demographics of an mTurk sample (Huff, 2015).

Procedure

The participants, who had previously registered to complete social science surveys on mTurk, logged-on to the service and selected this study from a list of social science studies offered by researchers from around the world. After giving informed consent, the participants first completed a self-report measure of trait mindfulness. Second, participants completed a measure of moral awareness and a measure of moral attentiveness. Fourth, participants self-reported their demographics. Fifth, participants were given the opportunity to behave morally. Last, participants were debriefed, thanked, and then compensated for their time.

Measures

Independent variable

Trait Mindfulness: Trait mindfulness was measured by a different measure than what was deployed in the previous three studies. In this study, the construct of mindfulness was measured by the Five Factor Mindfulness Questionnaire (FFMQ) (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Baer, Smith, Lykins, et. al, 2008; Baer, Samuel, & Lykins, 2010). As opposed to

the MAAS, the FFMQ conceptualizes mindfulness as having five factors instead of just one factor. Participants responded to the prompt (*Please rate each of the following statements with the number that best describes your own opinion of what is generally true for you.*) on a five-point Likert scale (*1 = Never or very rarely true to 5 = Very often or always true*). The scale included standard coded items (e.g., *I pay attention to sensations, such as the wind in my hair or sun on my face.*) and reverse coded items (e.g., *I believe some of my thoughts are abnormal or bad and I shouldn't think that way.*).

The five factors in the FFMQ are Observing, Describing, Acting with Awareness, Non-judging of Inner Experience, and Non-reactivity to Inner Experience. The Observing factor captures the participant's observation of internal and external experiences (e.g., thoughts, feelings, sights, sounds). The Describing factor captures the participant's ability to put internal thoughts, feelings, and sensations into words. The acting with awareness captures the participant's ability to pay attention to present events and experiences. The Non-judging factor captures the participant's ability to take a non-evaluative perspective on feelings and thoughts. The Non-Reactivity factor captures the participant's ability to not react to thoughts and feelings and ruminate on them. Together, these five factors capture a more complete theoretical understanding of mindfulness rather than the more parsimonious theoretical understanding captured by the Mindful Awareness and Understanding Scale. Cronbach's alphas for the overall scale was .92 and for the five factors of the scale were .85 (Observing), .89 (Describing), .92 (Acting with Awareness), .92 (Non-judging), .86 (Non-reactivity).

Importantly, the FFMQ is built from other scales that measure mindfulness (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). Of particular interest, one of the scales used was the MAAS (Brown & Ryan, 2003). In the finalized FFMQ, the Acting with Awareness Factor is

composed only of items from the MAAS. Therefore, in the analysis of this study's results, the Acting with Awareness factor serves as a reasonable proxy for the conception of mindfulness employed by the MAAS.

Dependent Variable

Moral Behavior: Moral behavior was measured with a volunteer opportunity. After completing the survey and demographics questions, the participants were asked if they would be willing to complete an additional unpaid survey as part of a fictional PhD student's dissertation [*The data in this survey will become part of Kristina Jones' dissertation. Kristina is a doctoral student in the Foster School of Business. Her dissertation involves several different surveys. Though you are not required to, completing one or two additional surveys would help her finish her dissertation more quickly. Would you be willing to learn more about how to complete one or two more surveys like this one?*]. If participants indicated that they were willing to cooperate, they were then asked how long of a survey they were willing to take (5, 10, 15, or 20 minute survey).

Mediator

Explicit Moral Awareness: Moral awareness was measured by Reynolds' (2006) scale. Cronbach's alphas of the measures were as follows: .82 (Control), .86 (Harm), .86 (Violation), .79 (Harm X Violation), and .69 (Combined).

Moderator

Moral Attentiveness: Moral attentiveness was measured by Reynolds' (2008) scale. Cronbach's alpha of the measure was .94.

Analysis

Correlations

A correlation matrix of the data is presented in Table 4.

Hypothesis 1

As evidence of a relationship between mindfulness and moral behavior, I examined correlations between the Five Factor Mindfulness Questionnaire and the measures of moral behavior. As seen in Table 4, neither the overall FFMQ nor any of its factors were significantly correlated with willingness to help or the length of survey participants were willing to take. Therefore, Hypothesis 1 was not supported.

Hypothesis 2

To look for a relationship between mindfulness and moral awareness, I looked at correlations between the Five Factor Mindfulness Questionnaire and the measures of moral awareness. As seen in Table 4, there are significant correlations between both the overall FFMQ and some of the factors and the willingness to help or the length of survey that people were willing to take.

In regards to the overall measure, the only significant correlation (.126, $p < .05$) was between the FFMQ and the combined (harm & violation) measure of moral awareness. In regards to the observing factor, the ability to observe internal and external experience was significantly correlated with the overall (.214, $p < .01$), harm (.165, $p < .01$), and the combined (.128, $p < .01$) measures of awareness. In regards to the describing factor, the ability to put internal thoughts, feelings, and sensations into words was significantly correlated with the overall (.115, $p < .05$), violation (.144, $p < .05$), and combined (.159, $p < .01$) measures of awareness. In regards to the awareness factor, the ability to pay attention to present events and experiences was significantly correlated with the harm measure of moral awareness (-.229, $p < .01$). It is interesting to note that the only significant correlation is negative (i.e., the more

someone acts with awareness the lower their sensitivity moral issues involving harm). In regards to the non-judging factor, the ability to take a non-evaluative perspective on feelings and thoughts was significantly correlated with the overall (-.129, $p < .05$) and the control (-.150, $p < .01$) measures of awareness. Again, it is interesting to note that the significant correlations are negative (i.e., the less judgmental someone is the lower there overall moral awareness). In regards to the Non-Reactivity factor, the ability to not react to thoughts and feelings and ruminate on them was not significantly correlated with the overall measure of mindfulness or any of the factors. In conclusion, Hypothesis 2 is partially supported when measured by the Five Factor Mindfulness Questionnaire.

Hypothesis 3

Hypothesis 3 (i.e., moral awareness mediates the relationship between mindfulness and moral behavior) was not directly tested due to the failure to find any support of Hypothesis 1.

