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THE EFFECTS OF LEADER BEHAVIOR ON FOLLOWER ETHICAL BEHAVIOR:
EXAMINING THE MEDIATING ROLES OF ETHICAL EFFICACY AND MORAL
DISENGAGEMENT

by

Noel F. Palmer, Ph.D.

A DISSERTATION

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Under the Supervision of Professor Mary Uhl-Bien

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Noel F. Palmer, Ph.D.

University of Nebraska, 2013

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Recent ethical scandals in organizations are often cited when pointing to leaders as the culprits who foster corruption in their organization; however, little empirical work examines the individual processes through which leaders may influence follower ethical decision-making and behavior. Drawing from principles of social cognitive theory and self-efficacy theory (Bandura, 1986, 1997), moral self-regulatory capacities are presented as a means by which leaders may influence followers. Specifically, I hypothesize that leader influence on follower (un)ethical behavior is mediated through follower ethical efficacy beliefs and moral disengagement processes. I also suggest that ethical efficacy interacts with ethical leadership to influence behavior. Finally, I propose that the mediating influence of moral disengagement is moderated by ethical efficacy beliefs. Using an experimental manipulation and a sample drawn from a military context, this study examines the influence of leaders on follower ethical efficacy, moral disengagement and subsequent behavior. Results indicate that leader behavior influences the ethical efficacy beliefs of followers. Findings also show that moral disengagement mediates the relationship between leader behavior and follower (un)ethical behavior. However, moderated-mediation analyses show that indirect effects of moral disengagement depend upon levels of follower ethical efficacy beliefs. Theoretical and practical implications for ethical leadership and ethical decision-making research are discussed, and directions for future research are recommended.

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THE EFFECTS OF LEADER BEHAVIOR ON FOLLOWER ETHICAL BEHAVIOR:
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CHAPTER ONE

INTRODUCTION TO THE STUDY

Purpose of the Study

Recent scandals in the military related to the range of soldiers' activity and authority in the wars in Iraq and Afghanistan have triggered questions of moral conduct reminiscent of those raised during past war atrocities (e.g., the My Lai massacre in Viet Nam). One of the most well-known recent scandals, Abu Ghraib prison, presented graphic images of soldiers violating hard and fast standards of basic human rights. How do individuals come to a point where they are able to engage in conduct that to most would seem clearly immoral? In the context of the military, unethical responses to moral dilemmas are of particular concern. Soldiers possess substantial authority when operating in war, and, as seen with the incidents at Abu Ghraib and My Lai, a decision to act unethically may result in torture or even the killing of innocent civilians. Such possible outcomes highlight the importance of understanding factors that influence soldiers' decisions to behave ethically.

One factor that may be influential in a soldier's decision to behave ethically is his or her level of moral development (Kohlberg, 1969; Treviño, Weaver, & Reynolds, 2006). At a low level of moral development, individuals make moral judgments based on

a desire to avoid punishment; at a high level, individuals make moral judgments based on a desire to support individual rights and principles of conscience (Kohlberg, 1976).

Research has shown that most adults are at a middle level of moral development. Their judgments are largely influenced by expectations of others and rules or laws (Rest, Narvaez, Bebeau, & Thoma, 1999). This potential for external factors to influence moral judgment suggests that an area of importance in the study of ethical decision-making is the influence of ethical or unethical behavior exhibited by others (Treviño et al., 2006). As noted by Jones (1991), social interactions with significant others affect one's cognitive ability to recognize moral issues, make moral judgments, and establish intent to behave ethically.

A more recent perspective on the influence of significant others in one's judgment process is presented by Brown, Treviño, and Harrison (2005). Drawing from social learning theory (Bandura, 1977), which suggests that individuals learn appropriate behavior by observing others' actions and their consequences, they propose that significant others, namely leaders, may influence follower ethical behavior through modeling. Specifically, they suggest *ethical leaders* act as "models of ethical conduct who become the targets of identification and emulation for followers" (Brown et al., 2005, p.120). Ashforth & Anand (2003) also cite the importance of leaders as role models for organizational members but with a focus on the potency of the leader's modeling as influential toward *unethical* behavior (see also Manz, Anand, Joshi, & Manz, 2008). Yet, whether the modeled behaviors being emulated are ethical or unethical, the role-modeling explanation does not account for intervening factors, such as individuals' cognitive processes, that mediate the relationship between leader behavior and follower behavior.

In other words, a social learning theory explanation does not fully acknowledge the individual follower as a thinking being who makes decisions about right and wrong—as a proactive agent in moral judgment and behavior.

According to Bandura, moral conduct is, in large part, motivated and regulated through individual moral self-regulatory mechanisms, or processes that involve the activation and disengagement of self-reactions to moral issues (see Bandura, 1991 for a full review). These self-regulatory mechanisms are central to the conception of moral agency in social cognitive theory (Bandura, 1986). Within a social cognitive theory framework, “personal factors in the form of moral thought and affective self-reactions, moral conduct, and environmental factors all operate as interacting determinants that influence each other bidirectionally” (Bandura, 1991, p.46). Through observation, one develops beliefs about which behaviors are acceptable or moral, and these beliefs foster the self-control one needs to make judgments and regulate behavior (Bandura, 1997). Thus, beyond the influence associated with simply modeling what is appropriate, the behavior of significant others may also affect individuals’ *beliefs* in their ability to behave ethically. This confidence in one’s ability to behave ethically is referred to as moral or ethical efficacy (Hannah, Avolio, & May, 2011; Mitchell, Palmer, & Schminke, 2008; Youssef & Luthans, 2005).

Additionally, observing significant others who model inappropriate behavior may influence the ease with which one can rationalize their own unethical behaviors. The process by which one ignores personal standards, justifying unethical behavior, is referred to as moral disengagement (Bandura, 1991). Both ethical efficacy beliefs and moral disengagement processes are self-regulatory mechanisms that may act as

intervening factors between the behaviors and decisions leaders model and those that followers enact.

Therefore, the purpose of this study is to investigate the effects of leader behavior on follower moral self-regulatory processes and subsequent ethical behavior. I will draw from theoretical work on ethical leadership (Brown & Treviño, 2006; Brown et al., 2005) and the institutionalization of corruption in organizations (Anand, Ashforth, & Joshi, 2005; Ashforth & Anand, 2003) to present an organizing framework that links leader influence to follower behavior. Ashforth and colleagues highlight individual moral disengagement processes and the influence of leaders as important determinants in making unethical behavior routine in organizations. Further, drawing from Bandura's (1987) social cognitive theory, I suggest that these determinants, along with efficacy beliefs, combine to influence individual ethical judgments—ultimately giving us further insight into how soldiers may come to engage in ethical or unethical behavior.

Generally, social learning theory (Bandura, 1977) has been used to highlight behavioral modeling as the means by which leaders influence followers (Brown et al., 2005; Manz et al., 2008; Mayer, Kuenzi, Greenbaum et al., 2009); however, the social learning approach does not explicate the psychological processes through which leader modeling is translated into follower behavior. Certainly, Bandura (1977, 1986) emphasizes the importance of modeling appropriate behavior; nonetheless, from a social cognitive theory perspective, individuals act as moral agents who “refrain from behaving in ways that violate their moral standards” (Bandura, 1999, p.193). Thus, in applying social cognitive theory to ethical decision-making and behavior, modeling is important because it communicates social standards for ethical behavior. By understanding ethical

standards, individuals are better able to regulate their behavior (Bandura, 1991). In other words, we may gain a better understanding of the influence of leaders by moving beyond conceptual arguments offered by social learning theory to empirical investigation of the moral self-regulatory processes through which leaders may actually affect follower behavior.

Theoretical Model

The theoretical model examined in this dissertation is presented in Figure 1. In this model, the influence of leaders on followers' moral judgment processes begins with leaders modeling a behavioral response to an ethical dilemma. Through their actions and justifications for their actions, leaders present an example of how to respond to an ethical dilemma. The behavior by the leader influences a follower's ethical efficacy beliefs—belief in their ability to enact ethical behavior when faced with an ethical dilemma. If followers lack confidence in their ability to behave ethically, they may feel compelled to respond unethically or will be less likely to persevere when faced with ethical challenges, and such responses may be preceded by moral disengagement—a rationalization for behaving in a manner one believes to be unethical.

In addition to the influence of leaders, ethical efficacy beliefs may also be shaped by past successes or failures in enacting ethical behavior. Nonetheless, a leader's response to an ethical dilemma presents an opportunity for vicarious learning by followers (Brown et al., 2005; 2006). The standards followers learn through observation are incorporated into their moral self-regulatory processes, which include moral disengagement processes. For example, rationalization for unethical behavior by the leader may directly influence similar rationalizations on the part of followers. If moral

disengagement occurs, it is expected to then have an effect on follower behavior. For example, if one's personal standards are disengaged, they would be more likely to enact unethical behavior. Taken together, I argue that leader behavior influences follower ethical behavior through both follower ethical efficacy beliefs and follower moral disengagement processes.

Insert Figure 1 Here

Research Questions

The main research questions examined in this dissertation are as follows:

- 1) Does leader behavior affect followers' moral self-regulatory processes?
- 2) Do moral self-regulatory processes mediate the relationship between leader behavior and follower ethical behavior?
- 3) Do moral self-regulatory processes interact with other variables to influence follower ethical behavior?

Significance of the Study

This study will add to research in behavioral ethics and leadership in several ways. First, few studies have examined the cognitive processes through which leaders may effect their influence on follower ethical or unethical behaviors. Scholars suggest that leaders influence follower behavior by modeling appropriate behavior (Brown et al., 2005; 2006). According to social learning theory and social cognitive theory (Bandura, 1977; 1986), learning that occurs through direct experience may also occur vicariously through observation of others' behaviors and its consequences. While this understanding of leader influence is important for highlighting processes that facilitate learning (i.e.,

focusing attention on the leader), it does not fully explain the processes through which observation is translated into behavior. I suggest that ethical efficacy beliefs and moral disengagement processes are two moral self-regulatory processes through which followers' observations are translated into behavioral outcomes.

Next, by examining the processes of ethical efficacy and moral disengagement, this study focuses attention on two constructs where much of the research to date has been toward demonstrating the convergent and discriminant validity of these constructs. For ethical efficacy, only one other study has tested the influence of leaders on ethical efficacy beliefs (Schaubroeck, Hannah, Avolio, et al., 2012). Also, there is little empirical research that examines the role of leaders or efficacy beliefs in influencing moral disengagement processes. According to Bandura (1991), the process of moral disengagement is important for unethical behavior because disengagement allows one to intentionally carry out such behavior while maintaining positive self-regard.

While we have a theoretical understanding of the functional purpose of moral disengagement processes, there is little research contextualizing these processes. That is, while moral disengagement theory alone helps us understand what processes may make unethical behavior possible, no distinctions are made across individuals, relationships, or other contextual factors. In the criminology literature, neutralization theory (Sykes & Matza, 1957) is closely related to moral disengagement theory (Maruna & Copes, 2004). As suggested with moral disengagement processes, neutralization theorists argue that rationalizations and justifications for deviant behavior "precede deviant behavior and make deviant behavior possible" (Sykes & Matza, 1957, p. 666). While empirical research in moral disengagement theory is relatively new, neutralization theory has been

researched in criminology for over 50 years. Despite this, the closest neutralization researchers have come to examining leader influence on neutralization processes is in noting how cultural and psychiatric explanations for misconduct are in turn imitated in the rationalizations used by the individual under scrutiny (Scully & Marolla, 1984). Therefore, the inclusion of leaders in the study of moral disengagement offers a first look at the possible influence of leaders on moral disengagement processes.

In addition to the influence of leaders on followers' moral disengagement processes, individual ethical efficacy beliefs may also influence moral disengagement processes. This study provides the first empirical examination of the relationship between ethical efficacy beliefs and moral disengagement processes.

Overall, this study offers a number of opportunities to advance understanding regarding both (1) the influence of leaders on followers' moral self-regulatory processes and (2) the relationship between these processes and subsequent ethical behavior. These developments are important because they may help researchers learn more about the processes through which leaders may influence ethical and unethical behavior.

Organization of the Dissertation

The research plan is presented as follows. Chapter Two provides the literature review and hypotheses for this dissertation. The literature review includes a review of empirical and theoretical work that supports the hypotheses developed as part of this study and that are represented in the theoretical model depicted in Figure 1. Chapter Three outlines the methods that will be used to test the hypotheses presented in Chapter Two. The methods outlined in Chapter Three include the study design, sample, procedures for data collection, and measures used to operationalize the constructs in this

study. In Chapter Four, descriptive statistics for the independent, dependent, and control variables are presented, and the results of the empirical hypothesis tests for this study are presented. Finally, a discussion of the findings, strengths and limitations of the study, and directions for future research are presented in Chapter Five.

CHAPTER TWO

LITERATURE REVIEW AND HYPOTHESES

Ethical Decision-Making and Moral Psychology

The study of ethics and ethical decision-making has become increasingly important to organizations and organizational leaders in particular. Recent ethical failures across all sectors of society have spurred an increased interest in understanding how leaders and their subordinates have failed to behave ethically. Consequently, organizational researchers have become progressively more interested in understanding ethical decision-making and ethical behavior in organizations (see Loe, Ferrell, & Mansfield, 2000; O'Fallon & Butterfield, 2005; Trevino et al., 2006 for recent reviews). Researchers have also looked to ethics as a critical component for effective leadership (Brown & Treviño, 2006; Ireland & Hitt, 1999) noting the relevance of leader's behavior in impacting ethical climates and ethical behavior in organizations (Brown et al., 2005; Dineen, Lewicki & Tomlinson, 2006; Schminke, Ambrose, & Newbaum, 2005; Thomas, Schermerhorn, & Dienhart, 2004; and Treviño, Butterfield & McCabe, 1998).

A common question in the literature is whether we have corrupt individuals or corrupt organizations. Beyond corrupt individuals, there are also the influences of corrupt leaders and socialization processes in organizations that foster corruption (Ashforth & Anand, 2003; Pinto, Leana, & Pil, 2008). Darley (1996, p.13) suggests, "the typical evil action is inflicted...by individuals acting within an organizational context" rather than by "evil actors carrying out solitary actions." Building on this point, Ashforth and Anand (2003) emphasize the importance of leaders in this process.

In addition to serving as role models, leaders - as the legitimate agents of the organization - authorize corruption (Kelman, 1973; cf. displacement of responsibility,

Bandura, 1999; sanctioning, Brief et al., 2001). As with role modeling, authorizing need not be formal and explicit: a manager who informally encourages or tacitly condones corruption can also be said to be authorizing it. ...In any event, because the individuals who perform the corrupt acts "are not the actual agent of their actions, they are spared self-condemning reactions" (Bandura, 1999, p. 196).

Though the importance of leader's influence has been acknowledged, much of the research to date has focused on understanding the process individuals go through in making ethical decisions, rather than examining how leaders may influence this process. Research on ethics in organizations has primarily followed James Rest's (1986) model of ethical decision-making. Rest's four-component process was developed to answer the question, "When a person is behaving morally, what must we suppose has happened psychologically to produce that behavior?" (Rest, 1986, p.3). Researchers have begun to connect leader influence on ethical behavior and decision-making with theoretical explanations such as social learning theory (Brown et al., 2005) or social exchange theory (Settoon, Bennett, & Liden, 1996). Yet, referring back to the question by Rest, scholars have only just started to examine what is happening psychologically in subordinates to explain the effect of leaders on followers' ethical behavior.

Explanations based on social learning theory imply the influence is occurring through role-modeling; however, this explanation falls short of detailing the psychological mechanisms through which leader's actions are commuted into subordinates' decisions and behaviors. As stated above, moral self-regulatory mechanisms involve individual processing of personal and social standards to motivate self-regulation of behavior.

By extending beyond social learning theory arguments to consideration of how leaders influence *self-regulatory mechanisms* in subordinates, we may be able to better

understand the relationship between leader behavior and subordinate ethical behavior—through subordinates’ psychological processes. In Bandura’s extension of social learning theory to social cognitive theory he highlights two psychological factors that are particularly relevant to ethical decision-making processes: self-efficacy and moral disengagement (Bandura, 1986; 1991). The purpose of this dissertation is to empirically examine these self-regulatory processes, which I propose are predictive of moral behavior. To do this, I will first review the literature on ethical leadership to help frame subsequent discussions of the influence of leaders on follower moral self-regulatory processes. I will then review the literature on efficacy beliefs and develop hypotheses regarding leader influence on follower efficacy beliefs. Following this, I will review literature on moral disengagement and develop hypotheses about leader influence on moral disengagement processes. Finally, I will develop hypotheses connecting efficacy beliefs and moral disengagement processes with follower ethical behaviors.

Ethical Leadership

The field of leadership has received a decidedly substantial amount of research attention (see Avolio, Walumbwa, & Weber, 2009, for a recent review); however, little of this research specifically examines issues of ethics and ethical leadership. Indeed, a recent review of the past 45 years of research in industrial and organizational psychology notes that issues of ethics and ethical leadership have only received modest attention (Cascio & Aguinis, 2008). Certainly, scholars have examined the influence of ethical leaders. However, much of this work focuses on the moral characteristics of leaders (see Schminke et al., 2005; Turner, Barling, Epitropaki et al., 2002 for examples). Only

recently have scholars begun to consider the mediating processes through which ethical leaders influence follower behavior (Walumbwa, Mayer, Wang, et al., 2011).

Work by Lord and Brown (2001) suggests that leaders may influence followers through the motivations followers use to regulate behavior. One way in which leaders may do this is by motivating followers with the values they make salient. When particular values are made salient, individuals are motivated to act in accordance with these values. A second way leaders may influence followers is by activating in followers a specific identity or self-conception. This self-conception can include current goals or possible selves from which followers draw to motivate their behaviors (Aquino & Reed, 2002; Lord & Brown, 2004; Weaver, 2006). While these ideas regarding mediating cognitive processes align with principles from social cognitive theory regarding self-regulation, much of this work has developed without an explicit focus on moral self-regulation or a clear definition of ethical leadership.

