Ego Depletion and Behavioral Ethics

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Abstract

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In this dissertation, I examine ego depletion's effects on ethical decision making. Chapter One first provides a brief introduction and a coherent framework of my work in the area of ego depletion and behavioral ethics. Chapter Two examines how ego depletion affects employees in managerial positions. In particular, I examine how leaders' surface acting with customers can deplete their self-control resources, and in turn affect leader-follower relationship. Chapter Three examines how ego depletion may lead to paradoxical effects in ethical decision making. In particular, I suggest that the effect of ego depletion on unethical behavior hinges on the social consensus of the unethical behavior. Whereas depleted individuals are more likely to engage in unethical behavior of comparatively low social consensus, they are less likely to engage in unethical behavior of high social consensus. Chapter Four examines the role of ego depletion in perceptions of others' unethical behavior. In particular, I suggest that depleted targets are perceived as less unethical than non-depleted targets, and are punished less severely as a result. Finally, Chapter Five provides a critical summary of the three empirical chapters.

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INTRODUCTION

The downfall of Enron was one of the most shocking ethical violations in recent history. It led to the bankruptcy of one of the largest energy companies in the world, the imprisonment of several key executives, the dissolution of the Arthur Andersen accounting firm, and the creation of the Sarbanes-Oxley Act. Since Enron, numerous ethical scandals have emerged such as Lehman Brothers and AIG. Although these scandals cost billions in damages to the economy and thousands of job losses, unbeknownst to many, these scandals also sparked scholarly interests in business ethics. Since the downfall of Enron, there has been a dramatic growth in research on business ethics and we continue to observe this explosion of research on business ethics today.

Although most people are familiar with the aforementioned public scandals, unethical behaviors in the workplace tend to be much smaller in scale. Broadly defined, unethical behavior is any behavior that violates a widely accepted moral norm (Trevino, Weaver, & Reynolds, 2006). From time to time, employees are tempted to engage in unethical behavior in organizations. For example, an employee may falsify a reimbursement report for a business trip; a manager may claim credits for work done by his/her subordinates; and an accountant may engage in earnings management. While these workplace unethical behaviors seem small in scale, research suggests that most people engage in them occasionally and that these small transgressions can pave the way for large-scale unethical behavior in the future (Welsh, Ordonez, Snyder, & Christian, 2014). Taken together, scholars argue that these small-scale unethical behaviors can have a deleterious impact on the economy (Ariely, 2013). A recent estimate, for example, suggests that businesses in the United States lose approximately $1 trillion annually due to various unethical practices (Association of Certified Fraud Examiners, 2008).

Fortunately, behavioral ethics researchers have made great progress in understanding the causes of unethical behavior in the past two decades. Antecedents of unethical behavior can

often be classified under three different categories: bad apples (i.e., individual traits), bad cases (i.e., moral issues), and bad barrels (i.e., organizational contexts; for reviews, see Kish-Gephart, Harrison, & Trevino, 2010; Trevino, Weaver, & Reynolds, 2006). For example, research suggests that employees who tend to rationalize unethical behavior are more likely to engage in unethical behavior (Moore, Detert, Trevino, Baker, & Mayer, 2012), issues of lower moral intensity are more likely to elicit unethical behavior (Yam, Chen, & Reynolds, 2014), and an ethical organizational culture reduces unethical behavior (Warren, Gaspar, & Laufer, 2014). More importantly, scholars theorize that in order to better understand the causes of unethical behavior, it is necessary to examine the interplays among the apples, cases, and barrels (Kish-Gephart et al., 2010).

One recent theory that has garnered major scholarly interest in research on behavioral ethics is ego depletion theory (Baumeister, Bratslavsky, Muraven, & Tice, 1998). Briefly summarized, ego depletion theory suggests that individuals have a limited amount of self-control resources, and that these self-control resources are crucial in regulating behaviors, particularly undesirable and impulsive behavior. Scholars have empirically examined ego depletion theory in a wide array of contexts and a well-established finding is that once a prior exercise depletes individuals' self-control resources, individuals are more likely to succumb to subsequent temptations (for a meta-analytic review, see Hagger, Wood, Stiff, & Chatzisarantis, 2010). Behavioral ethics scholars have since adopted this paradigm to the study of the antecedents of unethical behavior, and numerous investigations reveal that individuals are more likely to behave unethically after exertion of self-control resources (Barnes, Schaubroeck, Huth, Ghumman, 2011; Christian & Ellis, 2011; Gino, Schweitzer, Mead, & Ariely, 2011; Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009).

Since developed by Baumeister and colleagues in the late 1990s, scholars have conducted over 200 empirical studies on ego depletion theory (Hagger et al., 2010). In its early days, scholars have tended to conduct studies to validate the core propositions of ego depletion theory – that prior exertions of self-control leads to reduced self-control later (e.g., Muraven & Baumeister, 2000; Schmeichel, Vohs, & Baumeister, 2003; Vohs & Heatherton, 2000). These studies tended to employ a dual-task experimental design. First, participants were presented with a self-control draining task, and then participants were asked to complete a task that requires self-control. Reduction in self-control in the second task (compared to participants in the control condition) is considered as evidence to support ego depletion theory. Ego depletion research in this era also tends to explore the role of self-control in many different areas, including aggression, sexual impulses, decision making, dieting, and overspending (for a review, see Baumeister, Vohs, & Tice, 2007).

As the field progresses, ego depletion theory has received more empirical support and scholars started to move beyond merely testing the core propositions of the theory. In the mid-2000s, scholars started to examine ways to mitigate the impact of self-control draining tasks and self-control restoration. In a seminal paper, Gailliot et al. (2007) proposed and found that after exerting self-control, participants who were instructed to consume glucose (in the form of sugar) displayed higher levels of self-control than participants who were instructed to consume artificial sugar, which contains no glucose. The authors then concluded that glucose is the biological fuel of self-control. Although this perspective has been supported by additional studies (e.g., Dvorak & Simons, 2009; Masicampo & Baumeister, 2008), many question its replicability (Schimmack, 2012) and theoretical connection to self-control (Kurzban, 2009). Nevertheless, research on the restoration of self-control remains to be a popular research topic, due in part to its significant

practical implications. Beyond blood glucose, scholars have identified a number of ways to mitigate the negative effects of ego depletion, including the roles of incentives (Muraven & Sessareva, 2003), positive affect (Tice, Baumeister, Shmuel, & Muraven, 2007), and physical rest (Tyler & Burns, 2008).

Only until recently have scholars begin to adopt a self-control perspective to understand employees' behaviors. Nevertheless, organizational behavior scholars have since then utilized this perspective and like a lack of self-control to reduced job engagement, organizational citizenship behavior, job performance (Lanaj, Johnson, & Barnes, 2014; Trougakos, Beal, Cheng, Hideg, & Zweig, 2015) and increased unethical and deviant behavior (Barnes et al., 2011; Christian & Ellis, 2011). In my opinion, the literature has slowed down considerably and will continue to slow down if there is no new research to expand ego depletion theory. First, over the past fifteen years, very little research has attempted to *extend* ego depletion theory. Rather, most research of ego depletion theory has attempted to test the predictions of ego depletion theory in different behavioral domains, first from general self-control tasks in the laboratory and then later move to real-work self-control tasks such as impulsive spending and unethical behavior. Because the importance of self-control to many behaviors is increasingly well recognized and supported by empirical studies over the past fifteen years (Hagger et al., 2010), research in this area is likely to slow down as a result.

Second, although ego depletion theory has been popular for over a decade, there has also been a wave of criticisms about the theory in recent years. Most notably, these criticisms question the biological roots of self-control (Kurzban, 2009) as well as research replicability (Schimmack, 2012). Although few have questioned the central propositions of ego depletion theory (i.e., that prior exertion of self-control is associated with reduction in self-control

subsequently), these criticisms, especially over the replicability issues, have nonetheless swayed researchers away from ego depletion theory.

Accordingly, the purpose of this dissertation is to 1) generalize ego depletion theory to previously untested samples and outcomes, 2) challenge the core propositions of ego depletion theory (i.e., that ego depletion always leads to increased unethicality), and 3) expand ego depletion theory to perceptions of behaviors. Specifically, in this dissertation, I contribute to the development of ego depletion theory with three district chapters. While all three chapters draw from ego depletion theory, each focuses on extending the theory in a different way. In Chapter Two, I investigate how ego depletion affects employees in leadership positions. Drawing from ego depletion theory, this chapter examines the depleting effects of leaders' surface acting with customers. Specifically, leaders who engage in frequent surface acting with customers were theorized to be depleted of their self-control resources, and thus lose the self-control resources necessary to restrain their impulses to their subordinates, resulting in increased abusive supervision. This chapter contributes to ego depletion theory because it is one of the first investigations of leaders' depletion and the relational cost of ego depletion.

In Chapter Three, I investigate how ego depletion may lead to paradoxical effects in ethical decision making. Extant research overwhelming suggests that when depleted of self-control resources, individuals tend to become more unethical. However, I suggest that one critical boundary condition is omitted in research on ego depletion and behavioral ethics: social consensus. By integrating moral intensity and ego depletion theories, this chapter is one of the first to provide evidence suggesting that depletion can lead to beneficial outcomes. Specifically, depleted participants were theorized to engage in less unethical behavior when the social consensus regarding that particular behavior is high (i.e., everyone agrees that the behavior is

unethical). This chapter contributes to ego depletion theory because it challenges a widely-held assumption about the negative effects of ego depletion on ethical decision making.

In Chapter Four I investigate how depleted individuals are perceived by others. Integrating ego depletion and attribution theories, I theorize that observers are more likely to generate external attributions for depleted targets' unethical behavior, and in turn are more likely to judge depleted targets' unethical behavior less severely. In addition, I theorize that observers are most likely to generate external attributions for depleted targets' unethical behavior when the depletion is a result of work-related events and when the observers themselves believe that morality is a malleable human attribute. This chapter contributes to ego depletion theory by extending the theory to not only actual unethical behavior, but also perceptions of others' unethical behavior.

If my hypotheses are supported, then each chapter can make distinct theoretical contributions. Specifically, Chapter Two suggests that even leaders, who possess an improved executive function and cognitive flexibility as a result of their powerful positions, can be negatively affected by self-control draining exercises. This is an important finding because leaders tend to overextend their self-control resources (DeWall, Baumeister, Mead, & Vohs, 2011), which may lead to deleterious outcomes to themselves (e.g., reduced job performance) and to their followers (e.g., increased abusive supervision). In addition, the findings of Chapter One can inform the abusive supervision literature by introducing ego depletion theory. Utilizing ego depletion theory, scholars can examine a wide array of previously untested, but theoretical plausible antecedents of abusive supervision (e.g., job complexity, job demand, multitasking). Moreover, scholars can draw from extant research on self-control restoration to design methods that aim at reducing abusive supervision.

Chapter Three challenges a core assumption of ego depletion theory – that reduced self-control is *always* associated with increased unethical behavior. This chapter can contribute to research on ego depletion in two significant ways. First, it demonstrates that our limited self-control resources not only restrain our undesirable behaviors, but they are also imperative for enacting other types of behaviors. Second, by incorporating research on the dual-process model of decision making, I suggest that ego depletion may have a stronger effect on automatic than controlled behavior. Although this is only one of the first studies that challenges the core propositions of ego depletion, I believe that it will spark many future studies to explore other boundary conditions of this fascinating theory.

Chapter Four is unique in that it does not extend or challenge ego depletion theory per se like Chapters Two and Three. Rather, Chapter Four extends ego depletion theory to an entirely new domain – perceptions of others' behavior. If my hypotheses are supported, then it suggests that people take others' mental control into account when judging and interacting with people. If supported, this chapter can hold significant implications to how managers treat their followers when they perform poorly, fail to engage in citizenship behavior, disengage at work, and violate ethical standards. Taken together, I believe that these three chapters can extend, refine, and expand ego depletion significantly.

CHAPTER TWO: EGO DEPLETION AND ABUSIVE SUPERVISION

Abusive supervision has a wide range of negative organizational implications (Tepper, 2000). For example, abusive supervision increases follower deviance (Mitchell & Ambrose, 2007), decreases follower well-being (Lian, Ferris, & Brown, 2012), and inhibits follower performance (Aryee, Sun, Chen, & Debrah, 2008). Inspired by a desire to reduce abusive supervision, a limited but growing literature has begun to examine its antecedents. Some scholars have adopted a dispositional perspective, arguing that leaders who possess certain traits, such as high levels of Machiavellianism (Kiazad, Restubog, Zagenczyk, Kiewitz, & Tang, 2010) and low levels of emotional intelligence (Xiaqi, Kun, Chongsen, & Sufang, 2012), are most likely to abuse their followers. Others have argued that abuse tends to occur when leaders perceive abuse to be an organizational norm or believe that a follower does not deserve to be treated well. For example, research has shown that leaders are more likely to abuse followers in hostile organizational climates (Mawritz, Dust, & Resick, 2014), when upper management is abusive (Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012), or when leaders perceive that followers possess deep-level dissimilarities, making some more deserving of abuse than others (Tepper, Moss, & Duffy, 2011).

Whereas these studies have significantly enhanced our understanding of why leaders abuse their followers, the broader literatures on deviance and unethical behavior suggest that there are other factors that may lead to abusive supervision. In particular, ego depletion theory (Baumeister, Bratslavsky, Muraven, & Tice, 1998) suggests that one potentially meaningful yet unexamined predictor of abusive supervision is leaders' self-control – the "ability to override or change one's inner responses, as well as to interrupt undesired behavioral tendencies (such as impulses) and refrain from acting on them" (Tangney, Baumeister, & Boone, 2004, p. 275).

According to ego depletion theory, self-control is a limited resource. Acts of self-control (e.g., refraining from cyber loafing at work) deplete individuals' pools of self-control resources, reducing their ability to exert self-control when faced with subsequent challenges (Muraven, Tice, & Baumeister, 1998). Thus, just as a muscle is depleted from continued exertion, ego depletion theory argues that an individual's ability to regulate his/her impulses and behaviors are similarly depleted from continued exertion.

Scholars have examined self-control resource depletion in a wide array of contexts (Hagger, Wood, Stiff, & Chatzisarantis, 2010). Relatively few studies, however, have examined self-control resource depletion in organizations, and even fewer have examined its relevance for leaders. As a result, we know little about how the demands of leadership contribute to self-control resource depletion or the extent to which this depletion affects how leaders treat their followers. Although predominant explanations for why leaders abuse their followers focus on factors external to the leader, ego depletion theory suggests that abusive supervision is also likely to emerge from the self-control processes within leaders themselves. Most notably, the self-control perspective suggests that leaders are particularly likely to abuse their followers after engaging in resource-depleting behaviors during the workday.

In this paper, we integrate ego depletion theory with the literature on emotional labor (Grandey, 2000) to develop an additional perspective on when and why abusive supervision occurs. First, drawing on the perspective of self-control as a limited resource that is easily depleted (Baumeister et al., 1998), we argue that leaders are particularly likely to become depleted when challenging customer interactions require them to engage in surface acting. Second, building on the literature on self-control and deviance (Christian & Ellis, 2011), we argue that this depletion will mediate the effect of leader surface acting on abusive supervision.

Third, drawing from research on individual differences in self-control capacity, we argue that leader trait self-control moderates the depleting effect of surface acting, such that leaders are most susceptible to the effects of surface acting on abusive supervision when they are low in trait self-control (Tangney et al., 2004). A summary of our model is presented in Figure 1. We test this theoretical model via multisource data from the service and sales industries, offering insights for the literatures on abusive supervision, emotional labor, and self-control resource depletion.

------Insert Figure 1 about here-----

The Depleting Effects of Leaders' Customer Interactions

Among the many challenges that leaders face in the service and sales industries, one of the most prominent is customer interactions. According to the emotional labor literature, employees tend to use one of two strategies when dealing with difficult customer interactions – deep acting or surface acting (Grandey, 2000; Groth & Grandey, 2012; Hochschild, 1983). Deep acting involves proactive attempts to genuinely experience desired emotions, whereas surface acting involves suppressing, manipulating, or overriding emotions after they are experienced (Grandey, 2000; Gross, 1998a, 1998b). Unlike deep acting, behaviors associated with surface acting have been shown to deplete individuals' self-control resources (Gaillot et al., 2007; Schmeichel, Vohs, & Baumeister, 2003). Specifically, research suggests that surface acting involves the regulation of automatic response patterns (e.g. mental states and physical expressions), which in turn reduces the motivation and ability to utilize mental and physiological resources during subsequent tasks (e.g. blood glucose; Gaillot et al., 2007; Hagger et al., 2010). In support of this theorizing, research has shown that emotion suppression inhibits individuals' performance on subsequent physical stamina exercises (Muraven et al., 1998) and creates feelings of exhaustion in call center simulations (Goldberg & Grandey, 2007, see also Totterdell

& Holman, 2003). In sum, the findings of these and other investigations of surface acting and self-control resource depletion indicate that employees' reactive attempts to govern their emotions leaves them in a weakened state.

Although several studies have established a link between surface acting and self-control resource depletion, the literature has focused exclusively on frontline employees. As a result, it is unclear to what extent this relationship applies to leaders. Research and theory on the psychological effects of power, a defining characteristic of leaders, suggests that leaders might be relatively more immune to the depleting effects of surface acting. For example, individuals in high power positions enjoy an improved sense of control (Magee & Galinsky, 2008), greater executive functioning (Smith, Jostmann, Galinsky, & Dijk, 2008), and more cognitive flexibility than their low power peers (Guinote, 2007). Likewise, individuals in high power positions perform better during challenging interactions (Lammers, Dubois, Rucker, & Galinsky, 2013). Thus, the increased sense of power inherent in many leadership roles may buffer leaders from the depleting effects of customer interactions via the physiological, psychological, and behavioral effects of power itself (for a review see Magee & Galinsky, 2008).

Whereas research on the psychological effects of power suggests that leaders might be buffered against the depleting effects of surface acting, the dynamics of the leadership role itself suggest the opposite. Leaders occupy positions of unique responsibility. Beyond the core tasks typical of frontline employees, leaders are charged with a host of additional tasks such as dealing with employee conflict, customer complaints, and implementing strategic changes (Bass, 1985). Thus, leaders are less likely to operate as a matter of routine; rather, they regularly face complex, novel, and cognitively taxing job demands. Indeed, the customer service literature suggests that leaders often handle the most difficult and multifaceted customer problems – incidents where

customers are unusually upset, or are trying to fix a particularly difficult issue that a frontline customer service representative was unable to resolve (Maxham & Netemeyer, 2003).

Given the challenging and variable nature of the customer issues that leaders regularly face, it should be extremely difficult for leaders to consistently use the same surface acting tactics during each and every customer interaction, especially given many organizations' focus on tailoring customer interactions to each individual customer's unique needs and concerns (MacMillan & McGrath, 1997; Tambini, 1999). This prediction is consistent with the metaphorical theorizing of self-control depletion and muscle strength. Repeated exertions on the same types of tasks may increase one's overall self-control strength over time, but exertions on different types of tasks and under varying conditions may worsen one's state self-control and even lead to burnout in the long term. To this end, Scott, Barnes and Wagner (2012) found that employees who participated in surface acting at variable levels experienced more resource depletion than employees whose demands over time were more stable and routine.

Thus, while frontline employees might be able to adapt to the challenges of surface acting in relatively routine environments (e.g. when driving routine bus routes; Scott et al., 2012), we suggest such adaptation will be more difficult for leaders. As additional support of this perspective, DeWall, Baumeister, Mead, and Vohs (2011; Study 4) found that although participants primed with social power became more motivated to utilize their self-control resources, they nonetheless became depleted when faced with multiple unique and challenging tasks over time. We suggest that due to the variance and magnitude of problems that leaders often face on a daily basis, their surface acting should deplete their self-control resources.

H1: Leader surface acting is negatively associated with leaders' self-control resources.

Implications for Abusive Supervision

Abusive supervision has been defined as "subordinates' perceptions of the extent to which supervisors engage in the sustained display of hostile verbal and nonverbal behaviors, excluding physical contact" (Tepper, 2000, p. 178). Examples of abusive supervision include breaking promises and expressing anger toward an employee when he or she is mad for another reason (Tepper, 2000). Several lines of research support the idea that the self-control resource depleting effects of surface acting will increase abusive supervisory behaviors. First, scholars have argued that in the absence of sufficient self-control resources, individuals tend to succumb to their impulses (e.g., self-interest behaviors, Loewenstein, 1996), and indeed, self-control resource depletion has been associated with a tendency to engage in impulsive (Baumeister, 2002) and deviant (Christian & Ellis, 2011) behaviors. From a neuroscience perspective, this link is due to decreased prefrontal cortex functioning, an area of the brain that primarily serves as executive control, as a result of self-control depletion (Berkman & Miller-Ziegler, 2012). A hallmark of impulsive behavior is that it brings an immediate hedonic reward at the expense of long-term goals; similarly, abusive supervisory behaviors often create short-term rewards at the expense of long-term goals. For example, leaders may break promises made to their followers (e.g., leave work early on a Friday night) and undermine long-term work relationships in pursuit of more immediately rewarding outcomes (e.g., a lower workload).

Second, additional research supports the idea that when leaders' self-control resources are depleted due to surface acting, they will be especially prone to direct their impulses and deviance on their followers. Duffy, Shaw, Hoobler, and Tepper (2010) argued that behaviors requiring emotional labor such as surface acting will, in general, cause subsequent antisocial behavior in the workplace. Regarding the target of this antisocial behavior, they went on to suggest that the emotional suppression associated with behavior like surface acting "is often redirected or

misplaced toward less-powerful or more-available targets" (Duffy et al., 2010, p. 103). In the case of leader surface acting with customers, we suggest that this is because leaders cannot retaliate directly against the customers who provoked them to engage in surface acting, and instead subsequently direct such frustrations (as a result of reduced self-control) against people of lower power – their subordinates (Bushman & Baumeister, 1998).

Taken together, these lines of research support the idea that the diminished self-control associated with leaders' surface acting should leave them prone to engaging in abusive supervisory behaviors toward their followers. Two empirical studies provide indirect support for this hypothesis. Christian and Ellis (2011) found that senior business students who are depleted of self-control resources are more likely to verbally abuse their mentees. In addition, results from a study by Byrne et al. (2013) suggests that leaders who are anxious, depressed, or consume too much alcohol tend to abuse their followers due to a reduced capacity for self-control. In sum, we argue that when leaders' self-control resources are depleted by surface acting, they are more likely to engage in abusive supervision.

H2: Leader surface acting is associated with increased abusive supervision, mediated by decreased self-control resources.