Hypothesis 4

Due to the partial support of Hypothesis 1, I conducted an analysis to test Hypothesis 4 (i.e., moral attentiveness moderates the relationship between mindfulness and moral awareness). Given the results of the previous studies, I used the SPSS macro Process (Hayes, 2013) to conduct a moderation analysis with every possible combination of independent, dependent, and moderating variable. For the independent variable, I used overall FFMQ and then the factors of Observing, Describing, Acting with Awareness, Non-judging of Inner Experience, and Non-reactivity to Inner Experience. For the dependent variable, I used the overall measure of moral awareness and then the four vignettes (control, harm, violation, both). For the moderator, I used perceptual moral attentiveness, reflective moral attentiveness, and then combined both factors into an overall measure of moral attentiveness. Despite the wide scope of my investigation into

the moderating potential of moral attentiveness, no interaction terms were significant at $p < .05$ and only one was significant at $p < .1$ (Dependent = Describing, Independent = Violation, Moderator = Reflective Moral Attentiveness). However, this combination of variables is not consistent with theory and due to the extremely high number of interactions tested the possibility of the effect being due to randomness cannot be discounted. Therefore, Hypothesis 4 is not supported.

Discussion

The purpose of Study 4 was to examine to further explore the relationship between mindfulness and morality. Towards this end, I used what is often considered, because of its more inclusive nature, to be a superior standard for testing mindfulness. I hoped that the multi-dimensional Five Factor Mindfulness Questionnaire (Baer, Smith, et. al, 2006) would provide a more complete understanding of the relationships that the uni-dimensional MAAS (Brown & Ryan, 2003). In light of this consideration and of the previous three studies, the results of Study 4 were very interesting.

On the one hand, despite a more broad understanding of mindfulness, Study 4 provided no evidence of a connection between mindfulness and moral behavior. In considering moral behavior as either the willingness to help or the amount of help offered, the behavior did not significantly correlate with any of the five factors of mindfulness or the overall measure. Therefore, these results combined with the results of the previous three studies provide a convincing amount of evidence that there is no relationship between mindfulness and moral behavior.

On the other hand, the more complete understanding of mindfulness provided by the FFMQ, provided some evidence about a connection between mindfulness and moral awareness.

In looking at the five individual factors, an interesting pattern emerges. The factors of observing and describing positively correlate with awareness, acting with awareness and non-judging negatively correlate with awareness, and non-reactivity does not correlate with awareness. These results suggest that the process of actively observing and describing the world promotes moral awareness, while the simple fact of being in the moment without judgment does not promote moral awareness. This pattern is followed in the relationship between the five factors of mindfulness and moral attentiveness. The active factors of mindfulness (observing and describing) are positively correlated with moral attentiveness, while the more passive factors (acting with awareness and non-judging) are negatively correlated. Therefore, given this connection, I theorized that the moral attentiveness would have a moderating effect of the relationship between mindfulness and moral awareness. However, this was not the case. The one significant moderation (Dependent = Describing, Independent = Violation, Moderator = Reflective Moral Attentiveness) was most likely due to randomness because of the large number of relationships tested. In summary, the results of Study 4 suggest that the more active elements of mindfulness promote moral awareness while the more passive elements in fact hamper moral awareness.

In conclusion, the results of the four studies in this research suggest that scholars should reconsider the assumption that mindfulness makes for more moral people. More directly, these results suggest that mindfulness does not have the impact on moral behavior that so many both within and without the mindfulness communities might expect. The last section of this dissertation will explore the suggestions that result from the evidence and then propose a way forward for management scholars interested in more deeply exploring mindfulness.

CHAPTER FIVE: GENERAL DISCUSSION

Introduction

This dissertation examines the relationship between mindfulness and moral behavior in organizations. At the onset, I drew on mindfulness theory to argue that because moral awareness is a matter of presence and attention, mindfulness will lead to moral behavior. More specifically, I argued that the relationship between mindfulness and moral behavior is mediated by moral awareness (Rest, 1986; Reynolds, 2006) and moderated by moral attentiveness (Reynolds, 2008). Below is a discussion of how this thesis and the lack of empirical evidence for this thesis contribute to management theory and practice. Most importantly, I will suggest avenues for further research.

Theoretical Implications and Contributions

Interestingly, the most important implications and contributions of this research stem from the fact that this dissertation did not find any evidence of the relationships proposed. The proposed program of research was focused on a theoretically well-supported model that all the subject matter experts that I contacted thought would produce significant results and add to the body of knowledge surrounding mindfulness and morality. To put the situation bluntly, the model and research agenda should have worked, yet it did not. This general discussion and specifically the discussion of theoretical implications and contributions seek to understand why this dissertation did not find this evidence. In reflection, I suggest that there are four possible reasons why this dissertation failed to generate significant results: (1) there most likely is no connection between mindfulness and moral awareness and behavior, (2) the MAAS does not successfully operationalize the construct of mindfulness, (3) the use of the theoretically

parsimonious MAAS is inappropriate when compared to the theoretically complete FFMQ, and (4) the relationship exists, but a key moderator has not been examined.

First, there most likely is no connection between mindfulness, moral awareness, and behavior. However, in my opinion, both the practitioner and academic mindfulness communities assume that more mindful people are necessarily more moral. The practitioner community points to examples such as the Dali Lama, Pema Chodron, and other Buddhist figures who practice mindfulness and leaps to a conclusion that because some moral people practice mindfulness, then mindfulness causes morality. The academic community looks to slightly more rigorous but still anecdotal evidence gathered by scholars such as Kabat-Zinn (1990, 2005) and combines it with the mindfulness at work model (Glomb et al., 2011) to conclude that mindfulness should cause morality. Unfortunately, the initial social scientific evidence reviewed in Chapter 2 of this dissertation and the results in Chapter 4 do not provide support for this connection. The results reviewed in Chapter 4 show no consistent and robust pattern of results that support the connection between mindfulness and morality. The limited evidence supporting the connection in prior research is either based on self-report, retrospective measures, or provides inconsistent results across studies and researchers. The evidence in the present research continued this pattern of results by failing to find a connection between mindfulness and morality that was not a self-reported retrospective measure or could be mitigated by controlling for social desirability. In this research, not one of the actual measures of behavior over four studies produced a significant result that demonstrated the connection between mindfulness and morality. At this point, with five programs of social scientific study having failed to find consistent evidence of a connection between mindfulness and morality, it may be time for management scholars to revise their assumptions. A more productive and theoretically useful working assumption for future research

might be that there is no or at the very most a small connection between mindfulness and morality.