An area in the leadership literature primed for a theoretical extension of leader influence on moral self-regulatory processes is the work on ethical leadership (Brown et al., 2005; 2006). Brown and colleagues define ethical leadership as “the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making” (Brown et al., 2005, p.120). Brown and colleagues use a social learning perspective to argue that ethical leaders act as models who followers identify with and come to emulate (Brown et al., 2005). From this perspective, ethical behavior occurs through the adoption of standards from important sources of influence (i.e., ethical leaders). However, this perspective falls short of

detailing mediating processes through which such standards are translated into behavior. While ethical leadership research has offered a concise theory and definition of the construct (Brown et al., 2005), it has not yet incorporated recent and significant advances in the leadership literature that describe important mediating mechanisms such as follower cognitive variables related to their values and self-concept.

In completing their review of the literature, Cascio and Aguinis ask two questions regarding ethics and ethical leadership: first, “under what conditions is ethical (unethical) behavior most likely to occur,” and, second, “under what conditions will employees and their leaders do the right thing even when no one is looking” (2008, p.1077). I propose that extending ethical leadership theory to include concepts from social cognitive theory, such as ethical efficacy beliefs and moral disengagement, will help answer these questions.

Ethical Efficacy Beliefs

Foundations in Self-Efficacy Theory

Bandura’s social cognitive theory (Bandura, 1986, 1997), notes that individuals have certain capabilities that help them to be influential in determining their own destiny. These capabilities include: symbolizing, planning alternative strategies (forethought), learning through vicarious experiences, self-regulation, and self-reflection. These capabilities help one to develop beliefs about his or her ability to organize and execute courses of action required to attain desired performances, and they are referred to as self-efficacy beliefs. Self-efficacy beliefs are central to social cognitive theory because “people’s level of motivation, affective states, and actions are based more on what they believe than on what is objectively true” (1997, p. 2).

Self-efficacy beliefs enable the requisite control for human agency—one's ability to self-regulate behavior. Thus, how people behave can often be better predicted by their beliefs about their capabilities rather than their actual capabilities. This is because self-efficacy perceptions help determine what individuals do with the knowledge and skills they have. Self-efficacy beliefs are impacted through: mastery experiences, vicarious experiences provided by social models, social persuasion through positive appraisals, and physiological and psychological arousal (Bandura 1997). As Bandura (1986) notes, "measures of self-precept must be tailored to the domain of psychological functioning being explored" (p.396). As a result, self-efficacy, as contextually specific beliefs, has been operationalized in many particular forms such as academic efficacy, athletic efficacy, and job self-efficacy.

Ethical Efficacy

Recently, scholars have extended self-efficacy beliefs to the domain of ethics (Kuo & Hsu, 2001; Hannah, Avolio, & May, 2011; Mitchell, Palmer, & Schminke, 2008; Youssef & Luthans, 2005). Building on Bandura's definition of self-efficacy, ethical efficacy has been defined as one's belief in their ability to mobilize the motivation, cognitive resources, and courses of action necessary to enact ethical behavior (Mitchell et al., 2008). Mitchell et al. (2008) suggest ethical efficacy is predictive of ethical behavior and is measurable as a construct that represents levels of certainty about one's ability to behave ethically at various levels of moral intensity and across a range of ethical situations.

An important aspect of ethical efficacy concerns awareness of moral issues. Although awareness is not a prerequisite of a moral issue, it is an important precondition

for the application of ethical efficacy. If one is not aware of a moral issue, there is no purpose in being confident in one's ability to behave ethically in a particular situation. Thus, there is a context that consists of a moral agent being aware they are in a situation where an action or decision on their part has consequences for others. If there is no moral component, ethical efficacy has no role in that situation.

According to social cognitive theory (Bandura, 1986; 1997), self-efficacy beliefs have three aspects: level, strength, and generality. Level has to do with task difficulty, strength concerns the strength of efficacy one has to deal with a given level of difficulty, and generality has to do with the extent to which efficacy is present across varying situations. Levels of difficulty for behaving ethically may be characterized by situations where one must behave ethically when others are not, one must behave ethically when others are encouraging one to behave unethically, or one must behave ethically when unethical behavior may lead to great personal rewards. This idea of difficulty has been operationalized in the ethical decision-making literature as moral intensity (see Jones, 1991 for a full review). Strength of ethical efficacy is the amount of certainty one has they will behave ethically at a particular level of difficulty or moral intensity. Finally, generality of ethical efficacy is the extent to which the magnitude and strength beliefs generalize across tasks and situations. Bandura outlines these three dimensions as regarding "given situational demands" (Bandura, 1997). With ethical efficacy, the situational demand is that one behaves ethically.

Gaps in Ethical Efficacy Research

The significance of ethical efficacy is particularly relevant as a construct with organizational applications. In organizations, there are a number of factors that have

been shown to influence employee ethical behavior. These include ethical climate (Victor & Cullen, 1988) and the establishment of ethics codes (Stevens, Steensma, Harrison, & Cochran, 2005). Organizational scholars have also recognized the importance of leaders enacting ethical behaviors that are in line with espoused values (Craig & Gustafson, 1998; Davis & Rothstein, 2006; Simons, 2002). Brown and colleagues (2005) extended this idea by suggesting that leaders influence follower ethical behavior through modeling. Research on self-efficacy brings possible explanations as to why ethics training, ethics codes, and leader behaviors may affect ethical efficacy. For example, Stevens and colleagues (2005) suggest training organizational ethics codes is influential on employee adherence to policies because it instills confidence, or *efficacy*, that one can successfully carry out the action. Thus, it may not simply be the presence of ethics codes or ethical leaders that brings about ethical follower behavior. It may be the influence of these factors on individual moral self-regulatory abilities.

Therefore, I suggest that leaders, through the behaviors they model, may also influence individual ethical efficacy beliefs. Thus, when an individual observes a relevant social model, such as a leader, behaving ethically or unethically, they in turn may be more or less confident in their own ability to behave ethically. In other words, followers learn to regulate behavior in accordance with the vicarious experiences provided by social models. Both the failures and successes of relevant others operate vicariously to shape individual efficacy beliefs. For example, if individuals observe success in dealing with moral dilemmas, they will be more confident in their own ability to behave ethically. However, if individuals observe failure, they will be less confident in their ability to behave ethically.

Therefore, I argue that leader ethical and unethical behavior influences follower confidence in their ability to behave ethically. Ethical leader behavior should strengthen follower ethical efficacy beliefs; whereas, unethical leader behavior should weaken follower ethical efficacy beliefs.

Hypothesis 1a: Leader ethical behavior is positively related to follower ethical efficacy beliefs.

Hypothesis 1b: Leader unethical behavior is negatively related to follower ethical efficacy beliefs.

Moral Disengagement

It is particularly the instance of unethical behavior by leaders that has recently served as an example in arguments that unethical leaders may be culpable for the unethical behaviors of their employees (Schminke et al., 2005). Indeed, courts have placed a legal burden on organizations for employee unethical behavior based upon their duty to supervise employees (Ruhnka & Boerstler, 1998). This responsibility has also been discussed in terms of the role of leaders as legitimate agents of the organization (Ashforth & Anand, 2003). Yet, understanding that leaders implicitly or explicitly condone unethical behavior may only be useful for determining culpability. This understanding does not make clear how leader influence is translated into follower unethical behavior. For this, I suggest that revisiting Rest's question--as to what is occurring psychologically--may help to better explicate leader influence processes. Specifically, leader influence on moral disengagement processes may provide another avenue for understanding the follower psychological processes through which leaders achieve their influence.

History of Moral Disengagement Research

Recent work in ethical decision-making emphasizes the importance of understanding the psychological processes that prevent unethical behavior (Duska & Dienhart, 1998; Tenbrunsel & Messick, 2004). In particular, the idea that one must disengage or neutralize their beliefs or attitudes about a given unethical behavior before one can engage in that unethical behavior is receiving renewed attention (Moore, Detert, Treviño, et al., 2012; Treviño et al., 2006). In the organizational literature, this process has been referred to as ethical fading (Tenbrunsel & Messick, 2004), neutralization (Robinson & Kraatz, 1998), rationalization and justification (Anand et al., 2005; Ashforth & Anand, 2003), and moral disengagement (Aquino, Reed, Thau, & Freeman, 2007, Beu & Buckley, 2004). These constructs share a history that is traced through over 50 years of work in neutralization theory (Sykes & Matza, 1957) and cognitive dissonance theory (Aronson, 1968; Festinger, 1957). Further, in the operationalization of these constructs, the self is recognized as a key factor that helps to explain disengagement processes and as an overarching factor that links moral cognition to moral behavior (Blasi, 1983).

Originally, neutralization theory was developed in the criminology literature as a counterargument to the proposition that juvenile delinquents are simply a product of a perverse social context in which being unethical is normative (Sykes & Matza, 1957). This theory provided one of the earliest conceptualizations of the means by which an individual could neutralize the self-blame that would otherwise occur if there were no sufficient explanation for the behavior. Much of the research on neutralization concerns the link between neutralizations and criminal/delinquent behavior (e.g., lower levels of using neutralizations are related to lower levels of delinquency or criminal behavior). The theory, however, has been criticized for focusing on neutralization as an activity

related to behavior as opposed to advancing the study of neutralization as a psychological process (Maruna & Copes, 2004).

Moral disengagement, on the other hand, was developed as a psychological construct to explain the “perpetration of inhumanities” such as those likely to occur in war (e.g., genocide or killing of innocent civilians; Bandura, 1999). Further, the construct of moral disengagement is defined within the boundaries of moral agency in social cognitive theory (Bandura, 1986; 1991). As such, ethical behavior is the product of individual and social influences (Bandura, 2002), and operating within this theoretical framework establishes important boundary conditions for the interpretation and study of this construct within organizations.

Moral Disengagement as Adaptive Processes

In his work on moral disengagement, Bandura presents individuals as moral agents who “refrain from behaving in ways that violate their moral standards” (Bandura, 1999, p.193). Bandura’s presentation of moral disengagement is embedded within his broader social cognitive theory (Bandura, 1986). According to this theory, people are self-directed, proactive agents, rather than reactive organisms driven by environmental forces or cold forces of pure cognition. Individual behavior is guided by self-sanctions which direct behavior in accordance with self-beliefs (self-concept, self-esteem, values). These self-sanctions are important for preventing the self-devaluation that occurs when one behaves contrary to their self-beliefs. Therefore, moral agency is specific to human functioning and involves self-directed moral conduct or the inhibition of immoral conduct.

This highlights two aspects of moral agency—inhibitive and proactive (Bandura, 2001). The inhibitive aspect of moral agency is that one is able to refrain from behaving unethically; the proactive aspect is that one is able to behave in an ethical way. The social cognitive theory approach to moral behavior is significant in that it provides an explanation for the transition from moral reasoning to moral behavior. “Moral reasoning is translated into actions through self-regulatory mechanisms, which include moral judgment of the rightness or wrongness of conduct evaluated against personal standards and situational circumstances, and self-sanctions by which moral agency is exercised” (2001, p.9). Anand & colleagues (2005) investigate the rationalization and justification processes which lead to moral disengagement, and they speak of moral disengagement in terms of “neutralizing the countervailing force of morals and ethics” (Ashforth & Anand, 2003, p. 6).

Moral disengagement is an end state achieved through the enactment of “psychological maneuvers” (Bandura, 1999, p.194). Bandura (1999) highlights eight maneuvers by which one may morally disengage: moral justification, sanitizing/euphemistic language, advantageous comparison, minimizing or ignoring consequences, diffusion or displacement of responsibility, dehumanization, and attribution of blame. In reviewing the literature on moral disengagement, there are some disengagement strategies / techniques commonly highlighted. Some of the more common techniques reported are language euphemisms (e.g., referring to fraudulent accounting practices as creative accounting or earnings management), denial of responsibility (e.g., justifying fraud because one didn’t know it was against the law), denial of injury (e.g., justifying stealing from an organization because it is so big a few missing dollars won’t

hurt it), denial of the victim (e.g., people are classified as less than human, so they deserve what they get), social weighting (e.g., criminals who justify behavior by accusing police of being corrupt), or displacement of responsibility (e.g., one views his or her actions as directed by authorities or just following orders).

Gaps in Moral Disengagement Research

Much of the moral disengagement research to date focuses on the explication and measurement of the construct (Bandura, Caprara, Barbaranelli et al., 2001; Detert, Treviño, & Sweitzer, 2008, Moore et al., 2012). This furthers our understanding of ethical behavior as the product of individual influences; however, this construct is situated within social cognitive theory, where ethical behavior is understood as being a product of individual *and* social influences. Though social influences are receiving increased attention (Darley, Messick, & Tyler, 2001), little theory development concerns the social influences that affect moral disengagement processes (see Ashforth & Anand, 2003 or Bandura, 1999 for exceptions). As a construct situated in social cognitive theory, it follows that this psychological process is also subject to influence by the same individual capabilities (e.g., forethought, learning through vicarious experiences, and self-regulation) as are other processes, such as efficacy beliefs.

Social influences on moral disengagement processes (e.g., societal norms or institutional protection of dissent) have been suggested (Bandura, 1999); however, few scholars have explicitly linked the social influence of leaders to the moral disengagement processes of their followers. As an exception, Ashforth and Anand (2003) suggest that leaders may play a substantial role in the institutionalization of corruption in organizations. They suggest the institutionalization process occurs in part as a function

of individual moral disengagement processes, and leaders, based on their status as role models in the organization, may provide an easy rationalization for employees attempting to disengage their self-reactance processes. Ashforth and colleagues (2005) suggest that leaders can influence their employees' through behaviors that explicitly or implicitly condone unethical practices. Further, discussions of moral disengagement often cite leaders as the culpable agents in crimes of obedience, where followers may displace blame by explaining they were just following orders (Kelman & Hamilton, 1989; Milgram, 1974).

Leaders also have the potential for mitigating moral disengagement processes. An important finding in behavioral ethics research is that the proximity (e.g., physical or psychological closeness) of individuals to the outcomes of their behaviors affects whether or not they engage in unethical behavior—closeness reduces the incidence of unethical behavior (Beu & Buckley 2004). Research on moral disengagement suggests that the humanization of victims of unethical behavior makes it difficult to disengage one's moral self-reactions from their agentic role in unethical behavior (Bandura, 1999). Leaders have the ability to humanize victims and influence the proximity of ethics issues (Jones & Ryan, 1997; Watley & May, 2004). Further, the absence of unethical behavior limits the repertoire of maneuvers one may use to disengage moral self-sanctions.

Therefore, I suggest that leaders, through the behaviors they model, may also influence individual moral disengagement processes. Thus, when one observes a leader behaving in a manner that condones unethical behavior, they will be more likely to morally disengage; whereas, those who observe ethical behavior will be less likely to morally disengage.

Hypothesis 2a: Ethical leader behavior is negatively related to follower moral disengagement.

Hypothesis 2b: Unethical leader behavior is positively related to follower moral disengagement.

Above, I argue that leaders are a source of social influence that may affect one's ethical efficacy beliefs; however, one's set of ethical efficacy beliefs—beliefs about their capabilities to enact ethical conduct—is present prior to being subject to leader influence. If ethical efficacy beliefs operate as do self-efficacy beliefs, these beliefs are most strongly influenced by one's personal successes or failures within the particular domain of functioning (Bandura, 1997). For example, academic efficacy is most strongly influenced by one's personal successes or failures in academic endeavors. Further, these ethical efficacy beliefs are present along with one's moral self-regulatory processes (e.g., affective reactions to violations of personal standards or maintaining positive self-regard as a moral person).

Therefore, leaders may be able to influence ethical efficacy beliefs and moral disengagement processes, but their influence must occur in the presence of follower's existing ethical efficacy beliefs. Individuals proactively adopt goal challenges to direct actions and motivation (Bandura & Locke, 2003), and in the domain of moral functioning these goal challenges involve maintaining behavior in accordance with personal standards (Bandura, 1991). In the exercise of moral agency, one's personal standards serve as information for the application of self-sanctions. Self-efficacy beliefs are beliefs that one has the ability to achieve goals, and the stronger these beliefs, the more likely one is willing to persist in achieving goals despite failures or setbacks (Bandura, 1997). If we understand an unethical leader's influence on moral disengagement processes as a

challenge to be met in striving towards maintaining one's personal standards, then a leader's influence on moral disengagement processes will be more pervasive when one has low ethical efficacy beliefs versus high ethical efficacy beliefs.

Hypothesis 3a: The influence of unethical leader behavior on follower moral disengagement will be weakened when follower ethical efficacy beliefs are high.

Hypothesis 3b: The influence of unethical leader behavior on follower moral disengagement will be strengthened when follower ethical efficacy beliefs are low.

Moral Self-Regulatory Mechanisms as Mediators

As stated earlier, ethical and unethical leaders have been shown to influence both ethical and unethical behavior of their followers. In the case of ethical leaders, their integrity, moral development, and modeled ethical behaviors are positively related to ethical behavior and negatively related to unethical behavior by their followers (Schminke et al., 2005; Simons, 2002; Treviño et al., 2006). For unethical leaders, their behavior is generally considered in terms of its effect on counterproductive work behaviors such as absenteeism or employee theft (Detert, Treviño, Burris, & Andiappan, 2007). Thus, research demonstrates the influence of leaders on both ethical and unethical follower behavior; however, little empirical work examines the mediating variables between leader and follower behavior.