The Moderating Role of Trait Self-Control

Hypotheses 1 and 2 suggest that leaders are most likely to abuse their followers when surface acting depletes their self-control resources. We recognize, however, that the effects of surface acting on leaders' abusive behavior are unlikely to be consistent across all leaders. A central tenant of ego depletion theory is that individuals vary in their susceptibility to resource depletion. This individual difference is captured by trait self-control, a disposition that refers to an individual's general capacity to regulate his or her behavior across a range of domains and contexts (Tangney et al., 2004). Owing to their ability to control their impulses, people with high

trait self-control are often described as "strong-willed" and perform better at school and work than their peers, and are particularly good at maintaining healthy lifestyles and close interpersonal relationships (de Ridde, Lensvelt-Mulders, Finkenauer, Stok, & Baumesiter, 2012).

We argue that leaders who are dispositionally high in self-control will be less susceptible to the depleting effects of surface acting than their peers, which should attenuate the negative effects of surface acting on leaders' abusive supervision. Recent research provides some support for this argument. For example, Wang, Liao, Zhan, and Shi (2011) found that employees with high self-control over their emotions were less likely to retaliate against customers who had mistreated them. Another study found that leaders with high trait self-control are less likely to react to undermining within their family by undermining their followers (Kiewitz et al., 2012). Finally, Mawritz et al. (2012) found that conscientious leaders are less abusive than less conscientious leaders, and argued that this effect emerges in part because "highly conscientious supervisors have high levels of self-control" that help them overcome their impulses to act abusively (p. 4). In sum, leaders with high trait self-control should be better able to stave off the impulse to engage in abusive supervision when their self-control resources are depleted.

> *H3: The indirect effect of leader surface acting on abusive supervision via self-control resources is moderated by leader trait self-control, such that this relationship is stronger when leader trait self-control is low.*

Methods

Participants and Procedure

In this study, we aimed to recruit leaders and followers who work in customer service or sales and have daily interactions with customers (i.e., "people work" occupations; Hochschild, 1983). We also aimed to collect data from leaders and followers across a variety of organizations to increase the generalizability of our findings. To meet these criteria, we recruited participants

through the Study Response Project (for a recent example utilizing this data collection method, see Yam, Fehr, & Barnes, 2014). Participation was restricted to those who (a) worked fulltime in customer service or sales, (b) worked with a leader who interacts with customers on a daily basis, and (c) agreed to invite their leaders to participate in the study. Administrators from the Study Response Project verified leaders' email addresses to ensure data integrity.

A total of 283 qualified employees expressed an interest in participating in the study. Surveys were sent to each of these employees and their corresponding direct leaders. A total of 184 dyads successfully completed the study (65% response rate). Leaders were an average of 41.6 years old, 70.1% male, and 76.5% European-American. Most leaders identified themselves as retail branch managers or team managers (86.4%). Employees were an average of 38.2 years old, 67.2% male, and 75.8% European-American. At Time One (T1), leaders completed measures of surface acting toward customers, trait self-control, and trait negative affect. At Time Two (T2), approximately three weeks later, leaders completed a measure of their state self-control resources. Employees did not complete any measures at T1. At T2, employees rated leaders' abusive supervision.

Measures

Leader surface acting. At T1, we asked leaders to report how often they engaged in surface acting toward their customers with a five-item scale (Grandey, 2003). A sample item was "faked a good mood in front of customers" (1 = never to 5 = all of the time).

Leader trait self-control. At T1, we measured leader trait self-control with the 13-item self-control scale developed by Tangney et al. (2004). A sample item was "In general, I am good at resisting temptation" (1 = not at all to 5 = very much).

Leader state self-control resources. At T2, we measured leaders' self-control resources with a five-item scale (Johnson, Lanaj, & Barnes, 2014; Yam, Reynolds, & Hirsh, 2014). Leaders were specifically instructed to focus on how they felt during the past three weeks. A sample item was "I feel like my willpower is gone" (1 = not at all to 5 = very much). To ease interpretation, we reverse coded all items so that a higher score represents higher levels of self-control resources.

Abusive supervision. At T2, followers were asked to rate leaders' abusive supervisory behavior in the past three weeks with the 15-item abusive supervision scale (Tepper, 2000). We instructed followers to assess leaders' behaviors toward themselves as well as other followers with similar rankings and backgrounds. Whereas abusive supervision might entail an idiosyncratic component based on perceptions of individual followers and those followers' behaviors, reduced self-control as a result of surface acting is likely to influence leaders' behavior across a broad range of employees because leaders do not have resources to resist their urges to abuse all lower-status individuals (i.e., followers). We therefore surveyed the effects of surface acting and self-control on the entirety of leaders' abusive behaviors. A sample item was "my leader invades employees' privacy" (1 = never to 5 = very often)[1].

Controls. We controlled for several key variables in our analyses. First, because past research has shown that perceptions of leader behavior are sometimes affected by leaders' demographics (e.g., Eagly & Johnson 1990), we controlled for leader age, gender, and race. Second, following past research that has hypothesized a link between abusive supervision and negative affect (Krasikova et al., 2013), we controlled for leader trait negative affect (NA) with the ten-item Negative Affect Schedule (Watson, Clark, & Tellegen, 1988). Finally, past research

[1] To ensure that our measure of abusive supervision is consistent with the extant literature, we conducted a validation study on MTurk. Results reveal a high degree of overlap between abusive supervision as measured in our study and as measured by Tepper (2000), $r = .92$, $p < .01$. Details regarding this study are available upon request.

suggests that, over time, individuals may habituate to the depleting effects of work (Converse & DeShon, 2009). That is, leaders who constantly engage in surface acting may become better at this task and the depleting effects of surface acting may diminish as job tenure increases. We therefore controlled for job tenure by asking leaders how many years have they worked at their current organizations on a seven-point scale (1 = less than a year to 7 = 11 years or more).

Results

Preliminary analyses. We first conducted confirmatory factor analyses to ensure that our focal constructs (surface acting, trait self-control, self-control resources, and abusive supervision) had satisfactory discriminant validity. Results indicated that the four-factor structure fit the data well ($\chi 2$ (98) = 230.64; RMSEA= .05; CFI= .95) and was superior to a model in which the trait self-control and state self-control resources items were set to load on a single factor, $\Delta\chi 2[4] = 66.02$, $p < .01$. Descriptive statistics are presented in Table 1.

Leader surface acting and state self-control resources (H1). To test H1, we conducted an ordinary least squares (OLS) regression. All control variables and leader surface acting were entered in Model 1 to predict leaders' self-control resources. Results revealed a negative effect of surface acting on leaders' self-control resources ($\beta = -.20$, $p < .05$, see Table 2). Hypothesis 1 was therefore supported.

----- *Insert Tables 1 and 2 about here* -----

Implications for abusive supervision (H2). We followed the recommendations of Preacher and Hayes (2008; also see Shrout & Bolger, 2002) and used the statistical software developed by Hayes (2013) to examine our mediated model by using a bias-corrected bootstrapping procedure (see Hayes, 2009 for a summary of the advantages of this procedure). Controlling for leaders' demographics, trait NA, and job tenure, bootstrapping analyses (1,000

resamples) revealed a significant total indirect effect. The coefficient for the indirect effect of state self-control resources was .05 (SE = .03), and the bias corrected 95% confidence interval did not include zero (CI = .01 to .12), indicating support for Hypothesis 2.

Moderated mediation (H3). To test our hypothesized first-stage moderated mediation model, we began by examining the interactive effect of leader surface acting and leader trait self-control on leader state self-control resources. Results yielded a significant interaction term (β = .92, $p < .05$; see Table 2 and Figure 2). To test Hypothesis 3 in an integrated fashion, we utilized the bootstrapping-based analytic approach of Edwards and Lambert (2007) and the statistical software of Hayes (2013) to test for indirect effects at one standard deviation above the mean and one standard deviation below the mean of the moderator (i.e., leader trait self-control; with 1,000 resamples). We used path analysis conventions to describe the direct, indirect, and total effects of leader surface acting on abusive supervision (via state self-control) at different levels of leader trait self-control (for a recent example utilizing a similar analytical procedure, see Duffy, Scott, Shaw, Tepper, & Aquino, 2012). When leaders were high on trait self-control, the indirect effect model was not significant. When leaders were low on trait self-control, however, the indirect effect model was significant (see Table 3). The index for moderated mediation was -.07 (SE = .03, 95% CI = -.15 to -.02; Hayes, 2015). Together, the results suggest that leaders who are low on trait self-control are most likely to be affected by surface acting, and that this in turn is positively associated with abusive supervision, supporting Hypothesis 3[2].

----- *Insert Figure 2 and Tables 3 and 4 about here* -----

Discussion

[2] Although we did not hypothesize direct-effects moderation (i.e., surface acting interacting with trait self-control to predict abusive supervision), we have included a table that examines the direct effects of our variables on abusive supervision upon editorial request (Table 4).

In this research, we drew from ego depletion theory to develop and test a model that explains the role of self-control in abusive supervision. We demonstrated that the depleting effect of surface acting has direct implications for leaders' abusive supervision, such that leaders who experience higher levels of depletion via surface acting during customer interactions are more likely to abuse their followers than leaders who are less depleted. Furthermore, we identified leaders' trait self-control as an important moderator of these effects. We discuss the theoretical and practical implications of our research in the following sections.

Theoretical Contributions

First and foremost, our research contributes to the literature on abusive supervision by highlighting a new mechanism through which leaders are likely to abuse their followers. In contrast to previous research, we argue that abuse stems from leaders' inabilities to exhibit self-control. Although our focus was on surface acting during customer interactions, the identification of self-control resource depletion as a key factor in the emergence of abusive supervision highlights the importance of maintaining leaders' self-control resource availability over time.

More generally, we suggest that ego depletion theory holds significant promise as another perspective in understanding many antecedents of abusive supervision. For example, according to past research, abuse itself is depleting to its victims (Thau & Mitchell, 2010). Therefore, it is possible that abuse from upper management might influence lower-level managers' abuse simply because they, as a result of being abused, lack the self-control resources needed to restrain their own abusive supervisory behaviors. Ego depletion theory can thus provide a complimentary understanding of currently established antecedents of abusive supervision (e.g., factors derived from social learning theory such as upper management abusive behaviors) and open doors to an array of previously unexamined antecedents of abusive supervision (e.g., job demand).

Our research also contributes to the literature on surface acting, particularly as an aspect of emotional labor. Research on surface acting and emotional labor has often emphasized its negative effects on well-being and performance outcomes (Hülsheger & Schewe, 2011). Recent research, however, suggests that surfacing acting with customers can spillover to affect family conflict (Wagner, Barnes, & Scott, 2014). In a similar vein, our research suggests that surface acting with customers can spillover to affect leader-follower relationships. In addition to the small number of studies on the spillover effects of emotional labor, there is also a limited amount of research on the effects of surface acting on leadership behaviors. Gardner, Fischer, and Hunt (2009) theorized that surface acting by a leader would be negatively related to 1) the favorability of follower impressions, 2) follower perceptions of leader authenticity, and 3) leader felt authenticity. Unfortunately, few empirical studies have examined both emotional labor's spillover effects and its effects on leadership behaviors. Thus, our investigation on the spillover effects of leader surface acting on follower abusive supervision perceptions represents a first step in these areas of research.

Practical Implications

In terms of practice, we believe that a self-control perspective of abusive supervision opens the door to interventions that organizations may use to mitigate the potential harmful effects of surface acting on leadership. For example, the current research suggests that service organizations might wish to reconsider their policies on "service with a smile" and other indirect calls for surface acting. Whereas organizational practices encouraging emotion suppression might help an organization's image in the short run, such practices also risk compromising the quality of leader-follower relationships in the long run. Given numerous negative consequences of abusive supervision (Schyns & Schilling, 2013; Tepper, 2007) and the documented

ineffectiveness of surface acting (Hülsheger & Schewe, 2011), organizations might even benefit from explicitly discouraging surface acting.

Furthermore, to the extent that self-control resource availability is an important underlying driver of abusive supervision, our research suggests that abusive supervision can also be attenuated by replenishing leaders' self-control resources. For example, organizations can help employees regain their self-control resources by encouraging them to take short breaks at work (Trougakos, Beal, Green, & Weiss, 2008). Likewise, research has shown that self-affirmation training can enable individuals to replenish depleted resources (Schmeichel & Vohs, 2009). Together, these streams of research point to a wide array of interventions through which organizations can reduce abusive supervision.

Limitations and Directions for Future Research

This research is not without limitations. For example, although our mediator and dependent variable were reported by different sources, they were collected at the same time. Thus, abusive supervision could be theorized to drive resource depletion. To examine this alternative explanation, we conducted a regression analysis in which abusive supervision was modeled as the independent variable and self-control resources as the dependent variable. Results from this test yielded a nonsignificant main effect ($\beta = .11$, $p = .28$). Nevertheless, we encourage future research to temporally separate measures of resource depletion and abusive supervision (i.e., utilize a three-wave design), and to examine other potential downstream consequences of abusive supervision for leaders themselves (e.g., feelings of remorse and guilt).

Beyond methodological issues, our research raises some interesting future research questions. Although we only examined self-control resource depletion through the lens of surface acting during customer interactions, there are other behaviors that can likely deplete

leaders' self-control resources and lead to abusive supervision. For example, impression management requires leaders to present themselves in a socially desirable way and suppress their true desires and interests when interacting with top management (Bolino, 1999). The constant monitoring of one's image and suppression of undesirable behaviors will likely drain self-control and lead to increased abusive supervision. Interestingly, recent work suggests that engaging in procedurally just behaviors can also be self-control depleting because abiding by rules necessitates self-control resources (Johnson et al., 2014). Leaders may therefore face a paradox. On the one hand, they may want to be as procedurally just as possible. On the other hand, engaging in such behaviors may lead to self-control depletion and subsequent abusive supervisory behaviors. All of these are important research directions that deserve scholarly attention.

Recent meta-analytic work by Carter and McCullough (2014) suggests that the effects of resource depletion may be overestimated in some contexts. This finding highlights the need for future researchers to carefully consider the dispositional and situational moderators of resource depletion. For example, Scott et al. (2012) found that surface acting is particularly likely to have negative effects for individuals who utilize highly variable surface acting tactics, and thereby are unable to become habituated to them over time. This research suggests that factors related to consistent versus inconsistent use of surface acting may partly explain why surface acting is more closely related to abusive supervision among some leaders rather than others, a research direction that is worthy of future investigations. In addition, although we focused exclusively on lower-level leaders in our studies, it is possible that leaders' job autonomy may moderate this effect, as research suggests that autonomy support may reduce the negative effects of resource depletion (Muraven, Gagné, & Rosman, 2008).

Although our results provide support for a self-control perspective in understanding why leaders become abusive, prior research by Lian et al. (2012) provided indirect evidence that social learning theory may have better predictive power over ego depletion theory. We therefore recommend that future research considers both theoretical perspectives in tandem in understanding the antecedent of abusive supervision.

Finally, just as leaders need self-control resources to refrain from abusive behavior, they also need self-control resources to act as paragons of ethicality (e.g., to resist temptations). Like the abusive supervision literature, the ethical leadership literature has tended to focus on its consequences and neglect its antecedents (Brown & Mitchell, 2010). We therefore encourage future research to examine the utility of a self-control perspective on the study of ethical leadership. This stream of future research is especially important to the extent that a wide range of positive leadership styles require leaders to be ethical (Fehr, Yam, & Dang, 2015). In other words, resource-depleting workplace behaviors might hinder the display of a wide range of positive leadership styles, such as servant leadership and transformational leadership.

Conclusion

Leaders' work can be challenging. In a given day, leaders are likely to face a myriad of difficult tasks that can drain their self-control resources. In this paper, we demonstrated that the resource-draining task of surface acting during customer interactions can have deleterious effects on abusive supervision, depriving leaders of the resources they would otherwise use to rein in their abusive behavior. Through this study we highlight the importance of a self-control perspective on abusive behavior at work, and the importance of a deeper awareness of the unforeseen consequences of a depleted leader.

CHAPTER THREE: THE PARADOXICAL EFFECTS OF EGO DEPLETION

According to Baumeister and Vohs (2007), ego depletion refers to "a state in which the self does not have all the resources it has normally" (p. 2). When individuals are depleted, their subsequent task performance, effort, and self-regulation are impaired because they lack self-control[3] resources (for a review, see Hagger, Wood, Stiff, & Chatzisarantis, 2010). In recent years, behavioral ethics and legal scholars have increasingly recognized the importance of ego depletion to ethical decision making (e.g., Gottfredson & Hirschi, 1990; Loewenstein, 2000), and have empirically demonstrated a positive association between ego depletion and unethical behavior. Extant research suggests that depleted individuals lack the necessary self-control resources to resist temptations to engage in unethical conduct (Gino, Schweitzer, Mead, & Ariely, 2011; Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009). These findings have important practical implications because organizational factors commonly thought to increase productivity (e.g., overtime work, job enrichment) may in fact deplete employees, thereby creating conditions where employees are more likely to engage in unethical behaviors that harm the organization (Barnes, Schaubroeck, Huth, Ghumman, 2011; Christian & Ellis, 2011).

Although empirical evidence demonstrating a positive association between ego depletion and unethical behavior continues to mount, we suggest that this relationship is more complicated than is commonly understood. Specifically, we believe that current research is limited by a restricted view of the effects of ego depletion. According to Baumeister and Vohs (2007), when individuals are depleted, not only do they lack self-control resources, but also they lack resources required to engage in "effortful choice and active initiative" (p. 2). More explicitly, Schmeichel, Vohs, and Baumeister (2003) argued that "some data suggest that the limited resource is used for more than self-regulation….choice making and initiative also require the self's executive

[3] Self-control and self-regulation are used synonymously in this article.

function and have been shown to rely on the same resources as other self-regulatory behavior" (p. 34). Thus, depleted individuals may have less strength to avoid ethical temptations, but by the same token they also have less energy to engage in any unethical behaviors that require substantial cognitive effort to commit. To this point, previous research in behavioral ethics has focused heavily on ego depletion's effects on self-control, but no research has examined the ethical implications of ego depletion's effects on action initiative. Accordingly, this research explores the question: If ego depletion reduces self-control resources that can increase unethical behavior *and* also depletes action initiative necessary to enact unethical behaviors, what factor may determine the link between ego depletion and unethical behavior?

To answer this question, we draw upon insights from theories on social consensus (Jones, 1991; Reynolds & Ceranic, 2007) and the dual-process models of decision making (e.g., Kahneman, 2011) to propose a moderated mediation model of unethical behavior. The main thrust of our argument is that some unethical behaviors require substantial cognitive effort to commit while others do not, and thus ego depletion's effects on unethical behavior depends upon the nature of the unethical behavior. Specifically, we suggest that unethical behaviors of high social consensus (i.e., behaviors that everyone generally agrees are unethical) require significant action initiative; such behaviors demand deliberate and reasoned cognitive processes that are negatively impacted by ego depletion. In contrast, unethical behaviors involving issues of lower social consensus (i.e., behaviors that involve more disagreement about its unethicality) require less cognitive effort to commit; the individual need only to rely on automatic decision-making processes, and ego depletion drives these processes towards unethical outcomes. In short, ego depletion leads to decreased unethical behavior of high social consensus because depleted individuals lack action initiatives to commit the unethical behavior, but ego depletion leads to

increased unethical behavior of lower social consensus because depleted individuals, responding automatically, lack self-control resources to resist the short-term benefits of the unethical behavior (de Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2011). Ultimately, our empirical findings support this main argument.

This research makes several noteworthy contributions to the literature. At a very general level, this research begins to disentangle the effects of ego depletion and to more completely understand its multi-faceted impact on unethical behavior. Second, our data demonstrates that, controlling for state self-control resources, subjective fatigue mediates the relationship between ego depletion and unethical behavior of high social consensus. This finding helps to explain why depleted individuals do not engage in unethical behavior of high social consensus. Finally, by incorporating an issue-contingent view of the relationship between ego depletion and unethical behavior, this research explains how unethical behavior can at times require mental resources and at other times be the result of a lack of sufficient mental resources. In our view, this finding is especially noteworthy because of the practical implications it holds for organizations concerned about the ethical conduct of their employees.

Ego Depletion and Unethical Behavior

Research has demonstrated that engaging in prior cognitively demanding tasks can consume mental resources and affect subsequent behaviors (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Finkel, Dalton, Campbell, Brunell, Scarbeck, & Chartrand, 2006). Indeed, psychologists have discovered that a variety of common volitional behaviors can consume a great deal of an individual's mental resources. For example, writing an essay without using certain letters in the alphabet is associated with impaired performance in a subsequent task (Gino et al., 2011; Schmeichel, 2007). Similarly, sleep deprivation prevents the restoration of mental

resources and leads to depletion at work (Barnes & Hollenbeck, 2009). Meta-analytic results have confirmed these linkages and revealed moderate to large effect sizes of ego depletion on subsequent task effort, subjective fatigue, and blood glucose level (Hagger et al., 2010). In short, these results suggest that ego depletion can lead to dramatic changes in subsequent volitional behaviors.

Drawing from this general body of work, behavioral ethics scholars have demonstrated that ego depletion impairs self-control resources and thus leads to increased unethical behavior, a finding that seems to be quite robust and generalizable. For example, researchers have demonstrated that depleted students are more likely to cheat for additional payment than non-depleted students (Gino et al., 2011; Mead et al., 2009), and Christian and Ellis (2011) found that sleep deprived nurses were more likely to engage in deviant behavior than rested nurses. This effect is not specific to the health care profession, as Barnes et al. (2011) found virtually the same results in a sample of full-time employees from multiple industries.

In these studies the authors attributed unethical behavior to a lack of self-control, or willpower, as a result of depletion. Self-control is fueled by the self's finite mental resources (Baumeister & Heatherton, 1996; Heatherton & Baumeister, 1996). When engaging in acts of volition, individuals' subsequent self-control resources are thus depleted, leading to the inability to restrain impulsive behaviors that fulfill short-term needs. A hallmark of impulsive behavior is that it satisfies short-term needs and desires at the expense of long-term goals. In addition, impulsive behaviors are usually easy to enact because they often provide a direct hedonic pleasure (Loewenstein, 1996). Self-control is therefore necessary when temptations to engage in impulsive behavior arise. Similar to impulsive behavior, unethical behavior also creates desirable short-term outcomes (e.g., increased monetary reward) but compromises long-term goals (e.g.,

maintaining a good reputation). In sum, current understanding suggests that ego depletion leads to an increase in unethical behavior.

Although research to date has suggested a universal effect of ego depletion on unethical behavior, we recognize that ego depletion has several effects on individual ethical decision-making processes and that not all of these effects have been explored. As previously noted, scholars have argued that when individuals are depleted, they lack not only self-control resources, but also resources necessary to engage in effortful choice and action initiative (Baumeister & Vohs, 2007). To our knowledge, no research has specifically examined this effect. As unethical behavior can require a great deal of cognitive effort (e.g., planning and concealing embezzlement can require incredible foresight, preparation, and analysis), a lack of mental resources could be a substantial obstacle to the commission of such unethical behavior. Thus, ego depletion theory provides a strong basis for suggesting that it will both facilitate and prevent unethical conduct. Given this contradiction, we propose that the social consensus of an unethical behavior is an important determinant of whether and how much mental resources the behavior consumes, and ultimately the effects of ego depletion on unethical behavior.