Second, it is possible that the Mindful Awareness and Attention Scale developed by Brown and Ryan in 2003 does not reflect the advances in the theoretical conception of mindfulness in the past twelve years and thus does not correlate with moral behavior. At the time of its development, the conception of mindfulness focused on mindfulness as awareness and attention that is present moment in its orientation. This distinction is what the MAAS seeks to measure. Theoretical refinement, most especially by Dane (2011), demonstrated that mindfulness is both present moment in orientation and relatively wide in attentional breadth (Figure 2). The distinction between relatively wide and narrow attention breadth is key to understanding mindfulness as a construct of awareness and attention. It is a distinction that Brown and Ryan (2003; 2007) consistently struggle with in their theoretical development and refinement of mindfulness. Specifically, they first argue that mindfulness is nonconceptual, nondiscriminatory awareness that broadly perceives the world, but also has a flexibility of awareness and attention that allows an individual to focus in like a zoom lens on what is salient in the environment. These contradictory characteristics of mindfulness were resolved by Dane (2011) when he differentiated between mindfulness (wide attentional breadth) and flow (narrow attentional breadth). This differentiation is key since very different states of cognitive engagement with the environment result from mindfulness and flow. Mindfulness' wide orientation promotes an apprehension of the environment without making distinctions or judgments (Dane, 2011). In contrast, flow involves concentration and active apprehension of elements in the environment to determine what is important and then to focus attention on those elements. Unfortunately, the MAAS measures both of these attentional states by seeking to measure present moment

orientation of awareness. This sub-optimal operationalization of mindfulness causes difficulties in determining a connection between mindfulness and morality. In particular, moral awareness consists of making distinctions and judgments about what is moral and what is not and then that awareness leads to moral behavior (Rest, 1986). Therefore, part of the inconclusive evidence that connects mindfulness and morality could be traced back to the fact that some of the individuals in the sample are in flow (and making distinctions about moral content) and as a result behaving morally.

Third, it is possible that the use of the theoretically parsimonious MAAS is inappropriate when compared to the theoretically complete FFMQ. In retrospect, I think that the results of the first three studies would have been more interesting and theoretically useful if I had used the FFMQ. As discussed in the previous paragraph, the MAAS only measures if the individual is oriented in the present moment. It does not measure that breadth of the attention (narrow or wide) or how they are paying attention to the environment. Essentially, the MAAS does not drill very far down into the awareness and attention of mindfulness defined as present centered awareness and attention. Conversely, the FFMQ takes items from the MAAS and places them in a factor that measures acting with awareness. This decision separates the quality of the individual's actions (present centered or not) from the qualities of his/her awareness and attention (observing and describing). The observing factor measures the quality of the individual's awareness and attention to really understand if he/she is truly observing the internal and external environment. The describing factor measures the quality of the individual's intellectual engagement with what he/she observes in the internal and external environment. I think that these two factors are the key to the connection between mindfulness and explicit moral awareness in the individual. The individual who is very good at describing and observing can

mindfully observe moral issues in the environment and then describe them as moral as opposed to non-moral. In summary, these considerations help explain why the theoretically complete FFMQ is more appropriate than the MAAS for investigating the relationship between mindfulness and morality.

Fourth, it is possible that a relationship between mindfulness and moral awareness and behavior exists, but an unexamined moderator prevents this relationship from being detected. I speculate that the most likely candidates for key moderators are related to the personality of the individual. Specifically, I speculate that conscientiousness and agreeableness may moderate the relationship between mindfulness and moral awareness and behavior. Initial social scientific evidence, has shown as significant and very high correlation between mindfulness, conscientiousness, and agreeableness (Glomb et al., 2011). For example, conscientiousness may moderate the relationship between mindfulness and moral awareness and behavior such that individuals that are higher in conscientiousness are more morally aware and behave more morally. However, it is also possible that agreeableness moderates the relationship between mindfulness and moral awareness and behavior such that individuals that are higher in agreeableness are less morally aware and behave less morally. In sum, it is quite possible that conscientious people are compelled to acknowledge the moral content of situations and act morally by the force of their own conscientiousness, but agreeable people are compelled by their need to agree to deny the moral content of a situation and follow the possibly immoral norms of the group.

Managerial Implications

This research has substantial implications for managerial practice aimed at increasing mindfulness and decreasing immoral behavior in the organization. This research helps managers

to determine if the organizational time, effort, and money now spent by organizations on mindfulness initiatives have positive effects on the moral behavior of employees. It also has implications for the duration and intensity of current mindfulness interventions in the workplace. Eight week long and even day long mindfulness based stress reduction classes are very expensive and time-consuming for organizations to operate. This research provides evidence that these classes may not be worth the time, effort, and expense. Finally, this research allows managers to be more skeptical about the basic effectiveness of mindfulness when making funding decisions and allow them to explore other interventions that could have salutatory effects on employees.

In general, this research puts a damper on the current excitement around mindfulness in organizations. Proponents of mindfulness extol the seemingly unlimited benefits of mindfulness for individuals and the organizations that they inhabit. Nowhere that I could find in popular culture or the academic writing dedicated to the subject (e.g., the journal *Mindfulness*) is there any discussion about the negative effects of mindfulness or even where it is not particularly useful. Managers need information that both supports and fails to support a decision in order to make informed choices and lead their organization to success. At the present moment, mindfulness is a fad (at the very least faddish) and the information provided by proponents does not always give the complete picture. Like most fads, mindfulness contains parts that are useful and will become part of organizational life and other parts that will quietly fade away. My hope is that this research, in particular the results of Study 4, will lead managers to focus on the parts of mindfulness that are useful (the acts of observing the world and describing it accurately) and then discard the parts that are perhaps not as useful (acting with awareness, withholding judgment, and not reacting to the world). In this way mindfulness, can be another beneficial tool

in the manager's toolbox that helps employees lead happier and more productive lives inside and outside of the organization.

Limitations

This research is not without limitations. First, two of the four studies used undergraduate samples as the basis for study. The use of undergraduate samples sometimes raises concerns about the generalizability of the results. However, undergraduate students are an appropriate sample when the research is focused on basic psychological processes and theory tested causal linkages (Kardes, 1996; Lucas 2003; Peterson & Merunka, 2014). Also, in the specific case of this dissertation, the fact that the pattern of results remained constant in both the undergraduate and mTurk samples provides evidence for the validity of the results.

Second, the other two of the four studies used mTurk samples as the basis of study. The use of mTurk samples also sometimes raises concerns about the generalizability of the results. However, research into quality of data from mTurk samples has demonstrated that the participants are significantly more diverse than those in college samples, that the participants are not unduly influenced by the payment offered, and that the results are psychometrically valid (Buhrmester, Kwang, & Gosling, 2011; Goodman, Cryder, & Cheema, 2012; Huff, 2015; Paolacci & Chandler, 2014).

Third, none of the samples investigated managers and employees working together in an organization. The evidence gathered from undergraduate and mTurk samples provides good psychometric evidence into the relationship between mindfulness and morality, but it fails to investigate this relationship in the context of most interest to our profession, the modern organization. My hope is that this research will provide a good foundation for future researchers who are extending mindfulness research into organizations.