A basic precept of social cognitive theory is that one presides over their own conduct, and various capacities and psychological functions facilitate self-regulation of behavior (Bandura, 2005). Supporting this, ethical efficacy beliefs and moral disengagement processes have been linked to ethical and unethical behavior, respectively (Bandura et al., 2001; Detert et al., 2008; Hannah & Avolio, 2010; Mitchell et al., 2008; Moore et al., 2012). Thus, connecting the influence of leaders on individual self-

regulatory processes with the influence of self-regulatory processes on ethical behavior, it follows that leaders may affect follower behavior through their influence on ethical efficacy beliefs and moral disengagement processes. One of the primary purposes of this proposal is to test these mediating relationships. Findings in behavioral ethics research clearly demonstrate that leaders influence both ethical and unethical behavior by their subordinates (see Treviño et al., 2006 for a review). Thus, demonstrating that leaders influence follower behavior through follower self-regulatory processes builds a more detailed model of the processes by which leaders influence the incidence of ethical or unethical behavior in organizations. Therefore, drawing from social cognitive theory, I suggest leader behavior is linked to follower behavior through moral self-regulatory capacities; however, as Bandura notes, “Development of self-regulatory capabilities does not create an invariant control mechanism within a person” (1991, p. 45). In this study, I focus on two processes, ethical efficacy and moral disengagement. Recognizing other moral self-regulatory processes, such as moral identity, may be operating to influence the activation or deactivation of personal moral standards, I expect partial mediation.

Hypothesis 4: Follower ethical efficacy beliefs partially mediate the relationship between leader behaviors and follower behaviors.

Hypothesis 5: Follower moral disengagement partially mediates the relationship between leader behaviors and follower behaviors.

The Influence of Ethical Efficacy on the Role of Moral Disengagement as a Mediator

The overall hypothesized model combines the moderating effects of ethical efficacy and the mediating effects of moral disengagement. The implication of combining these hypothesized relationships is that the indirect effect of ethical leadership on follower (un)ethical behavior through moral disengagement is moderated by ethical

efficacy. This implied relationship gains legitimacy when considering that some extant level of ethical efficacy beliefs exist prior to exposure to leader behavior. Again, the strength of efficacy beliefs is influenced by past experiences in successfully enacting behavior necessary to succeed in a given task. Further, strong efficacy beliefs influence an individual's choice to enact behavior and pursue that action in the face of challenges and setbacks (Bandura, 1997). Applied to ethical efficacy, it is expected that one with strong ethical efficacy beliefs will be less likely to morally disengage as a result of leader influence, which weakens the mediating effect of moral disengagement; whereas, the influence of leaders on moral disengagement is expected to be stronger when ethical efficacy beliefs are low, which strengthens the mediating effect of moral disengagement. Thus, the indirect effect of moral disengagement is conditional. In other words, there is a moderated mediation relationship (Edwards & Lambert, 2007; Preacher, Rucker, & Hayes, 2007) where the moderating effects of ethical efficacy influence the mediating effects of moral disengagement.

Hypothesis 6a: The mediating effects of moral disengagement are weakened when ethical efficacy is high.

Hypothesis 6b: The mediating effects of moral disengagement are strengthened when ethical efficacy is low.

Chapter Summary

The behavior of leaders is increasingly recognized as an important factor that influences ethical behavior in organizations (Thomas et al., 2004); however, this acknowledgement has generally been anecdotal or limited to theoretical propositions. The means by which leaders influence followers' (un)ethical behaviors have received little empirical attention. In this study, moral self-regulatory abilities of followers are

highlighted as possible mechanisms through which leaders influence behavior.

Specifically, ethical efficacy beliefs and moral disengagement processes are presented as two important psychological factors that are related to (un)ethical behavior, and leaders are suggested to influence these processes.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Research Design

To date, little research considers the influence of leaders on followers' ethical efficacy beliefs (see Mitchell et al., 2008; Hannah et al., 2010; Schaubroeck et al., 2012 for exceptions), and scholars are just beginning to examine the direct influence of leaders on follower moral disengagement (Mayer, Kosalka, Moore & Folger, 2010).

Investigating the influence of leaders on these processes provides an opportunity to examine propositions about the relationship between ethical efficacy and moral disengagement. Therefore, the research design and methodology in this chapter were developed to investigate the causal relationships among the variables presented in the model for this study (see Figure 1). Hypotheses are tested using an experimental design. Participants are randomly assigned to one of three conditions based on three different leader responses to an ethical dilemma: (1) ethical leader response, (2) unethical leader response, or (3) a control condition involving a response with no moral content. After observing a leader responding to an ethical dilemma, participants are asked about their ethical efficacy for handling the dilemma and their moral disengagement toward the ethical issues in the dilemma. Finally, participants assess how they would address any ethical issues in the scenario.

The setting for this study is U.S. Army soldiers participating in a web-based simulation. A military setting is appropriate because it represents a context where the role of leaders is institutionalized through organizational policies and doctrine and explicitly in the Army values (Department of the Army, FM 6-22). Additionally, the present

operations of the Army in countries such as Iraq and Afghanistan place soldiers in situations in which an unethical decision may lead to serious injury or death or could create international incidents that may undermine political stability in those regions. Thus, an understanding of these processes has the potential to alleviate serious detrimental outcomes of unethical decisions on the part of U.S. soldiers.

In the study of ethical efficacy, the military context is also one in which the role of leader is salient and essential. In the U.S. Army, military leaders are charged with the responsibility for the health, welfare, training, and discipline of their soldiers (Department of the Army, FMI 5-01). Leaders are entrusted with the authority to carry out these duties. Additionally, the formalized rank structure presents a visible reminder of the hierarchy of authority inherent to the organization. As a function of this authority and these responsibilities, leaders play an important role in the day-to-day lives of their soldiers, and the importance of leaders to their followers may have an impact on leaders' ability to influence the efficacy beliefs of their followers (Brown & Treviño, 2006).

Finally, the moral disengagement process has been specifically cited as important for the perpetration of war crimes (Aquino et al., 2007; Bandura, 1999). It is argued that soldiers are able to engage in war crimes by justifying these behaviors as acts of obedience to orders (Beu & Buckley, 2004). The nature of military orders is such that, if disobeyed, one is subject to criminal punishment under the military justice system. Granted, unlawful orders do not have to be obeyed, yet the system of authority and the importance of obeying orders are deep-rooted in the military culture and could provide an easy justification for unethical conduct. Further, the military system presents leaders with a level of authority that is uncommon in traditional organizational settings. Thus, the

argument that military leaders may actively or passively influence disengagement processes is a testable proposition with important implications.

Procedures

Pilot Test

Participation in this study involved multiple steps. Prior to conducting the study, the measures and study simulation were pilot-tested with soldiers to ensure the manipulation and adapted measures worked with the military sample. For the pilot test, an Army Reserve battalion was recruited to participate in the study. Soldiers in this unit were contacted via email and asked to participate in the study. A population of 1,262 soldiers were contacted and asked to complete a Time 1 survey. The purpose of this survey was to collect demographics, control variables, and baseline measures of ethical efficacy and moral disengagement. Of those soldiers contacted, 63 soldiers completed the Time 1 Survey. Approximately two weeks later, soldiers who completed the Time 1 Survey were again contacted and asked to participate in the study manipulation in conjunction with a Time 2 survey. Of these 63 soldiers, 15 completed the manipulation and Time 2 survey. The pilot study provided a test of the manipulation and highlighted a number of issues: (1) survey fatigue in the military leading to low response rates; (2) high attrition rates for the web-based study; and, (3) issues with administering a web-based study to military members participating in the study on a Department of Defense (DOD) network. Regarding issues with survey fatigue, soldiers are commonly surveyed on issues ranging from leadership to the design of their physical fitness uniforms. The military as a whole is a difficult sample to access, in part due to survey fatigue. Given these concerns, I assumed that a reasonable expectation for the response rate would be 25%. Regarding

attrition rates, the sample used for the pilot study showed an attrition rate of 77%. With a response rate of 25% and an attrition rate of 77%, a population of approximately 1750 soldiers would be required just to obtain a sample of 100. It is difficult to obtain access to a military sample of this size. Thus, I combined Survey 1 and Survey 2 with the experimental manipulation so that participants would complete the study in one session. While this modification did not necessarily increase study response rates, it substantially reduced attrition rates.

Power Analysis

An a priori power analysis was conducted to determine the sample size required for this study. The power analyses were conducted with two of the hypothesis testing procedures in mind. First, a power analysis for ANOVA was conducted, given the need to assess group differences for the three conditions of the experimental manipulation. Next, a power analysis for regression was conducted, given the planned moderation and mediation analyses that will be assessed through hierarchical regression.

Power refers to the probability of rejecting a null hypothesis that is false. Power analysis is based upon the relationships of: effect size (ES), Type I error (α), Type II error (β), and sample size (N). Recent meta-analytic findings in behavioral research demonstrate that the average effect size (corrected correlation) of leadership is $\rho = .35$ (Paterson, Harms, & Credé, 2012). Given these findings, a planned effect size of $ES = .29$ was selected for ANOVA analyses, with Type I error $\alpha = .05$ and Type II error $\beta = .20$. From this analysis, it was determined that the minimum sample size for each treatment condition would be 32, for a total sample size of $N = 96$. For the regression power analysis, similar values were used with $\alpha = .05$ and $\beta = .20$, and an effect size $f^2 =$

.18 was selected. Thus, in a regression model with four predictors (leader behavior, ethical efficacy, moral disengagement, and moderator variable), the minimum sample size is $N = 71$.

Data Collection

The process of data collection started with participant recruitment. First, military units were identified and their commanders were contacted in order to request permission to survey the soldiers in their units. Once units were identified, soldiers were contacted via an email saying that they had been identified to consider volunteering to participate in a study involving research on soldiers' reactions to various situations. Along with this email, soldiers received a link to the web-based study. This link took participants to the informed consent page, and those who consented to participate in the study were then taken to the first page of the study measures. All participants were assured that their responses would remain confidential and that participation in the study was voluntary. Participants were selected based upon status as a member in military service, where membership involved presently serving in an active duty, reserve, guard or cadet status.

Participants were first presented with survey measures intended to capture individual difference data on study control variables including moral awareness, general efficacy, and moral identity. Additionally, measures of moral disengagement and ethical efficacy were administered. Given the key mediating roles of ethical efficacy and moral disengagement in the hypothesized model, it is recommended that such variables are randomized (Bausell, 1994). Thus, the presentation of these measures was randomized.

Once participants completed the initial survey measures, they were randomly assigned to one of three conditions with differing leader behaviors. The web-based study

included surveys and videos set up and administered through Qualtrics survey software. There were two treatment conditions (ethical leader and unethical leader) and one control condition. Once assigned to a condition, participants were presented with a video of a mid-grade, male military officer. In this video, the officer introduces himself and explains that, based upon his status as a military officer and his experiences in deploying to Iraq and Afghanistan, he has been asked to work with the institution conducting the study. He explains that in support of this study he is commenting on various situations soldiers may experience in Iraq or Afghanistan. Upon completion of the introduction of the military officer, the video transitions to a video of an ethical dilemma that occurred and was recorded in Iraq. In this video, the person filming is a passenger in a “Humvee” that is the lead vehicle of a military convoy through Baghdad. The video depicts this lead vehicle being driven in an excessively aggressive manner (i.e., the vehicle bumps a number of civilian vehicles that are driving in front of the military convoy, drives into oncoming traffic, speeds through busy intersections, and one pedestrian is nearly hit). Subsequent to the video of the ethical dilemma, the video transitions back to the military officer. The officer comments on the Iraq convoy scenario that was just observed. At this point in the video, the comments of the military officer serve as the experimental manipulation in the study.

The convoy video was chosen as it depicts military convoy procedures that are unethical; however, the intended outcomes may serve as a means for justifying such actions (i.e., the aggressive driving allows vehicles to move quickly through the city, which reduces exposure of the convoy to attack). The aggressive driving is meant to protect soldiers, but also puts innocent civilians at risk. Thus, it is a video where a

leader's response could either promote or reduce moral disengagement and influence participant's ethical efficacy. By justifying the aggressive driving, a leader may foster those beliefs in others, which promotes moral disengagement. By condemning the behavior, this may inhibit rationalizations (reducing moral disengagement) or instill confidence in others that they can also condemn such behavior (increasing ethical efficacy beliefs).

After observing the leader's response, participants were presented with a number of survey measures, which included measures of moral disengagement and ethical efficacy. Again, these measures were randomized. Additionally, these measures were framed around the ethical dilemma observed in the video of aggressive driving.

In order to capture the dependent variable in this study, subjects were presented with a behavioral intent measure that asked how they would behave if they were in a different vehicle in the convoy and observed the aggressive behavior presented in the video. Participants also completed a final dice-roll task that created an ethical dilemma for them where one could assign themselves to a boring task or behave unethically by assigning themselves to an interesting task that included an opportunity to win a prize worth \$50. This task was presented as a means to capture unethical behavior—as opposed to behavioral intent. Upon completion of the dice-roll task, subjects were presented demographic measures and manipulation checks to assess the effectiveness of the study manipulation.

Site and Sample

Data for this dissertation was collected from two sites. The first site was a U.S. Military Installation in the West region of the United States. This installation is a

Training and Doctrine Command (TRADOC) post. A TRADOC installation is one in which the primary activities conducted on the installation are toward the training and development of soldiers in a primarily academic setting. The military training is equivalent to mid-career technical / professional development training. The participants from this site were officers and non-commissioned officers in the U.S. Army. Their status included active duty, Reserve and National Guard. Data were collected over the course of four months. During this time, 400 soldiers were contacted via email and 185 volunteered to participate in the study. Of the 185 who participated in the study, 148 completed the study; however, 23 of these subjects indicated that they were not able to observe the manipulation videos, and these subjects were not included in the analyses. Finally, times to complete the study were reviewed in order to identify subjects who clicked through the measures without reading the questions or watching the manipulation videos. From this analysis, another 24 subjects were removed. This left a total of 101 respondents of the 148 from this location. Of these respondents, 58 were enlisted, 42 were officers, and one did not report rank.

The second site was an Army ROTC program located in a large Midwest university system. Subjects in this sample varied, from college students whose military experience was limited to their ROTC training to veterans who had deployed to Iraq and/or Afghanistan. Data from this sample were collected over the course of two months. During this time, 25 ROTC cadets were contacted and 15 participated in the study. Of the 15 who participated in the study, one did not have complete data. Additionally, one subject had complete data but indicated that they were not able to see or hear the manipulation videos. This left a total of 13 respondents.

Taken together, there were 114 study participants. This was divided into three conditions as follows: ethical leader = 38, unethical leader = 35, and control condition leader = 41. Of these respondents, 42% were in the age category of 25-29 years old, 96% were men, 85% had deployed to Iraq or Afghanistan, and 71% reported having three or more years of leadership experience. Note that much of the demographic data was limited to categories (i.e., age = 25-29 years old) due to anonymity constraints placed on this study by the U.S. Army Research Institute. Given the low number of participants, there was concern over Type II error, and this is addressed in the results section below.

Measures

All surveys were administered electronically through a web-based survey system. Survey data was collected in conjunction with the web-based experimental manipulation used for this study. The progression of the study is detailed in Appendix B.

Independent Variable

Leader Behavior. Leader behavior was manipulated across three conditions, which involved presenting a video of an ethical dilemma that occurred with soldiers in Iraq followed by a video of a military leader responding to the dilemma in one of three ways: (1) in an ethical manner, (2) in an unethical manner, or (3) with no moral content. Responding in an ethical manner involved the leader discussing the behaviors observed in the simulation video as inappropriate; responding in an unethical manner involved the leader justifying the behavior as appropriate; and, responding to the dilemma with no moral content involved no comment on the appropriateness of the behavior and was intended to serve as the control condition in this manipulation.

The script for the leader behavior manipulation was designed to present a leader who acts in accordance with or in contrast to the definition of ethical leadership as presented by Brown and colleagues (2005). The leader in the video used scripted language that matched or was in contrast with specific items used in the ethical leadership measure. The script of the leader response for each condition of this study is included in Appendix B, and the language in the script that matches the ethical leadership measure is annotated. The manipulation of ethical leadership allows for objective assessments of the construct—as opposed to leader self-assessment. Brown & Treviño (2006) argue that such objective measurements are important for meaningful research on ethical leadership. While Brown & Treviño (2006) suggest that ethical and unethical leadership are likely not opposite ends of the same continuum, they also present this as an area that warrants further investigation. Thus, the inclusion of ethical, unethical, and control conditions serves to present multiple aspects of the ethical leadership continuum. Finally, the manipulation of ethical leadership in an experimental setting meets recent calls for more experimental research in leadership (Avolio et al., 2009; Brown & Lord, 1999).

As a manipulation check, subsequent to the manipulation, ethical leadership was measured using the Brown et al. (2005) 10-item measure. Items were measured on a Likert-like scale ranging from 1 *strongly disagree* to 5 *strongly agree*. Items measure the extent to which individuals perceive their leaders as modeling conduct that followers consider to be normatively appropriate. Sample items are, “Sets an example of how to do things the right way in terms of ethics” and “Discusses military ethics or values with soldiers.” Given the brief interaction of study participants with the leader in the simulation, specific items in the ethical leadership measure may have been difficult for

participants to assess. Because of this, one of the ten items in the measure was not included. Specifically, “Conducts his/her personal life in an ethical manner” is a statement that refers to observed leader behaviors not explicitly manipulated and that could not be observed in the study simulation videos. The alpha reliability coefficient for the 9-item measure was .95, meeting acceptable psychometric standards (Nunnally & Bernstein, 1994).

Dependent Variables

Ethical Efficacy. Ethical efficacy, also referred to as moral efficacy, is a relatively new construct. Given the newness of the construct and little empirical research into the validity of existing measures, two measures of ethical efficacy were used in the study. First, a six-item measure developed by Mitchell, Palmer and Schminke (2008) was used to assess ethical efficacy. Items were measured on a Likert-like scale ranging from 1 *strongly disagree* to 5 *strongly agree*. Items measure the extent to which subjects are confident in their ability to enact ethical behavior, and they are preceded by a stem that states, “When faced with an ethical or moral situation...” Sample items are, “I would behave ethically, even if those in authority did not” and “I am certain I would try to resolve the situation in an ethical manner.” The alpha reliability coefficient for the 6-item measure was .96.