Social Consensus and Dual-Process Theories

In his issue-contingent model of ethical decision-making, Jones (1991) proposed that issues vary in their moral intensity (the extent to which the issue involves moral content). According to Jones, moral intensity is comprised of six dimensions: magnitude of consequences, temporal immediacy, probability of effects, concentration of effects, proximity, and social consensus. Social consensus is defined as "the degree of social agreement that a proposed act is evil (or good)" (Jones, 1991; p. 375); "it indicates the extent to which there is a general concurrence within society about the moral status of the issue" (Reynolds & Ceranic, 2007;

p.1611). Social consensus is unique in that it is the only dimension of moral intensity that that has a normative component (Weaver & Trevino, 1994). Importantly, we argue that this dimension of moral intensity is most likely to determine mental resources needed for ethical decision making because normative concerns dictate whether or not an action can be legitimately considered through a moral lens. This dimension is also particularly relevant to the organizational sciences, as most organizations have values or norms that dictate what is right from wrong (Trevino, Butterfield, & McCabe, 1998). In addition, research has empirically demonstrated that social consensus is one of the most important factors in determining an issue's moral intensity (Frey, 2000). In this research, we argue that enacting an unethical behavior of high social consensus consumes significantly more of the decision maker's mental resources compared to an unethical behavior of lower social consensus, and thus it is this moderating factor that explains ego depletion's seemingly contradictory effects on ethical decision-making.

When social consensus regarding the unethical behavior is not high, by definition, there are many different opinions about the moral status of the act (Jones, 1991). In fact, when the social consensus of an unethical behavior is relatively low, some individuals may not even perceive any moral components of the behavior (Reynolds, 2006a). Individuals facing an issue of lower social consensus may therefore have conflicting feelings and indeterminate personal opinions about the issue. Subsequently, when depleted, the individual may be less likely to resist behaviors that require the individual to sacrifice short-term interests for long-term goals. Instead, the individual will be more likely to succumb to the temptation of the short-term rewards offered by the unethical behavior

As an example of this argument, Reynolds and Ceranic (2007) argued and empirically demonstrated that academic dishonesty is an issue of relatively low social consensus. While

cheating is considered to be an unethical behavior from the formalistic perspective; in practice, many students view academic dishonesty as a necessary means to valuable ends such as graduation, pleasing family and friends, and securing employment. Moreover, students recognize that most of their peers engage in academic dishonesty (Brown, 1995; Trevino & McCabe, 1993). As a result, the moral status of cheating is not clear. For this reason, if a student is facing an opportunity to cheat and is also depleted and thus lacks self-control, the moral uncertainty of the unethical behavior makes it more likely that he or she will forego any concerns about moral principles and long-term gains to instead succumb to the short-term rewards that cheating can offer.

This argument is consistent with the dual-process models of decision-making. Dual-process models (Kahneman, 2011) state that decision making is governed by two distinct systems: System 1 is characterized as rapid, automatic, and affective, whereas System 2 is characterized as controlled and deliberate (Evans, 2003). Reynolds (2006b) proposed a dual-process model specifically for ethical decision making. Per the model, when faced with a moral dilemma, individuals first automatically search for prototypical responses from past experience and knowledge (System 1). If prototypical responses are found, a reflexive judgment and behavior ensues. If prototypical responses are not found, System 2 is then activated to aid the decision maker in reaching a conclusion based on abstract reasoning. Emerging empirical evidence has supported the biological roots of these two distinct systems in ethical decision making (Greene, 2007). For instance, people who suffered from frontotemporal dementia (loss of affectivity) engaged in more calculative decisions (System 2) in an ethical dilemma than people without such dementia (Mendez, Anderson, & Shapira, 2005).

When faced with an issue of lower social consensus, System 1 processes are sufficient to generate a behavioral response. An individual is able to identify a prototypical response from past experience (Reynolds, 2006b) and behavior can follow in a relatively automatic and effortless fashion. In the case of academic dishonesty example, individuals' System 1 operation is first indicated by the relatively short response time between realization of the situation (a difficult test) and the decision to cheat. Cheaters can easily find prototypical responses to the moral dilemma (e.g., "my friends cheat; so can I"). Self-control resources would be required to engage in the more ethical behavior, but depleted individuals would be unable to resist the short-term benefits of the unethical behavior (e.g., Mead et al., 2009). Consistent with this argument, a recent meta-analysis suggests that one of the most important determinants of automatic behaviors is individuals' self-control (de Ridder et al., 2011). Depletion, however, does not affect individuals' abilities in carrying out the behavior because System 1 processes are relatively effortless and do not depend on the self's finite mental resources (i.e., resources needed for action initiatives; Rottenstreich, Sood, & Brenner, 2007). Put differently, a high amount of mental resources is needed to *restrain* unethical behavior of lower social consensus, but *enacting* the behavior only requires minimal mental resources because it is processed through System 1's relatively effortless operations. Thus, we offer the following hypothesis:

> *Hypothesis 1: When social consensus regarding the unethical issue is relatively low, ego depletion will be positively associated with unethical behavior.*

Hypothesis 1 assumes that unethical behaviors lower in social consensus are enacted with relatively little effort. In contrast to this, we suggest that enacting unethical behaviors of high social consensus requires a substantially larger amount of mental resources. With issues of high social consensus, there is a widespread agreement about the unethical nature of the conduct. Furthermore, general prescriptions of how to behave are precise and widely understood (e.g.,

murder is widely recognized and expressly forbidden). When faced with an opportunity to engage in such unethical behaviors, individuals are less likely to have prototypical permissive responses formed from previous experience upon which they can draw, and thus are much less likely to engage in System 1 processes. The inability to locate a prototypical response to issues of high social consensus then activates System 2 processes to determine a means by which individuals can override or avoid these widespread and deeply engrained notions of how to behave (Reynolds, 2006b). Because System 2 has limited capacity and requires a great deal of energy (Evans, 2003), ego depletion will undermine its ability to generate, consider, and engage in such unethical behaviors.

As evidence of this argument, we note that Rottenstreich et al. (2007) found that ego depletion affects System 2 processes significantly more than System 1 processes, and Shiv and Fedorikhin (1999) demonstrated that, when under cognitive load, consumers' System 2, but not System 1 (e.g., affectivity), processes were severely undermined. Furthermore, Paharia, Vohs, and Deshpande (2013) demonstrated that individuals under a heavy cognitive load engaged in significantly less motivated reasoning to justify endorsement of unethicality. In addition, Masicampo and Baumeister (2008) demonstrated that depleted participants rely on System 1 thinking because they no longer have the mental resources that fueled System 2 processes. Because enacting unethical behavior of high social consensus necessitates System 2 processing, we suggest that depleted individuals will be less likely to enact unethical behavior of high social consensus because they lack the mental resources needed by System 2 to devise a means for acting unethically (e.g., a depleted individual cannot effectively strategize about embezzling). Our theorizing leads us to the following hypothesis:

> *Hypothesis 2: When social consensus regarding the unethical issue is high, ego depletion will be negatively associated with unethical behavior.*

At first glance, it might appear that our theorizing (H2) is incompatible with prior research on ego depletion and ethical decision making. A close inspection of the literature, however, suggests that prior research has largely neglected the moderating role of the issue (i.e., social consensus) on ego depletion and ethical decision making. Nevertheless, we believe extant research supports our arguments. For instance, laboratory -based studies (Barnes et al., 2011; Christian & Ellis, 2011; Gino et al., 2011; Mead et al., 2009) employed undergraduate students to test the link between ego depletion and unethical behavior. In their studies, undergraduate students were given an opportunity to overstate their performance on a test for a low amount of extra monetary payment (usually around $10). Given students' own frequent commissions, observations of widespread cheating among peers, and perceptions that risks of getting caught and punished are extremely low (McCabe & Trevino, 1996; Reynolds & Ceranic, 2007), we suggest that cheating within a university setting is an unethical behavior lower in social consensus. Numerous studies with representative samples across the United States have reported that as many as three out of four undergraduate students have engaged in some forms of academic dishonesty in the past (McCabe & Trevino, 1993, 1996). Thus, the unethical conduct assessed in laboratory-based ego depletion studies was relatively low in social consensus.

Although organizational scholars interested in the link between ego depletion and unethical behavior have examined a wide range of unethical behaviors (Barnes et al., 2011; Christian & Ellis, 2011), none have accounted for nor specified the social consensus of the unethical behaviors they measured. For example, both Barnes et al. (2011) and Christian and Ellis (2011) examined the effect of ego depletion on workplace deviance, but their measurements included unethical behaviors that vary greatly on social consensus. While most would agree that using illegal drug or consuming alcohol on the job are highly unethical workplace behaviors, few

would believe that working on a personal matter during work (e.g., browsing the internet) involves the same level of social consensus. The low base rate of unethical behavior high in social consensus at work may also preclude scholars from examining this moderation hypothesis. To be clear, our intention is not to criticize extant research on this topic. Rather, we are merely proposing that a theoretically plausible moderator, namely social consensus of the unethical behavior, may be critical to fully understanding the link between ego depletion and unethical behavior.

Subjective Fatigue as a Mediator

In the literature, reduced self-control resource is understood to be the underlying psychological mechanism that explains the link between ego depletion and unethical behavior of lower social consensus. The mechanism that might explain the link between ego depletion and unethical behavior of high social consensus, however, has not been identified. In the following section, we propose that subjective fatigue mediates this relationship.

When intending to engage in an unethical behavior of high social consensus, individuals must first deploy mental resources to fuel System 2's mental processes. For example, individuals may need to contemplate ways to engage the behavior undetected because, if caught, the consequences are likely to be dire. In order to evade either formal (e.g., fines) or social (e.g., peer disapproval) sanctions, the decision makers must engage in conscious and deliberate planning that is governed by System 2 processes. Since ego depletion affects not only individuals' self-control resources, but also action initiatives and energy (Baumeister & Vohs, 2007; Baumeister et al., 2007), we suggest that ego depletion can lead to a state of subjective fatigue. A recent meta-analysis provides support for this contention. Decreased self-control resources as a result of ego depletion often coincide with increased subjective fatigue (Hagger et al., 2010). In fact,

Hagger et al. (2010) further speculated that "fatigue may not be a mere indicator of ego depletion but a mediator of the effects of self-regulatory resources depletion [ego depletion] on subsequent task performance" (p. 498). Consistent with this meta-analytic finding, we posit that subjective fatigue mediates the relationship between ego depletion and unethical behavior of high social consensus because fatigued individuals are unable to engage in System 2 thinking, thus disabling the possibility of enacting unethical behavior of high social consensus. When subjective fatigue is high, individuals are also more likely to follow the most commonly prescribed and most commonly committed behavior, a path referred to as the "default" decision (Masicampo & Baumeister, 2008). For example, Danziger, Leavav, and Avnaim-Pesso (2011) found that depleted judges simplify their decision making processes and are more likely to accept the default decision to deny a prisoner's parole request. In the case of ethical decision making, following the default decision would be to choose the most widely prescribed and commonly followed course of action (i.e., refraining from engaging in unethical behavior of high social consensus). In contrast, subjective fatigue should not have an effect on unethical behavior of lower social consensus because fatigued individuals still engage in automatic (System 1) thinking (Reynolds, 2006b). This argument is presented in the following hypothesis:

> *Hypothesis 3: The moderating effect of social consensus will be mediated by subjective fatigue, such that subjective fatigue will only mediate the link between ego depletion and unethical behavior when the social consensus of the unethical behavior is high.*

Research Overview

Our complete research model is presented in Figure 3. As illustrated, we hypothesize a moderating effect of social consensus on the relationship between ego depletion and unethical conduct, and argue that subjective fatigue is a psychological mechanism (i.e., mediator) that explains why depleted individuals are less likely to engage in unethical behavior of high social consensus. To test our hypotheses, we conducted three studies utilizing a variety of methods that

have been validated in previous research. In Study 1, we first examined Hypotheses 1 and 2 with an experimental design to establish causal inferences. We constructively replicated our results with a field study of tax accountants in Study 2. Finally, using a sample of undergraduate students, we demonstrated that subjective fatigue is a mediator in the hypothesized model (Study 3). In each study, we used different measures and manipulations of ego depletion and social consensus to triangulate our findings.

Insert Figure 3 about here

Study 1

Participants and Procedure

A total of 214 (42% male; M_{age} = 33.54; 71% European American) working adults across the United States participated in the study via the Amazon Mechanical Turk (MTurk) platform. Participants were recruited to participate in a study entitled "Fatigue and Cognitive Performance". We employed a 2 (ego depletion: yes or no) x 2 (social consensus manipulation: high or lower) between-subjects design. Participants were first randomly assigned to one of the four conditions and then were given an opportunity to cheat for additional payment at the end of the study.

Manipulations and Measures

Ego depletion manipulation. We first asked participants to write a 100-word paragraph to describe what they did yesterday. In the ego depletion condition, participants were asked to write the paragraph without using the letters A and N. In the no-depletion condition, participants were asked to write the paragraph without using the letters X and Y (Gino et al., 2011; Schmeichel, 2007). A two-item manipulation check (1 = not at all; 5 = very much) indicated that participants in the depletion condition found the task to be significantly more difficult (M = 4.49,

SD = .73), *t* (212) = 6.87, *p* < .01, and cognitively demanding (*M* = 3.06, *SD* = .87), *t* (212) = 4.91, *p* < .01, than participants in the no-depletion condition (*M* = 3.40, *SD* = 1.40 and *M* = 2.46, *SD* = .91, respectively), thus indicating that our depletion manipulation was successful.

Social consensus manipulation. In keeping with the premise of the study, participants were given five math problems to complete. Unbeknownst to the participants, all questions were unsolvable. We manipulated social consensus of the unethical behavior via a written news story presented to participants before the math problems as a relaxation exercise.

> Two graduate students at Dartmouth are on a mission to make the opinions of different social issues more public through a new web polling site called open-vote.com. Discerning public consensus on social issues can be a challenge, the creators of the site say, and their project attempts to provide that service. Open Vote co-founder Colin Van Ostern said, "Currently we have surveyed more than 5000 individuals nationwide in every state, from large major metropolitan areas to rural areas."

Participants were then provided with a list of findings (e.g., how often people visit McDonald's) from the organization's website. In the high social consensus condition, we told participants that 89.2% of the respondents considered cheating for a small reward as unacceptable, whereas in the lower social consensus condition, we told participants that 39.2% of the respondents considered cheating for a small reward as unacceptable. In order to ensure our manipulation was successful, we told participants that we would like to survey their opinions on a few social issues in order to discern differences between MTurk users and the general public. We presented participants with eight unethical behaviors of generally lower social consensus (e.g., jaywalking, keeping extra change) and asked them to estimate what society thought of those behaviors in terms of their ethicality (1 = most people have a different opinion regarding the ethicality on this; 7 = everyone thinks this is unethical; α = .84). We asked about their perceptions of others' opinions of the acceptability of the behaviors rather than their own judgments to reduce social desirability bias. One of the questions focused specifically on

cheating for a small reward. As expected, participants in the high social consensus condition reported a higher degree of social consensus on cheating for a small reward (M = 3.37, SD = 1.37) than participants in the lower social consensus condition (M = 1.92, SD = 1.27), t (212) = 2.52, p < .05.

Unethical behavior. We measured unethical behavior with a task adapted from previous research (Gino & Pierce, 2009). In keeping with the premise of the study, participants were given five math problems to complete, and were asked to find numbers that would add up to ten. For each correctly solved problem, participants were told that they would receive an additional $.10. We provided participants with a computerized calculator to aid their calculations. When participants selected 2.68 and 6.15, for example, the program automatically provided the summation (8.83) to participants to avoid accidental cheating. Unbeknownst to the participants, all questions were unsolvable. Thus, this measure constituted an unambiguous measure of unethical behavior. Overall, 31.9 % of all participants cheated on the task in order to receive extra payment.

Results and Discussion

We examined Hypotheses 1 and 2 with a 2x2 analysis of variance (ANOVA). Neither the ego depletion, F(1, 209) = .19, p = .66, nor the social consensus main effect, F(1, 209) = 1.02, p = .32, were significant. More importantly, however, results revealed the predicted interaction between the two factors F(1, 209) = 7.54, p < .01, η^2 = .06. As Figure 4 revealed, depleted participants engaged in more unethical behavior of lower social consensus (M = 1.30, SD = 1.71) than non-depleted participants (M = .79, SD = 1.66), F(1, 209) = 3.89, p < .05, η^2= .02, supporting Hypothesis 1. In contrast, depleted participants engaged in less unethical behavior of high social consensus (M = .47, SD = 1.27) than non-depleted participants (M = 1.01, SD = 1.71),

$F(1, 209) = 5.21$, $p < .05$, $\eta^2 = .03$, supporting Hypothesis 2. Unethical behavior of high (M = 1.01 SD = 1.71) vs. lower social consensus (M = .79, SD = 1.66) did not differ among non-depleted participants, $F(1, 209) = 1.72$, $p = .19$, $\eta^2 = .01$. In sum, participants who were depleted engaged in significantly *less* unethical behavior of high social consensus compared to participants who were not depleted. In addition, participants who were depleted engaged in significantly *more* unethical behavior of lower social consensus compared to participants who were not depleted.

Insert Figure 4 about here

Although results in Study 1 provided evidence supporting Hypotheses 1 and 2, we recognized its limitations. For example, the unethical behavior measured in Study 1, though high in internal validity, might not be generalizable to other unethical behaviors in organizations. In addition, although manipulating social consensus of an unethical behavior allowed us to establish causal inference, the social consensus of a particular unethical behavior might be long-standing and difficult to manipulate (Jones, 1991; Reynolds & Ceranic, 2007). Therefore, we sought to maximize the generalizability of our findings in Study 2 by surveying a group of tax accountants and focusing on the ethical issues they face in their profession.

Study 2

It is widely recognized that tax accountants are frequently sleep deprived, especially during the tax season. We therefore chose to measure sleep deprivation as a proxy for ego depletion in this study because prior studies have confirmed that sleep deprivation prevents the restoration of mental resources (Barnes et al., 2011; Christian & Ellis, 2011). Although they are trained to adhere to ethical and professional standards, tax accountants often have opportunities

to engage in unethical behavior that helps their clients, firms, and/or themselves (Finn, Chonko, & Hunt, 1988). Accounting practices that fall under some grey legal area, also known as earnings management, are frequently observed and reported in organizations. Interestingly, the social consensus surrounding these behaviors varies greatly. To illustrate this point, Graham, Harvey, and Rajgopal (2005) found that most Chief Financial Officers (80%) are comfortable in decreasing discretionary spending when preparing for end-of-quarter financial report, but few are comfortable in altering accounting assumptions (8%). Given these conditions, we surveyed a sample of professional tax accountants approximately 10 days prior to the deadline of the tax season (i.e., early April). Examining our hypotheses among this sample provided a conservative (because tax accountants receive extensive ethics training) and ecologically (because sleep deprivation is common to the profession during this timeframe) valid test of our theoretical model.

Participants and Procedure

We sent a recruitment e-mail to 888 alumni at [the authors' institution] who graduated with a Bachelor's Degree in Accounting. Participants were invited to participate anonymously on a voluntary basis. A post-hoc analysis revealed that 60 of those e-mail addresses were invalid, and that 620 of the e-mails were never opened. A total of 61 Certified Public Accountants (45.8% male; M_{age} = 34.51; 70% European American) completed the online survey, and a majority of participants (50.8%) had been a professional tax accountant for nine years or more. A handful of respondents expressed strong interest in the study, and so we invited them to solicit fellow tax accountants to complete the study. We ensured participants' anonymity throughout the research process. Because we used a snowball sampling technique, we estimated our response rate for the survey to be at 20-25%.

Measures

Sleep quantity. We measured sleep quantity as a proxy for ego depletion. Sleep deprivation is known to deplete mental resources in two meta-analyses (Hagger et al., 2010; Pilcher & Huffcutt, 1996), and recent studies have conceptualized sleep deprivation as a form of ego depletion (Barnes et al., 2011; Christian & Ellis, 2011).We asked participants to indicate the average daily hours of sleep they had the week prior (Sunday to Thursday nights) in half hour increments. We excluded Friday and Saturday nights because participants did not have opportunities to engage in unethical behavior at work after those nights. On average, participants reported having 6.50 hours (*SD* = 1.16) of sleep per night.

Unethical behavior. To measure unethical behavior high in social consensus, we asked participants whether they had provided falsified or manipulated financial reporting information to the Internal Revenue Service (IRS) in the past week (Yes/No). To measure unethical behavior lower in social consensus, we asked participants whether they had withheld important financial reporting information to the IRS in the past week (Yes/No). The presentation of these two questions was counter-balanced. The referent timeframe was consistent with participants' reported sleep quantity. The key distinguishing feature between these two behaviors is whether they constitute an unethical act of commission, which is generally regarded to be a behavior of high social consensus, or an act of omission, which is generally regarded to be an act of lower social consensus (Spranca, Minsk, & Baron, 1991). Theoretically, unethical behavior of commission can be conceptualized as more psychologically proximal to the decision maker, thus a higher level of social consensus, than unethical behavior of omission (Jones, 1991). This approach is also consistent with research in the medical literature; for example, withdrawing medical treatment to terminally ill patients (omission) is viewed as less immoral than euthanasia

(commission; Doyal & Doyal, 2001). Overall, seven (11.5%) participants indicated they had provided falsified or manipulated tax information and 12 (19.7%) participants indicated they had withheld important tax information. Only one participant reported committing both forms of unethical behavior.

In order to further validate our operationalization of the two dependent variables as relatively high and low in social consensus, we surveyed 12 tax accounting experts and asked them to rate the social consensus of these behaviors among tax accountants. On average, these experts have been conducting research on and teaching tax accounting for 20.08 years (*SD* = 11.22; ranging from 4 to 41 years). Because social consensus is dependent on the familiarity with the topic in question, we reasoned that these experts could provide an accurate assessment of the social consensus of these unethical accounting practices. We first provided the definition of social consensus to the experts and asked them to answer two questions (order counterbalanced): most tax accountants would agree that omitting [falsifying] important information to the IRS is morally wrong (1 strongly disagree to 7 strongly agree). Then, we asked the experts to choose which behavior has a higher degree of social consensus (i.e., that everyone thinks it is unethical) among tax accountants (1 = omitting; 2 = falsifying; 3 = neither).

A paired-samples *t*-test suggested that the social consensus of falsifying important information to the IRS (unethical act of commission; $M = 4.92$; $SD = .29$) is significantly higher than the social consensus of omitting important information to the IRS (unethical act of omission; $M = 3.92$; $SD = .90$), $t(11) = -3.63$, $p < .01$. In addition, three experts indicated neither behavior is higher on social consensus, whereas nine experts agreed that falsifying important information to the IRB has a higher degree of social consensus than omitting important information in the force-choice question, $\chi^2 (2) = 10.50$, $p < .01$. In addition to the theoretical arguments presented,

these data provided further empirical justifications for our operationalization of the two dependent variables.