Fourth, this research only begins to answer questions about the effectiveness of mindfulness interventions. It only examined the role of a single type of long-term intervention (i.e., hour long intervention followed by a week of focus on mindfulness). Due to difficulties in the data collection process, I was not able to conduct an experiment within the context of the standard of mindfulness training (i.e., eight-week Mindfulness Based Stress Reduction course). Hopefully, future researchers will be able to investigate mindfulness within this context. Fifth, on a related note, this research only measured two time points—directly before and after the intervention. Ideally, with both the short and medium-term interventions, measures would be taken at multiple time points afterwards to determine the effectiveness of the intervention over time. Six, although it is the standard of mindfulness training, an eight-week Mindfulness Based Stress Reduction course also can be seen as a starting point or foundation of a more long-term mindfulness practice. The possibility exists that experiments with samples composed of individuals with long-term practices might produce results that support the four hypotheses of this research. Finally, this research relied on straight-forward and traditional moral situations (e.g., to falsify an insurance claim or cheat on a negotiation. This research shows that individuals with high mindfulness (as measured by the MAAS) are no more likely to become aware of this type of moral issue that those low in mindfulness. However, it is possible that in situations that are not so clear cut in our culture (e.g., same sex marriage or legal marijuana) that individuals with high mindfulness may be able to more easily apprehend the moral content of the situation.

Future Research

Future research into mindfulness should work to better define the construct of mindfulness, disentangle it from other related constructs, and understand how it impacts outcomes of interest to individuals and organizations. I think that the first and most necessary

step towards understanding mindfulness is greater clarity and definition in the quantitative, psychometric properties of mindfulness. I recommend three avenues of research that would illuminate the properties of mindfulness.

First, I suggest that management scholars more thoroughly investigate the measurement of mindfulness. The field has begun to coalesce around the Mindful Awareness and Attention Scale as the standard for the operationalization of mindfulness (Brown & Ryan, 2003; Dane & Brummel, 2013; Hülsheger, Alberts, Feinholdt, & Lang, 2013). However, since its introduction the Five Factor Mindfulness Questionnaire has shown itself to provide a more complete operationalization of mindfulness (Baer, Smith, et al., 2006; Baer, Samuel, & Lykins, 2010; Baer, Smith, et al., 2008). Since the present research suggests that our understanding of mindfulness is not as well developed as we may have thought, I think that future research should value completeness over parsimony in the operationalization of mindfulness in hopes that we may truly understand the nature of this construct.

Second, I suggest that management scholars investigate the possibility that mindfulness might not be completely orthogonal to constructs already in use. In particular, I think the most fruitful avenues for exploration would be personality (especially, conscientiousness) and social desirability. Initial social scientific evidence, has shown a significant and very high correlation between mindfulness and conscientiousness (Glomb et al., 2011). I think it is worth exploring the possibility that what is called mindfulness might in fact be conscientiousness (i.e., people are mindful because they are conscientious and paying attention to the world around them and the needs of others). Through three studies in the current research there is a significant and very high correlation between mindfulness and social desirability. This pattern of results combined with the evidence about the relationship between mindfulness and conscientiousness suggests that

mindful people may in fact just be conscientious people who are highly attuned to the norms of the social environment.

Third, I suggest that management scholars investigate if mindfulness is in fact teachable (i.e., can an individual's trait mindfulness be changed through interventions like Mindfulness Based Stress Reduction classes). Initial evidence suggests that trait mindfulness can be changed (Kabat-Zinn, 1990), but the faith that both the practitioner and academic mindfulness communities place in the effectiveness of mindfulness training (Kabat-Zinn, 2005) far surpasses the available evidence. Specifically, the practitioner and academic mindfulness communities need to investigate if it is practically possible to significantly change the trait mindfulness of individuals through standard interventions like lunch-time meditation sessions and Mindfulness Based Stress Reduction classes. Furthermore, the managers need to investigate if any possible significant changes in trait mindfulness are worth the expenditure of organizational time, funds, and effort. Managers may find that more traditional training and employee wellness programs provide greater results at lower cost.

Conclusion

I began this dissertation by drawing on mindfulness theory to argue that because moral awareness is a matter of presence and attention, mindfulness will lead to moral behavior. I began with an understanding of mindfulness as an awareness of and attention to present events and experiences (Brown & Ryan, 2003; Brown, Ryan, & Creswell, 2007; Dane, 2011). I then used this understanding and combined it with moral cognitive theory (e.g., Kohlberg, 1981; Rest, 1986) to initially argue that the relationship between mindfulness and moral behavior is mediated by moral awareness (Reynolds, 2006) and moderated by moral attentiveness (Reynolds, 2008). I also initially argued that long-term interventions (such as the eight-week Mindfulness Based

Stress Reduction classes that are now offered by many organizations) significantly increase the moral behavior of employees by increasing their moral awareness and attentiveness. This dissertation then took a dramatic turn during data collection that has led to unexpected conclusions and implications that result from those conclusions about the relationship between mindfulness and moral behavior in employees. Over the course of four empirical studies, I discovered almost no evidence that mindfulness (as narrowly defined as an awareness of and attention to present events and experiences) leads to greater moral behavior, or that this relationship is mediated by moral awareness and moderated by moral attentiveness, or that these constructs can be positively affected by mindfulness interventions. In general, I think that this lack of evidence suggests a theoretical rethinking of mindfulness in favor of completeness over parsimony and a managerial focus on mindfulness as one tool of many that promote positive outcomes for individuals and the organization as a whole. Finally, I hope that future research will be able to better define the construct of mindfulness, disentangle it from other related constructs, and understand how it impacts outcomes of interest to individuals and organizations.

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APPENDIX

Table 1

From Dane, 2011:

Definitions of Mindfulness

Source	Domain	Definition of Mindfulness
Brown, Ryan, and Creswell (2007, p. 212)	Academia	"A receptive attention to and awareness of present moment events and experience."
M. Epstein (1995, p. 96)	Academia	"Bare attention in which moment-to-moment awareness of changing objects of perception is cultivated."
Hanh (1976, p. 11)	Buddhism	"Keeping one's consciousness alive to the present reality."
Harvey (2000, p. 38)	Academia	"A state of keen awareness of mental and physical phenomena as they arise within and around [oneself]."
Herndon (2008, p. 32)	Academia	"Being attentively present to what is happening in the here and now."
Kabat-Zinn (2005, p. 4)	Academia and medical practice	"Paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally."
Lau et al. (2006, p. 1447)	Academia	"A mode, or state-like quality, that is maintained only when attention to experience is intentionally cultivated with an open, nonjudgmental orientation to experience."
Nyanaponika (1972, p. 5)	Buddhism	"The clear and single-minded awareness of what actually happens to us and in us at the successive moments of perception."
Rosch (2007, p. 259)	Academia	"A simple mental factor that can be present or absent in a moment of consciousness. It means to adhere, in that moment, to the object of consciousness with a clear mental focus."
Thondup (1996, p. 48)	Buddhism and academia	"Giving full attention to the present, without worries about the past or future."
Weick and Sutcliffe (2006, p. 518)	Academia	"Eastern mindfulness means having the ability to hang on to current objects, to remember them, and not to lose sight of them through distraction, wandering attention, associative thinking, explaining away, or rejection."