Next, a five-item measure of moral efficacy developed by Hannah and Avolio (2010) was also used to assess ethical efficacy. Items were measured on a Likert-like scale ranging from 1 *not at all confident* to 5 *totally confident*. Items measure the extent to which subjects are confident in their ability to enact ethical behavior, and they are preceded by a stem that states, “I am confident that I can...” Sample items are

“determine what needs to be done when I face moral/ethical dilemmas” and “work with others to settle moral/ethical disputes.” The alpha reliability coefficient for the 5-item measure was .94.

Moral Disengagement. Moral disengagement was measured using a reduced version of the measure developed by Detert, Treviño, and Sweitzer (2008). Detert and colleagues developed a 24-item, multi-dimensional measure of moral disengagement that assesses eight forms of moral disengagement processes. This measure was adapted from a previous 32-item version intended for use with children (Bandura et al., 1996; 2001). Of the eight dimensions in the measure, six were chosen based on their relevance to the scenario presented in the manipulation: (1) displacement of responsibility, (2) diffusion of responsibility, (3) distortion of consequences, (4) attribution of blame, (5) dehumanization, and (6) advantageous comparison. These six dimensions aligned with the ethical issues participants encountered in the simulation videos. The content of the other two dimensions (euphemistic labeling and moral justification) were not included because they identified issues not relevant to the manipulation—including cheating in school and unethical behavior enacted on behalf of family and friends. These excluded dimensions did not clearly reflect moral issues addressed in the battlefield context presented in the videos. Each of the six dimensions of the measure included three items (18 items total). Sample items and their associated dimension include: “If people are living under bad conditions, they cannot be blamed for behaving aggressively” (displacement of responsibility); “If a group decides together to do something harmful, it is unfair to blame any one member of the group for it” (diffusion of responsibility); “Compared to other illegal things soldiers do, being overly aggressive with civilians is

not that bad” (advantageous comparison); “Overly aggressive driving doesn’t really harm anyone” (distortion of consequences); “People who are mistreated have usually done things to deserve it” (attribution of blame); and, “Some people deserve to be treated like animals” (dehumanization). Items were assessed on a 5-point Likert-like scale ranging from 1 *strongly disagree* to 5 *strongly agree*.

Though the construct is defined in terms of the mechanisms that facilitate disengagement (i.e., attribution of blame or dehumanization), Bandura and colleagues suggested that moral disengagement should be measured as a single higher order construct, whereby second order factors (i.e., attribution of blame, dehumanization, etc.) are loaded onto a single higher order construct. This also is in line with recent developments in moral disengagement research (Detert et al., 2008; Moore et al., 2012). Indeed, the average correlation among the dimensions was $r=0.61$. When treated as a single measure of moral disengagement, the measure demonstrates acceptable internal consistency with an alpha reliability coefficient $\alpha=0.94$. Thus, given the high correlation among the various dimensions, the high internal consistency, and the precedent set in previous research, the dimensions were combined into a single measure of moral disengagement. As a further justification of this decision, a series of confirmatory factor analyses (CFA) were conducted using MPLUS 7.0 (Muthén & Muthén, 1998 - 2012) with maximum likelihood estimation to compare the fit of a multidimensional versus a one-dimensional measure of moral disengagement. Results of these analyses are presented in Table 1 below.

Insert Table 1 Here

In conducting the CFA analyses, the latent variable covariance matrix (ψ) from the full 18-item measure was not positive definite, which is an indication that the factor structure does not adequately fit the data. This was likely an issue due to the small sample size, where latent indicators (items in the measure) are closely related and demonstrate a correlation equal to 1. In keeping with theory and recent research, I also assessed the 18-item measure with the six dimensions of the measures modeled as six second-order factors loading on one higher order factor. This model had poor fit with RMSEA = .109, SRMR = .08, CFI = .88, and TLI = .85. Given the issues with model fit and the non-positive definite ψ matrices, an alternative was to reduce the number of factors in the moral disengagement construct. Therefore, I ran a series of five-factor models (where one of the dimensions of moral disengagement was removed from the measure). The best fitting model was a 15-item measure with the displacement of responsibility dimension removed. This measure was assessed with the five dimensions loading onto a single higher order construct. This measure demonstrated acceptable fit with RMSEA < .10, SRMR < .08, CFI > .90, and TLI > .90 (Hu & Bentler, 1999). This 15-item measure demonstrated good internal consistency with $\alpha = .94$ and was used for tests of the study hypotheses.

Follower Ethical Behavior. Follower ethical behavior was assessed using two measures developed for this study. The first is a 10-item measure of behavioral intent, which was developed with two dimensions to represent ethical and unethical behavioral intent. The ability to measure ethical or unethical behavior is a challenge in that observation is likely to influence the behavior itself (Treviño, 1986). As a result, behavioral intent is commonly measured as a close antecedent to behavior (Weber &

Gillespie, 1998). Therefore, following the experimental manipulation, participants were asked how they would behave if they were present during the dilemma they observed in the video. This procedure was chosen as it follows similar practices in other behavioral ethics research (Bass, Barnett & Brown, 1998; Kuo & Hsu, 2001; Hunt & Vitell, 1986), and it allowed for the development of items that would assess both ethical and unethical behavioral intent.

Given that this measure was developed as a contextually specific measure of intent relating to the behaviors observed in the experimental manipulation videos, an exploratory factor analysis (EFA) was conducted to determine whether the measure consisted of a single or multiple dimensions. The EFA was conducted using principle components factoring with Direct Oblimin rotation ($\delta = 0$). Results indicated two factors with eigenvalues greater than 1.0. Factor one consisted of a 5-item measure that explained 63% of the variance ($\lambda = 6.33$) with an alpha reliability coefficient of .91. Factor loadings ranged from 0.80 - 0.91. This factor represented the measure of unethical behavioral intent. Example items from this measure include “I would encourage the driver or vehicle commander to continue driving aggressively” and “I would do nothing.” Factor 2 consisted of a 5-item measure that explained 16% of the variance ($\lambda = 1.58$) with an alpha reliability coefficient of .95. Factor loadings ranged from 0.88 - 0.94. This factor represented the measure of ethical behavioral intent and included items such as “I would encourage the driver to consider the moral and ethical consequences of his/her decisions.” These measures were assessed using a Likert-like scale ranging from 1 *not at all likely* to 5 *highly likely*. Given support for treating the measure as two distinct

dimensions, these two measures were used as separate dependent variables in testing the study hypotheses.

The second follower behavior measure was adapted from a study by Batson, Thompson, Seufferling et al., 1999. In their study, Batson et al. created a moral dilemma for study participants, and the dilemma involved participants assigning themselves and another participant (who was actually fictitious) to tasks. There was a positive consequences task that involved opportunities to win prize money and a neutral consequences task, described as dull and boring, that provided no opportunity to win a prize. One person had to be assigned to each task, and participants made assignments based upon a coin flip. Through multiple studies and conditions, and despite the random coin flip, participants disproportionately assigned themselves to the positive consequence task (Batson, Kobrynowicz, Dinnerstein et al., 1997; Batson et al., 1999).

For the application of the Batson et al. (1999) task as a measure in this study, participants were asked to complete a web-based dice roll to assign themselves to a *positive consequence* or *neutral consequence* task. The positive consequence task involved the opportunity to win raffle tickets for a prize worth \$50. The neutral consequence task is described as dull and boring with no opportunity to win raffle tickets. The assignment process was set up such that all participants should have assigned themselves to the neutral consequence task. If they assigned themselves to the positive consequence task, it was because they cheated on the task assignment. The scope of this second follower behavior measure is fully detailed in Appendix B.

The results of this measure showed that 5 of the 14 study participants assigned themselves to the positive consequence task. This low incidence rate of unethical

behavior resulted in a highly skewed dichotomous measure that ultimately did not meet the assumptions of normality necessary for use of this study variable in hypothesis testing. This measure was developed and applied in this study as a means of capturing actual participant behavior, as opposed to intent, and past applications of the measure showed a high incidence of unethical behavior; nonetheless, this aspect of the manipulation was not effective, and possible reasons for this are addressed in the discussion section.

Control Variables

Moral Awareness. Moral awareness is the first process in the larger ethical decision-making process proposed by Rest (1986). Rest (1986) describes moral awareness as a process whereby one identifies what can be done in a particular situation, figures out what the consequences to all parties would be for each course of action, and identifies and tries to understand one's own feelings on the matter. The outcome of moral awareness is that "one is aware of various possible courses of action and what the consequences are for people's welfare" (1986, p.8). Moral awareness regards one's ability to recognize the presence of moral content in a given situation. This ability is particularly relevant to moral disengagement processes because one must first recognize an issue as having moral content before he or she can disengage their moral self-reactions. Thus, a measure of moral awareness was included to insure that any differences in the dependent variables were not due to individual differences in moral awareness. For example, those low on moral awareness may seem morally disengaged, when in actuality they simply do not recognize that a moral issue exists and have no reason to establish intent to behave ethically.

Moral awareness was measured after watching the film, but prior to the experimental manipulation using Reynolds' (2006) 3-item measure of moral awareness. A single-item measure by Carlson, Kacmar and Wadsorth (2002) was also included in measuring moral awareness. In Reynolds' study, vignettes are presented with subjects directed to answer questions for each scenario using a Likert-like agreement scale. For this study, the moral awareness items were answered based upon subjects' observation of a video depicting an ethical dilemma faced by soldiers in Iraq. An example item from Reynolds' measure is "There are very important ethical aspects to this situation." The item from Carlson et al. is "This is an ethical dilemma." The alpha reliability coefficient for the 4-item measure was .82.

Moral Identity. Moral identity is a social identity one may embrace as self-defining, and the content of this identity regards how central or important moral traits are to one's sense of self (Aquino & Reed, 2002). To the extent that being a moral person is self-defining, one will regulate their behavior to be in accordance with a moral self-view. Thus, moral identity has been described as "one kind of self-regulatory mechanism that motivates moral action" (2002, p.1423). Moral identity is also related to other moral self-regulatory mechanisms such as ethical efficacy (Mitchell et al., 2008) and moral disengagement (Aquino, et al., 2007; Detert et al., 2008; Moore et al., 2012). Finally, moral identity is shown to predict ethical behavior (Aquino & Reed, 2002). Therefore, a measure of moral identity will be included to account for any variance in the dependent variables that is due to individual differences in moral identity.

Aquino and Reed's (2002) 5-item measure of internalization of moral identity was used to assess individual moral identity. Aquino and Reed developed two dimensions in

their original study; however, only the internalization dimension was predictive of ethical behavior (2002). With this measure, subjects are presented with a list of moral traits (e.g., caring, hardworking, honest) and asked to respond to a series of questions regarding these traits. Example items include, “Being someone who has these characteristics is an important part of who I am” and “Having these characteristics is an important part of my sense of self.” Items were assessed on a 5-point Likert-like scale ranging from 1 *strongly disagree* to 5 *strongly agree*. The alpha reliability coefficient for the 5-item measure was .81.

Locus of Control. Locus of control is a general tendency to attribute the cause of events to internal factors (i.e., factors one can control), or external factors such as chance (Rotter, 1966). It is commonly studied in the context of ethical decision-making, and those with an internal locus of control are generally less likely to indicate intent to behave unethically and more likely to indicate intent to behave ethically (O’Fallon & Butterfield, 2005). Those with an external locus of control have been shown to also have higher levels of moral disengagement (Detert et al., 2008). Given its relationship with moral disengagement and unethical behavior, a measure of external locus of control was included to account for any differences in the dependent variables that were due to individual differences in locus of control orientation.

External locus of control was measured in Survey 1 using four items from Levenson’s (1981) 8-item chance locus of control measure. Levenson’s full 24-item measure is based on three dimensions of locus of control. Locus of control is often operationalized as having two dimensions: internal locus of control and external locus of control; however, Levenson demonstrated two dimensions of external locus of control:

powerful others and chance. The full Levenson measure was recently used in the construct validation study of the moral disengagement measure (Detert, et al., 2008); however, the chance locus of control dimension was the only dimension that was significantly related to moral disengagement. Thus, in this study, the chance locus of control dimension was the only dimension used, and it was used to operationalize external locus of control. Items were measured on a Likert-like scale ranging from 1 *strongly disagree* to 5 *strongly agree*. Items measure the extent to which one believes events occur because of chance or fate. Sample items are, “To a great extent, my life is controlled by accidental happenings” and “When I get what I want, it is usually because I’m lucky.” The alpha reliability coefficient for the 4-item measure was .78.

General Self-Efficacy. General self-efficacy is a personality trait defined as one’s belief in their overall ability to succeed in a wide variety of achievement situations (Chen, Gully, & Eden, 2001). Research demonstrates general self-efficacy is strongly and positively related to task-specific forms of efficacy beliefs (Chen et al., 2001). Given the ethical efficacy construct is a new construct representing a specific form of efficacy, a measure of general efficacy was included to demonstrate that variance in follower ethical behavior, the dependent variable in this study, was due to follower ethical efficacy beliefs and not their general self-efficacy.

General self-efficacy was measured using four items from the Chen et al. (2001) eight-item measure. Items are measured on a Likert-like scale ranging from 1 strongly disagree to 5 strongly agree. The measure assesses one’s perception of his/her overall ability to effect requisite performances across a wide variety of achievement situations. Example items are “I will be able to achieve most goals I have set for myself” and “I am

confident that I can perform effectively on many different tasks.” The alpha reliability coefficient for the 4-item measure was .88.

Ethical Leadership. Given the experimental setting of the manipulation used in this study, participants experience a brief interaction with a military officer who is a leader according to their military stature; however, the leader in the simulation is not the direct supervisor of the study participants. It may be that some variance in the dependent variables is attributable to the influence of the actual supervisor of the study participants. Therefore, a measure of ethical leadership was administered prior to the experimental manipulation in order to assess participant perceptions of their current supervisors as ethical leaders; the referent of the measure was the soldier’s current leader. Specifically, participants were asked to rate their current or most recent leader.

Ethical leadership was measured using the same Brown et al. (2005) 10-item measure used to assess the leader in the experimental manipulation videos. Given that this assessment was of the participant’s actual leaders, all 10 items of the measure were assessed. The alpha reliability coefficient for the measure was .97.

Demographics. In addition to the control variables mentioned above, other demographic variables, including military-specific demographics, were collected. These variables include sex, age, military rank, education, leadership experience, and total length of time deployed to Iraq and/or Afghanistan.

CHAPTER FOUR

RESULTS

The purpose of this chapter is to present the descriptive statistics, scale reliabilities, and hypothesis tests from the study data. Prior to conducting hypothesis testing, the measures were assessed to ensure the constructs in the study met the assumptions of parametric statistics.

First, measures were assessed for normality. Based on assessments of both skewness and kurtosis (whether values fall in the range of very good, +/-1, though up to +/-2 is also usually acceptable), it was found that all measures met the assumptions of normality, except the measures of moral identity and unethical behavioral intent. Moral identity demonstrated a platykurtic (too tall) distribution with a score of -1.20, and unethical behavioral intent was positively skewed with a score of 1.054. These variables were just outside the “very good” range, but their scores still fell within acceptable limits for skewness and kurtosis. These variables were used in hypothesis testing; however, findings associated with these variables should be interpreted with caution.

Another assumption of parametric statistics is homoscedasticity (homogeneity of variance). The Levene statistic was applied to each construct and these variables fell within the constraints fitting the assumption of homoscedasticity. That is, the probability of the Levene Statistic for each study variable was $p > .05$.

Measures for the study variables, including measures for control variables and manipulation checks, were further analyzed for internal consistency using Cronbach's alpha (Cronbach, 1951). All measure reliabilities were above .70, meeting accepted

minimum scale reliabilities. Descriptive statistics, scale reliabilities, and correlations of the study variables are presented in Table 2.

Insert Table 2 Here

Finally, all of the endogenous variables specified in the model for this research are collected from the same source. Therefore, I conducted a number of confirmatory factor analyses (CFAs) to test the discriminant validity of the hypothesized model (see Table 3). Results of the CFAs demonstrate that the hypothesized 5-factor model is the best fitting model ($\chi^2 = 1513$, $df = 692$, $p < .05$, $TLI = .797$, $CFI = .811$, $SRMR = .064$, $RMSEA = .103$). Control variables were not included in these analyses due to sample size limitations. With the inclusion of control variables, the number of parameters in the model exceeded the number of observations.

Insert Table 3 Here

Manipulation Checks

Before moving forward with hypothesis tests, the effectiveness of the study manipulation was also assessed. It was found that the manipulation was marginally effective. While the manipulation did produce differences between groups in the mediating variables and dependent variables, the manipulation checks showed no significant differences in the independent variable of leader behavior. Also, differences in the mediating and dependent variables, attributed to the study conditions, were generally only found between the ethical and unethical conditions. It is unclear what effect the control condition was having (see Figure 2). The specifics of the manipulation

checks and manipulation effectiveness are discussed below and issues with the control condition will be addressed below and in the discussion section as appropriate.

First, demographic and control variables were compared across the three study conditions to determine the equivalence of the sample across conditions. Demographic variables were analyzed using a non-parametric statistic—the independent-samples Kruskal-Wallis test. The null hypothesis was that the distribution of each demographic and control variable was the same across study conditions. The null hypothesis was retained with $p > .05$ for all demographic variables. Further, participants' ratings of their current leaders along with the study control variables were compared across conditions using ANOVA. For all variables, except chance locus of control ($F = 3.08, p = .05$), there were no significant differences across the three groups ($p > .05$). It is not clear why there were significant differences in chance locus of control, but given the significant differences, this control variable was excluded from study analyses.