Control variables. We realized that self-report unethical behavior is likely to be influenced by social desirability bias (Randall & Fernandes, 1991). In this case, however, other-report unethical behavior is not feasible due to the nature of the unethical behavior (e.g., tax accountants usually work rather independently). In order to minimize this concern, we controlled for social desirability bias using the 13-item Marlowe-Crowne social desirability scale (Reynolds, 1982). Sample items include "I sometimes feel resentful when I don't get my way" and "I am always courteous, even to people who are disagreeable" (1 = strongly disagree; 7 = strongly agree; M = 3.80, SD = 1.20, α = .92). In addition, because sleep quality has been shown to moderately correlate with sleep quantity, we controlled for sleep quality with a four-item insomnia scale (Barnes et al., 2011). Sample items include "I have trouble falling asleep" and "I wake up several times per night" (1 = strongly disagree; 7 = strongly agree; M = 2.86, SD = 1.41, α = .73). Finally, we used two items to control for individual difference in need for sleep. Items include "how many hours of sleep do you need in a given night in order to wake up rested" and "how many hours of sleep do you generally want on a typical night" (M = 8.03 hours, SD = .59, α = .91).

Results and Discussion

To test Hypotheses 1 and 2, we conducted two sets of logistic regression models. Unethical behavior of commission and omission were entered as the dependent variables respectively. In both models, tenure as a tax accountant, sleep quality, need for sleep, and social desirability bias were entered as control variables, with sleep quantity entered as a predictor. Sleep quantity was negatively associated with unethical behavior lower in social consensus (i.e.,

omission of accounting information; B = -2.16, p < .01), but was positively associated with unethical behavior high in social consensus (i.e., falsification of accounting information; B = 2.76, p < .05). Results suggested that accountants were 15 times more likely to falsify tax information to the IRS when sleep quantity increased. None of the control variables were significant in the models. The complete logistic regression models were presented in Table 5.

Insert Table 5 about here

Studies 1 and 2 provided converging evidence for Hypotheses 1 and 2 using different samples, measures of ego depletion, and measures of unethical behavior high/lower in social consensus. The experimental design in Study 1 enabled us to establish causal inferences, whereas the survey design in Study 2 suggested that our results had high external validity.

In our final study, we extended these findings in several ways. First, using an undergraduate student sample, we replicated our findings with yet another measure of ego depletion. Second, we examined subjective fatigue as a mediator in the link between ego depletion and unethical behavior of high social consensus (H3). Study 3 thus entailed a comprehensive test of our theorized second-stage moderated mediation model (Preacher, Rucker, & Hayes, 2007). Finally, we controlled for state self-control to rule out this alternative explanation of our findings.

Study 3

Participants and Procedure

A total of 140 undergraduate students participated in this lab study in exchange for monetary payment. Eight participants failed to complete the study, leaving a final sample size of 132 (58.00% male; M_{age} = 21.50; 55.5% European American). We employed a 2 (ego depletion

manipulation: yes or no) x 2 (social consensus manipulation: high or lower) between-subjects design. Participants were randomly assigned to one of the four conditions and then were given an opportunity to cheat for additional payment at the end of the study.

Measures and Manipulations

Ego depletion manipulation. We manipulated ego depletion using the Stroop task (Gailliot et al., 2007). Participants were provided a list of colors in multiple colored fonts and asked to name the color of the font with four keystrokes ("D" = yellow, "F" = blue, "J" = green, "K" = red). In the depletion condition, participants completed 20 incongruent color/font trials (e.g., "BLUE" printed in the color red), whereas participants in the no-depletion condition completed 20 congruent trails (e.g., "BLUE" printed in the color blue). As a manipulation check, we timed all participants' responses. As expected, participants in the depletion condition took significantly longer (in seconds) to complete the Stroop task (M = 34.64, SD = 4.87) than participants in the no-depletion condition (M = 29.40, SD = 4.23), t (130) = 6.59, $p < .01$. A two-item manipulation check (1 = not at all; 5 = very much) indicated that participants in the depletion condition found the task to be significantly more difficult (M = 3.79, SD = 1.08), t(130) = 10.85, $p < .01$, and cognitively demanding (M = 3.54, SD = 1.06), t (130) = 9.71, $p < .01$, than participants in the no-depletion condition (M = 1.97, SD = .83 and M = 1.94, SD = .81, respectively), thus indicating that the ego depletion manipulation was effective.

Social consensus manipulation. We manipulated the social consensus of an unethical behavior as in Study 1. After completing the Stroop task, participants were randomly assigned to read one of the two cover stories used in Study 1. Again we presented participants with the same eight mild unethical behavior and asked them to estimate the extent to which society thought of those behaviors in terms of their ethicality as a manipulation check (1 = most people have a

different opinion regarding the ethicality on this; 7 = everyone thinks this is unethical). Participants in the high social consensus condition reported a higher degree of agreement on cheating for a small reward ($M = 3.68$, $SD = 1.91$) than participants in the lower social consensus condition ($M = 2.07$, $SD = 1.24$), $t\ (130) = 5.76$, $p < .01$, suggesting that our manipulation of social consensus was also effective.

Subjective fatigue. We measured subjective fatigue with a five-item scale developed by Lee, Hicks, and Nino-Murcia (1991). Items included "I feel 1) tired, 2) sleepy, 3) drowsy, 4) fatigued, and 5) worn out" ($M = 4.87$, $SD = 2.01$, $\alpha = .95$). Participants were asked to indicate their feelings at the moment (1 not at all to 10 extremely).

State self-control. Because reduced self-control is a well-established consequence of ego depletion (Baumeister & Vohs, 2007), we measured participants' state self-control and used it as a control variable in our analysis to rule out this alternative explanation of our findings. In other words, controlling for state self-control provides a more conservative test of the mediating role of fatigue in our theoretical model. Unfortunately, existing measures of state self-control are often confounded with subjective fatigue. For example, a widely used state self-control scale (Twenge et al., 2004) contained a handful of similar or even identical items used in our subjective fatigue scale (e.g., "I feel worn out" and "I feel drained"). To ensure that our measure of state self-control is not confounded with subjective fatigue, we only included items from Twenge et al. (2004)'s measure that directly assessed participants' capacity to override or alter their behaviors at the moment (Baumeister & Vohs, 2007). We thus measured state self-control with eight items ($M = 3.31$, $SD = 1.20$, $\alpha = .83$). Sample items included "If I were tempted by something right now, it would be difficult to resist", "I am having a hard time controlling my urges", and "I feel like my willpower is gone" (1 not at all to 7 very much).

We conducted a confirmatory factor analysis (CFA) to ensure that this scale had appropriate statistical properties. Results suggested that all eight items loaded on a single latent factor (i.e., state self-control) and the CFA supported the single-factor structure of the measure (χ^2 (11) = 7.28, p = .61, CFI = .97, RMSEA = .04, SRMR = .04, M = 3.31, SD = 1.97, α = .83). As expected, state self-control and subjective fatigue was also moderately correlated (r = .36, p < .01).

Unethical behavior. After reading the stories, participants were directed to the same mathematic summation task used in Study 1. We again provided all participants with a computerized calculator to avoid accentual cheating. For each correctly solved problem, participants were told that they would receive an additional $1.00. Unbeknownst to the participants, all of the five questions were unsolvable. Overall, 34 participants (25.76%) cheated for additional payment.

Results and Discussion

We first examined Hypotheses 1 and 2 with a 2x2 ANOVA, controlling for state self-control. Results revealed a marginal main effect of ego depletion, F(1, 125) = 2.71, p = .10 and a marginal main effect of social consensus, F(1, 125) = 3.22, p = .08. More importantly, results revealed the predicted interaction between the two factors F(1, 125) = 11.73, p < .01, η^2 = .09. As Figure 5 revealed, depleted participants engaged in more unethical behavior of lower social consensus (M = 1.24, SD = 1.87) than non-depleted participants (M = .24, SD = .56), F(1, 125) = 12.59, p < .01, η^2= .09, supporting Hypothesis 1. In contrast, depleted participants engaged in less unethical behavior of high social consensus (M = .15, SD = .20) than non-depleted participants (M = .53, SD = .21), F(1, 125) = 4.03, p < .05, η^2= .03, supporting Hypothesis 2. Unethical behavior of high (M = .53, SD = .21) vs. lower social consensus (M = .24, SD = .56)

did not differ among non-depleted participants, $F(1, 125) = 2.02$, $p = .16$, $\eta^2 = .01$. In sum, participants who were depleted engaged in significantly *less* unethical behavior of high social consensus compared to participants who were not depleted. In addition, participants who were depleted engaged in significantly *more* unethical behavior of lower social consensus compared to participants who were not depleted.

Insert Figure 5 about here

To test Hypothesis 3, we began by examining the nature of the interaction between subjective fatigue and social consensus on unethical behavior, controlling for state self-control. We conducted an ordinary least square (OLS) regression to examine this interactive effect. State self-control, subjective fatigue, and social consensus were entered in Step 1 of the model ($R^2 = .31$, $p < .01$). In Step 2, we entered the interaction term ($\beta = -.39$, $p < .05$), which explained significantly more variance than Step 1 ($R^2 = .34$, $\Delta R^2 = .03$, $p < .05$). As Figure 6 and the simple slope tests revealed, participants who experienced high levels of subjective fatigue engaged in significantly less unethical behavior of high social consensus than participants who experienced low levels of subjective fatigue ($\beta = -.44$, $p < .01$). However, levels of subjective fatigue did not have an effect on unethical behavior of lower social consensus ($\beta = -.18$, $p = .17$). These results provide initial support for Hypothesis 3. To test Hypothesis 3 in an integrative fashion, we conducted a moderated mediation analysis following the bootstrapping-based analytic approach of Edwards and Lambert (2007) and the statistical software of Hayes (2013) to test for conditional indirect effect (with 1,000 resamples). Ego depletion was entered as the independent variable, subjective fatigue as the mediator, social consensus as the second-stage moderator, cheating as the dependent variable, and state self-control as the control variable. When social

consensus of the unethical behavior was lower, the mediated model was not significant (*indirect effect* = -.17, *SE* = .11, 95%, CI = -.37 to .03). When social consensus of the unethical behavior was high, however, the mediated model was significant (*indirect effect* = -.47, *SE* = .14, 95%, CI = -.85 to -.22). These results supported Hypothesis 3, suggesting that ego depletion leads to decreased unethical behavior of high social consensus via increased subjective fatigue. In addition, these results hold when controlling for state self-control resources.

Insert Figure 6 about Here

General Discussion

In recent years, scholars have tried to explain why otherwise ethical people would engage in unethical behavior. Experimental work drawing from the ego depletion framework has consistently revealed that depletion causes individuals to engage in unethical behaviors (Christian & Ellis, 2011; Gino et al., 2011; Mead et al., 2009). By integrating the literatures on social consensus, the dual-process model of ethical decision making, and ego depletion, we explored this relationship and challenged a widely-hold assumption about the negative effects of ego depletion on ethical decision making. We found that ego depletion only leads to a higher level of unethical behavior of lower social consensus, but not unethical behavior of high social consensus. In fact, ego depletion was found to lead to a *lower* level of unethical behavior of high social consensus. This effect appears to be robust as we found consistent evidence among working adults (Study 1), tax accountants (Study 2) and undergraduate students (Study 3) through both survey-based and experimental methodologies. Subjective fatigue in turn mediated the relationship between ego depletion and unethical behavior of high social consensus. Below we highlight the theoretical and practical implications of our findings.

Theoretical Implications

Our findings make several contributions to the literature. First, it deepens and expands scholarly understanding of the link between ego depletion and ethical decision making. We identified social consensus of the issue's ethicality as a robust moderator between ego depletion and unethical behavior across three studies. Instead of strengthening or weakening the relationship, social consensus of the issue *determines* the sign of the relationship. In short, our results provided a more comprehensive theoretical understanding of the role of ego depletion in individuals' ethical decision making processes. Our research also emphasizes and illustrates the importance of incorporating the issue-contingent model (Jones, 1991) in behavioral ethics research. Although Jones' model is widely cited in the literature, a recent meta-analysis revealed that only a handful of studies have examined the effect of social consensus on ethical decision making (Kish-Gephart, Harrison, & Trevino, 2010) and only a few has examined the role of social consensus on actual unethical behavior (instead, most have relied on the intention to act, e.g., Frey, 2000; May & Pauli, 2003). Our research therefore makes a contribution by directly examining the effect of social consensus on actual unethical behavior rather than unethical intentions.

Second, by revealing the counter-intuitive effect of ego depletion on unethical behavior, our research also contributes to the ego depletion literature more broadly. Scholars have often used the strength model and the dual-task paradigm in examining the role of ego depletion on subsequent volitional behaviors (see Hagger et al., 2010 for a review). Although prior self-control tasks can undoubtedly impair subsequent self-control resources derived from a limited pool of mental resources (Baumesiter et al., 2007), our research suggests that the enactment of some behaviors depends on the same limited pool of mental resources. In other words, our

limited mental resources do not only regulate our behaviors, but they are also imperative for enacting our behaviors. This observation is consistent with other neuropsychological theories of human behavior (e.g., reinforcement sensitivity theory), which specify that one neurological system regulates behaviors whereas the other enacts behaviors (Gray, 1982). By revealing this paradoxical effect of ego depletion, our research is one of the first to answer the call for integrating theory on ego depletion and self-control with other theoretical accounts, such as subjective fatigue and motivation (Hagger et al., 2010).

Third, the findings also contribute to our understanding of the role of self-control in ethical decision making. According to prior research, non-depleted participants are equipped with self-control and thus are less likely to be unethical. However, our findings suggest that non-depleted participants are actually more likely to engage in unethical behavior of high social consensus than depleted participants. This is puzzling because non-depleted participants have both high levels of action initiatives (i.e., low subjective fatigue) and self-control. Nevertheless, our findings are consistent with recent meta-analytic findings that suggest self-control has a larger impact on automatic (i.e., unethical behavior of lower social consensus) than controlled behavior (i.e., unethical behavior of high social consensus; de Ridder et al., 2011). In other words, our findings allude to the possibility that self-control may have a stronger effect in deterring effortless than controlled unethical behavior, an empirical question that awaits further investigation.

Practical Implications

Given these results, should managers intentionally deplete their employees in the name of productivity? Relying only on previous research that suggests a link between depletion and unethical behavior at work (Barnes et al., 2011; Christian & Ellis, 2011), the answer would

clearly be no. However, our findings raise several interesting issues relevant to this question. Our results suggest that depleted employees will be less likely to engage in high-profile unethical behavior compared to non-depleted employees because they are too tired to do so. Although one can argue that this positive benefit may be offset by increased frequency of unethical behavior of relatively low social consensus, the net utility of gain could still be positive. For example, depleted tax accountants may be more likely to engage in interpersonal deviance (e.g., being rude to co-workers), but they would also be less likely to engage in accounting fraud that could lead to devastating organizational and interpersonal outcomes (e.g., Arthur Anderson). From a utilitarian perspective, depletion appears to be justified because it can generate positive outcomes for the individual and the organization.

Nevertheless, unethical behavior is not the only negative consequence of ego depletion. Empirical studies have shown that ego depletion can also drastically reduce work effort (Hagger et al., 2010), test performance, (Schmeichel et al., 2003), and other research suggests that it can lead to workplace injuries and accidents (Barnes & Wagner, 2009). Furthermore, ego depletion can negatively affect the quality of judgment and decision making in general (Baumeister, Sparks, Stillman, & Vohs, 2008) by enhancing the role of intuitive decision making over rational and deliberate decision making (Pocheptsova, Amir, Dhar, & Baumeister, 2009). Considering the entire range of possible negative effects of ego depletion to the organizations and their employees, we strongly recommend organizations and managers to avoid depleting their employees. To address the potential increased in unethical behavior of high social consensus for non-depleted employees, we recommend organizations to provide their employees with the proper ethics training so that when they engage in either automatic or deliberate moral reasoning, they arrive at the correct decision.

Limitations and Future Research

Despite the strengths of this research (e.g., multi-study approach, diverse samples, etc.), a few limitations warrant further discussion. First, because of the correlational nature of Study 2, we cannot rule out alternative explanations of our findings. For example, perhaps the accountants who slept less were also more motivated at work, thus less likely to report unethicality at work to protect their organizations' images. In addition, the unethical behaviors measured in Study 2 could be a result of ego depletion, work engagement, supervisory pressure, conformity, altruistic intention (e.g., falsifying tax return to help a single mom), self-interest, or a combination of these factors. Although we controlled for social desirability bias in Study 2, future field studies should use other-report of unethicality to offset this limitation. Unfortunately, doing so will be difficult because unethical behavior of high social consensus is often carried out secretly and difficult to be detected and observed by others.

Second, we did not theorize any individual factors that may strengthen or weaken the proposed relationships. Although we theorized and found support to the notion that engaging in unethical behavior of high social consensus requires System 2's conscious processing, individual differences such as moral identity (Aquino & Reed, 2002) and moral attentiveness (Reynolds, 2008) could play important roles in this process. For example, individuals high on moral identity who are not depleted (i.e., not fatigued) may remain paragons of ethicality on issues of high social consensus. In other words, in addition to the social consensus of the issue, the relationship between ego depletion and unethical behavior may depend in part of the actor. Future research could also adopt a triple-interactionist perspective in exploring the roles of individuals, issues, and contexts (i.e., "bad apples", "bad cases", and "bad barrels") simultaneously.

Third, research on ethical fading suggests that people often start with unethical behavior of lower social consensus (e.g., cheating in college) and gradually commit more serious (e.g., high social consensus) unethical behavior (e.g., stealing money from company's petty cash box; Bazerman & Tenbrunsel, 2011; Tenbrunsel & Messick, 2004). Because we utilize experimental and cross-section designs to test our hypotheses, our research cannot address this temporal perspective of ethical decision making. Perhaps depleted individuals are more likely to engage in unethical behavior of lower social consensus in the short term, but will gradually be more likely to engage in unethical behavior of high social consensus later on. We suggest that future research should incorporate research on ethical fading, ego depletion, and social consensus in order to provide a more complete understanding of individuals' ethical decision making processes.

Finally, Gailliot et al. (2007) have repeatedly found that restoring depleted participants' blood glucose can counter the negative effects of ego depletion on a variety of tasks (though this effect has not been tested in the behavioral ethics literature). If giving depleted employees a glucose drink (e.g., a non-diet soda) can decrease their likelihood of engaging in unethical behavior of lower social consensus, then this finding may have tremendous practical implications. Interestingly, our results suggest that the effect of glucose supplementation may also be paradoxical. On one hand, it will decrease depleted employees' likelihood of engaging in unethical behavior of lower social consensus. One the other hand, it will also restore their mental resources and allow them to engage in System 2 thinking, thus leading to increased unethical behavior of high social consensus.

Conclusion

. In this research, we have extended prior theoretical discussions of the relationship between ego depletion and unethical behavior and have empirically demonstrated that social

consensus of the unethical behavior is a moderator in this relationship. The convergent evidence from three studies confirmed that while ego depletion increases unethical behavior of relatively low social consensus, it nevertheless decreases unethical behavior of high social consensus. Our findings question the universal negative assumption of ego depletion and reveal that ego depletion is a double-edged sword in shaping individuals' ethical decision making.

CHAPTER FOUR: EGO DEPLETION AND PERCEPTIONS OF UNETHICAL BEHAVIOR

Although research on the antecedents of unethical behavior has burgeoned in recent years, surprisingly little research on judgments of others' unethical behavior has been conducted by organizational scholars. This is rather surprising because a consequence of increased employees' unethical behaviors is that managers are much more likely to be required to judge and to respond to (i.e., reward and punish) unethical behaviors of their employees. In other words, while it is crucial to examine ways to deter unethical behavior, it is also important to explore how managers make sense of and behaviorally react (e.g., punishment) to these behaviors. Therefore, the purpose of this dissertation is to integrate ego depletion and attribution theories to explore when and why third-parties react to others' unethical behaviors differently, and its downstream implications for moral judgment and punishment.

Organizational scholars have a growing interest in the concept of ego depletion in recent years. Defined as "a temporary reduction in the self's capacity to engage in volitional action…caused by prior exercise of volition (Baumeister, Bratslavsky, Muraven, & Tice, 1998, p. 1253), ego depletion generally leads to numerous negative work outcomes. For example, ego depletion leads to reduced work performance (Johnson, Lanaj, & Barnes, 2014) and job engagement (Lanaj, Johnson, & Barnes, 2014). More specific to the current research, ego depletion often leads to increased deviant (Christian & Ellis, 2011; Thau & Mitchell, 2010) and unethical workplace behavior (Barnes, Schaubroeck, Huth, & Ghumman, 2011; Gino, Schweitzer, Mead, & Ariely, 2011). Thus, it is clear that when employees' are depleted, they are more likely to behave unethically.

Despite a growing interest in ego depletion and significant progress in the past decade, this literature is not without limitations. First, this stream of research has largely examined ego depletion's effects on the depleted individuals' behaviors. While useful, others' perceptions of the depleted individuals' behaviors are just as important, as managerial *perceptions* of employees' behaviors are often better predictors of important work outcomes such as hirability (Madera, Hebl, & Martin, 2009) and performance ratings (Yam, Fehr, & Barnes, 2014), over and beyond employees' actual behaviors. In other words, even though an employee engages in unethical behavior, whether he/she will be penalized or not depends on the manager's perception of the behavior. To date, however, research on ego depletion has not examined how others perceive the depleted individuals and to what extent these perceptions drive others' moral judgments and punishment of the depleted individuals.

Second and relatedly, research on ego depletion has tended to suggest that its effect is identical regardless of the *sources* of ego depletion. However, in this research I suggest that this is an important boundary condition of how managers react to others' unethical behavior. For example, although sleep deprivation is found to be positively related to ego depletion (Barnes et al., 2011; Christian & Ellis, 2011), managers are likely to perceive a depleted employee who stays up late and completes a work-related task more positively than a depleted employee who stays up late because of a personal commitment. Decades of research on attribution theory suggests that individuals have a tendency to explain why certain behaviors unfold (Jones & Davis, 1965; Kelley & Michela, 1980), especially when the behavior is unexpected or negative (e.g., unethical behavior; Wong & Weiner, 1981). Thus, by examining the sources of ego depletion, I suggest that some types of ego depletion are especially likely to lead to negative

evaluations of the depleted individuals. In other words, the sources of ego depletion can determine whether depleted individuals are perceived more negatively after their unethicality.

Third, because ego depletion research has played relatively little attention to third-parties, I suggest that there is an important individual difference of the third party that may moderate the link between depletion and third-parties' moral judgments: implicit belief about morality (Chiu, Dweck, Tong, & Fu, 1997). Generally speaking, people hold either an entity or an incremental worldview about morality. Entity theorists believe that morality is fixed and is rooted exclusively from the individual, whereas incremental theorists believe that morality is malleable and is rooted from both forces within and outside of the individual. Therefore, research on attribution theory hints that such differences may determine how likely an individual externalize versus internalize others' unethical behaviors.