Table 2

From Glomb et al., 2011:

Potential Effects of Secondary Processes of Mindfulness on Employee Performance and Well-Being.

Mindfulness-Based Process	Possible Work-Related Effects
Response flexibility	• Improved decision making • Improved communication
Decreased rumination	• Improved coping with stressful events • Faster recovery from negative events • Increased confidence and self-efficacy • Better problem solving • Improved concentrations • More effective use of social support
Empathy	• Increased interactional and informational justice • Reduced antisocial behavior • Increased organizational citizenship behaviors • Positive leadership behaviors
Affective regulation	• Improved communication • Improved coping with stressful events • Faster recovery from negative events • Fewer accidents
Increased self-determination and persistence	• Increased goal-directed effort • Improved task performance • Greater learning • Increased job satisfaction • Increased organizational commitment • Increased performance on creative tasks
Increased working memory	• Reduced negative affect • Improved ability to handle multiple demands • Ability to perform under stress
More accurate affective forecasting	• Less biased decision making • More accurate expectations • Less frustration and negative emotion

Table 3

	Mean	STD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. MAAS	4.29	1.00	1																			
2. DV Work	1.71	0.87	-.339**																			
3. DV Donate	2.29	0.86	.143*	.058																		
4. DV Claim	10123.74	12770.01	.012	.250**	-.076																	
5. DV Bid	152.95	19.39	.046	-.094	.159*	.091																
6. MA Claim	4.54	1.36	-.018	-.009	.086	-.120	-.013															
7. MA Bid	4.83	1.32	.058	-.229**	-.022	-.314**	.066	.275**														
8. MA Combined	4.53	0.89	-.122	-.081	-.121	-.048	.055	.022	.177*													
9. Control	2.82	1.57	-.231**	.200**	-.129	.098	.086	-.108	-.081	.562**												
10. Harm	5.16	1.41	-.023	-.172*	-.071	-.046	-.068	.031	.134	.600**	.064											
11. Violation	4.80	1.52	-.039	-.100	-.146*	-.060	.173*	.006	.109	.636**	.173*	.108										
12. Harm&Violation	5.33	1.34	.015	-.152*	.073	-.125	-.079	.145*	.298**	.637**	.056	.336**	.234**									
13. MA Implicit	1.49	0.85	.114	-.228**	.057	-.054	.125	.055	.150*	.020	-.029	-.011	.058	.033								
14. Moral Att.	3.54	1.36	-.021	.172*	.080	.069	.000	.143*	.055	.304**	.153*	.188**	.220**	.178*	-.006							
15. Perceptual	3.16	1.48	-.031	.203**	.046	.125	.001	.079	-.048	.255**	.204**	.157*	.181*	.067	-.074	.937**						
16. Reflective	4.07	1.51	-.003	.093	.110	-.023	-.001	.201**	.185**	.307**	.051	.192**	.227**	.293**	.089	.876**	.651**					
17. Soc. Des.	0.34	0.21	.458**	-.384**	.162*	-.061	.099	.104	.173*	-.024	-.271**	.026	.064	.152*	.133	-.133	-.189**	-.028				
18. Sex	-	-	-.027	.093	-.110	-.019	-.097	-.038	.100	-.085	-.018	-.017	-.095	-.077	-.160*	-.069	-.060	-.066	.021			
19. Ethnicity	-	-	.066	-.163*	.026	-.065	.030	.130	.111	-.079	-.056	.027	-.089	-.069	-.009	-.069	-.065	-.061	.070	.043		
20. Education	-	-	-.063	.013	-.046	-.038	-.081	-.062	.136	.174*	.053	.184**	.096	.097	-.077	.005	.026	-.024	-.032	.003	-.158*	
21. Age	34.31	11.67	.181*	-.228**	.137	-.134	.033	.162*	.064	-.034	-.120	.047	-.037	.042	.027	.003	-.022	.036	.131	-.189**	.168*	-.035

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4

	MEAN	STD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. DV Help	1.33	0.47	1																				
2. DV Length	1.53	1.51	-.705**																				
3. FFMQ	3.44	0.53	-.059	.053																			
4. Observing	3.35	0.74	-.090	.086	.453**																		
5. Describing	3.37	0.84	-.003	-.017	.769**	.270**																	
6. Aware	3.71	0.81	-.059	.024	.714**	.030	.435**																
7. Nonjudging	3.58	0.91	-.040	-.003	.638**	-.146*	.373**	.519**															
8. Nonreactivity	3.16	0.77	.001	.107	.647**	.466**	.372**	.248**	.152**														
9. MA Combined	4.46	0.82	-.096	.139*	.029	.214**	.115*	-.101	-.129*	.031													
10. None	2.91	1.55	.016	.010	-.095	.067	-.076	-.082	-.150**	-.040	.371**												
11 .Harm	4.68	1.65	-.075	.054	-.053	.165**	.042	-.229**	-.105	-.019	.639**	-.012											
12. Violation	4.79	1.56	-.046	.125*	.110	.105	.144*	.053	.011	.047	.615**	-.018	.080										
13. Both	5.45	1.27	-.114	.123*	.126*	.128*	.159**	.071	-.028	.096	.553**	-.222**	.273**	.284**									
14. Moral Att.	4.06	1.28	-.045	.112	.009	.282**	.093	-.102	-.258**	.085	.329**	.176**	.171**	.214**	.153**								
15. Perceptual	3.83	1.41	-.002	.092	-.052	.210**	.054	-.131*	-.260**	.015	.309**	.211**	.124*	.235**	.094	.947**							
16. Reflective	4.40	1.36	-.100	.120*	.096	.332**	.132*	-.041	-.205**	.170**	.296**	.092	.205**	.143*	.211**	.886**	.691**						
17. Sex	-	-	.093	-.096	-.105	-.085	-.121*	-.059	-.087	.033	-.146*	-.066	-.020	-.189**	-.040	-.075	-.055	-.090					
18. Age	33.73	11.21	-.206**	.157**	.281**	.037	.203**	.244**	.248**	.150*	-.060	-.150**	-.029	-.046	.122*	-.067	-.082	-.033	-.241**				
19. Ethnicity	-	-	-.046	.073	.158**	.096	.185**	.028	.088	.116*	.031	-.068	-.036	.061	.136*	.119*	.106	.116*	.037	.191**			
20. Education	-	-	-.111	.060	.084	-.122*	.126*	.070	.187**	-.039	.006	-.045	-.021	.085	-.006	-.077	-.083	-.054	-.119*	.242**	-.049		
21. Work	12.15	10.67	-.192**	.152**	.310**	.018	.249**	.257**	.272**	.174**	-.059	-.153**	-.015	-.052	.117*	-.024	-.032	-.009	-.179**	.910**	.234**	.172**	
22. Meditation	-	-	-.048	.100	.089	.177**	.097	-.061	-.036	.146*	.027	.044	.039	.011	-.048	.126*	.093	.151**	-.062	.041	.015	.065	.069