For the independent variable of leader behavior, a measure of ethical leadership was collected for the purpose of conducting manipulation checks. Using the study condition as a predictor, there were no significant group differences ($F = .897, p = .411$) of the observed leader behavior across the three study conditions. This finding was a concern because the leader behavior was manipulated based upon behaviors highlighted in the ethical leadership measure, and it was expected that the ethical leadership measure would serve as a good measure for the manipulation checks. However, the ethical leadership measure includes a wide range of behaviors that may be difficult to capture in a brief, web-based manipulation. Thus, one item from the measure was assessed and compared across groups. The item, “[this leader] sets an example of how to do things the

right way in terms of ethics?” was assessed between the ethical and unethical leader conditions. The difference between the two conditions was marginally significant ($t(68) = 1.87, p = .065$); however, when comparing the ethical/unethical conditions against the control condition, no significant differences were found.

Given the normality of the data, internal consistency and discriminant validity of the measures, and the marginal effectiveness of the study manipulation, hypothesis tests were conducted. Certain tests are limited because of the marginal effectiveness of the manipulation. In a number of instances, the limits of the manipulation effectiveness constrain the ability to test the study hypotheses. When applicable, these limitations are highlighted below.

Hypothesis Tests

Hypotheses 1a, 1b, 2a, & 2b

To test hypotheses 1a, 1b, 2a, and 2b, ANOVA was used to assess differences in the ethical efficacy and moral disengagement variables between the ethical and unethical leader study conditions. Given the lack of significant effects of the control condition on perceptions of leader behavior, this condition was not included in these analyses. First, the relationship between leader behavior and ethical efficacy was tested. Given the newness of the ethical efficacy construct, this construct was operationalized with two measures: (1) the ethical efficacy measure and (2) the moral efficacy measure. When assessing group differences on ethical efficacy using the moral efficacy measure, the difference between the ethical and unethical conditions was significant ($t(69) = 2.095, p < .05$); however, when using the ethical efficacy measure, there were no significant

differences in ethical efficacy ($t(69) = 1.519, p = .13$) between the ethical and unethical leader treatment conditions, though the test is close to the cutoff for marginal significance. Specifically, the mean of ethical efficacy (operationalized with the moral efficacy measure) for the ethical leader condition ($M = 4.23$) was significantly higher than for the unethical leader condition ($M = 3.90$). However, as reported in Table 2, there was not a significant correlation between leader behavior (as operationalized by the ethical leadership measure) and ethical efficacy ($r = .115, p > .05$; as operationalized by the moral efficacy measure); whereas, the correlation between ethical leadership and the ethical efficacy measure was significant ($r = .27, p < .01$). This highlights concerns over newness of the ethical efficacy construct and the validity of the measures operationalizing the construct. Given the significance of the moral efficacy measure in the ANOVA analyses above, this measure was selected as the operationalization of ethical efficacy that will be used for the rest of the hypothesis tests.

The significant difference between treatment conditions provides support for Hypothesis 1a and 1b. However, there were two issues with this finding. First, there were no significant differences between the ethical/unethical conditions and the control condition. Because there were only significant differences between the ethical and unethical conditions, the hypothesis tests do not allow for a comparison of the ethical/unethical conditions against a control condition. Thus, it is unclear whether ethical leader behavior or unethical leader behavior is having a greater effect, or equivalent effect, on the change in ethical efficacy. Second, the lack of a significant correlation between the ethical leadership measure and the moral efficacy measure suggests that the support for Hypothesis 1 should be interpreted with caution.

Next, the relationship between leader behavior and moral disengagement was tested. When assessing group differences in moral disengagement, the difference between the ethical and unethical conditions was not significant ($t(68) = .909, p = .367$). Specifically, the mean of moral disengagement for the ethical leader condition ($M = 2.08$) was not significantly lower than for the unethical leader condition ($M = 2.24$). It is notable that the differences are in the right direction—that participants in the ethical leader condition demonstrated lower moral disengagement scores. The implication is that the limited power associated with the small sample size may have led to a Type II error. However, as reported in Table 2, there was a significant, negative correlation between leader behavior and moral disengagement ($r = -.29, p < .01$). Thus, the non-significant difference between treatment conditions combined with the significant correlation between the two constructs provides partial support for Hypotheses 2a and 2b. The study demonstrates that leader behavior is related to follower moral disengagement; however, without a significant experimental effect that leads to the change in moral disengagement across conditions, causal interpretability cannot be inferred.

Given the mixed findings highlighted above, hierarchical regressions were used to further examine Hypotheses 1 and 2 by testing the hypothesized relationships while also controlling for moral awareness, moral identity, and general efficacy. Results of the regressions are presented below in Table 4. Variance inflation factor (VIF) scores were well below the 10.0 standard (Ryan, 1997), which suggests multicollinearity did not present a biasing problem in these analyses. Results indicate that leader behavior was a significant predictor of ethical efficacy ($\beta = .226, p < .05$), while controlling for moral awareness, moral identity, and general efficacy—providing further support to Hypotheses

1a and 1b; however, leader behavior was not a significant predictor of moral disengagement. This finding was not surprising given that there was no significant effect of the experimental conditions on moral disengagement.

Insert Table 4 Here

Hypotheses 3a & 3b

In order to test the moderating influence of ethical efficacy on the relationship between leader behavior and moral disengagement (Hypotheses 3a and 3b), hierarchical regression was again used. Leader behavior was operationalized as a binary predictor based on the ethical and unethical leader conditions of the experimental manipulation. The limitation with this approach is the sample size ($N = 70$). This is close to the minimum sample size projected from the a priori power analyses ($N = 71$), which increases the likelihood of a Type II error.

Following the recommendation of Cohen, Cohen, West, and Aiken (2003), predictor variables were mean-centered to reduce multicollinearity. Variance inflation factor (VIF) scores were well below the 10.0 standard (Ryan, 1997), which suggests multicollinearity did not present a biasing problem. Regression results are presented in Table 5 below.

Insert Table 5 Here

The results demonstrate that the leader behavior-ethical efficacy interaction did not have a significant relationship to moral disengagement. Therefore, neither Hypothesis 3a nor 3b were supported.

Supplemental Analyses

Use of an experimental manipulation was an important part of this study in that very little leadership research involves experiments; however, the control condition developed for this study was not an effective part of the manipulation. As a result, the control condition was not included in the hypothesis tests. By excluding the control condition participants, I did not have a sufficient sample size to test the remaining study hypotheses using the manipulated leader behavior as the independent variable.

As noted above, the ethical leadership measure was administered with the manipulated leader as the referent of the measure. This measure was administered immediately following the experimental manipulation and prior to the mediating and dependent variables. In order to test the remaining study hypotheses, the ethical leadership measure was used to operationalize the independent variable *leader behavior*. Though I lose the experimental aspect of random assignment, the manipulation of the independent variable is retained as a feature of these analyses, which allows for testing the remaining hypotheses using a quasi-experimental design that includes all study participants ($N = 114$).

Hypotheses 3a & 3b

Given concerns with Type II error noted above, the regression analyses for Hypotheses 3a and 3b were also conducted with leader behavior operationalized via the ethical leadership measure. The results of these additional analyses replicate the findings above in that the leader behavior-ethical efficacy interaction did not have a significant relationship to moral disengagement. Results of these additional regression analyses are reported in Table 5. Again, neither Hypothesis 3a nor 3b were supported.

Hypotheses 4 & 5

In order to test the mediation hypotheses (Hypotheses 4 and 5), the hypothesized model was tested through SEM using MPLUS. Again, in order to conduct these analyses with the full sample, leader behavior was operationalized with the ethical leadership measure. Results of these analyses are presented in Figure 3.

Insert Figure 3 Here

Using a Sobel test, the indirect effects of ethical efficacy and moral disengagement were tested. Results of these analyses showed that ethical efficacy did not mediate the relationship between leader behavior and follower (un)ethical behavior, Sobel $t(107) = -0.68, p = .50$. Therefore, Hypothesis 4 was not supported. However, moral disengagement had a significant effect for the partial mediation of the relationship between leader behavior and follower (un)ethical behavior, Sobel $t(107) = -1.99, p < .05$. Specifically, moral disengagement partially mediated the relationship between leader behavior and subject's unethical behavioral intent ($b = -.147, p < .05$) and between leader behavior and subject's ethical behavioral intent ($b = .125, p = .05$). Thus, Hypothesis 5 was supported.

Hypotheses 6a & 6b

To test the hypothesized moderated-mediation relationship, data was analyzed according to the "Direct Effects and First Stage Moderation" model of moderated mediation as outlined by Edwards & Lambert (2007, p. 4). Preacher, Rucker, & Hayes refer to this same model as the "Model 2: Moderated-Mediation Model" (2007, p. 196), which was adapted (see Figure 4) according to the variables in the hypothesized model

for this study. In this model, there is a conditional indirect effect. That is, the moderator variable (ethical efficacy) moderates the mediated relationship between leader behavior and follower behavior by influencing the a_1 path (see Figure 4). The hypothesized moderated-mediation relationship was analyzed following the steps and MPLUS syntax outlined by Preacher, Rucker, & Hayes (2007). Because the follower behavior was operationalized with two separate measures, one for unethical behavior and one for ethical behavior, the model was developed and analyzed with two dependent variables (see Figure 5). Analyses were conducted with MPLUS. Results of these analyses are presented in Figure 5.

Insert Figure 4 Here

Insert Figure 5 Here

In order to test Hypotheses 6a & 6b, the indirect path from leader behavior to follower behavior, through moral disengagement, was tested. This was accomplished by testing the significance of the indirect paths at different levels of ethical efficacy. Specifically, ethical efficacy values at +1 and -1 standard deviation were applied to test whether these values resulted in a significant change in the indirect path from leader behavior to follower behavior. These analyses were conducted concurrently for both dependent variables. The results show that the indirect paths were nonsignificant when ethical efficacy was high (+1 sd), and the indirect paths were significant when ethical efficacy was low (-1 sd), which supports Hypotheses 6a and 6b, respectively. Direct and

indirect effects are presented in Table 6. Additionally, the first-stage interaction was plotted based upon the results of the moderated-mediation model analyses (see Figure 6).

Insert Table 6 Here

Insert Figure 6 Here

Overall, the findings of this study provide mixed support for the study hypotheses.

A summary of the hypotheses and associated findings is presented in Table 7.

Insert Table 7 Here

CHAPTER FIVE

DISCUSSION

As organizations continue to face ethics scandals, leaders are increasingly recognized as important for shaping the context that influences follower behavior. Indeed, leaders have long been recognized as ones who influence others by the behavior they model. However, this social learning approach does not tell the whole story as to how leader behavior is translated in to follower behavior. Recent work in ethical decision-making emphasizes the importance of understanding the psychological processes that prevent unethical behavior (Duska & Dienhart, 1998; Tenbrunsel & Messick, 2004), and more specifically, scholars have begun to highlight the role of moral self-regulatory mechanisms as processes that play a role in whether leader behavior is replicated by followers. Further, scholars suggest that leaders may directly influence these intervening self-regulatory processes that in turn explain the behavioral outcomes of their followers (Aquino & Reed, 2002). Therefore, the purpose of this study was to investigate the effects of leader behavior on follower moral self-regulatory processes and subsequent (un)ethical behavior.

Two moral self-regulatory processes were the focus of this study. First, ethical efficacy, which is defined as one's belief in their ability to behave ethically, was proposed as one process that influences the motivation and subsequent behavior of individuals. Next, moral disengagement, which is defined as the selective disengagement of moral self-sanctions (Bandura, 2002), was also presented as an important self-regulatory process that leaders may influence. Both of these constructs have been defined

within the boundaries of moral agency in social cognitive theory (Bandura 1986, 1991). As such, ethical behavior is the product of individual and social influences (i.e., leaders), and operating within this theoretical framework establishes important boundary conditions for the interpretation and study of these construct within organizations.

The study was developed with three main objectives: (1) determine whether leaders influence the moral self-regulatory processes of ethical efficacy and moral disengagement, (2) understand how these processes relate to or influence each other, and (3) determine how these processes relate to ethical and unethical follower behavior. While findings regarding each of these objectives were mixed, I found support for each. First, the assertion that leaders influence these moral self-regulatory processes was supported. Further, it was found that there is a complex relationship between ethical efficacy and moral disengagement, where ethical efficacy interacts with the leadership context to then influence moral disengagement processes. Finally, it was found that these moral self-regulatory processes also play an important role in commuting the influence of leaders to ethical and unethical behavior by followers.

Study Strengths

This study is important as it provides a number of firsts in behavioral ethics and ethical leadership research. This study is the first experimental manipulation to test the influence of (un)ethical leadership on moral disengagement and ethical efficacy. In general, this study also meets recent calls for experimental research on leadership (Avolio et al., 2009; Brown & Lord, 1999).

Additionally, I was not able to find any other studies where the influence of ethical leadership is assessed through experimental manipulation. Here, ethical leadership is manipulated as an independent variable, which adds to the body of knowledge specific to the role of ethical leadership in important behavioral and workplace outcomes, and it adds to our understanding of the construct where there are still questions as to differences between ethical and unethical leadership (Brown & Treviño, 2006). While the manipulation of ethical leadership did explain variance in ethical efficacy and behavioral intent, this manipulation was not reflected in the ethical leadership measure that was included as a manipulation check. This is interesting in that individuals rate a leader as ethical despite the leader demonstrating unethical behavior, which calls into question the validity of current measurement methods and how well they capture ethical leadership as distinctive from other dimensions of leadership. It also suggests that the “halo effect” that is often cited as a shortcoming of leadership measurement may inhibit the ability of followers in identifying unethical leader behavior, which has been cited as a reason for conducting more experimental leadership research (Brown & Lord, 1999).

Next, this study meets recent calls to look at the effects of ethical leadership on *ethical* outcomes—as much of the research to date focuses on how leaders influence *unethical* behavior (Mayer, Aquino, Greenbaum, & Kuenzi, 2012). This study is particularly unique in that it examines both ethical and unethical outcomes concurrently. What this study suggests is that measures of ethical or unethical leadership should be selected depending on the dependent variable being examined. While, ethical leadership relates to both ethical and unethical behavioral intent, ethical leadership is related more strongly to ethical behavior, while unethical leadership is related more strongly to

unethical behavior. This is not surprising and follows with the social learning theory approach taken in the ethical leadership research.

In terms of behavioral ethics and moral disengagement research, this study makes a number of important contributions. First, the interaction of situational influences (i.e., unethical leadership) with dispositional influences (i.e., ethical efficacy) has been highlighted as an important but missing step in the progression of behavioral ethics and moral disengagement research (Moore et al., 2012). Through this study, we begin to understand that there are situational and dispositional influences that may increase or decrease one's propensity to morally disengage.

Finally, very little research exists on ethical efficacy. Thus, this study adds to our theoretical understanding of the construct and its nomological network, and demonstrates the importance of the construct as a moral self-regulatory variable that warrants future research. The study highlights a common concern with new constructs: construct validity. By using two operationalizations of the ethical efficacy construct, we can see that each construct behaves in unexpected ways. In the case of the moral efficacy measure, it was surprising that this measure was not significantly correlated with ethical leadership. Role models are noted as an important source of information for efficacy beliefs, and yet ethical leadership and moral efficacy were not significantly related. On the other hand, the ethical efficacy measure held a strong, significant correlation with ethical leadership. This difference between the two measures was not likely to result from methodological differences, as the two measures were counter-balanced when presented in the study manipulation. Researchers who intend to use measures of ethical efficacy should consider applying multiple operationalizations, as was done in this study, until further research is

conducted to explicate the nomological network of the construct and demonstrate the construct validity of specific measures.

Theoretical Implications

Beyond these firsts, this study extends research on ethical leadership. Though ethical leadership provides a growing research field, we understand very little about the role of the (un)ethical leader in influencing follower behavior. Indeed, ethical leadership research to date has demonstrated that ethical leaders influence ethical behavior in the workplace (Mayer et al., 2012; Walumbwa & Schaubroeck, 2009); however, this research generally does not examine the intervening processes through which leader behavior is translated into follower behavior (see Walumbwa et al., 2011 and Schaubroeck, et al., 2012 for exceptions). Thus, this study provides an important contribution in that it adds the moral self-regulatory processes of ethical efficacy and moral disengagement to our understanding of how leader influence is translated into behavior. More specifically, this study advances our understanding of leader influence beyond that explicated through social learning processes and demonstrates that leader influence is transmitted through mediating self-regulatory processes.

Social learning theory is somewhat limited in that it presents a monkey-see-monkey-do explanation of the role of leaders in influencing (un)ethical follower behavior. That is, one learns behavior by simply observing and imitating others. This study emphasizes the importance of examining leader influence according to social cognitive theory, where individual “moral reasoning is translated into actions through self-regulatory mechanisms rooted in moral standards and self-sanctions by which moral agency is exercised” (Bandura, 1999, p. 193). By taking a social cognitive approach in

examining intervening self-regulatory variables such as ethical efficacy and moral disengagement, we gain a better understanding as to how leader influence is translated into follower behavior, and scholars and leaders may then begin to identify how leaders may modify their behaviors in ways that more effectively influence follower behavior—in this case by building efficacy and inhibiting moral disengagement.

For example, Bandura notes that self-efficacy is built primarily through four processes: experienced success, vicarious experience, social persuasion, and physiological and psychological arousal (Bandura, 1997). Further, moral disengagement may be inhibited by the humanization of the individuals who suffer harm as the result of unethical behavior (Bandura, 1999). Thus, by understanding that these intervening processes are at work in influencing (un)ethical follower behavior leaders can continue acting as role models, but they can also begin to provide specific efficacy-building experiences and enact ethical role-modeling behaviors contextually relevant to those areas most susceptible to moral disengagement.

This last point regarding moral disengagement is noteworthy. In this study, the original measure of moral disengagement was adapted to reflect the specific context and ethical dilemmas particular to the given context. While it was not found that the more contextually-specific measure of disengagement was susceptible to change and influence by the leader presented in the experimental manipulation, it seemed this may have been a result of combining the six dimensions of moral disengagement into one measure. As Bandura notes, “there are many psychosocial mechanisms by which moral self-sanctions are selectively disengaged” (2002, p.101). Combining these dimension/mechanisms into one measure may oversimplify the construct. As noted above, the measure used for this

study, when analyzed with CFA, fit best as a 5-dimension measure. Though much of the research on moral disengagement typically uses a single measure, a number of scholars have conducted research in which they focus on specific dimensions of moral disengagement (Aquino, et al., 2007; Barsky, 2011).