Finally, although recent research suggests that ego depletion might have positive effects on unethical behavior (Pitesa, Thau, & Pillutla, 2013; Yam et al., 2014), the literature as a whole has tended to overlook the potential bright side of ego depletion. Integrating ego depletion and attribution theories, I suggest that some depleted employees may be pardoned for their unethical behaviors, and thus lead others to judge their unethical behavior less harshly and punish them less. Put differently, examining when and why ego depletion might lead to positive outcomes can increase our overall understanding of this widely-used theory in behavioral ethics.

In this dissertation, I address these limitations and contribute to the behavioral ethics literature. Integrating ego depletion and attribution theories, I specifically examine when depleted individuals are likely to be perceived as immoral for their unethical behavior. I suggest that depleted individuals are least likely to be perceived as immoral for their unethical behavior

when 1) the sources of their depletions are attributed as parts of their job requirements rather than personal commitments, and 2) the third-parties believe that morality is malleable.

In the following sections, I first provide a review of ego depletion theory. Second, I provide a review of attribution theory. Third, I provide a review of the literatures on third-party moral judgment. Fourth, I integrate the two theories and develop hypotheses regarding third-party moral judgments. Finally, I examine the underlying mechanisms as well as the boundary conditions of my main hypotheses.

Ego Depletion Theory

Self-control is "the ability to override or change one's inner responses, as well as to interrupt undesired behavioral tendencies (such as impulses) and refrain from acting on them" (Tangney, Baumeister, & Boone, 2004, p. 274). Self-control is an important ingredient in people's lives. It enables us to resist short-term temptations (Gottfredson & Hirschi, 1990) and refrain from impulsivity (Loewenstein, 1996). Over a lifetime, high self-control equates to greater well-being and career success (de Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012). Freud (1930) even went so far as to suggest that self-control is the essence of a civilized life.

A central tenet of ego depletion theory is that self-control is a limited resource (Baumeister et al., 1998; Baumeister & Vohs, 2007). Prior exertions of self-control deplete individuals' pools of self-control resources, leading to reduced self-control when individuals are faced with subsequent challenges. For example, an individual may utilize her self-control to refrain from eating unhealthy snacks in the morning, and in doing so is more likely to succumb to temptations later on in the afternoon because of reduced self-control resources. Ego depletion

scholars have often used a muscle analogy to capture the essence of this theory. That is, just as a muscle is depleted from continued exertion, ego depletion theory argues that the capacity for self-control is depleted from continued exertion as well (Muraven, Tice, & Baumeister, 1998). In the following two sections, I provide an extensive review of recent empirical investigations of ego depletion theory.

Ego Depletion Theory: Initial Laboratory Findings

Since ego depletion theory was originated from the social psychology literature, it is no surprise that most early empirical investigations employed laboratory-based experiments. In the first set of experiments, Baumeister and colleagues (1998) utilized a dual-task paradigm to test the hypotheses predicted by ego depletion theory. Namely, participants were instructed to first complete a self-control depleting task as the experimental manipulation. Then, after a few minutes, participants were instructed to complete another task that requires self-control resources as the dependent variable. In this set of experiments, Baumeister and colleagues (1998) utilized four distinct types of self-control depleting tasks: 1) refraining from eating a desirable food, 2) making a counter-attitudinal speech, 3) suppressing emotion, and 4) following multiple rules while completing a cognitively demanding task. Participants assigned to the depletion conditions later reported lower self-control resources, as evidenced by reduced self-control performance on subsequent tasks (e.g., slower response speed, less persistence, etc.).

Types of Ego Depletion Tasks

Since the publication of this influential paper, research on ego depletion has burgeoned in social psychology. Multiple authors have attempted to replicate and extend ego depletion theory. For example, Muraven, Tice, and Baumeister conceptually replicated the original findings of ego depletion theory by employing a different set of depletion inducing tasks (i.e., thought

suppression and recalling prior self-control failures). Schmeichel, Vohs, and Baumeister (2003) provided a more nuanced view of ego depletion theory. These authors argued that automatic behaviors, such as rote memory, are automatic and do not require self-control resources, whereas only behaviors that necessitate self-control, such as logical reasoning, are affected by ego depletion.

Beyond these self-control depleting tasks, other scholars have revealed that interpersonal processes can also drain one's self-control. For example, discussing sensitive issues to a member of an outgroup necessitates self-control resources. White participants were found to be depleted after discussing racial issues with Black participants, but were affected when discussing the same issues with other White participants. This effect is probably partly due to the self-control depleting nature of impression management, as Vohs, Baumesiter, and Ciarocco (2005) found that presenting oneself in a socially desirable way and suppress true desires and interests can be self-control draining. Collectively, ego depletion scholars have identified over thirty additional types of self-control depleting exercises. For example, the Stroop task is theorized and found to deplete individuals' self-control because individuals must suppress their automatic responses by identifying the color of the world instead of the font. Similarly, emotion suppression, especially surface acting, is found to deplete individuals' self-control resources as individuals must override their experienced emotions and fake desirable emotions. It is beyond the scope of this dissertation to discuss all of them, but interested readers should refer to Baumeister, Vohs, and Tice (2007) for an excellent summary.

Behaviors that Require Self-Control

Generally speaking, individuals need to exercise self-control to inhibit undesired behaviors in three broadly defined domains: 1) task performance, 2) impulse control, 3)

interpersonal function, and 4) unethical behavior. For example, self-control is a stronger predictor than intelligence, measured as IQ, on elementary schools children's academic achievement (Duckworth & Seligman, 2005). Likewise, in samples of college students, Schmeichel, Vohs, and Baumeister (2003) found that self-control is a stronger predictor of students' performance on the Graduate Record Examination.

In addition, impulsive behaviors, such as overeating, unprotected sex, and overspending are all lower among individuals high in self-control than their counterparts who are low in self-control (Baumeister, 2002; de Ridder et al., 2012). For example, compared to subjects with low self-control, subjects with high self-control were better at resisting overeating after exerting their self-control resources (Kuijer, De Ridder, Ouwehand, Houx, & Van den Bos, 2008). Findings in the cognitive and social neuroscience literatures have supported the role of self-control in restraining impulsive behavior. For example, individuals with poor frontal lobe functioning, a brain area that is primarily responsible for executive self-control and behavioral regulation, tend to act more aggressively when frustrated (Raine, 2008).

Beyond task performance and impulsive behavior, self-control is also crucial in interpersonal relationships. Among children, multiple longitudinal studies have supported that high self-control is positively associated with social functioning, social status at schools, and popularity among peers (Eisenberg et al., 1997; Maszk, Eisenberg, & Guthrie, 1999). In contrast, children with low self-control are more likely to display behavioral problems (Murphy & Eisenberg, 1997) and engage in juvenile delinquency (Tremblay, Boulerice, Areneault, & Niscale, 1995). In another study, adolescents with low self-control were more likely than their peers to engage in intimate partner violence (Finkel, DeWall, Slotter, Oaten, & Foshee, 2009). Child psychologists have concluded that a lack of self-control is one of the most important risk

factors for poor interpersonal relationship and delinquent behavior later in life (Krueger, Caspi, Moffitt, White, & Stouthamer-Loeber, 1996).

Recent studies have shown that self-control is also crucial in deterring unethical behavior. When individuals' self-control resources are depleted, they are more likely to cheat and steal, and multiple mechanisms were found to underlie this effect. Participants who lacked self-control resources were found to display increased hostility, fatigue, and decreased moral awareness, all of which were linked to increased unethical behavior (Barnes et al., 2011; Christian & Ellis, 2011; Gino et al., 2011; Mead et al., 2009). Indeed, criminologists suggest that crimes are more frequently driven by failures of self-control than premeditated intent (Gottfredson & Hirschi, 1990). Nevertheless, two recent papers provided a more nuanced view of the link between ego depletion and unethical behavior. Pitesa, Thau, and Pillutla (2013) demonstrated that people's dominant impulse is to behave in a socially desirable manner when the interpersonal impact of an action is salient, and that the dominant impulse is to behave in a self-serving manner when the interpersonal impact of an action is not salient. In other words, depleted participants will only engage in more unethical behavior when their unethicality would not hurt others' well-being. Likewise, Yam et al. (2014) found that ego depletion can at times lead to increased normative behavior, particularly when the social consensus regarding the unethical behavior is high (i.e., everyone thinks the behavior is unethical).

The Biology of Ego Depletion

Although many have speculated that self-control is related to executive function in the brain, the first empirical evidence that self-control relies on a biological fuel did not appear until 2007. In a seminal yet controversial paper, Gailliot et al. (2007) proposed and found that glucose is the biological fuel of self-control. In nine studies, participants were instructed to participate in

similar dual-task paradigms discussed earlier, and half were given glucose supplement in the forms of sugar, whereas the other half were given no glucose supplement (i.e., artificial sugar). Participants who were depleted but consumed glucose performed as well as participants who were not depleted. Thus, it has been argued that blood glucose is the biological fuel for self-control resources. Since then, multiple authors have successfully replicated this findings, suggesting that glucose supplementation mitigates the depleting effects relative to a sweetened placebo (DeWall, Baumeister, Gailliot, & Maner, 2008; Dvorak & Simons, 2009; Gailliot, Baumeister, et al., 2007; Gailliot, Peruche, Plant, & Baumeister, 2009; Masicampo & Baumeister, 2008).

Beyond glucose, findings in the cognitive and social neuroscience literatures have shown that individuals with poor frontal lobe functioning, a brain area that is primarily responsible for executive self-control and behavioral regulation, tend to fail to restrain their aggression when provoked (Raine, 2008). More precisely, functional magnetic resonance imaging (fMRI) researchers have found that when participants engaged in self-control demanding tasks, their dorsolateral prefrontal cortex activated, providing strong support for a neuro basis of ego depletion theory (Hare, Camerer, & Rangel, 2009). Generally speaking, scholars indicated that the prefrontal cortex, which is responsible for executive function, is also the neurological center for self-control. This finding is supported by numerous fMRI investigations on the adolescents' brains, which revealed that adolescents tend to have a less mature prefrontal cortex than adults (Casey & Caudle, 2013).

Trait Self-Control

Although the predictions of ego depletion theory are robust across multiple contexts and samples (Hagger, Wood, Stiff, & Chatzisarantis, 2010), research suggests that some people are

naturally better at self-control than others (Tangney, Baumeister, & Boone, 2004). Trait self-control is a disposition that refers to an individual's general capacity to regulate his or her behavior across a range of domains and contexts (Tangney et al., 2004). People with high trait self-control are often described as "strong-willed" and perform better at school and work than their peers, and are particularly good at maintaining healthy lifestyles and close interpersonal relationships (de Ridder et al., 2012; Tangney et al., 2004). Unsurprisingly, research suggests that people with high trait self-control are more likely to resist the depleting effects of self-control draining tasks (Kuijer et al., 2008).

In a study of employees, Lian, Brown, Ferris, Liang, Keeping, and Morrison (2014) found that employees with high trait self-control were less likely to retaliate against abusive supervisors than their low self-control counterparts. The authors found that high trait self-control has two interrelated functions. First, employees with high trait self-control were less likely to experience hostility toward their abusive supervisors, suggesting that trait self-control is important in monitoring negative affect. In other words, employees with high trait self-control are less likely to experience negative affect even when they are frustrated or being treated badly. Second, employees with high trait self-control are less likely to behaviorally act on their negative affect. Put simply, even when employees are distressed, their self-control reigns in the behavioral displays of their hostility.

Restoring Self-Control

Given that self-control is important to many aspects of our lives and that many of our daily behaviors require self-control, researchers have started to examine strategies that can restore self-control resources after exertions. The most direct route is by taking glucose supplementation, as scholars have consistently found that glucose is the biological fuel of self-

control (e.g., Gailliot et al., 2007). Several scholars have also speculated and found support for a motivational perspective of self-control restoration. For example, Muraven and Sessareva (2003) found that, despite reduced self-control, participants who were offered cash incentives later showed comparable performance on a self-control task compared to participants who were not depleted. Likewise, depleted participants who were given strong implementation intentions to the subsequent self-control task performed as well as participants who were not depleted (Webb & Sheeran, 2002). It is importantly to note, however, that a strong motivation has been theorized to only temporarily reduce the negative effects of ego depletion, and that further empirical evidence is necessary to determine (Baumeister & Vohs, 2007) to what extent individuals' motivation can overcome long-term depletion.

Beyond the motivational perspective of restoring lost self-control resources, Tice, Baumeister, Shmuel, and Muraven (2007) used an emotional perspective in restoring self-control resources. Drawing from research on the positive physiological effects of experiencing positive emotions (e.g., Fredrickson, 2001; Fredrickson & Levenson, 1998), Tice et al. (2007) argued that experiencing positive emotions can "return the person to a neutral physiological state" (p. 380). In four studies, they found that positive emotions induced by humor were able to "undo" the negative effects of ego depletion, such that depleted, but happy, participants perform as well as non-depleted participants in subsequent tasks.

In addition to these two perspectives and consistent with the muscle metaphor discussed earlier, recent scholars suggested that relaxation can help increase individuals' overall pools of self-control resources, and hence enable individuals to better resist ego depletion (Baumeister & Heatherton, 1996). For example, sleep is theorized to restore self-control resources (Mullins, Cortina, Drake, & Dalal, 2014). Tyler and Burns (2008) found that providing participants with

short breaks between the depleting task and the dependent variable can effectively mitigate the depleting effects of the first task. However, such recovery is also proportional. Namely, the longer participants rested, the more self-control resources they recovered. Likewise, taking short breaks at work was also found to effectively counter the negative, depleting effects of ego depletion (Trougakos, Beal, Green, Weiss, 2008).

Field Investigations

Realizing the relevance of ego depletion theory to the organization, scholars have started to conduct field studies to examine the applicability of this theory to organizational phenomena. Extending ego depletion beyond the laboratory and student samples, researchers have examined the core propositions of ego depletion theory in samples of nurses (Christian & Ellis, 2011), professional accountants (Yam et al., 2014); administrative employees in educational settings (Trougakos et al., 2015), and across a wide range of other industries (Barnes et al., 2011; Yam, Fehr, Keng, Klotz, & Reynolds, 2015). Unlike laboratory studies, these field studies often measure, rather than experimentally manipulate, ego depletion. For example, Barnes et al. (2011), Christian and Ellis (2011), and Yam et al. (2014) measured sleep deprivation as a proxy for ego depletion, arguing that sleep deprivation leads to the same depleting effects as traditional laboratory tasks. Furthermore, Trougakos et al. (2015) and Yam et al. (2015) both measured surface acting in real organizations as a proxy for ego depletion, providing convergent evidence for laboratory-based manipulations of emotion suppression. In other words, the predictions of ego depletion from early laboratory studies tend to be generalizable to other samples and outside of tightly controlled laboratory environments.

Criticisms of Ego Depletion Theory

Although the findings of ego depletion have generally been well-supported by numerous studies in the past two decades, some scholars have casted doubts on this theory. Theoretically, Converse and Deshon (2009) argued that ego depletion's sole reliance on the dual-task paradigm is problematic. Critically, such research methodology fails to examine whether the predictions of ego depletion hold over time. Comparing the traditional dual-task paradigm with a three-task design, Converse and Deshon (2009) found that participants who were depleted by the first self-control task exhibited reduction in self-control task performance in a second task (as predicted by ego depletion theory). However, participants showed improved self-control task performance in the third task. Therefore, Converse and Deshon concluded that the negative effects of ego depletion might have been overestimated in prior studies, in that participants actually adapt to the depleting effects over time. Nevertheless, more recent investigations that utilized an even longer time frame failed to provide support for this adaption hypothesis. Welsh and Ordonez (2014) found that over a period of five rounds of depleting goal setting tasks, participants' self-control worsens. Likewise, over a two-week period, Trougakos, Beal, Cheng, Hideg, and Zweig (2015) found that the negative depleting effects of surface acting do not diminish over time. To the contrary, the negative depleting effect appears to be robust over a two-week period. Thus, the criticism brought forth by Converse and Deshon (2009) should be interpreted with cautions.

Beyond theoretically-based criticisms, there are at least two additional methodologically-based criticism of ego depletion theory. First, Carter and McCullough (2014) suggested that publication bias clouds the interpretation of ego depletion theory. Although a previous meta-analysis revealed a very strong effect of ego depletion (d = .62; Hagger et al., 2010), after correcting for publication biases and accounting for small-study effects, Carter and McCullough (2014) concluded that the effects of ego depletion is close to zero. Second, Schimmack (2012)

and Kurzban (2010) directed two criticisms specifically toward research on the biology of ego depletion theory. For example, using various simulation techniques, Schimmack (2012) concluded that there is only less than a 1% chance that the Gailliot et al.'s (2007) observed findings are credible, and concludes that many other studies or statistical tests were omitted during the publication process. While meta-analytic finding does support the glucose – self-control relationship (Hagger et al., 2010), researchers should interpret this finding cautiously because this relationship was based on only five independent studies.

In conclusion, since the introduction of ego depletion theory by Baumeister and colleagues, there have been over 100 empirical studies that support its central propositions. Recent work has also shifted its focus to examine the generalizability of this theory, the biological basis of this theory, and restoration of self-control resources. In line with these recent trends, my dissertation focuses on extending ego depletion theory to judgments of others' unethical behavior. In the next section, I move on to provide a literature review of attribution theory.

Attribution Theory

Generally speaking, attribution theory describes how individuals make sense of others' and their own behavior. In its original form, attribution theory suggests that people are naïve psychologists and have an innate interest in understanding their successes and failures (Heider, 1958). A classic finding in attribution theory is that people tend to attribute successes to their own abilities and attribute failures to outside, uncontrollable sources (e.g., luck; Weiner, 1985; also known as the self-serving bias). As the theory evolves, scholars suggest that people also generate attributions to others' behaviors in order to make sense of their surroundings (Jones & Davis, 1965; Kelley, 1973; Weiner, 1985). A key tenet of attribution theory is that people are more likely to generate attributions for others' behaviors when they are negative, rare, or

unexpected, as these behaviors are more difficult to explain and puzzling to the self (Weiner, 1985; Wong & Weiner, 1981). For example, attributional processes help us understand why employees utilize flexible work practices (i.e., a relatively rare event in organizations; Lesile, Manchester, Park, & Mehng, 2012), negative leadership styles (Martinko, Harvey, & Douglas, 2007), and aggressive behavior (Douglas & Martinko, 2001). A well-established finding is that when evaluating others, people tend to attribute failures to others' dispositions (also known as the fundamental attribution error). In the next section I discuss some of the most well-established attribution biases in the literature.

Attribution Biases

In this section I discuss the three most widely studied forms of attribution processes: 1) fundamental attribution bias, 2) locus of causality, and 3) defensive attribution bias. I choose these three attribution processes because they have received the most empirical support, and occur in both real-world and laboratory contexts.

The fundamental attribution error is perhaps the most studied form of attribution process. In three classic experiments, Jones and Harris (1967) asked participants to evaluate the pro-Castro attitudes of writers who wrote favorably about Fidel Castro. Unsurprisingly, all participants rated the writers as pro-Castro. However, even when participants were told that the writers' essays were heavily influenced by situational constraints (i.e., assigned to write such an essay), participants remained convinced that the writers held pro-Castro attitudes, suggesting that people in general fail to see the impact of the external environments on others' behaviors. Jellison and Green (1981) proposed that the reason people tend to exhibit the fundamental attribution error is that explaining others' behaviors through internal attributions tend to receive more social approval since other observers are also likely to exhibit such a bias.

Because the fundamental attribution bias can significantly affect interpersonal relationship, scholars have explored ways that attenuate this bias. Using the same essay-writing paradigm, Tetlock (1985) found that when participants were asked to justify their attributions prior to viewing essays, they were less likely to display the fundamental attribution bias because they felt more accountable and took extra effort in encoding the analyzing both the writers' attitudes as well as the situational cues. Others have found that mood has a significant impact on the fundamental attribution bias. Depressed individuals tend to attribute the failures of others through internal attributions; however, they tend to attribute the successes of others through external attributions (Forgas, Bower, & Moylan, 1990). Forgas (1998) found that the effects of mood on the fundamental attribution bias are driven by differential memory processing between happy and unhappy people. Whereas happy people tend to encode less information, unhappy people tend to encode more information, thus lowering their likelihood of engaging in such an attribution bias.

In addition, because people in individualist cultures tend to value independence and personal achievement more so than people in collectivist cultures, individualists were found to be more likely to exhibit the fundamental attribution, whereas people in collectivist cultures are more likely to evenly attribute others' behaviors with both internal and external attributions (Krull, Loy, Lin, Wang, Chen, & Zhao, 1999). In multiple studies, researchers found that Japanese were less likely to attribute negative events to others' dispositions than Americans (Miyamoto & Kitayama, 2002; Van Boven, Kamada, & Gilovich, 1999). Nevertheless, a later meta-analysis concluded that this bias exists in both cultures, but potentially more pronounced among individualistic cultures (Mezulis, Abramson, Hyde, & Hankin, 2004).

Locus of causality is another widely researched form of attribution process (Harvery et al., 2014). Briefly stated, locus of causality refers to whether or not a behavior is caused by the actor (internal) or some outside forces (external; Rotter, 1966). When engaging in self-attribution, for example, a student may make an internal attribution and blame his poor performance on his lack of ability or effort. Conversely, he may make an external attribution and blame his poor performance on his professor's teaching skills. People also employ similar attributional processes to understand others' actions. Going back to the same example, a professor may generate an internal attribution (e.g., the student did not put enough effort into the class) or an external attribution (e.g., the student was sick during the exam) to explain the student's poor performance. Generally speaking, internal attribution refers to the individuals' ability, effort, and personal characteristics, whereas external attribution refers to situational factors that are beyond the individuals' control (Rotter, 1966).

Beyond the fundamental attribution bias and locus of control, defensive attribution bias is another form of attribution that can significantly affect individuals' evaluations of others' behaviors and events. Typically, people generate defensive attributions to make sense of events that are outside of their control. When something bad, but random, happens to another person, people tend to attribute the responsibility to the victim and blame the victim for such random events (Lerner, 1980). Such events include natural disasters, crimes, or just plain bad luck. For example, when a woman is raped in a poor neighborhood, people tend to attribute the woman to have problems herself (e.g., buying drugs in a poor neighborhood) to reassure themselves that such tragic, random events would not happen to them (Lerner & Simmons, 1966; Lerner & Miller, 1978).

Attribution Theory in Organizational Behavior

Despite the popularity of attribution theory in the social psychology realm, relatively few authors in organizational behavior have adopted this perspective in organizational research. In two comprehensive reviews and one meta-analytic review, Martinko and colleagues (Harvey, Madison, Martinko, Crook, & Crook, 2014; Martinko, Douglas, & Harvey, 2006; Martinko, Harvey, & Douglas, 2007) concluded that while attribution theory has strong predictive power over important work outcomes such as performance rating, leader-member exchange quality, and reward and punishment at work, organizational scholars have largely underutilized this theoretical perspective in understanding workplace events.