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Figure 1

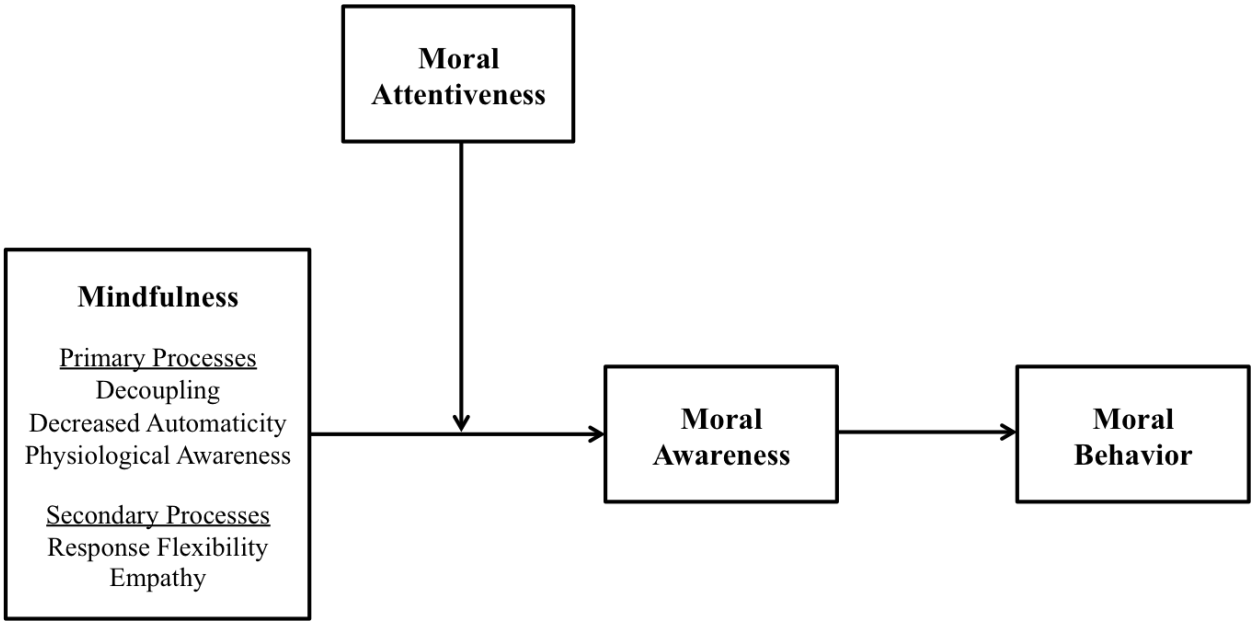
Moral Attentiveness
Mindfulness
Primary Processes
Decoupling
Decreased Automaticity
Physiological Awareness
Secondary Processes
Response Flexibility
Empathy
Moral Awareness
Moral Behavior

Figure 2

From Dane, 2011:

Differentiating Mindfulness From Other States of Attention

		Attentional Breadth	
		Relatively Wide	**Relatively Narrow**
Present Moment Orientation	**High**	*Mindfulness*	*Absorption* *Flow*
	Low	*Mind Wandering*	*Counterfactual Thinking* *Prospection* *Fantasizing*

Figure 3

Core and Secondary Processes Linking Mindfulness to Self-Regulation.

From Glomb et al., 2011:

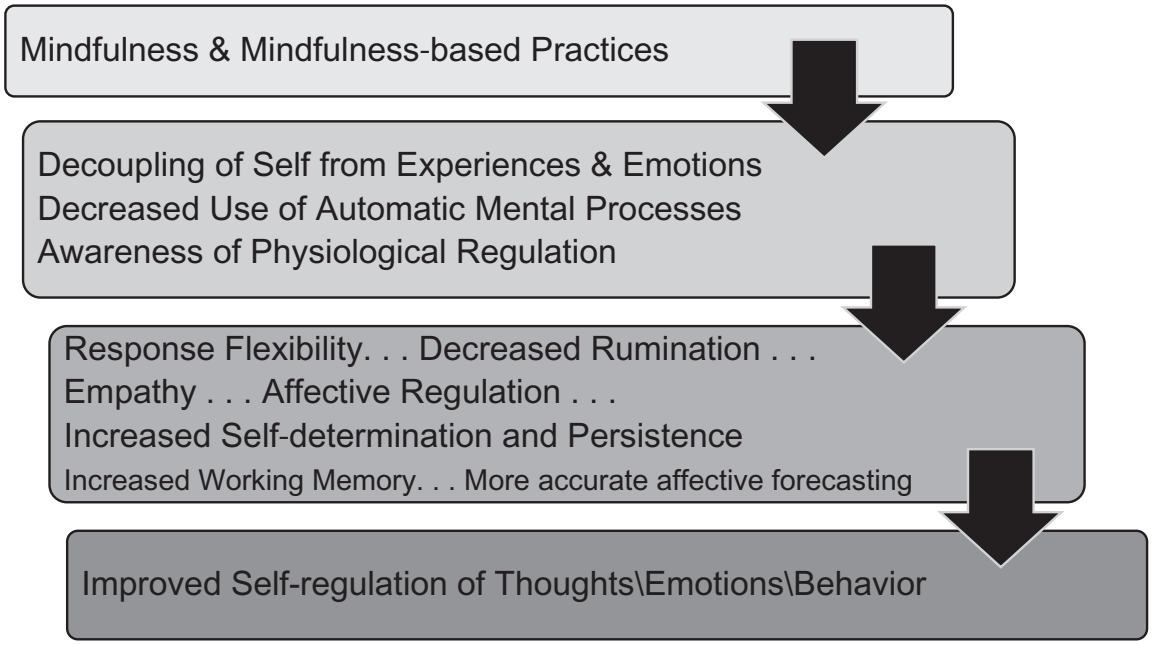

Figure 4


High Moral Attentiveness
High
Moral Awareness
Low Moral Attentiveness
Low
Low
High
Mindfulness

APPENDICIES

APPENDIX A: INDEPENDENT VARIABLES

Mindful Awareness and Attention Scale (15 Items)

Below is a collection of statements about your everyday experience. Using the 1–6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. The accompanying 6-point scale was 1= almost always, 2 = very frequently, 3 = somewhat frequently, 4 = somewhat infrequently, 5 = very infrequently, and 6 = almost never. [High Scores Reflect More Mindfulness.]