That may have been a better approach, given the experimental nature of this study. Indeed, one may question whether an ethical dilemma (such as the one presented for this study) can really affect all dimensions of moral disengagement. Although some dimensions of moral disengagement were not included, the measure still may have been too generic. Given these concerns, I reanalyzed the influence of the experimental manipulation on moral disengagement, but examined the data by each dimension of moral disengagement. Findings show that the treatment condition had a significant main effect ($F = 3.215, p < .05$) on the diffusion of responsibility dimension of moral disengagement, while other dimensions showed no significant differences. This has implications for both the study of moral disengagement and the relevance of the construct to leaders.

Regarding the study of the construct, scholars will face challenges in advancing theory and research on moral disengagement as long as they continue to operationalize it as a rather generic individual difference and not as a process by which individual self-sanctions are disengaged. Further the operationalization as a process is most effectively done by assessing it as a variable that is multidimensional and contextually specific. For example, a recently developed measure of moral disengagement includes the item, “Walking away from a store with some extra change doesn’t cause any harm” (Moore et al., 2012, p. 48). While an item such as this may be useful for assessing propensity to

morally disengage, it is irrelevant as a measure of moral disengagement unless it is being specifically applied to a setting where stealing change is a legitimate concern. Consider different contexts such as accounting or soldiers in combat. How is stealing change contextually relevant? In the assessment of the accounting context, items assessing beliefs about fraud and embezzlement are more likely to capture the determinant of contextually specific disengagement. In this study, the relevant context involved soldiers in combat. Thus, moral disengagement items were adapted to reflect dimensions of disengagement that were contextually specific.

This is a challenge for scholars in that changes to items may undermine or undo the internal validity of the construct. Yet for leaders, this is important because the better they are able to address the moral issues that are relevant to their context, the better are their chances of inhibiting moral disengagement processes.

Practical Implications

There are several practical implications from this research. First, these findings provide more support for what most leaders understand intuitively—that their behavior sets the example for what is acceptable or unacceptable in their organizations. In terms of social learning theory, they serve as role models whose behavior is replicated by their followers (Bandura, 1977; Brown, et al., 2005). Certainly, this is not a new idea; however, it was important to demonstrate this before asserting what is less intuitive but equally, if not more, important. It is not simply that leaders are role models setting an example to be followed, but they are influencing the thought processes individuals use to motivate ethical behavior and justify unethical behavior. Thus, not only do leaders need

to model ethical behavior, they need to act in ways that build ethical efficacy and inhibit moral disengagement.

This study does not go so far as to demonstrate the best ways to build efficacy or inhibit moral disengagement; however, both ethical efficacy and moral disengagement are constructs rooted in social cognitive theory, which brings an extensive body of research that, at a minimum, points to ways that have been demonstrated to build efficacy beliefs. Experienced success and vicarious experiences are two well-established means for building efficacy (Bandura, 1986). Therefore, leaders who behave ethically may provide vicarious experiences that build ethical efficacy, and give their followers the motivation to behave ethically and experience success as well. Further, the body of evidence that demonstrates how to inhibit moral disengagement continues to grow (Bandura, 1999).

Study Limitations and Future Directions

Beyond the contributions of this study, there are a number of shortcomings. First, the small sample size and marginal effectiveness of the study manipulation were two of the major issues that affected this study. In the case of small sample size, there were a number of instances highlighted above where Type II error was a concern. Nonsignificant findings relating to Hypotheses 2a and 2b were likely the result of low power. The small sample size also limited the ability to test Hypotheses 3 through 6 with the experimental manipulation as the independent variable. Instead, a measure of ethical leadership was used. This allowed for the use of the full sample, but limited the benefit of conducting this research as a true experiment. Also, the use of the ethical leadership measure was problematic in that subjects were nested within treatment conditions, which means that

some of the variance in the mediating and dependent variables may have been explained by group membership. These issues with sample size also related to issues with the experimental manipulation.

The experimental manipulation was effective in that there were distinct differences between the ethical and unethical leader conditions, but it was unclear how the control condition leader was operating in this study. The presence of a leader, regardless of the content of the scripted manipulation, is likely to influence the behavior of the study participants. A better control condition may have been one with no leader. Then, the influence of a leader, whether ethical or unethical, could have been contrasted against the behavior of individuals reacting to the manipulation without leader influence. Although it was demonstrated in this study that leaders influence (un)ethical behavior, without a control condition to contrast against, it is unclear whether ethical or unethical leader behavior had a greater effect on the moral self-regulatory processes and follower behavior. To overcome this issue with the control condition, a number of study hypotheses were assessed using only the ethical and unethical conditions. This facilitated hypothesis testing, but it further reduced the already small sample size—increasing the likelihood of Type II error.

A final issue with conducting an experimental manipulation of leadership is that the observed effects may be explained by a priming effect. That is, the presence of the leader may not have actually represented the effects of (un)ethical leadership, but instead, the leader may have simply created the context that primed the concept “ethical leader” or “unethical leader” in the study participants. Indeed, priming effects are cited as an issue in behavioral research generally (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Podsakoff and colleagues suggest this effect could be addressed by alternating the order in which criterion and predictor are presented to subjects; however, such an approach in experimental research is not feasible when the order of presentation is critical to the causal interpretability of the findings. To address this concern, future experimental studies should be conducted as field experiments, which would increase the chances that a leader-follower relationship develops and the actual behavior of the leader in that relationship is the source of variance in the dependent variables.

Beyond concerns with the manipulation and sample size, there were also issues with the study variables. For this study, leadership was operationalized through (1) experimental manipulation and (2) the ethical leadership measure. Both operationalizations are rooted in theory on ethical leadership (Brown, et al., 2005). This is a limitation in that ethical leadership only captures a narrow range of behavior that may influence moral self-regulatory processes. Other forms of leadership should be examined in contrast with moral self-regulatory variables. While ethical leadership is an important construct that focuses on leaders as ethical role models, ethical behavior is a subset of a larger range of behaviors enacted by leaders. Indeed, constructs such as transformational leadership or authentic leadership include a full range of behaviors that include ethical behavior as one part of the full range of leader behavior (Bass & Riggio, 2006; Gardner, Avolio, Luthans, et al., 2005). A focus on ethical leadership is limited in terms of its coverage of ethical behavior, and the current operationalization based upon Brown and colleagues' work has been noted as a more transactional conceptualization of leadership (Brown & Treviño, 2006). By including forms of leadership such as transformational or authentic leadership, the study of mediating behaviors will benefit from the inclusions of

a larger nomological network that also includes research on other possible mediators at the individual and organizational levels.

This study also has limitations with respect to the moral self-regulatory variables chosen for this study. Moral disengagement and ethical efficacy represent only two of a number of other possible mediating variables that are self-regulatory mechanisms (i.e., moral courage; Hannah, Avolio, & Walumbwa, 2011; Hannah, Schaubroeck, Peng, et al., 2013). Indeed, a number of mediating constructs that move beyond self-regulatory variables have been identified in recent research (Walumbwa et al., 2011; Mayer et al., 2012). As seen in this study, moral disengagement only partially mediated the relationship between ethical leadership and (un)ethical behavioral intent. Future studies should perform a more complete test of all mediating variables to make a better assessment of those that are possibly full mediators.

In the case of moral disengagement, the intent of this study was to operationalize moral disengagement according to how it has been explicated in theory. If one is morally disengaged, it means that a change has taken place—that one has disengaged moral self-sanctions in order to allow unethical behavior without experiencing self-blame for violating personal standards (Bandura, 2001). That change must occur for one to argue that disengagement has taken place; otherwise a measure of moral disengagement is better referred to as an individual difference as opposed to a disengagement process. Indeed, this is a shortcoming of this study and the extant research on moral disengagement. This shortcoming presents distinct opportunities for future research.

A final shortcoming relating to moral disengagement concerns a question that was not originally identified in developing the study hypotheses. This experimental

manipulation did not address the question as to the role of moral disengagement in influencing follower perceptions of leaders as ethical. If individuals morally disengage as a means of maintaining positive self-regard, it would follow that one's moral disengagement may also distort perceptions of leaders. That is, one who is morally disengaged may be less likely to see an unethical leader as unethical.

A post-hoc analysis of this question was conducted using the moral disengagement measure collected prior to the study manipulation. This moral disengagement measure was dichotomized to create groupings of individuals as being either high or low on moral disengagement. Then, a one-way ANOVA was conducted to see if there were group differences in perceptions of leaders as ethical (specifically focusing on the leader from the study manipulation as the referent), where these perceptions were measured according to the ethical leadership measure that was administered after the study manipulation. The results were that levels of moral disengagement resulted in significant differences in perceptions of leaders as ethical, where those who were scored higher on moral disengagement, were more likely to see rated leaders as ethical ($F = 5.05, p < .05$). This finding raises questions as to how these distorted perceptions may also influence self-perceptions of ethical efficacy. Further, it highlights the importance of conducting future research on ethical efficacy and moral disengagement through experimental manipulations.

Next, concerning the dependent variables in this study, I used measures of behavioral intent to assess ethical/unethical behavior. While this is common in behavioral ethics research, it is also shown that intent only accounts for a relatively small amount of variance in outcomes of actual behavior (Weber & Gillespie, 1998). A measure of

behavior was collected in this study, but it was extremely skewed and had a low incidence rate. A similar measure has been used in other experimental studies, but it has generally been a more central feature of the study and not embedded within a larger manipulation. Pilot testing of the adapted measure would have helped to determine whether the procedure led to similar rates of unethical behavior as seen in other studies. Future studies would also benefit from applications of ethical leadership in field studies that capture actual behavior.

In terms of the psychometric methods of this study, there are also issues. First, the psychometric methods used in this study are based upon assumptions of normality, yet the measure of unethical behavioral intent was slightly skewed and the measure of moral identity was slightly beyond the typical limits of kurtosis. While I suggest the analyses including these variables should be interpreted with caution, it was expected that there would be a lower incidence of unethical behavioral intent, which would create a skewed distribution as seen. In the case of moral identity, it is unclear what caused the kurtosis in the measure.

Another issue involves the analysis of the full model. The statistical tools used for this study did not allow the full model to be tested with latent indicators for both the moderating and mediating variables. However, by using a combination of MPLUS and PRELIS (Lau & Cheung, 2010) it is possible to test the full model with bias-corrected bootstrap confidence intervals. In the case of this study, the sample size would not allow for this analysis; however, this should be a consideration for future research. Following the procedures outlined by Lau and Cheung would necessitate a larger sample, but it would provide a more robust test of the model.

A final issue with this study regards the generalizability of the findings. This study was conducted with a military sample engaged in training at a TRADOC installation. Thus, the participants generally came from one branch within the army—as opposed to representing multiple branches (i.e., infantry, artillery, engineer, armor). This may affect the generalizability of the findings because it is possible that the branch represented may have a different mindset than other branches for dealing with the issues presented in the experimental manipulation.

Despite these shortcomings, the study has important strengths that bolster its contribution to theory, and a number of areas for future research exist. Though a number of possible future directions were outlined above, I would suggest three that are particularly relevant. First, the construct of moral disengagement is rarely if ever operationalized in a manner that fits theory. Invariably, it is measured as a disposition—as opposed to a change in beliefs that results from the disengagement of self-reactance processes. Future research should capture this change in beliefs. Without a proper operationalization to compare against extant research, questions remain as to the validity of current findings in moral disengagement research.

Next, this study highlights the importance of experimental research in leadership. I point specifically to the tests for Hypotheses 1 a and b. The experimental manipulation showed that (un)ethical leader behavior influenced ethical efficacy. However, the ethical leadership measure typically used in research (Brown, et al., 2005) did not hold a significant correlation with ethical efficacy. While this may be a function of the operationalization of ethical efficacy, it may also be an issue with the ethical leadership construct. Without experimental research to compare with extant findings in ethical

leadership research, there is a question as to the construct validity of the ethical leadership measure.

Finally, more research is needed to better understand the influence of leaders on moral self-regulatory processes. These constructs are relevant because they help us understand the means by which leaders affect follower (un)ethical behavior. Further, research demonstrates that these processes may be influenced directly. Thus, understanding how to most effectively influence these processes will have direct implications for (un)ethical behavior.

Conclusion

The purpose of this study was to develop and test hypotheses that would examine the influence of leaders on select self-regulatory processes that regulate ethical behavior. By testing these hypotheses in an experimental setting, the study has causal interpretability and stands out as one of the few studies of ethical leadership that is not cross-sectional. Next, it is the only study to date that subjects the construct of moral disengagement to experimental manipulation, which attempts to properly operationalize the construct as a change in individual beliefs as opposed to an individual difference or propensity toward disengagement. Finally, the inclusion of ethical efficacy and moral disengagement as mediating variables adds to the growing body of research that demonstrates the importance of leader influence on both ethical and unethical behavior. Overall, the study demonstrates that leaders play an important role in influencing the moral self-regulatory processes, which in turn are the mechanisms by which leader behavior affects the ethical behavior of their followers.

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TABLES

Table 1

Confirmatory Factor Analyses of Moral Disengagement Measures

	χ^2	<i>df</i>	χ^2/df	RMSEA	CFI	TLI	SRMR
18-item measures							
1 factor	495	135	3.67	.155	.739	.704	.092
6 factors ^a	262	120	2.18	.103	.897	.868	.067
6 second-order factors; 1 higher-order factor	298	129	2.31	.109	.877	.854	.078
15-item measures (five factors loading onto a single higher-order factor)							
Remove displacement of responsibility	157	85	1.85	.087	.932	.915	.054
Remove diffusion of responsibility	230	85	2.55	.124	.877	.848	.080
Remove advantageous comparison ^a	211	85	2.43	.116	.887	.860	.072
Remove distortion of consequences ^a	197	85	2.23	.109	.896	.871	.076
Remove attribution of blame	182	85	1.99	.101	.911	.890	.075
Remove dehumanization	217	85	2.35	.118	.876	.847	.081
15-item measure (five factors)							
Remove displacement of responsibility	147	80	1.84	.087	.936	.915	.050

^aThe latent variable covariance matrix (ψ) from this CFA was not positive definite.

Table 2
Descriptive Statistics, Correlations, and Scale Reliabilities

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Leader Behavior ^a	0.52	.50											
2. Moral Disengagement	2.12	.69	-.09	(.94)									
3. Ethical Efficacy	4.12	.70	.25*	-.31**	(.96)								
4. Ethical Behavior	3.66	1.07	.24*	-.65**	.31**	(.95)							
5. Unethical Behavior	1.80	.92	-.11	.60**	-.30**	-.61**	(.91)						
6. Moral Awareness	3.69	.91	.01	-.32**	.27**	.34**	-.27**	(.82)					
7. Moral Identity	4.21	.76	.03	-.27**	.36**	.26**	-.36**	.40**	(.81)				
8. External Locus of Control	2.58	.75	-.24*	.36**	-.21*	-.25**	.22*	-.15	-.20*	(.78)			
9. General Self-Efficacy	4.15	.59	.01	-.32**	.64**	.26**	-.20*	.27**	.41**	-.23*	(.88)		
10. Ethical Leadership ^b	3.45	.77	.08	-.30**	.12	.25**	-.28**	.24*	.33**	-.14	.11	(.95)	
11. Ethical Leadership ^c	3.96	.83	.13	-.36**	-.36**	.29**	-.29**	.16	.20*	-.30**	.25**	.30**	(.96)
12. Gender (0=male)	0.04	.19	.06	.14	-.18	-.07	.06	.03	-.04	.03	-.02	.01	-.03

*Correlation significant at $p < .01$

**Correlation significant at $p < .05$

^aDichotomous variable based on dummy coding ethical/unethical treatment conditions; unethical = 0

^bEthical Leadership measure with experimental leader as the referent.

^cEthical Leadership measure with actual (current or most recent) leader as the referent.

Scale reliabilities are in the parentheses. $N = 114$; for leader behavior variable, $N = 70$

Table 3
Confirmatory Factor Analyses (CFA) of Hypothesized Model

	χ^2	<i>df</i>	χ^2/df	RMSEA	CFI	TLI	SRMR
Five-factor measurement model	1513	692	2.17	.103	.811	.797	.064
Four-factor model, combining ethical-efficacy and moral disengagement	1930	696	2.77	.126	.716	.697	.100
Four-factor model, combining ethical behavioral intent and unethical behavioral intent	1755	696	2.52	.117	.756	.740	.078
One-factor model	3339	702	4.76	.184	.392	.359	.164

Table 4

Hierarchical Regression Results for Hypotheses 1 and 2

Variables	Ethical Efficacy		Moral Disengagement	
	Step 1	Step 2	Step 1	Step 2
Control Variables				
Moral Awareness	.392**	.381**	-.354**	-.350**
Predictor Variables				
Treatment Condition ^a		.226*		-.069
ΔR^2		.051		.005
ΔF		4.359*		.370
R^2	.153	.204	.125	.130
Adjusted R^2	.141	.181	.112	.104
F	12.51**	8.738**	8.870**	5.075**

Standardized beta coefficients are reported. Statistical tests are based on one-tailed tests.

^aTreatment condition is a dichotomous variable representing the ethical and unethical leader conditions. $N=71$

* $p < .05$

** $p < .01$

Table 5

Hierarchical Regression Results of Moderation Hypotheses Tests

Variables	Moral Disengagement ^a (N=70)			Moral Disengagement ^b (N=110)		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Control Variables						
Moral Awareness	-.338**	-.268*	-.269*	-.308*	-.194	-.194
Predictor Variables						
Leader Behavior		-.048	-.048		-.225*	-.228*
Ethical Efficacy		-.174	-.172		-.225*	-.224*
Moderator Variable						
Leader Behavior X Ethical Efficacy			.009			.007
ΔR^2		.032	.000		.100**	.000
ΔF		1.223	.006		6.650**	.006
R^2	.115	.146	.146	.095	.195	.195
Adjusted R^2	.102	.107	.094	.087	.172	.165
F	8.800**	3.768*	2.785*	11.44**	8.64**	6.42**

Standardized beta coefficients are reported. Statistical tests are based on one-tailed tests.