A majority of research that utilizes attribution theory in organizational behavior focuses on leadership. One of the most popular streams of leadership research that utilizes attribution theory was stimulated by the theoretical work of Green and Mitchell (1979). In this stream of research, scholars tend to focus on how leaders react to followers' poor performance. For example, attributing failures to followers' dispositions leads to more severe disciplinary actions (Green & Liden, 1980), whereas attributing failures to events that are external to the followers leads to less severe disciplinary actions (Wood & Mitchell, 1981). Attribution not only affects leaders' behaviors towards their followers, but also how they feel towards them. For example, when leaders engage in internal attributions for poor follower performance, they are more likely to display hostility. In contrast, when leaders engage in external attributions for poor follower performance, they are likely to sympathize with the followers (Harvey et al., 2006). Attribution biases can have even more detrimental effects overtime. Martinko and Gardner (1987) argued that once leaders attribute followers' failures to their dispositions, leaders are likely to create future self-fulfilling prophesy of poor performance. Although some have criticized the methodologies of Mitchell and colleagues' studies on managerial attribution of followers'

performance, such as lack of behavioral measures and direct measures of attribution (Martinko et al., 2006), this stream of research has been replicated with different samples, manipulations, and measurements. Taken as a whole, this set of studies has generally supported that attribution is an important process in understanding leader-follower relationships.

Other research in the leadership literature suggests that numerous factors can moderate attribution biases. For example, men are more likely than women to engage in self-serving biases (Cash, Gillen, & Burns, 1977; Dobbins & Russell, 1986). In other words, although both men and women are likely to attribute successes to their dispositions and attribute failures to external events, men often do so to a much greater extent. Relatedly, age was also found to be a moderator of various attribution biases. Meta-analytic evidence suggests that older people generally are more self-serving than younger people (Mezulis et al., 2004). In sum, although the effect sizes of various attribution biases are large, there are many individual factors that can strengthen or weaken such effects.

Attribution Theory in Strategy

Beyond organizational behavior, strategic management scholars have applied attribution theory to explain firm's failures (Staw, Mckechnie, & Puffer, 1983). This is not surprising given that the goal of top management is "to provide explanation, rationalizations, and legitimation to the activities undertaken in the organization" (Pfeffer, 1981, p. 4). For example, Bettman and Weitz (1983) found that in numerous annual reports of different organizations, top management tends to externalize failures whereas favorable outcomes are often internalized (e.g., CEO talent, organizational effort, etc.). In addition, Salancik and Meindel (1984) found that unstable organizations and top management teams are even more likely to engage in such self-serving attribution because they want to convey to stakeholders that they have controls over their firms.

Interestingly, Clapham and Schwenk (1991) found that such self-serving biases can negatively affect firm's future performance. The authors argued that while self-serving bias can help manage the organization's image in the short run, in the long run, top management should strive to understand the reasons behind the failures and act accordingly to improve organizational performance.

Criticisms of Attribution Theory

Despite the popularity of attribution theory in social psychology, attribution theory was heavily criticized by Mitchell (1982) and Lord and Smith (1983) in organizational behavior. First, Mitchell argued that while understanding leaders' attribution processes is useful, many other factors determine when and why leaders react to followers' poor performance negatively, and that leader attribution processes play a relatively minor role compared to other processes. However, later analyses revealed that leader attribution processes seem to explain similar amount, if not more, of variance compared to other factors examined. In particular, Martinko et al. (2007) found that leader attribution processes generally account for 17% to 36% of variance explained, compared to less than 20% of variance explained by other individual factors. The authors concluded that "we do not perceive that the amount of variance accounted for by attribution variables is any less statistically or practically significant than that of other variables that have been the subject of research on leadership and organizational contexts" (p. 577).

Second, Lord and colleagues argued that attribution processes are cognitively demanding, and thus leaders are unlikely to engage in such processes on a regular basis (e.g., Lord & Maher, 1989; Lord & Smith, 1983). Moreover, these authors criticized attribution researchers in organizational behavior for their overreliance on laboratory studies. In particular, Lord and colleagues argued that leaders are likely to reserve their energies and only engage in attribution

processes when attempting to make sense of important and surprising information. For example, leaders are more likely to engage in attribution processes in layoff decisions than performance reviews (Lord & Smith, 1983). Therefore, the status of the failing employee, past performance trend, and the importance of the employee's work are all potentially important boundary conditions to consider.

In summary, unlike ego depletion theory, the popularity of attribution theory in the organization science has declined significantly since 1980s (Harvey et al., 2015). In addition, organizational scholars tend to apply attribution theory primarily in the domain of leadership studies. Nevertheless, it is relevant to this research because people tend to engage in attribution processes when observing others' negative and surprising behavior, which are the cornerstones of unethicality. I therefore attempt to expand attribution theory to the study of behavioral ethics in this dissertation. Before moving on to hypotheses development, I conduct a brief literature review of existing research on third-party moral judgment in the next section.

Third-Party Moral Judgment

Research on third-party moral judgment spans across multiple disciplines, most notably within the legal, psychological, and the organizational sciences. In this section, I conduct a literature review on third-party moral judgment research by its respective discipline.

The Legal Literature on Third-Party Moral Judgment

Within the legal literature, research on third-party moral judgment lies primarily within research on jury decision making. Although being legal should not be interpreted as being moral, the legal standards are often conceptualized as the minimal moral requirements in a society. Hence, a jury's legal decision making can be conceptualized as third-party moral judgment (Devine, Clayton, Dunford, Seying, & Pryce, 2001).

Unlike ego depletion and attribution theories, research on jury decision making focuses primarily on contextual factors that affect jury's moral judgment. These factors can largely be conceptualized under three different categories: 1) deliberation characteristics, 2) procedure characteristics, and 3) case characteristics. For example, in the first category, research suggests that jurors' decisions are heavily affected by the number of supporting arguments, but not the number of advocating jurors (Stasser, Stella, Hanna, & Colella, 1984). Surprisingly, secret polling does not substantially affect jury decision making compared to public polling (Stasser & Davis, 1977). Although this finding contradicts Asch's classic research on conformity (Asch, 1951), this result may suggest that individuals are less likely to succumb to peer pressure or social norms when the judgment is high in stake.

In the second category, procedure characteristics, researchers found that the size of the jury does not affect conviction rate (Bermant & Coppock, 1973; Institute or Judicial Administration, 1972), although smaller juries tend to deliberate longer (Kessler, 1973). Additional research in this area tends to be descriptive in nature. For example, Sand and Reiss (1985) found that although all juries are allowed to ask questions during the deliberation processes, only 31% do so. The most common questions asked are the definitions of "intent" and "reasonable doubt" (Severance & Loftus, 1985). Although most jurors (67%) took notes during the hearing processes, note taking does not increase recall of instructions, key definitions of legal terms, or conviction rates, but merely increases post-trail satisfaction (Heuer & Penrod, 1988, 1989).

In the last category, case characteristics, Padawer-Singer & Barton (1975) found that jurors who received negative pretrial information about the defendants tend to judge the defendants more harshly. This effect was quantified by Davis (1986), in which he found that

juries are 20% more likely to convict such defendants. Interestingly, child witnesses have a much stronger effect on conviction rate than adult witnesses, particularly when the child witnesses appear confident. However, this effect reverses when the child witnesses appear weak or not confident. Expert testimony and computer-animated stimulation tend to have minimal effects on jury decision making (Bennett et al, 1999; Brekke et al., 1991). Finally, Davis et al. (1993) found that juries tend to award a significantly larger amount to victims when the size of the jury increases. Taken together, a majority of legal research that examines the contextual effects on jury decision making may only provide limited insights into my current research because it primarily focuses on contextual characteristics and do not account for the characteristics of the defendants. Furthermore, research in this area is often atheoretical and problem-driven. In a comprehensive review of four decades of jury decision making, Devine et al. (2001) concluded that "no overarching theoretical model has emerged around which to structure a comprehensive review of the broad empirical literature" (p. 625).

Perhaps most relevant in the legal literature is research that examines the effects of defendants' characteristics on jury decision making. Although limited, extant research suggests that defendants of low SES status are more likely to be convicted (Adler, 1973), whereas high-status defendants, if convicted, are more likely to receive longer sentences (Bray, Struckman-Johnson, Osborne, McFarlane, & Scott, 1978). More relevant to the current research, scholars found that defendants with prior criminal records were more likely to be found guilt and received harsher sentences if convicted (Baldus, Pulaski, & Woodworth, 1983; Borgida & Park, 1988; Sealy & Cornish, 1973). Though not empirically investigated, scholars speculated that jurors reacted to these defendants differently because their records implied intentionality and a lack of remorse.

The Psychological/Organizational Literature on Third-Party Moral Judgment

Compared to the legal literature, third-party moral judgment research in social psychology and organizational behavior is perhaps the most informative to my current research. According to Skarlicki and Kulik (2005), there are two different theoretical perspectives to understand why third-parties react to others' immoral behavior negatively (e.g., anger, intent to punish, etc.), namely the self-interest formulations and the justice as a moral imperative.

Two dominant perspectives. In the self-interest formulations, Miller (1999) argued that people tend to follow rules and social norms because they believe doing so is in their best self-interests. When others violate rules and social norms, people are motivated to restore the imbalance by punishing the wrongdoers to prevent others from breaking rules that may undermine social functioning. Under the self-interest formulations, for example, people judge cheaters harshly or punish them not because of a perceived moral responsibility, but because they believe that doing so will enhance their self-interests in the long term (e.g., so that no one will cheat in the future). Another dominant perspective within the self-interest formulations is Lerner's (1980) Belief in a Just World. In Lerner's theory, people must believe that they live in a just world in which moral people are treated fairly and immoral people are punished. Such a just world belief help people mitigate feelings of uncertainty. When a violation occurs (e.g., a cheater gets rewarded), people are motivated to restore this mental state by punishing cheaters or judging them harshly. According to this perspective, third-party moral judgment is a tool to cognitively restore a sense of equity in order to protect one's self-interest.

In the justice as a moral imperative perspective, Folger (2001) argued that third party moral judgment arises from a deontic moral responsibility, that is, how human beings ought to be treated. In this perspective, people punish cheaters not because they do not want to be victims of

the cheaters in the future, but because they believe that cheating is morally wrong. In Folger's (2001) conceptualization, third-party moral judgment is an end in and of itself. This is in sharp contrast with the self-interest formulations which treat third-party moral judgment and punishment as a means to an end (e.g., one's self-interest in the long term). Empirical research provides some support for this deontic perspective of third-party moral judgment. For instance, Turillo et al. (2002) found that third-parties are willing to sacrifice their own money to punish cheaters in a lab experiment to protect intended victims who they do not know.

Research findings. Extant research heavily relies on attribution theory. Research suggests that third-party moral judgments often hinges on the transgressors' attributes. Unlike the legal literature, organizational scholars tend to focus on factors that are socially constructed. For example, research has demonstrated that when a transgressor expresses pleasure, such as a smile, third-party moral judgment tends to be harsher (Schwartz, Kane, Joseph, & Tedeschi, 1978). In contrast, when transgressors deny or provide justifications for their wrongdoings, third party moral judgment tends to be not as harsh compared to transgressors who provide no justifications or denial (Tata, 2000). Nevertheless, the most effective way to reduce the severity of third-party moral judgment is through expression of remorse or apology. Transgressors who express remorse or apologize for their wrongdoings signals to the third-parties that they are also suffering themselves and suggest that their behaviors were not representative of their moral characters (Schlenker, 1980; Schwartz et al., 1978). Furthermore, apologies signal to third-parties that the transgressors are unlikely to become recidivists (Sykes & Matza, 1957). Rather than being punished or judged harshly, expressing remorse can also be seen as a method to restore equity (O'Malley & Greenberg, 1983).

Beyond the transgressors, third-parties themselves can also strongly influence judgment of others' moral violations. One of the most studied factors is identification with the victim. Research suggests that people tend to identify with similar others in terms of work roles, personalities, and demographics (Brockner & Greenberg, 1990). Once identified, people are likely to ignore attributional explanations (e.g., apologies) offered by the transgressors and judge violations harshly. In a classic study, Brockner, Grover, Reed, and DeWitt (1987) found that coworkers tend to identify with fellow coworkers who were laid off because they perceived themselves to be similar. Therefore, despite attributional justifications offered by the leaders and the organizations (e.g., the laid off was due to the financial crisis, not controllable organizational policies), people tend to perceive the laid off as unfair and judge the organizations and decision makers very harshly. In addition to victim identification, Skarlicki and Kulik (2005) argued that third-parties who are high on moral development are unlikely to be influenced by the transgressors' attributes described above because they tend to believe in universal moral rules and devalue attributional explanations for wrongdoings.

Although relevant to the third-party moral judgment, justice violations often occur in hierarchical relationships. For example, managers often have the power to mistreat their subordinates, but subordinates, by definition, can rarely mistreat their managers. This omission in the literature is rather problematic because many of the unethical behaviors observed in the literature are carried out by low-level employees. For example, theft, sabotaging organizational image, and verbally abusing coworkers are all common forms of unethical behavior at work, and low-level employees can easily engage in them on a regular basis (Spector et al., 2006). In other words, while organizational researchers have made progress in understanding employees'

perceptions of justice violations in the workplace (i.e., usually directed by the managers), we know very little about how managers perceive and react to employees' unethical behaviors.

Integrating Ego depletion and Attribution Theories: Third-Party Moral Judgments

As reviewed earlier, a lack of self-control has repeatedly been demonstrated as an antecedent to unethical behavior (Barnes et al., 2011; Christian & Ellis, 2011; Gino et al., 2011; Mead et al., 2009). Theoretically, this argument is rooted in the assumption that refraining from unethical behavior requires self-control to overcome our innate self-interest motives (Gottfredson & Hirschi, 1990) and to resist the temptations that arise in everyday life (Gino et al., 2011). Empirically, scholars have found that, when individuals' self-control resources are depleted, they are more likely to succumb to temptations and engage in unethical behavior (Gino et al., 2011; Mead et al., 2009). In sum, the current state of the literature suggests that ego depletion leads to increased unethical behavior.

Much of the research on ego depletion and unethical behavior tends to focus on the depleted individuals. Few, if any, scholars have examined how others view depleted individuals. Nonetheless, scholars on ego depletion often allude to the possibility that depleted individuals should not be treated as intentional criminals. For example, Mead et al. (2009) described depleted participants as "too tired to tell the truth" (p. 594). Likewise, Gino et al. (2011) portrayed depleted participants as lacking the willpower to resist the temptation to cheat. If depleted individuals are indeed involuntary cheaters, then it seems plausible that third-parties will view their wrongdoings as less unethical and punish them less. Consistent with this observation, a recent review on attribution theory calls for research in examining attribution processes and judgments of unethical behavior (Harvey, Madison, Martinko, Crook, & Crook, 2014), suggesting that "scholars studying workplace ethics could benefit by incorporating

attributional processes into their decision models" (p. 138). In the next section, I explore this core idea as well as the underlying mechanism and boundary conditions of this effect.

Attribution theory is useful in understanding third-parties' judgments of unethical behavior because people are most likely to engage in attribution processes when judging others' negative or expected behaviors. By definition, unethical behavior fits the criteria of negative and unexpected. When observing an unethical behavior, people usually experience intense negative moral emotions such as anger or disgust (Haidt, 2003). Moreover, all organizations have both written and unwritten rules of behavior; violations of these rules (i.e., unethical behavior) can therefore be considered unexpected. For these reasons, I argue that third-parties are likely to generate attributions for why others engage in unethical behaviors (Payne & Giacalone, 1990). Integrating ego depletion and attribution theories, I suggest that third-parties are much more likely to generate external attributions for unethical behaviors committed by depleted than by non-depleted individuals, because depleted individuals lack the self-control resources necessary to restrain their unethicality. Consistent with this argument, a recent meta-analysis confirms that third-parties react less negatively to externally attributed undesirable behaviors than internally attributed undesirable behavior (Harvey et al., 2014). In addition, it is widely believed that perceptions of responsibility are influenced by the actors' will or freedom of choice at the time when the behavior is enacted (Weiner, 1995). For instance, criminals are often judged to be more responsible for crimes that involve premeditated intent compared to crimes of passion. Likewise, children are rarely held accountable for unethical behavior because they lack the mental capacity to carry out intentional unethical behaviors (Gray, Gray, & Wegner, 2007). If depleted individuals' unethical behaviors are caused by self-control failures rather than intentional wrongdoings, then it is likely to be externally attributed (e.g., reasons beyond their control) and

lead third-parties to hold depleted participants less accountable for their unethical behavior. Consistent with this idea, people often blame intentional moral violations more severely than unintentional violations (Gray & Wegner, 2008; Lagnado & Channon, 2008). Thus, I posit the following hypothesis:

H1: Depleted individuals' unethical behaviors will be judged as less unethical.

What is the implication when third-parties perceive targets as unethical? A consistent finding is that third-parties, regardless of their levels of involvement with the targets, tend to punish the targets once moral judgments are reached (Fehr & Fischbacher, 2004; Kurzban, DeScioli, & O'Brien, 2006; Sober & Wilson, 1998). Evolutionary theories of human behavior suggest that social norms are important for sustaining human societies (Hechter & Opps, 2001), and punishing violators is an effective way to enforce social norms. Third-parties often punish targets for instrumental (Lotem, Fishman, & Stone, 1999) and/or altruistic reasons (Fehr & Gachter, 2002). For example, a third-party may punish a target because he/she is being selfish and consumes too many shared resources without contributions (instrumental reason). Alternatively, a third-party may punish a target simply because doing so encourages future cooperation (altruistic reason). In addition to classic evolutionary theories, research on social dilemma also reveals that punishment is often enforced as a means to discourage future wrongdoings. In iterated Prisoner's Dilemmas, participants almost always enforce punishment against defectors (Clark & Sefton, 2001, for a recent review, see Van Lange, Joireman, Parks, & Van Dijk, 2013). In sum, both theories and empirical research suggest that once third-parties have judged the targets as unethical, they are likely to enforce punishment against the targets.

Nevertheless, because punishment is a behavior that is often enacted after a moral judgement is made, I suggest that if depleted targets are perceived as less unethical per

Hypothesis 1, then third-parties are also less likely to punish them. Research suggests that punishment for wrongdoing is often contingent on the mind of the targets (Gray et al., 2007). In the jury decision making literature, younger defendants were found to receive less harsh sentencing than older defendants (Smith & Hed, 1979). Psychological research suggests that this is due to the fact that people often do not ascribe full moral agency to young people. Hence, young people who committed unethical behavior are often judged less harshly than their older counterparts because their behaviors are perceived as unintentional (Gray et al., 2007).

In addition to the empirical findings on punishment, scholars have theorized that whether to punish or not depends a great deal on third-parties' or victims' evaluations of the targets (McCullough, Kurzban, & Tabak, 2013). According to my theoretical arguments abovsmile, depleted targets engage in unethical behavior not because they want to, but because they cannot effectively control themselves as a result of reduced self-control resources. I suggest that this signals a low probability of future exploitation because self-control resources are often restored after rest (Muraven & Baumeister, 2000) or consumption of glucose (Gailliot et al., 2007). Attributing the unethical behavior as a nonrecurring incident, third-parties are unlikely to punish depleted targets because punishment is often enforced to deter future unethical behavior. In other words, there are no incentives for third-parties to impose punishments on depleted targets. I thus posit the following hypothesis:

> *H2: Depleted individuals' unethical behaviors will be punished less, mediated by more lenient moral judgment.*

Boundary Conditions

It is important to recognize that this mediated effect is unlikely to be consistent across all types of depletion and all third-parties. Rather, several factors might be expected to act as boundary conditions of the mediated model. To identify factors most likely to moderate the

mediated effect, I again draw from ego depletion and attribution theories and suggest that 1) the sources of ego depletion and 2) the third-party's implicit belief about morality moderate the relationship between depleted individuals' unethicality and third-party's moral judgment (i.e., first-stage moderated mediation).

Sources of Ego Depletion

Employees are depleted for a variety of reasons. Therefore, exploring the sources of ego depletion can increase our understanding of third-parties' attributional processes. Attribution theory suggests that people respond to the exact same negative event very differently depending on their attribution processes (Kelley, 1967). For example, a server could be depleted as a result of surface acting, a job-required behavior that has been shown to lead to ego depletion both in laboratory settings (Baumeister et al., 1998; Gaillot, et al., 2007; Goldberg & Grandey, 2007) and in the field (Totterdell and Holman, 2003; Wagner, Barnes, & Scott, 2014). Conversely, a server could be depleted as a result of staying up late the night before for personal reasons. I suggest that in the former case, third-parties are likely to attribute the depletion as external and uncontrollable, whereas the same third-parties are likely to attribute the latter case as internal and controllable by the server.

Theory and empirical evidence suggests that when the causes of the depletion are internally attributed, third-parties are more likely to perceive the depleted individuals as responsible for the unethical behavior. For example, in the infamous Ford Pinto case, although many different vehicles shared the same problematic design of the Ford's Pinto, consumers attributed these defects as intentionally made by top management at Ford to save money. This internally attributed unethical behavior thus led to extreme moral outrage by consumers (Gioia, 1992; Schwartz, 1991). Some even went as far as suing Ford for murder of its customers, making

Ford the first organization in US history to be charged with homicide. Empirically, in one set of studies, leaders punished low-performing subordinates more severely and were more likely to hold their subordinates accountable when they attributed subordinates' failures to their lack of effort (internal attribution) compared to leaders who attribute subordinates' failure to external reasons (e.g., task difficult; Green & Liden, 1980; Knowlton & Mitchell, 1980; Wood & Mitchell, 1981). When employees are depleted for work-related reasons, third-parties are more likely to attribute the unethical behavior as beyond their control. In contrast, when employees are depleted for personal reasons, third-parties are more likely to attribute the unethical behaviors internally and hold the depleted individuals accountable for their unethicality. Thus, I posit the following:

> *H3: The sources of depletion will moderate the mediating effect of moral judgment such that moral judgment will only mediate the link between depleted individuals' unethical behavior and third-parties' punishment when third-parties attribute the depletion as a work-related commitment.*

Implicit Belief about Morality

Beyond examining the sources of the depletion, I propose that the implicit belief about morality is an important individual difference of the third-parties that will affect how they perceive others' unethical behavior. Individuals tend to have either a fixed or malleable world view of human attributes (Dweck, 1991; Dweck, Chiu, & Hong, 1995). Such beliefs of human attributes span across multiple domains, and most research has been conducted in the fields of personality (e.g., Chiu, Hong, & Dweck, 1997) and intelligence (e.g., Blackwell, Trzesniewski, & Dweck, 2007). In this section, I focus on third-parties' implicit beliefs about morality (Chiu, Dweck, Tong, & Fu, 1997).