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

State Mindful Awareness and Attention Scale (5 Items)

Using the 0-6 scale below, please indicate to what degree you were having each experience described during the exercise. Please answer according to what really reflected your experience rather than what you think your experience should have been.
0 = Not at All, 3 = Somewhat, 6 = Very Much

I was finding it difficult to stay focused.
I was doing the exercise without paying attention.
I was preoccupied.

I was doing the exercise automatically.
I was rushing through the exercise.

Five Factor Mindfulness Questionnaire (35 Items)
Please rate each of the following statements with the number that best describes your own opinion of what is generally true for you. (1 to 5: Never or very rarely true, Rarely true, Sometimes true, Often true, Very often or always true)

Observing
When I'm walking, I deliberately notice the sensations of my body moving.
When I take a shower or bath, I stay alert to the sensations of water on my body.
I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
I pay attention to sensations, such as the wind in my hair or sun on my face.
I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.
I notice the smells and aromas of things.
I pay attention to how my emotions affect my thoughts and behavior.
I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.

Describing
I'm good at finding words to describe my feelings.
I can easily put my beliefs, opinions, and expectations into words.
It's hard for me to find the words to describe what I'm thinking. (R)
I have trouble thinking of the right words to express how I feel about things. (R)
When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words. (R)
Even when I'm feeling terribly upset, I can find a way to put it into words.
My natural tendency is to put my experiences into words.
I can usually describe how I feel at the moment in considerable detail.

Aware
When I do things, my mind wanders off and I'm easily distracted. (R)
I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted. (R)
I am easily distracted. (R)
It seems I am "running on automatic" without much awareness of what I'm doing. (R)
I rush through activities without being really attentive to them. (R)
I do jobs or tasks automatically without being aware of what I'm doing. (R)
I find myself doing things without paying attention. (R)
I find it difficult to stay focused on what's happening in the present. (R)

Non-Judging
I criticize myself for having irrational or inappropriate emotions. (R)
I tell myself I shouldn't be feeling the way I'm feeling. (R)
I believe some of my thoughts are abnormal or bad and I shouldn't think that way. (R)
I make judgments about whether my thoughts are good or bad. (R)
I tell myself that I shouldn't be thinking the way I'm thinking. (R)
I think some of my emotions are bad or inappropriate and I shouldn't feel them. (R)
When I have distressing thoughts or images, I judge myself as good or bad depending what the thought or image is about. (R)
I disapprove of myself when I have irrational ideas. (R)

Non-Reactivity
I perceive my feelings and emotions without having to react to them.
I watch my feelings without getting lost in them.
When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.
In difficult situations, I can pause without immediately reacting.
When I have distressing thoughts or images, I feel calm soon after.
When I have distressing thoughts or images, I am able just to notice them without reacting.
When I have distressing thoughts or images, I just notice them and let them go.

APPENDIX B: DEPENDENT VARIABLES

Charitable Giving: Self-Report (3 Items)
How often over the past year have you engaged in each of the behaviors listed below?
1 = never to 4 = many times

Volunteered for a good cause (homeless shelters, Sub for Santa, etc.)
Donated non-money items (clothes, food, etc.) to the needy.
Donated to a charity.

Moral Behavior at Work: Self-Report (17 Items)
How often you have personally engaged in each of the behaviors listed below?
1 = Never to 7 = Very frequently

Using company services for personal use
Doing personal business on company time
Pilfering company materials and supplies
Taking extra personal time (lunch hour, breaks, early departure)
Concealing one's error

Passing blame for errors to an innocent co-worker
Claiming credit for someone else's work
Giving gifts/favors in exchange for preferential treatment
Accepting gifts/favor in exchange for preferential treatment
Falsifying time/quality/quantity reports
Calling in sick to take a day off
Authorizing a subordinate to violate company rules
Padding an expense account up to 10%
Padding an expense account more than 10%
Taking longer than necessary to do a job
Divulging confidential information
Not reporting others' violations of company policies and rules

Inbox Exercise (Many Items)

From Reynolds, Leavitt, & DeCelles, 2010: They then completed a pen-and-paper in-basket exercise. In the exercise, they were asked to imagine themselves as a manager in a fictitious company we created with several tasks to complete (e.g., reassigning sales personnel, ordering office supplies). Tasks relevant to the hypothesis tests were completing an insurance claim and deciding on a negotiation offer.

Moral Behavior for Kristina Jones (2 Items)

This completes this study. Thank you for your participation.

The data in this survey will become part of Kristina Jones' dissertation. Kristina is a doctoral student in the Foster School of Business. Her dissertation involves several different surveys. Though you are not required to, completing one or two additional surveys would help her finish her dissertation more quickly. Would you be willing to learn more about how to complete one or two more surveys like this one?

(Yes / No)

Thank you for your interest in learning more! How long of a survey would you be willing to complete?

(5min Survey / 10min Survey / 15min Survey / 20min Survey)

Thank you for your willingness to learn about the other surveys in Kristina's dissertation. Due to an overwhelming response, your participation is no longer needed. Please click the advance button below to do the last section of the study.

APPENDIX C: MEDIATOR VARIABLES

Explicit Moral Awareness (4 Vignettes / 16 Items)

At the end of each quarter, every manager is required to submit paperwork to the HR / Compliance Office to report any behavior that might be considered an ethical violation. Below are four situations that occurred this quarter. Please indicate your thoughts about each situation by responding to the statements below.

No Harm / No Violation

Last Monday, you were sitting at your desk examining a request that a customer had just emailed to you. The customer was proposing a project that would make a tremendous amount of money for your company but had an extremely demanding time schedule. Just as you were about to call the customer and accept the project, one of your employees, Phil, knocked on the door. He entered your office, politely placed a letter of resignation on your desk, and told you that he was sorry, but in two weeks, he would be moving to another state to be closer to his ailing parents. After he left, you thought about the proposed project and determined that even though Phil would be gone, you could still meet all of the customer's deadlines. You called the customer and accepted the project.