* $p < .05$

** $p < .01$

^aUsing experimental condition as the independent variable

^bUsing ethical leadership measure as the independent variable (experimental leader is referent)

Table 6**Direct and Indirect Effects of Leader Behavior on Follower Behavior**

Leader Behavior Effects	Moral Disengagement	Ethical Behavior	Unethical Behavior
Direct Effect	-.192*	.174	-.076
Indirect Effect via Moral Disengagement (Ethical Efficacy +1sd)		-.101	.080
Indirect Effect via Moral Disengagement (Ethical Efficacy -1sd)		-.220*	.173*

N = 108. Values represent path coefficients from the structural model depicted in Figure 5.
* *p* < .05.

Table 7
Summary of Findings

Hypothesis	Findings
1a: Leader ethical behavior positively related to ethical efficacy	Supported
1b: Leader unethical behavior negatively related to ethical efficacy	Supported
2a: Leader ethical behavior negatively related to moral disengagement	Partial Support
2b: Leader unethical behavior positively related to moral disengagement	Partial Support
3a: High ethical efficacy weakens relationship between unethical leader behavior and moral disengagement	No Support
3b: Low ethical efficacy strengthens relationship between unethical leader behavior and moral disengagement	No Support
4: Ethical efficacy partially mediates leader behavior - follower behavior relationship	No Support
5: Moral disengagement partially mediates leader behavior - follower behavior relationship	Supported
6a: Mediating effects of moral disengagement weakened when ethical efficacy is high	Supported
6b: Mediating effects of moral disengagement strengthened when ethical efficacy is low	Supported

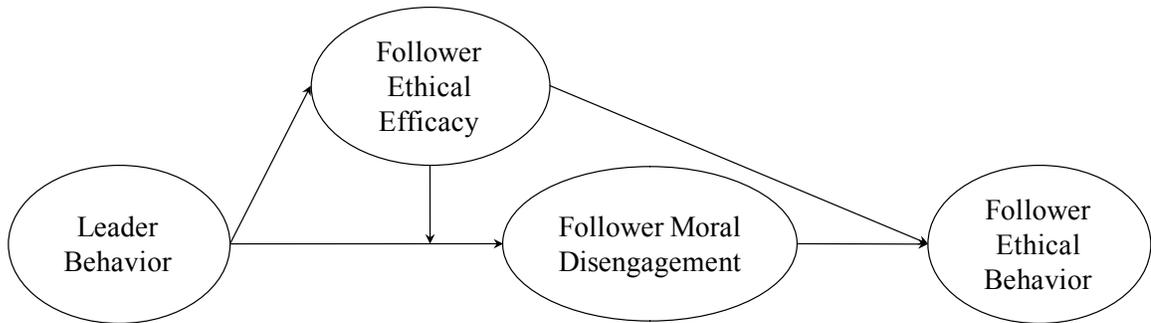
FIGURES**Figure 1**

Figure 1: Theoretical Model

Figure 2

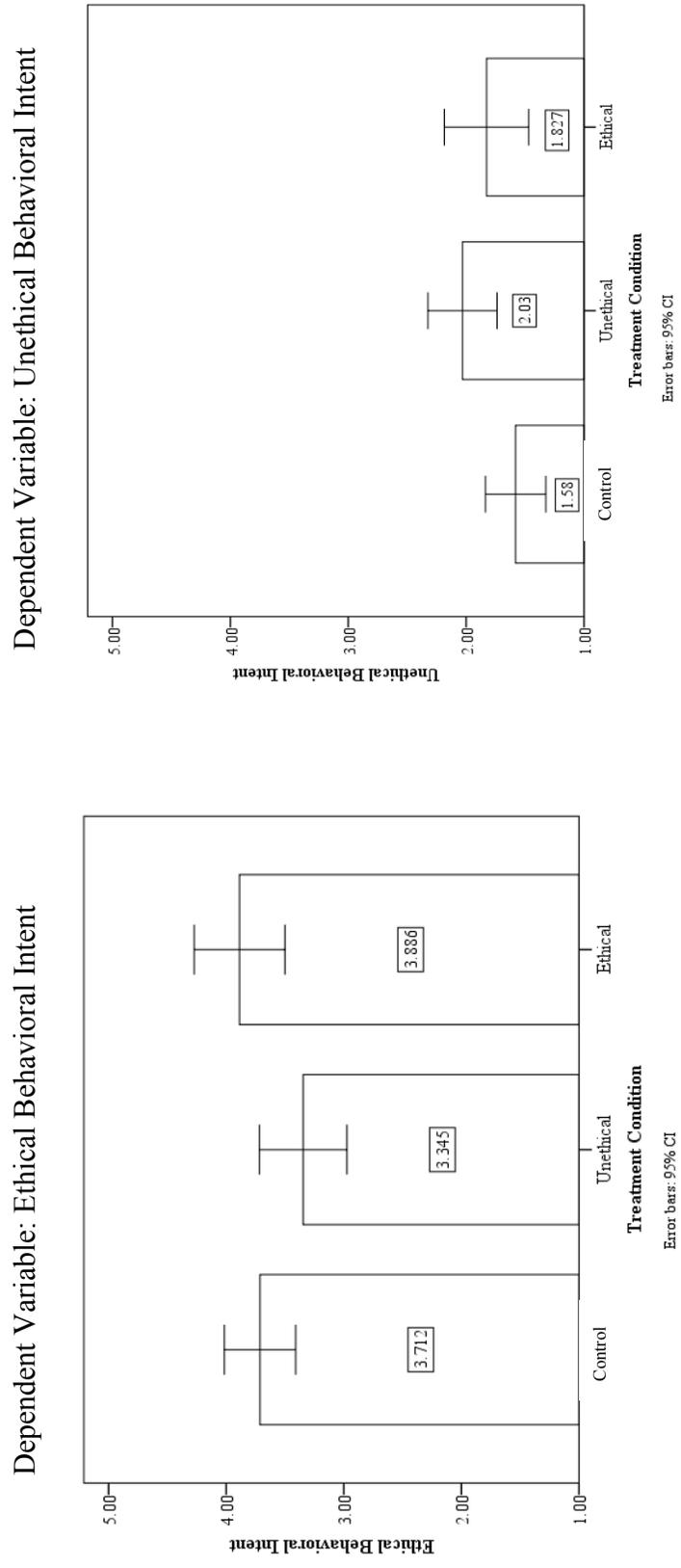


Figure 2: Dependent Variable Mean Scores by Treatment Condition

Figure 3

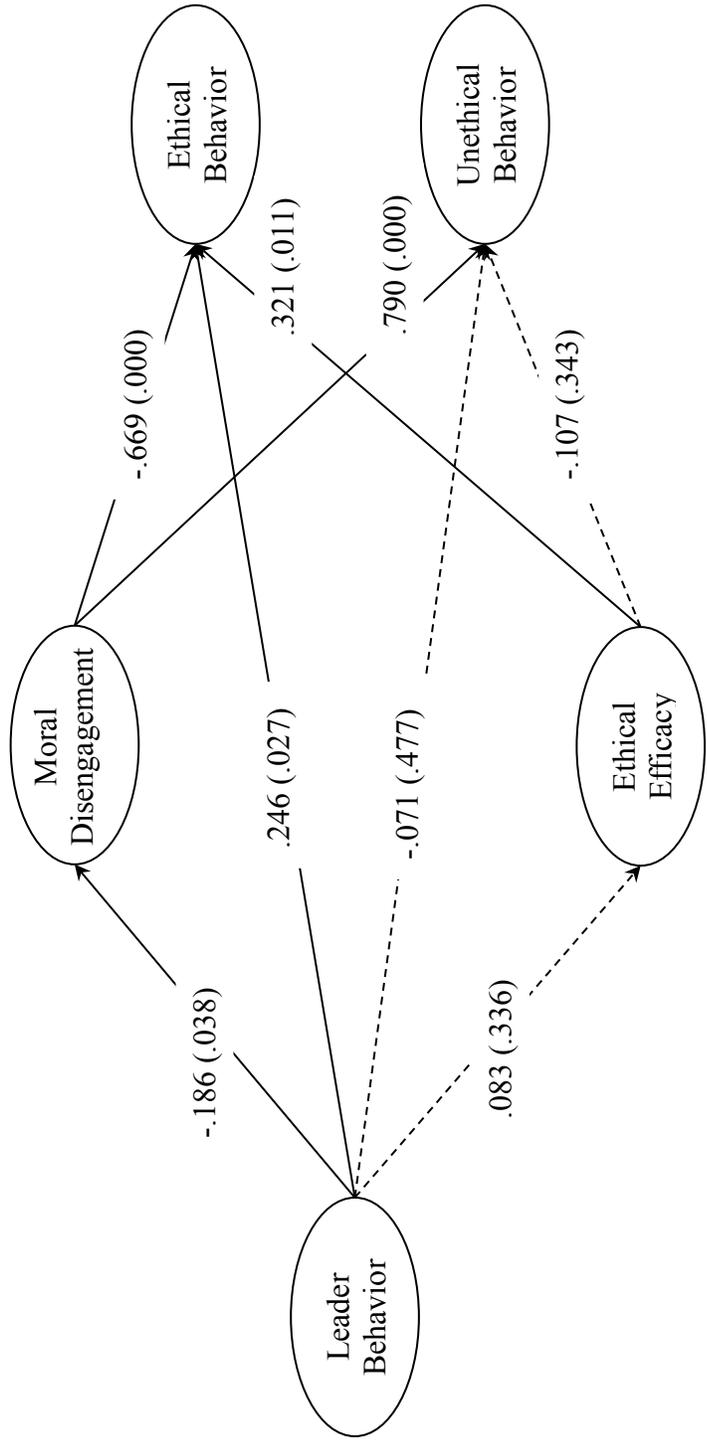


Figure 3: Structural Equation Model for Hypotheses 4 and 5, controlling for Moral Identity

Note: The Leader Behavior variable was operationalized with the ethical leadership measure. Ethical efficacy was operationalized with the moral efficacy measure. Path weights are standardized beta coefficients. Numbers in parentheses are p-values of the path weights. Nonsignificant paths are represented by a dashed line. $N = 110$. General Efficacy and Moral Awareness were not significant and were not included as controls. Moral Identity was significant and included as a control in this model.

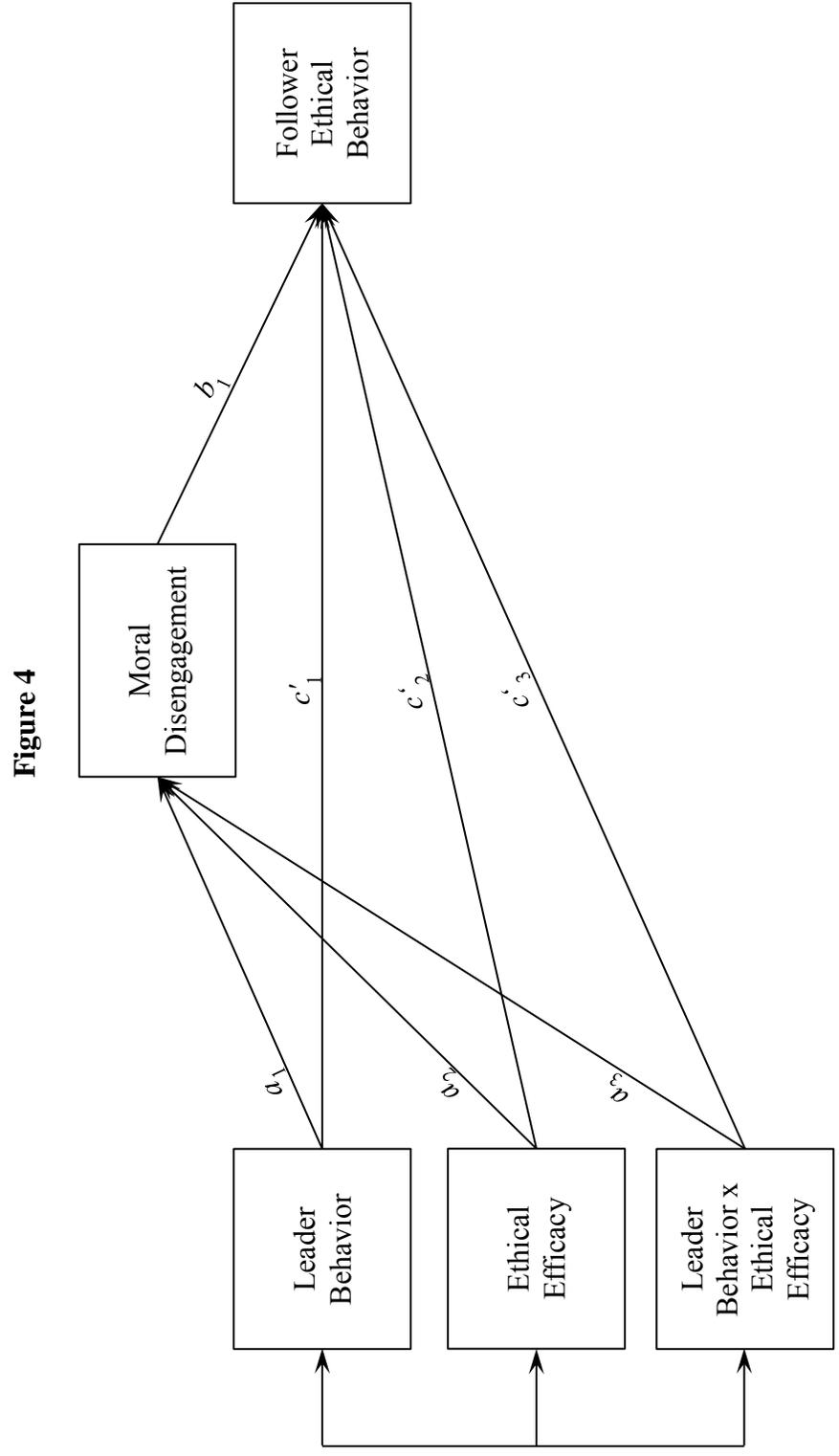


Figure 4: Direct Effect and First-Stage Moderation Model

Note: this model was adapted from “Model 2” as presented by Preacher, Rucker, & Hayes (2007, p. 194).

Figure 5

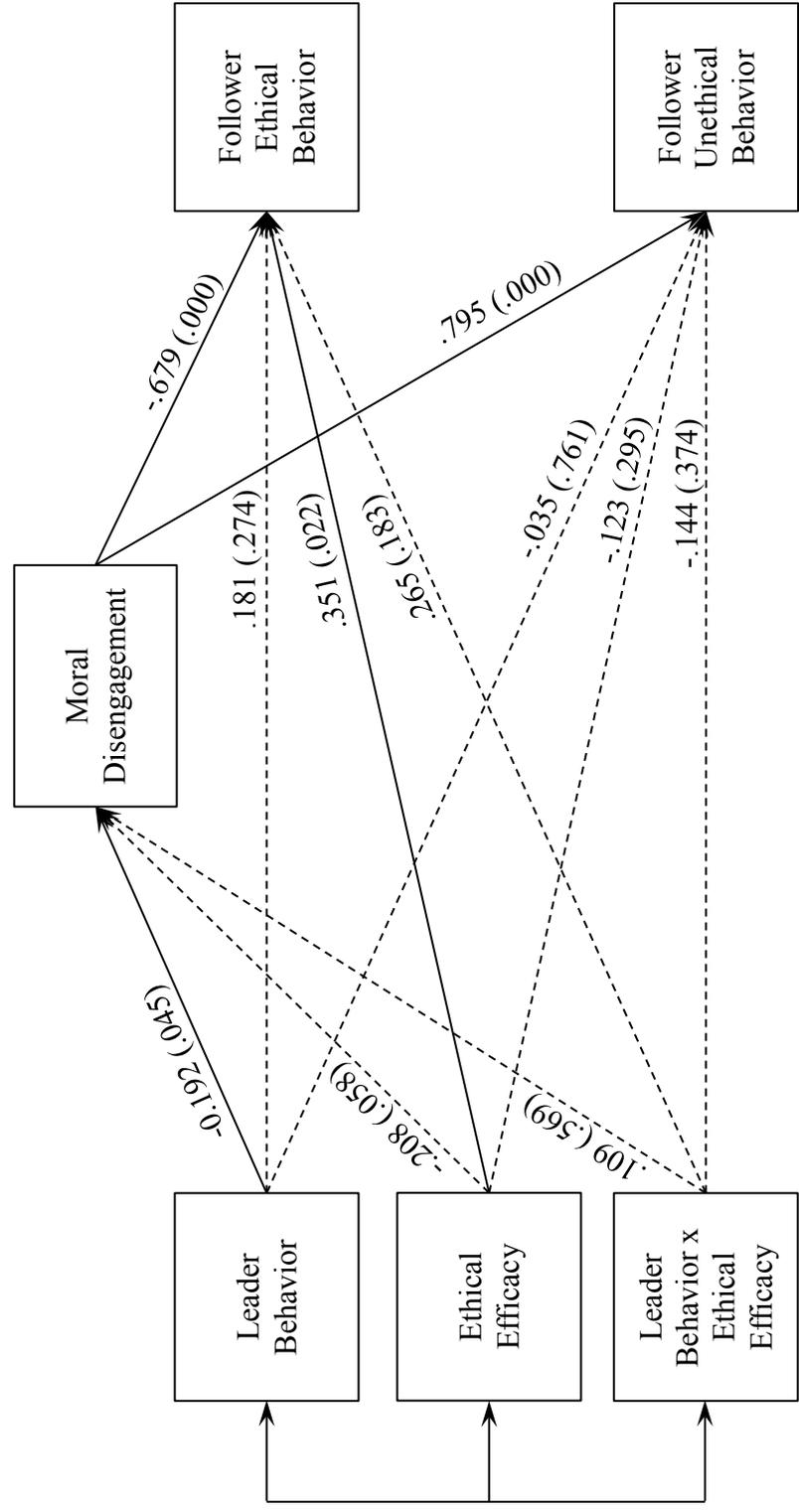


Figure 5: Moderated Mediation Results Controlling for Moral Identity

Path weights are standardized beta coefficients. Numbers in parentheses are p-values of the path weights. Nonsignificant paths are represented by a dashed line. $N = 108$.