Research on implicit belief about morality posits that individuals often conceive morality as either a fixed or a malleable entity. The former are often referred to as entity theorists,

whereas the latter are referred to as incremental theorists (Chiu et al., 1997). Incremental theorists are generally more forgiving of others' unethical behaviors because they believe that such behaviors can be changed, whereas entity theorists tend to be less forgiving because they view others' unethical behaviors as rooted in their inner traits (Hong, Chiu, Dweck, & Sacks, 1997). Similarly, entity theorists tend to punish others' wrongdoing more harshly than incremental theorists because they view punishment as restoring justice, whereas incremental theorists often withhold punishment and favor rehabilitation (Chiu et al., 1997; Gervey, Chiu, Hong, & Dweck, 1999).

I argue that third-parties who are incremental theorists will be more likely to attribute depleted individuals' unethical behavior as external, and therefore judge them less harshly and punish them less. In contrast, because entity theorists believe that morality is fixed, they are more likely to attribute the unethical behavior of depleted individuals as internal and thus must be punished. I therefore posit the following hypothesis:

> *H4: Third-parties' implicit belief about morality will moderate the mediating effect of moral judgment such that moral judgment will only mediate the link between depleted individuals' unethical behavior and third-parties' punishment when the third-parties are incremental theorists.*

Research Overview

My complete research model is presented in Figure 7. To test these hypotheses, I conducted two experiments. In Study 1, I utilized a vignette design to examine the interaction between ego depletion of the target and the sources of ego depletion on third-parties' moral judgments and punishment. To increase experimental realism, in Study 2 I presented participants with a video of the target, played by a professional actor. Study 2 also tested my theoretical model in its entirety.

---Insert Figure 7 about here---

Study 1

Participants and Procedures

I recruited 108 undergraduate students (49.5% Caucasian, 50.5% female, M_{age} = 20.19) to participate in the study. I employed a 2 (target's ego depletion: yes vs. no) X 2 (sources of ego depletion: work-related vs. work-unrelated) between-subjects experimental design. Participants were randomly assigned to read one of the four scenarios in which an employee committed an unethical behavior (see Appendix A for all four scenarios used), and then were asked to judge the target's perceived morality. I used a scenario design because it allows researchers the freedom to manipulate their variables of interest easily. Specifically, I followed Weber's (1992) recommendations to develop my scenarios based on the theoretical foundation of the current research as well as the nature of my hypotheses. Moreover, employing an experimental design allows me to establish causal inferences. As a measure of data quality, I asked participants to respond to a simple question about the scenario: What is John's job about? Data from seven participants were dropped because they provided incorrect answer to this question (i.e., they did not read the vignette). Because of this data quality check, I did not include measures of manipulation checks (i.e., participants all read the scenarios carefully).

Manipulations and Measures

Ego depletion of the target. In the depletion condition the target was depicted as sleep deprived ("for the past three days, John has worked long hours and has become sleep deprived."). I choose to manipulate sleep deprivation because it has been shown to lead to ego depletion across different samples (e.g., Barnes, et al., 2011; Christian & Ellis, 2011; Yam et al., 2014) and to hold more practical implications to the workplace than laboratory-based ego depletion manipulations (e.g., Stroop task). For example, Barnes et al. (2011) found that sleep deprivation

is strongly associated with a measure of state self-control among employees from various industries, and a recent national survey estimates that approximately 25% of the entire American workforce is sleep deprived by work. In the control condition, the target was depicted as refreshed ("for the past three days, John has worked regular hours [from 9am to 5pm] and has been feeling refreshed.").

Sources of ego depletion. In the work-related condition, the target was depicted as sleep deprived as a result of staying up late to work on work-related projects. In contrast, in the work-unrelated condition, the target was depicted as sleep deprived as a result of staying up late to watch a sporting event. In other words, these differences represent the source of depletion as either external or internal to the target.

Third-party moral judgment. I measured third-party moral judgment with four items. Participants were asked to what extent they think John's behavior was unethical, immoral, bad, and right (reverse-coded; 1 = strongly disagree to 7 = strongly agree; $M = 4.53$, $SD = 1.75$; $\alpha = .95$). A higher score indicates more negative, severe moral judgements towards the target's unethical behavior. I created this scale because no extant research has examined third-party moral judgment with a multi-item scale. These items were chose because of high face validity.

Punishment. Punishment was measured with one item. Participants were asked to rate "how severely should this employee be punished?" (1 = not severely at all to 7 = very severely; $M = 4.10$, $SD = 1.94$; Wiltermuth & Flynn, 2013). Wanous, Reichers, and Hudy (1997) suggested that using single-item measure of punishment is appropriate when the construct of interest is unambiguous. In addition, although it is true that punishment can come in different forms (e.g., places the target on probation, withholds bonuses, etc.), Youngblut and Casper (1993) argued that single-item measures are particularly useful when a holistic impression is important.

Finally, Podsakoff and Organ (1986) argued that using a single-item measure can also avoid biases associated with self-consistency motives.

Results

Consistent with my hypotheses, I found that participants judged depleted others (M = 3.11, SD = .61) less harshly than non-depleted others (M = 6.10, SD = 1.12), $t(99) = -16.46$. In addition, participants were less inclined to punish depleted others, mediated by less harsh moral judgments (indirect effect = -1.66, SE = .64, 95% CI = -2.87 to -.33). These results support Hypotheses 1 and 2.

To test Hypothesis 3, I first conducted a simple two-way moderation analysis. As expected, there was a significant interaction effect ($\beta = -.48$, $p < .01$). The direction of the interaction effect was expected. Participants were more likely to give slack to depleted individuals' unethical behaviors when the source of depletion was work-related ($t = -1.10$, $p < .01$) rather than non work-related ($t = -.60$, $p = .13$; see Figure 1). To test the first-stage moderated mediation model, I used Hayes (2013) SPSS macros and treated the source of ego depletion as a first-stage moderator. This bootstrapping-based analytic approach estimates the coefficient and its significance by randomly sampling from 5000 approximate distributions. Moderated mediation suggest that the mediated models were both significant regardless of whether the source of ego depletion is work-related (coefficient = -2.23, SE = .84, 95% CI = -3.84 to -.58) or work-unrelated (coefficient = -1.16, SE = .45, 95% CI = -2.03 to -.30). However, the index of moderated mediation suggests that there is a significant difference between the two models (coefficient = -1.07, SE = .42, 95% CI = -1.87 to -.26), providing support for Hypothesis 3.

Study 1 Discussion

In sum, I find support for Hypotheses 1-3. Participants were more likely to excuse the depleted target's unethical behavior than non-depleted target's unethical behavior, even when holding the behavior constant. Third-party moral judgment also carries downstream implication: participants were less likely to punish the depleted target. In addition, consistent with attribution theory, participants are more likely to give slack to the depleted target when the depletion stems from a work-related rather than a work-unrelated source.

A critical strength of Study 1 was that by employing an experimental design I was able to causally support my hypotheses. However, a few limitations of Study 1 warrant acknowledgement. First, the use of a student sample might have limited the generalizability of the findings. Although most participants in Study 1 likely had work experience, it would be unlikely for them to have experience in evaluating others' behaviors at work (i.e., to hold leadership positions). Second, although a vignette design allows me to manipulate both ego depletion and sources of ego depletion easily, the level of experimental realism of this procedure is questionable. Finally, I was not able to survey participants' implicit beliefs about morality in Study 1, and thus Study 1 did not entail a full test of my theoretical model. I therefore designed Study 2 to address these limitations.

Study 2

The purpose of Study 2 is to extend the findings of Study 1 with a task that has a higher level of experimental realism. Rather than employing a vignette design, I provided participants with video clips of an employee who engaged in unethical behavior. In addition, I tested the moderating role of participants' implicit belief about morality.

Participants and Procedures

I recruited 197 participants from MTurk (71.1% Caucasian, 45.2% female, M_{age} = 29.08) to participate in the study. I again employed a 2 (target's ego depletion: yes vs. no) X 2 (sources of ego depletion: work-related vs. work-unrelated) between-subjects experimental design. Participants were randomly assigned to watch one of the four video clips in which an employee committed an unethical behavior, and then were asked to judge the target's perceived morality and to recommend punishment. All actors and actresses from the video clips were professionals recruited from the UW School of Drama and were blinded to the study's hypotheses. I provided participants with the scripts of each scenario, and each scenario was approximately two minutes. At the beginning of the scenario, the target reported to his supervisor on a recent project and was asked to take a client out for lunch on the same day. Toward the end of the scenario, the target was depicted as over-claiming lunch expenses for personal gain. Participants also completed a measure of their implicit beliefs about morality at the end of the study. Twelve participants were dropped from this study because they provided incomplete data (i.e., did not complete measures of third-party moral judgment, implicit belief about morality, or punishment).

Manipulations and Measures

Ego depletion of the target. In the depletion condition the target was depicted as sleep deprived. The target explicitly said "I have been working on this project for a few days and have had lost sleep as a result." In addition, the target explicitly yawned and appeared fatigue during the interaction with his supervisor. In the control condition, the target will be depicted as refreshed and did not mention sleep deprivation. Sleep deprivation is selected as a manipulation of ego depletion for the reasons outlined in Study 1.

Sources of ego depletion. In the work-related condition, the target was depicted as sleep deprived as a result of staying up late to work on work-related projects ("I have been working on

this project for a few days and have had lost sleep as a result."). In contrast, in the work-unrelated condition, the target was depicted as sleep deprived as a result of staying up late to watch a sporting event ("I lost sleep last night because I was watching a soccer game."). In other words, these differences represent the source of depletion as either external or internal to the target.

Third-party moral judgment. I measured third-party moral judgment with the same four items as in Study 1 ($M = 4.33$, $SD = 1.46$; $\alpha = .91$). A higher score indicates more negative, severe moral judgment toward the target.

Punishment. I measured punishment with the same item used in Study 1 ($M = 5.38$, $SD = 1.53$).

Implicit belief about morality. To measure implicit belief about morality, I used Dweck, Chiu, and Hong (1995) three-item measure. The items are "A person's moral character is something very basic about them and it can't be changed very much," "Whether a person is responsible and sincere or not is deeply ingrained in their personality. It cannot be changed very much," and "There is not much that can be done to change a person's moral traits" (1 = strongly disagree to 7 = strongly agree). In other words, a higher score on this scale represents entity theorists, whereas a lower score represents incremental theorists ($M = 4.25$, $SD = 1.42$; $\alpha = .75$). As reviewed by Dweck et al. (1995), this scale has been validated and widely used among many different samples.

Manipulation checks. Participants were asked to complete two manipulation check questions. Participants were asked "To what extent do you think the employee in the video is sleep deprived" (1 = not at all to 7 = very much) and "The employee did something related to his job last night" (1 = strongly disagree to 7 = strongly agree). As expected, participants in the ego

depletion condition were more likely to perceive the target as sleep deprived ($M = 6.21$, $SD = 1.91$) than participants in the control condition ($M = 2.81$, $SD = 1.29$), $t(195) = 16.04$, $p < .01$. Likewise, participants in the work-related condition perceived the target as doing something related to his job ($M = 6.34$, $SD = .96$) more than participants in the work-unrelated condition ($M = 4.51$, $SD = 1.71$), $t(195) = 7.88$, $p < .01$.

Results

I found that participants judged depleted others ($M = 3.84$, $SD = 1.67$) less harshly than non-depleted others ($M = 4.81$, $SD = 1.00$), $t(195) = 4.91$, $p < .01$. In addition, participants were less inclined to punish depleted others, mediated by less harsh moral judgments (indirect effect = -.25, SE = 10, 95% CI = -.48 to -.09). These results support Hypotheses 1 and 2.

To test Hypothesis 3, I first conducted a simple two-way moderation analysis. As expected, there was a significant interaction effect between ego depletion and the source of the depletion ($\beta = -.76$, $p < .01$). The direction of the interaction effect was expected. Participants were more likely to give slack to depleted individuals' unethical behaviors when the source of depletion is work-related ($t = -.65$, $p < .01$) rather than non work-related ($t = .11$, $p = .27$; see Figure 9). I used the same procedure to test for the interactive effect between ego depletion and implicit belief about morality on third-party moral judgment. Although the results were in the expected direction (see Figure 10), the interaction was not significant ($\beta = .23$, p = .11). Hypothesis 4 is therefore not supported

To test the first-stage moderated mediation model posited in Hypothesis 3, I used Hayes (2013) SPSS macros and treated the source of ego depletion as a first-stage moderator. Moderated mediation suggest that the mediated model was significant when the source of the depletion is work-related (coefficient = -.58, SE = .17, 95% CI = -.96 to -.26), but non-significant

when the source of the depletion is work-unrelated (coefficient = .08, SE = .07, 95% CI = -.03 to .26). Hypothesis 3 is therefore supported.

---Insert Figures 9 and 10 about here---

Study 2 Discussion

In sum, Study 2 replicated Study 1 and provides support for Hypotheses 1-3. In other words, participants were more likely to excuse the depleted target's unethical behavior than non-depleted target's unethical behavior, and in turn participants were less likely to punish the depleted target. This effect was moderated by the source of ego depletion, such that the indirect effect diminished when the source of the depletion was work-unrelated. Unfortunately, Hypothesis 4 was not supported. I did not find support for the moderating role of implicit belief about morality. In short, entity and incremental theorists are equally likely to give slack to the depleted target.

General Discussion

In recent years, there has been an explosion of research related to the role of ego depletion in ethical decision making. While numerous research consistently reveals that depleted individuals are more likely to engage in unethical behaviors (e.g., Barnes et al., Christian & Ellis, 2011; Gino et al., 2011, Mead et al., 2009), no research has examined how depleted individuals are perceived by others after they engaged in unethical behavior. By integrating ego depletion and attribution theories, I explored the ways depleted individuals are perceived and treated after they engaged in unethical behavior in two experimental studies. Below I discuss the theoretical and practical implications of the current research, identify potential limitations of the current work, as well as offer future directions of research.

Theoretical Contributions

This research makes at least four theoretical contributions to the behavioral ethics literature. First, research in behavioral ethics has largely focused on predicting unethical behavior and has rarely explored how third-party reacts to unethical behavior. In this dissertation, I propose that third-party perceives unethical behavior committed by others who are depleted to be less unethical, especially for those with work-related depletions. Further, I argue that third-party punishes unethical behavior less severely as a result of lessen moral judgment. While research on revealing the antecedents of unethical behavior is important, I suggest that revealing when and why employees are most likely to be judged unethical and punished also carry significant implications for organizational functioning.

Furthermore, my findings raise an interesting question: are people even morally aware of depleted targets' unethical behavior? If people are less likely to perceive depleted targets' behaviors as unethical compared to non-depleted targets, then it seems logical to conclude that people may be less likely to construct those behaviors as unethical. Indeed, Kant suggests that a good will is the most important criteria in judging others' ethicality. Although most unethical individuals engage in unethical behaviors because of a bad will, the current research suggests that in the absence of a perceived bad will, people are unlikely to even consider such behaviors as unethical.

This idea also carries implications to future interactions between the observers and the targets. People tend to avoid unethical others. For example, followers are more likely to quit their jobs if their supervisors are abusive and unethical (Tepper, 2000; Tepper, 2007). However, my findings imply that if a depleted supervisor engages in the same kinds of abusive supervisory behaviors, his/her followers are unlikely to exhibit the same avoidant behaviors. Thus, perceived

intent of the abusive supervisors should be an important moderator in research on the consequences of abusive supervision.

Second, this research contributes to the ego depletion literature. Although scholars on ego depletion have made great progress in understanding how it affects many workplace outcomes (see Hagger et al., 2010 for a review), especially its effects on unethical behavior (Barnes et al., 2011; Christian & Ellis, 2011; Gino et al., 2011; Mead et al., 2009; Yam et al., 2014), I extend ego depletion theory to *perceptions* of unethical behavior. Interestingly, although depleted individuals are more likely to engage in unethical behavior than others, they are also more likely to be excused by third-parties. This finding suggests that people often take the targets' state self-control into consideration when evaluating their unethical behavior. Nevertheless, this also implies that people's perceptions of others' state self-control are often inaccurately. Clearly, some people are naturally higher in self-control than others (Tangney et al., 2004). Thus, even if two people are both depleted by the exact same tasks, it is likely that their state self-control would differ. Yet, my finding suggests that people tend to give slack to all depleted individuals regardless of their actual state self-control.

Third, this research contributes to the attribution literature. Recent reviews suggest that attribution theory has been underutilized in organizational behavior (see Martinko et al., 2011 for a review), especially in the behavioral ethics literature (Harvey et al., 2014). In fact, to my knowledge, no extant behavioral ethics research has drawn from attribution theory to examine third-party moral judgment. This is extremely surprising because a person's belief about the cause of unethical behavior should drive how one judges and reacts to the transgressor. As I have shown in this research, when the cause is externalized, people are less likely to judge the target as unethical and less likely to punish the target. This research thus answers the call to incorporate

attribution theory into the field of behavioral ethics and also suggests that moral intent may be an important, yet underexplored construct in behavioral ethics. Consistent with attribution theory, I find that third-parties tend to construct external attribution for depleted targets' unethical behavior when the source is also external.

Fourth, although a recent trend in behavioral ethics, especially in moral judgment, has heavily focused on automatic processes (e.g., Haidt, 2001; Haidt, 2007), the current research suggests that people often do engage in rational reasoning when judging others' unethicality. In fact, the claim that people often judge others' unethical behavior via automatic processes is inconsistent with attribution theory. According to attribution theory, people are naïve scientists who often seek to make sense of the causes of undesirable outcomes (Kelley, 967; Weiner, 1974). Decades of research on attribution theory supports this proposition. People are motivated to understand others' failures at work and school through cognitive rather than automatic processes (e.g., Graham, 1991; Kelley & Michela, 1980). Thus, my findings are in line with attribution theory and extend its claim to the realm of behavioral ethics.

Fifth, although workplace unethical behavior is common (Ashforth, Gioia, Robinson, & Trevino, 2008), research often suggests that employees and managers alike often fail to report, let alone punish, targets (Mayer et al., 2013). Research on academic dishonesty has revealed similar findings, suggesting that faculty often do not report cheating among students and universities rarely enforce punishment (McCabe, Butterfield, & Trevino, 2006). Current research on whistleblowing suggests that this is because whistleblowers fear revenge from their community (Dyck, Adair, & Zingales, 2010), organizations fail to support whistleblowers (Vadera, Aguilera, & Caza, 2009), and that individuals are less critical of gradual unethical behavior (i.e., the slippery-slope effect; Gino & Bazerman, 2009). In this research, I propose

another reason that may deter managers from reporting unethical behavior of others: ego depletion. When managers perceive unethical employees as highly depleted as a result of their work-related duties, managers are likely to give them slack and hold them less accountable and less likely to punish them or report to authority.

Finally, although I was unable to provide support for the moderating role of implicit belief about morality, I hope that this dissertation can introduce this construct to researchers in behavioral ethics. Whether an individual believes morality is malleable or not should affect important outcomes beyond perceptions of others' behavior. For example, if a follower believes that morality is unchangeable (i.e., an entity view of morality), then he/she is unlikely to grow or learn from ethical leaders. In contrast, if a follower believes that morality is malleable, then he/she is likely to pay extra attention to ethical leaders' behaviors and appreciate ethical leaders more. Nevertheless, I believe scholars should improve the measurement of this construct. For example, two of the three items appear to be double-barreled questions (e.g., "a person's moral character is something very basic about them and it can't be changed much"). Scholars should overcome methodological challenges and continue to utilize this interesting construct.

Practical Contributions

If organizations want to avoid being in the next major ethical scandals, then it is important to educate managers and employees to report unethical behavior. Although depleted people often do not intentionally engage in unethical behavior, it is still important for managers to report and discipline their unethical employees accordingly. I recommend that organizations should not treat all unethical violations equally. Rather, organizations should investigate each incident carefully to ensure that appropriate punishment is carried out. For example, an unethical employee who works overtime and loses self-control resources should not receive the same levels of punishment compared to an employee who intentionally engage in unethical workplace

behavior. That said, differential punishment to the same type of unethical transgression must be accompanied with effective communication to ensure that all followers understand the reasons for doing so.

If managers want to prevent unethical behavior at the workplace, then it is important to not over deplete their followers' self-control resources. For example, managers should be mindful that overtime work, increased job demands, and complex jobs are all likely to deplete their followers' self-control resources and lead to unethical behavior. If these are unavoidable, then organizations should help employees regain their self-control resources by encouraging them to take short breaks at work (Trougakos, Beal, Green, & Weiss, 2008) or to practice self-affirmation training in order to replenish depleted resources (Schmeichel & Vohs, 2009). In addition to helping followers to restore their self-control, organizations and managers can also help employees to increase their baseline level of self-control by promoting self-control training activities. For example, numerous authors have found empirical support for the effectiveness of a two-week self-control training regimen (e.g., Finkel, Dewall, Slotter, Oaten, & Foshee, 2009; Denson, Capper, Oaten, Friese, & Schofield, 2011; Gailliot et al., 2007). Briefly stated, this training program requires participants to use their non-dominant hand to engage in regular daily activities at random times of the day (e.g., operating a computer mouse, brushing their teeth, opening doors). After the two-week program, participants' baseline self-control increases and are less likely to engage in aggression when provoked (Denson et al., 2011). In sum, research in ego depletion points to a wide array of interventions through which organizations can deter unethical behavior.

Generally speaking, although providing self-control training may help deter unethical behavior by providing employees with more physiological resources to resist temptations,

managers should also educate followers about the importance of business ethics. It is likely that, when reminded of the importance of ethics, some followers will comply with ethical standards even in the absence of self-control resources (Aquino, Freeman, Reed, Lim, & Felps, 2009). More importantly, education is more likely to have a long-term effect on followers' moral development and moral behavior than short-term physiological and self-control training.

Limitations and Future Directions

A few limitations of this research warrant further discussion. For example, due to logistical reasons, I was not able to test the moderating role of implicit belief about morality in Study 1. Second, in both studies, I might have confounded sources of ego depletion with the targets' conscientiousness. Targets who worked hard at night might be perceived as more conscientious than targets who decided to watch sport events at night, and the differences in perceived conscientiousness may drive the findings. Third, although this was the first study that utilizes both ego depletion and attribution theories to examine perceptions of unethical behavior, I did not carry out a field examination of my hypotheses, which affects the genearaliziability of the findings.

Despite these limitations, I note a few directions for future research. First, although the experimental nature of my studies enables me to establish causal inferences, future research should extend these findings to the field. The experimental manipulations in all of the studies are relatively overt. In is therefore unclear if the effects expected to be found in this research will generalize to the workplace. Sleep deprived employees, for example, are likely to suppress cues of fatigue in the workplace when interacting with their managers. Relatedly, given the increased flexibility of work arrangements, it is unclear whether managers can actually interact with employees in person. For example, a recent national survey suggests that over 50% of all

surveyed employees have some sort of flexible work arrangements with their organizations, such as telecommuting, compressed work schedules, and flextime (Galinsky, Bond, & Sakai, 2008). If managers do not interact with their employees in person due to these arrangements, they are unlikely to perceive them as depleted and their moral judgments toward them are unlikely to change. Therefore, future research should not only examine this theoretical model in the field, but also should examine the potential moderating effects of flexible work arrangements.