Yes Harm / No Violation

One of DenComp's manufacturing facilities contains five very large and very noisy pressing machines. The facility manager has always followed the state and federal regulations about noise control that apply to those machines, but the noise effects can never be completely eliminated. Doug, a long-time DenComp electrician who regularly works right next to the pressing machines (and always wears the proper equipment), came to your office and told you that his doctor has informed him that he has lost 80% of his hearing in his right ear, probably because of the work he does near the machines.

No Harm / Yes Violation

Earlier today, a DenComp salesman who works in Iowa called you and told you about an experience that he had last week. One of his customers placed a small order of about $1,500 worth of product from DenComp's corporate headquarters. DenComp immediately shipped the package through a freight company, and it arrived the next day at the freight company's warehouse in Iowa. The salesman went to the warehouse just as it was closing and talked to one of their managers. The manager said that everyone had gone home for the day, but he assured him that the package would be delivered directly to his office the next day. The salesman knew that the customer did not need the materials for at least another 3 days, but he didn't want to wait. He placed a twenty-dollar bill on the counter and asked the warehouse manager one last time if there was anything he could do. The manager found the paperwork, got the product from the back of the warehouse, and brought it out to the salesman.

Yes Harm / Yes Violation

A manager in your area, Terry, drives a company car. Company policy states that corporate cars are to be inspected every 3,000 miles without exception. Terry last had her car inspected about 5,000 miles ago—she says that she "just doesn't want to be bothered that often." Today, Pat, a co-worker of Terry's, asked Terry for the keys to the car so she could deliver some artwork to a few customers. While driving on the highway, the car's brakes malfunctioned. The car spun out of control and came to a rest in a ditch on the side of the road. Pat's forehead struck the steering wheel, and she had to go to the hospital to get 18 stitches.

There are very important ethical aspects to this situation.
This matter clearly does not involve ethics or moral issues. (R)
This situation could be described as a moral issue.

Implicit Moral Awareness

In this next exercise, you will be presented with sets of letters. Please fill in the blanks to form a word. There is more than one right answer for each set. Please try to answer all of them, but don't spend too much time on any. If you can't answer it, please feel free to skip it. In the blanks, please write the word in its totality.

For example:
S _ T: can be completed as sat, sit, set, etc.

Ethical Words
_ _ R A L
VIR_ _ ES
ETH _ _ _

Filler Words
_ _ A C K
_ I _ K

Specific Moral Awareness

Before indicating the value of your (claim/bid). Please answer a few questions about your thoughts about this situation. (1 = Strongly Disagree, 7 = Strongly Agree):

This situation:

Has ethical implications
Is complex
Is stressful
Is fun to think about
Is hard to think about

APPENDIX D: MODERATOR VARIABLES

Moral Attentiveness (12 Items)
Please read each item and indicate whether you agree or disagree with each (1 = Strongly Disagree, 7 = Strongly Agree):

In a typical day, I face several ethical dilemmas.
I often have to choose between doing what's right and doing something that's wrong.
I regularly face decisions that have significant ethical implications.
My life has been filled with one moral predicament after another.
Many of the decisions that I make have ethical dimensions to them.
I regularly think about the ethical implications of my decisions.
I think about the morality of my actions almost every day.
I rarely face ethical dilemmas.
I frequently encounter ethical situations.
I often find myself pondering about ethical issues.
I often reflect on the moral aspects of my decisions.
I like to think about ethics.

APPENDIX E: CONTROL VARIABLES

Social Desirability (40 Items)
Using the scale below as a guide, please indicate how true each statement is.
(1 = Not True, 4 = Somewhat, 7 = Very True)

My first impressions of people usually turn out to be right.
It would be hard for me to break any of my bad habits. (R)
I don't care to know what other people really think of me.
I have not always been honest with myself. (R)
I always know why I like things.
When my emotions are aroused, it biases my thinking. (R)
Once I've made up my mind, other people can seldom change my opinion.
I am not a safe driver when I exceed the speed limit. (R)
I am fully in control of my own fate.

It's hard for me to shut off a disturbing thought. (R)
I never regret my decisions.
I sometimes lose out on things because I can't make up my mind soon enough. (R)
The reason I vote is because my vote can make a difference.
My parents were not always fair when they punished me. (R)
I am a completely rational person.
I rarely appreciate criticism. (R)
I am very confident of my judgments
I have sometimes doubted my ability as a lover. (R)
It's all right with me if some people happen to dislike me.
I don't always know the reasons why I do the things I do. (R)
I sometimes tell lies if I have to. (R)
I never cover up my mistakes.
There have been occasions when I have taken advantage of someone. (R)
I never swear.
I sometimes try to get even rather than forgive and forget. (R)
I always obey laws, even if I'm unlikely to get caught.
I have said something bad about a friend behind his/her back. (R)
When I hear people talking privately, I avoid listening.
I have received too much change from a salesperson without telling him or her. (R)
I always declare everything at customs.
When I was young I sometimes stole things. (R)
I have never dropped litter on the street.
I sometimes drive faster than the speed limit. (R)
I never read sexy books or magazines.
I have done things that I don't tell other people about. (R)
I never take things that don't belong to me.
I have taken sick-leave from work or school even though I wasn't really sick. (R)
I have never damaged a library book or store merchandise without reporting it.
I have some pretty awful habits. (R)
I don't gossip about other people's business.

Social Desirability (8 Items)

Please read each item and indicate whether you agree or disagree with each.
(1 = Strongly Disagree, 4= Neutral, 7 = Strongly Agree)

There have been occasions when you took advantage of someone. (R)
You have sometimes taken unfair advantage of another person. (R)
You are always willing to admit when you make a mistake.
You are quick to admit making a mistake.
You sometimes try to get even rather than forgive and forget. (R)
You sometimes feel resentful when you don't get your own way. (R)
You are always courteous, even to people who are disagreeable.
You are always a good listener, no matter whom you are talking to.

APPENDIX F: DEMOGRAPHICS

What is your sex? (Female/Male)
What is your age? (1-100+)
What Best represents your ethnicity? (Hispanic/Latino, White/Caucasian, Black / African-American, Asian/Pacific Islander, Native American)
What is your highest level of education? (Some High School, High School Degree, Some College, College Degree, Some Graduate School, Graduate School Degree)
What is your level of full-time work experience in years? (1-100+)
Please indicate your experience with meditation. (1=none to 5=a lot)
Please indicate your compliance with the MBSR program (i.e., Did you do all of the daily meditations and attend all of the class sessions?). (1=not at all compliant to 5=very compliant)