Figure 6

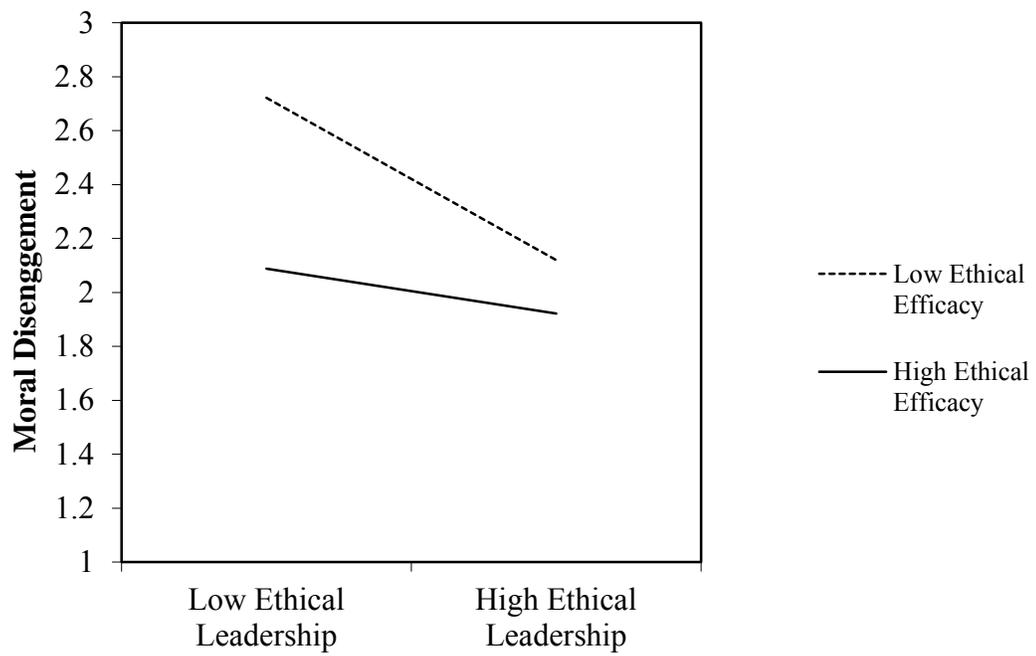


Figure 6: Plot of First-Stage Interaction from Moderated-Mediation Analyses

APPENDIX A

Measures and Progression of Study

Next, you will observe a brief video followed by a few questions relating to the video.



Moral Awareness (Reynolds, 2006)
(1 – Strongly Disagree to 5 – Strongly Agree)

Based upon the video you just observed, please rate your level of agreement with the following items:

Items:

1. There are very important ethical aspects to this situation.
2. This matter clearly does not involve ethics or moral issues.
3. This situation could be described as a moral issue.
4. This is an ethical dilemma.

Ethical Efficacy (Mitchell & Palmer, 2008; counter-balanced with the moral efficacy and moral disengagement measures)
(1 – Strongly Disagree to 5 – Strongly Agree)

Please rate the extent to which you agree or disagree with each statement.

When faced with an ethical or moral situation...

1. I would behave ethically, even if those in authority did not.
2. I would be committed to doing what is morally right.
3. I would behave ethically even if others encouraged me to behave unethically.
4. I am confident I would stick to the situation until it was resolved ethically.
5. I am certain I would try to resolve the situation in an ethical manner.
6. I know I would do what is right.

Moral Efficacy (Hannah & Avolio, 2010)

In looking at the following statements, when you think of your knowledge, skills, and abilities, indicate your level of confidence in your ability to accomplish each item below.

I am confident that I can...

(1 – Not at all confident to 5 –Totally confident)

1. confront others who behave unethically to resolve the issue
2. readily see the moral/ethical implications in the challenges I face
3. work with others to settle moral/ethical disputes
4. take decisive action when addressing a moral/ethical decision
5. determine what needs to be done when I face moral/ethical dilemmas

Moral Disengagement (Detert, Treviño, & Sweitzer, 2008):

Please rate your level of agreement or disagreement with each of the following statements.

(1 – Strongly Disagree to 5 – Strongly Agree)

1. If people are living under bad conditions, they cannot be blamed for behaving aggressively. [DISR]
2. If someone is pressured into doing something, they shouldn't be blamed for it. [DISR]
3. People cannot be blamed for misbehaving if their friends pressured them to do it. [DISR]
4. A member of a group or team should not be blamed for the trouble the team caused. [DIFR]
5. If a group decides together to do something harmful, it is unfair to blame any one member of the group for it. [DIFR]
6. You can't blame a person who plays only a small part in the harm caused by a group. [DIFR]
7. Harming civilians in a combat zone is less important than protecting our soldiers. [AC]
8. Being rough with the locals in Iraq/Afghanistan is not too serious compared to what the insurgents are doing to U.S. forces. [AC]
9. Compared to other illegal things soldiers do, being overly aggressive with civilians is not that bad. [AC]
10. People don't mind being honked at because it just helps them drive better. [DC]
11. Bumping someone's car does not really hurt them. [DC]
12. Aggressive driving doesn't really hurt anyone. [DC]
13. If someone gets in the way of military operations, it's their own fault if they get hurt. [AB]
14. People who are mistreated have usually done things to deserve it. [AB]

15. Soldiers are not at fault for misbehaving at work if their supervisors mistreat them. [AB]
16. Some people deserve to be treated like animals. [DEH]
17. It is ok to treat badly someone who behaved like a “worm.” [DEH]
18. Someone who is obnoxious does not deserve to be treated like a human being. [DEH]

DISR displacement of responsibility; DIFR diffusion of responsibility; AC - advantageous comparison; DC distortion of consequences; AB attribution of blame; DEH dehumanization.

Ethical Leadership Scale (Brown, Trevino, & Harrison, 2005)

The following items concern your perceptions of your leader. Please, indicate the extent to which you agree or disagree with the following statements:

(1 – Strongly Disagree to 5 – Strongly Agree)

My leader...

1. ...conducts his/her personal life in an ethical manner
2. ...defines success not just by results but also the way that they are obtained
3. ...listens to what **soldiers** have to say
4. ...disciplines **soldiers** who violate ethical standards
5. ...makes fair and balanced decisions
6. ...can be trusted
7. ...discusses **military** ethics or values with soldiers
8. ...sets an example of how to do things the right way in terms of ethics
9. ...has the best interests of **soldiers** in mind
10. ...when making decisions, asks, “What is the right thing to do?”

**Note: bolded words are adapted for the military sample*

Moral Identity: Internalization (Aquino & Reed, 2002)

(1 – Strongly Disagree to 5 – Strongly Agree)

Listed below are some characteristics that may describe a person [list of nine traits]. The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, answer the following questions.

[Present Moral Traits]

Caring, Compassionate, Fair, Friendly, Generous, Hardworking, Helpful, Honest, Kind

Moral Identity Items:

1. It would make me feel good to be a person who has these characteristics.
2. Being someone who has these characteristics is an important part of who I am.
3. A big part of my emotional well-being is tied up in having these characteristics.

4. I would be ashamed to be a person who has these characteristics. (R)
5. Having these characteristics is not really important to me. (R)
6. Having these characteristics is an important part of my sense of self.
7. I strongly desire to have these characteristics.

General Efficacy (Chen, Gully, & Eden, 2001)
(1 – Strongly Disagree to 5 – Strongly Agree)

Please indicate the extent to which you agree or disagree with the following statements.

1. I will be able to achieve most of the goals that I have set for myself.
2. When facing difficult tasks, I am certain that I will accomplish them.
3. In general, I think that I can obtain outcomes that are important to me.
4. I believe I can succeed at most any endeavor to which I set my mind.
5. I will be able to successfully overcome many challenges.
6. I am confident that I can perform effectively on many different tasks.
7. Compared to other people, I can do most tasks very well.
8. Even when things are tough, I can perform quite well.

Locus of Control Inventory (Levenson, 1981; chance locus of control dimension)

Please indicate the extent to which you agree or disagree with the following statements.

(1 – Strongly Disagree to 5 – Strongly Agree)

1. To a great extent my life is controlled by accidental happenings.
2. Often there is no chance of protecting my personal interests from bad luck happenings.
3. When I get what I want, it is usually because I'm lucky.
4. I have often found that what is going to happen will happen.
5. Whether or not I get into a car accident is mostly a matter of luck.
6. It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.
7. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.
8. It's chiefly a matter of fate whether or not I have a few friends or many friends.

STUDY MANIPULATION

Starts with brief video to explain the study and conduct a sound check exercise.

“You are being asked to participate in this study based upon your status as soldiers in the military. In this study, we are interested in examining the effect of task consequences—positive or neutral—on feelings and reactions. This is an interactive study involving

various videos and questionnaires. Before the study begins, please complete the sound check to be sure you will be able to hear the audio for this study.”

Complete sound check (serves as a manipulation check to insure participants can hear videos).

[Script on page] If you are not able to see and hear the above video, please do not complete the survey at this time.

Have checkbox next to statement, “I was able to see and hear the video” Once box is checked, then have a button that allows participant to begin study.

Video of Army Officer:

“I think you’re supposed to see my name and rank pop up at the bottom of the screen for this video, but I’ll go ahead and introduce myself. I am Major Palmer. I am working with the research institute conducting this study, and, because I am an officer in the Army who has deployed to Iraq and Afghanistan, the researchers have asked me to assist them in this research project. They’re interested in soldiers’ reactions to various behavior, and, because of my military background, they’ve asked me to observe and comment on a number of videos taken in Iraq or Afghanistan. I’m not sure exactly which of my comments you’ll get to see, but here goes...”

Experimental Manipulation begins with video:

OK, for this video, you’re going to see some soldiers driving aggressively in a convoy in Iraq.

Ethical Leader	As a company commander in Iraq, I covered nearly 20,000 miles while convoying around with my soldiers. So, I am familiar with this situation. Policy is clear about this kind of driving. To obtain success, we must use the right methods. Those who do not, should be punished.
Unethical Leader	As a company commander in Iraq, I covered nearly 20,000 miles while convoying around with my soldiers. So, I am familiar with this situation. While there are policies against driving too aggressively, the soldiers on the ground have to do whatever it takes to get through their mission.
Control Condition	As a company commander in Iraq, I covered nearly 20,000 miles while convoying around with my soldiers. So, I am familiar with this situation. We covered a lot of miles driving through cities on various missions. Sometimes we were in traffic and other times we weren’t.

Participants next observe video of soldiers driving aggressively (bumping civilian vehicles) in Iraq.



<http://www.youtube.com/watch?v=5fbBRthe0q8>

Observe above video followed by leader discussing video:

Ethical Leader Response	<p>I'm watching these Iraqis in this video, and it's clear that some know they should get out of the way. For others, they may not see the convoy coming or they aren't able to move right away. Regardless of whether they know to move or not, they're civilians. People do not deserve to be treated this way.^[10] I would guess these soldiers have good intentions in trying to get their convoy through town safely, but the means they've chosen are clearly not right.^[2] If these were my soldiers, this behavior would have to be disciplined.^[4] I'm not going to jump up and down and chew them out. That doesn't solve anything, but I do need to explain to them why this approach doesn't align with our Army values.^[7] Really, these soldiers are responsible for damaging civilian property and possibly military property. They've probably also damaged our relations with the local population, which puts other soldiers at risk.^[9] I'm interested in hearing from these soldiers and whether they recognize that they blew it.^[5] Unfortunately, the damage here is done, and there's going to be some level of punishment. Also, I'm going to be interested in hearing from their supervisor, who should be involved in deciding what punishment is appropriate.^[3, 5] [collectively addresses items 6 & 8]</p>
Unethical Leader Response	<p>I'm watching the Iraqis in this video, and it's clear that they know they should get out of the way. You can see some of them pull over right away without being bumped. Those who get bumped, they move right away. They know better. If we have to deal with Iraqis this way, they probably deserve it. I would guess these soldiers have good intentions in trying to get their convoy through town safely, and if it works, then they're achieving something that probably was not happening before. If these were my soldiers, I'll see if it works out. If it doesn't work, then the First Sergeant or somebody is probably going to have to jump up and down and chew them out for damaging property or damaging our relations with the local population. Unfortunately, we're living in an age where everything is captured on camera. So, when it gets down to it and we have to be tough with civilians like we're doing here, we need to be smarter about who's watching. Shut off the camera and just do the convoy. Some people are going to have a problem with using this approach in convoys, but they're wrong. Let's see if it works, and go from there. I'm not going to listen to somebody complaining that this is too harsh.</p>

Control: Leader Response	I'm watching these Iraqis in this video, and some think they should get out of the way. For others, they may not see the convoy coming, they may not think they need to move, or they aren't able to move right away. It actually reminds me of the time I spent in Iraq. We were doing work on a bunch of different bases. So, we traveled quite a bit around Tikrit and Kirkuk. Since we were traveling so much, we did get into traffic jams in cities like this. We did have some interactions with other Iraqis because some of them were the contractors doing work on the various base construction projects. We had them running bulldozers, hauling rock, and other things like that. Since we were doing construction we would also have to go into different towns to buy some of the materials we needed to complete our projects. We did have purchasing agents who would go out and buy some material, but when it comes to needing specific construction supplies, the purchasing agents either wouldn't know where to look or they'd buy the wrong thing. So, we ended up doing a lot of convoys and seeing a lot of other units doing convoys. Some units would be more aggressive and others would more or less go with the traffic. Different units would take different approaches to dealing with traffic.
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Note: Brackets in the ethical condition are pointing out the items in the Ethical Leadership Scale that are applicable. The unethical response condition was developed to closely mirror the language, progression, and length of this ethical response.

“Now you’ve seen one of the videos and heard my reactions to it. This study will continue by asking you to respond to some questions then complete a final activity.”

POST MANIPULATION SURVEY

Ethical Leadership Scale (Brown, Trevino, & Harrison, 2005)

The following items concern the leader you observed in this study. Please, indicate the extent to which you agree or disagree with the following statements:

1 – Strongly Disagree to 5 – Strongly Agree

This leader...

1. ...conducts his/her personal life in an ethical manner
2. ...defines success not just by results but also the way that they are obtained
3. ...listens to what soldiers have to say
4. ...disciplines soldiers who violate ethical standards
5. ...makes fair and balanced decisions
6. ...can be trusted
7. ...discusses military ethics or values with soldiers
8. ...sets an example of how to do things the right way in terms of ethics
9. ...has the best interests of soldiers in mind
10. ...when making decisions, asks, “What is the right thing to do?”

Note: underlined words were adapted for the military sample

(Counterbalance Ethical Efficacy measure with Moral Efficacy and Moral Disengagement measures)

Ethical Efficacy (Mitchell, Palmer, & Schminke, 2008)

Moral Efficacy (Hannah & Avolio, 2010)

Moral Disengagement (Detert, Treviño, & Sweitzer, 2008):

(Un)Ethical Behavioral Intent (Measure developed for this study)

Now imagine you're in the vehicle behind the one shown in the video. At the end of this convoy, there are a number of ways you could behave. Please, review the following statements and indicate how likely it is that you would engage in the behaviors described.

1 – Not at all likely to 5 – Highly likely

I would...

1. do nothing.
2. not take issue with the way the soldier was driving
3. encourage the driver or vehicle commander to continue driving aggressively.
4. tell the driver or vehicle commander they're safer if they continue driving this way.
5. try to convince the vehicle operators that this is indeed the best way to drive.
6. tell the driver that being a good driver will help build trust with the local population
7. remind the driver that we want to act in a way that develops positive relationships with local civilian
8. tell the driver that refraining from aggressive driving will reduce the chance of injuring civilian bystanders.
9. tell the driver that avoiding reckless driving helps avoid incidents that cause a loss of locals' trust and confidence.
10. encourage the driver to consider the moral and ethical consequences of his/her actions.

(Un)Ethical Behavior Measure (adapted from Batson, Thompson, Seufferling et al., 1999)

Next, we need you to complete one of two short tasks:

Those of you who get Task #1 will perform a set of tasks to compete for raffle tickets. For every task completed successfully, you will get one raffle ticket and will be eligible for a drawing to win a prize worth \$50. Only participants in this study are eligible for this raffle. So, the more raffle tickets you earn the better are your chances of winning a \$50 prize.

If you do Task #2, you will simply perform a set of tasks and be given feedback about your performance, and you will have no chance of winning the \$50 prize. Task #2 is unfortunately a bit dull and boring, so we hope you will not find it too bad and still give the task your full effort.

In order for us to ensure that approximately half of the study participants do Task 1 and the other half do Task 2, we have set up our study such that soldiers are assigned to tasks randomly based on a die roll. This also gives people an equal chance of getting either task. Please click on the die below to roll it. If you roll an odd number (1, 3, or 5), that means you will do Task 1. If you roll an even number (2, 4, or 6), you will do Task 2.



After you roll the die, indicate what you rolled by selecting the corresponding task below.

Participants will complete the above task (a simulated dice roll) and assign conditions. Rolls were manipulated such that participants should assign themselves to the neutral consequences.

Subsequent to completing this task, the simulation ended and participants were presented with demographics questions and manipulation checks.