Second, this research is one of the first to use attribution theory to examine third-party judgment of unethical behavior, and I have only examined a few factors in this research. Future research can examine other factors, such as the perceived individual differences of the targets. For example, perhaps targets with low levels of moral identity (Aquino & Reed, 2002) will not receive slack because they are perceived as unethical regardless of their mental states. In addition, perhaps targets with high trait self-control will be given less slack because they are perceived as immune to the depleting effects of ego depletion. Conversely, future research can examine individual differences of the third-parties. Although I fail to provide support for the moderating role of implicit belief about morality, there are many other individual differences that may affect how third-parties respond to others' unethicality. For example, perhaps third-parties who are high on trait perspective taking are more likely to give slack to depleted targets. Prior research has revealed that perspective taking can generally be used to debias social judgments (e.g., Galinsky & Moskowitz, 2000), but whether it can be used to facilitate attributional processes in judgments of unethical behavior remains unclear and await future research effort. Moreover, third-parties who strongly endorse utilitarianism may not give slack to depleted targets because people high on utilitarianism are only concerned about the outcomes (Brady & Wheeler, 1996). To the extent that the outcomes are identical (i.e., depleted and non-depleted targets committed

the same unethical behavior), individuals high on utilitarianism are less likely to judge depleted targets' unethicality differently.

Third, beyond punishment, I suggest that there are other outcomes after moral judgments are reached. For example, research suggests that third-parties may choose to aid the victims instead of punishing the targets (O'Reilly & Aquino, 2011). Future research can examine under what conditions third-parties may choose to react to unethical targets differently. For example, when power difference is high (e.g., an employee observes his/her supervisor engages in unethical behavior), third-parties may not able to punish and may engage in other alternatives. In addition, it will be interesting to examine the generalizability of this model to victims. Victims of unethical behaviors generally respond to unethical targets either with revenge or forgiveness. However, to date, it is unclear when and why victims would choose one or the other (McCullough, Kurzban, & Tabak, 2013). Perhaps the perceived mental state of the transgressors can determine victims' responses to unethical treatments. For instance, depleted targets' unethical behaviors signal a low risk of future exploitation and are therefore more likely to be met with forgiveness than revenge, whereas non-depleted targets' unethical behaviors signal volition and are therefore likely to be met with revenge and moral outrage. In addition, future research can examine the expected future value of the relationship between the targets and the victims as a determinant for the relationships between victims' moral judgments and punishment/forgiveness.

Fourth, it will be interesting to examine the effects of targets' ego depletion on prosocial behavior. Arguably, the flip side of unethical behavior is prosocial behavior, and perhaps the theoretical arguments used in this research can be generalized to this domain of research. It is probable that third-parties will give more credits to prosocial behavior enacted by depleted

individuals than non-depleted individuals, because enacting prosocial behavior requires significant self-control resources (DeWall et al., 2008; Xu et al., 2012). In short, ego depletion theory has the potential to explain a far greater range of organizational behavior than it currently does, and I hope that the current research can fuel a new wave of empirical research on ego depletion theory.

Conclusion

In this research, I find that third-parties are less likely to judge depleted targets' unethical behavior harshly and in turn is less likely to punish them, especially among targets who are depleted for work-related reasons. These results have the potential to extend ego depletion to third-party judgment of unethical behavior. It is clear that ego depletion not only affects the depleted individuals, but also how others perceive the depleted individuals. I also find that depletions are not all created equal, with dramatically different implications on how observers treat depleted individuals.

Moreover, as naïve scientists, we often actively search for the perceived cause of unethical behavior. Yet the current research is one of the first to integrate attribution theory to the realm of behavioral ethics. I hope the current work can spark additional behavioral ethics research to draw from attribution theory to examine how, when, and why third-parties often perceive the same ethical issues differently. Together, I believe that this research represents a promising first step in increasing our understanding of how, when, and why managers respond to their employees' workplace unethical behavior.

CHAPTER FIVE: CONCLUSION

I began my dissertation by suggesting that the field of behavioral ethics is growing as a result of numerous business scandals. I then provided a brief introduction of one of the most popular theories in behavioral ethics in recent years – ego depletion theory. The state of this literature requires new studies to not just validate the core propositions of the theory, but also shifting the discussion of ego depletion theory to more diverse samples and challenge its assumptions. Three empirical research projects were conducted to contribute to the development of this particular theory. Chapter Two extends ego depletion theory to employees in managerial positions and examine the relation cost of being depleted; Chapter Three challenges a widely-held assumption about ego depletion theory and reveals that at times ego depletion can lead to reduced unethical behavior; Chapter Four extends ego depletion theory to perceptions of unethical behavior, suggesting that depleted targets are judged more favorably than non-depleted targets after they engaged in unethical behavior. Beyond the future research directions mentioned in the previous chapters, here I discuss some of the most pressing problems for the field and propose solutions to those problems. Furthermore, I propose several entirely new areas for exploration.

Construct Discriminant Validity

Ego depletion scholars have rarely discussed the discriminate validity of self-control. Indeed, there are a number of theoretically overlapping constructs of self-control such as fatigue and burnout. Research suggests that self-control and these overlapping constructs share many similar physiological basis such as reduced heart rate (Segerstrom & Solberg Nes, 2007) and neural transmission (Inzlicht & Gutsell, 2007). Meta-analytic findings also suggest that there is a strong correlation between self-control and fatigue (Hagger et al., 2010). In short, whether

fatigue and self-control represent two distinct constructs remain unclear, thereby questioning the incremental validity of self-control over fatigue.

One of the few "construct clean-up" studies in ego depletion theory was conducted by Vohs, Glass, Maddox, and Markman (2010). Vohs and colleagues attempted to differentiate fatigue and self-control by conducting a 2x2 experiment in which they manipulated both sleep and self-control. Results suggest that sleep deprivation alone does not predict aggressive behavior, nor does it interact with self-control depletion to predict aggressive behavior. Only self-control depletion predicts subsequent aggressive behavior. Thus, this study concludes that fatigue and self-control are indeed two distinct constructs.

Christian and Ellis (2011), however, conducted another study that directly contradicts the findings of Vohs et al. (2010). Although Christian and Ellis (2011) did not intend to differentiate fatigue and self-control in their study, they found that sleep deprivation led students to engage in more verbal abuse to fellow students in a subsequent task than participants who were rested. Therefore, whether self-control is distinct from fatigue remains an empirical question. To move forward, scholars must conduct additional psychometric studies. For example, researchers can conduct confirmatory factor analyses to identify if these two constructs are indeed distinct, or if they load on a higher-order factor. Researchers can also measure both self-control and fatigue and examine if self-control can display incremental validity over and beyond the effects of fatigue.

Ego Depletion Theory and Human Nature

At its original form, ego depletion theory implicitly paints a negative view of human nature, suggesting that when depleted of self-control resources, individuals are likely to become impulsive, aggressive, and unethical. Recent empirical evidence begins to question this

assumption. For example, Pitesa et al. (2013) and Yam et al. (2014) both provided evidence suggesting that, under some circumstances, depletion can lead to positive outcomes. Hirsh, Galinsky, and Zong (2011) further argued that ego depletion can be conceptualized as a general disinhibition process that reveals and shapes the individual. In one study, for example, Giancola (2003) randomly assigned participants to either an alcohol consumption or a control condition. Afterwards, all participants were provoked by a third-party and were given the opportunity to retaliate. Ego depletion theory would predict that participants in the alcohol consumption condition would behave more aggressively than participants in the control condition because alcohol is known to reduce one's executive function in the brain, hence reduced self-control. Nonetheless, Giancola (2003) found that only participants who were dispositionally aggressive (i.e., high on trait aggression) were more aggressive after consuming alcohol, whereas participants who were dispositionally sympathetic were less aggressive after consuming alcohol. This study, along with other studies on disinhibition, suggests that perhaps ego depletion is simply a disinhibition process that reveals our true self, which can be good or evil depending on the individual. In sum, this set of studies challenges the negative view of human nature implied by ego depletion.

Resolving Differences with Other Literatures

Although ego depletion theory has received empirical support for the past two decades, there are a number of theories that directly contradict its core propositions and await future research to resolve these differences. I discuss two of them here.

Learning and adaptation. Instead of predicting a decrement of reduced self-control performance, researchers in learning and adaptation suggest that individuals may adapt to self-control draining tasks over time and that this may lead to stable, or even better subsequent self-

control performance (Eisenberger & Masterson, 1983). For example, Converse and DeShon (2009) found that in the short term, prior exertions of self-control reduce subsequent self-control. However, in the long term, such effects dissipate and some participants even improved on their self-control. Researchers in learning and adaption infer that over a period of time, individuals are likely to learn 1) how to more effectively utilize their self-control resources and 2) how to better manage their self-control resources so they do not overextend. In fact, research on ego depletion theory suggests that self-control practices can expand the limited pool of resources in the brain (Denson et al., 2011). It appears that time will be an important topic for future research in ego depletion theory and we will see less research that employs the traditional dual-task paradigm in extending ego depletion theory.

Self-determination theory. Although self-control resources are proposed to be scarce, self-determination theory suggests otherwise. Self-determination theory suggests that human energy is "a subjective vitality" that has no biological basis (Quinn, Spreitzer, & Lam, p. 348). Human energy is simply a feeling of enthusiasm and aliveness (Ryan & Fredrick, 1997). This type of energy is abundant and is activated when individuals engage in autonomous behaviors. Given this difference between the two theories, it will be interesting to examine whether depleted participants' motivation can act as a boundary condition for ego depletion. For example, perhaps job demands can reduce self-control and affect job performance negatively, but such effect may dissipate if an employee derives intrinsic motivation from his/her work. Even more interesting is to examine why this may happen. For instance, do autonomous behaviors create new energy? Or do they simply require less energy to initiate?

Final Remarks

Employees and managers alike are often affected by self-control depletion. It is clear that ego depletion theory has the potential to affect employees' well-being and behaviors at work. I hope ego depletion scholars can continue to build on our understanding of this theory. At the same time, I hope scholars can leverage our existing knowledge about ego depletion to solve real-world problems. It is my hope that this dissertation can spark additional interests in examining the role of ego depletion theory in organizational behavior.

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Table 1. Means, standard deviations, and correlations of the focal variables

Variables	*M (SD)*	1	2	3	4	5	6	7	8	9
1. Leader Surface Acting (T1)	2.56 (1.06)	(.94)								
2. Leader Trait Self-Control (T1)	3.53 (.62)	-.07	(.75)							
3. Leader Self-Control Resources (T2)	3.11 (.89)	-.24**	.16*	(.89)						
4. Abusive Supervision (Follower Report; T2)	1.61 (.76)	.17*	-.28**	-.36**	(.96)					
5. Leader Trait Negative Affect (T1)	2.64 (1.23)	.23**	.03	-.10	.16*	(.91)				
6. Leader Age (T1)	41.59 (9.47)	-.18*	.35**	.03	-.00	.05	(--)			
7. Leader Race[1] (T1)	N/A	.00	.05	.05	.02	.06	-.08	(--)		
8. Leader Gender[2] (T1)	N/A	-.23**	-.19**	-.13	.08	.14*	.07	.00	(--)	
9. Leader Job Tenure[3] (T1)	5.11 (1.45)	-.08	.03	-.02	-.12	.14*	.01	-.02	-.10	(--)

Notes: N = 184 dyads. Alpha coefficients are presented on the diagonal.

[1]Dummy variable (1 = White, 0 = Others)
[2]Dummy variable (1 = Male, 0 = Female)
[3]Leader job tenure was measured via a 7-point scale

*$p < .05$
**$p < .01$

Table 2. Summary of regression results (dependent variable = state self-control resources).

	DV = Leader State Self-Control Resources								
	Model 1			Model 2			Model 3		
Variables	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*B*
Step 1									
Leader Age	.00	.01	.04	-.01	.01	-.09	-.01	.01	-.07
Leader Race[1]	.02	.06	.02	.03	.06	.03	.03	.06	.04
Leader Gender[2]	-.22	.14	-.11	-.15	.15	-.08	-.11	.15	-.06
Leader Trait NA	-.04	.06	-.05	-.13	.07	-.13	-.13	.07	-.14
Leader Job Tenure	-.02	.05	-.03	-.04	.05	-.06	-.04	.05	-.06
Step 2									
Leader Surface Acting				-.17	.07	-.20*	-1.00	.41	-1.16**
Leader Trait Self-Control				.09	.13	.06	-.47	.30	-.32
Step 3									
Leader Surface Acting X Trait Self-Control							.23	.11	.92*
R^2		.04			.08			.10	
ΔR^2					.03*			.02*	

Note: N = 184 dyads

[1]Dummy variable (1 = White, 0 = Others)
[2]Dummy variable (1 = Male, 0 = Female)

*$p < .05$
**$p < .01$

Table 3. Indirect and total effects of leader surface acting (via state self-control) on abusive supervision at low and high levels of leader trait self-control.

Variables	P_{MX}	P_{YM}	Direct Effects (P_{YX})	Indirect Effects (P_{YM} X P_{MX})	Total Effects (P_{YX} + [P_{YM} X P_{MX}])
Low Leader Trait Self-Control	-.33**	-.33**	.06	.11**	.17**
High Leader Trait Self-Control	-.06	-.33**	.06	.02	.08

Note: N = 184 dyads
**$p < .01$

Table 4. Summary of additional regression results (dependent variable = abusive supervision)

	DV = Abusive Supervision														
	Model 1			Model 2			Model 3			Model 4			Model 5		
Variables	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
Step 1															
Leader Age	.01	.01	.09	.01	.01	.13	.01	.01	.13	.01	.01	.08	.01	.01	.10
Leader Race[1]	.04	.05	.05	.05	.05	.06	.04	.05	.06	.06	.05	.08	.06	.05	.08
Leader Gender[2]	-.14	.13	-.08	-.10	.13	-.06	-.07	.13	-.04	-.04	.12	-.02	-.04	.12	-.02
Leader Trait NA	.15	.05	.23**	.06	.06	.10	.06	.06	.09	.05	.06	.07	-.05	.06	-.07
Leader Job Tenure	-.05	.04	-.09	-.05	.04	-.10	-.05	.04	-.09	-.06	.04	-.11	-.06	.04	0.11
Step 2															
Leader Surface Acting				.04	.06	.05	.37	.14	.50*	.07	.06	.06	.11	.34	.15
Leader Trait Self-Control				-.41	.11	-.24**	-.19	.26	-.09	-.27	.11	-.21*	-.19	.25	-.15
Step 3															
Leader Surface Acting X Trait Self-Control							-.19	.09	-.43**				-.03	.09	-.15
Step 4															
State Self-Control										-.28	.06	-.33**	-.27	.06	-.31**
R^2		.04			.10			.12			.17			.18	
ΔR^2					.06			.02			N/A			.06	

Notes: N = 184 dyads.
All ΔR^2 were significant. The ΔR^2 in Model 5 was calculated based on the change from Model 3 to Model 5.

[1]Dummy variable (1 = White, 0 = Others)
[2]Dummy variable (1 = Male, 0 = Female)

*$p < .05$
**$p < .01$

Table 5. *Logistic regression results of tax accountants' unethical behavior (Study 2)*

	DV: Unethical Behavior[1]			
	High Social Consensus		**Lower Social Consensus**	
	B (SE)	Exp (B)	*B* (SE)	Exp (B)
Constant	-24.27* (10.34)	.00	22.82 (10.38)	1.00
Tenure	.47 (.37)	1.60	-.37 (.26)	.69
Social Desirability	.46 (.63)	1.59	.03 (.34)	1.03
Need for Sleep	1.15 (1.19)	3.16	-1.46 (1.18)	.23
Sleep Quality	-.95+ (.55)	.39	-1.79 (1.18)	.17
Sleep Quantity	2.76* (1.07)	15.72	-2.16** (.80)	.12
-2 log likelihood	16.87			

[1] 0 = No, 1 = Yes

+*p* < .10, **p* < *.05,* ** *p* < *.01*

Figure 1. Theoretical model of the current research

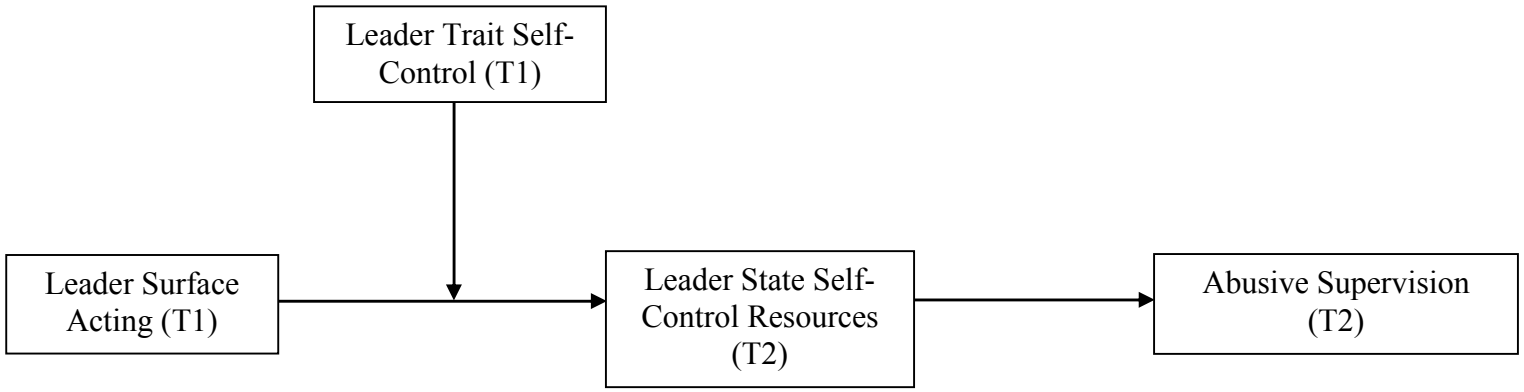


Figure 2. The interactive effect between leader surface acting and leader trait self-control on self-control resources

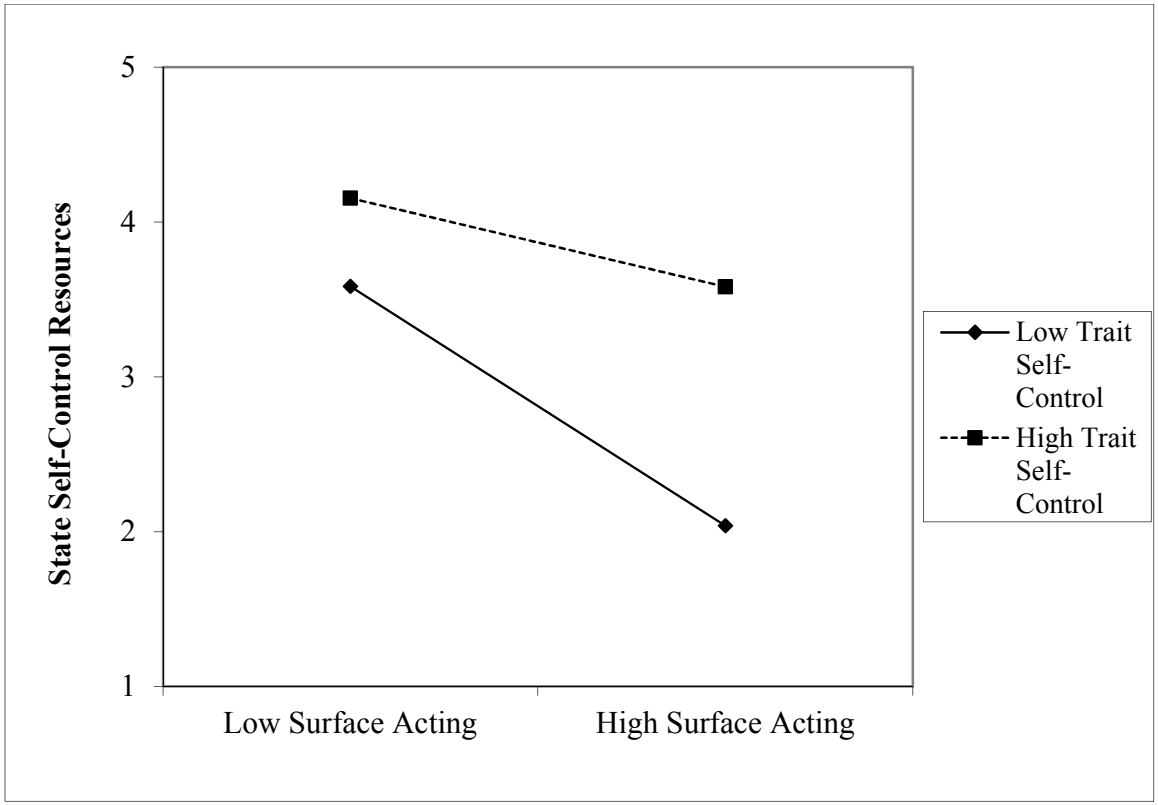


Figure 3. *The theoretical model of the current studies*

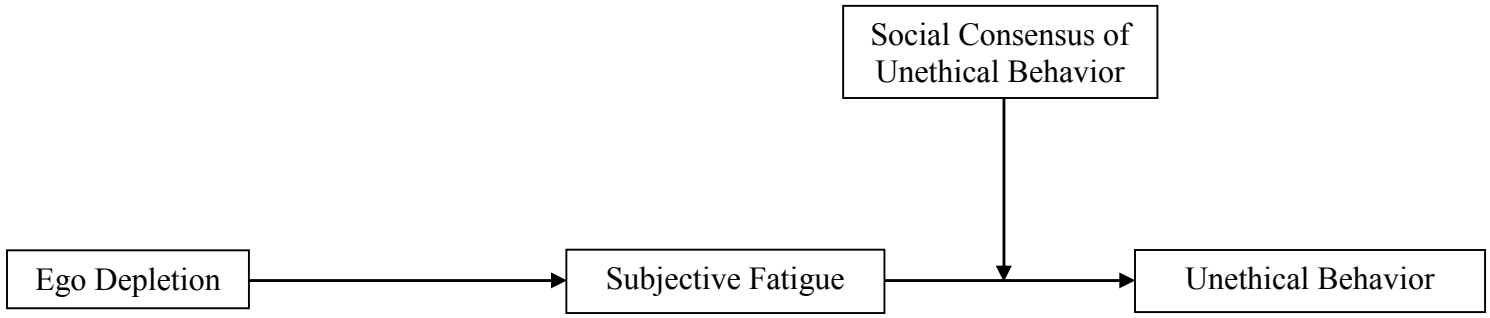


Figure 4. *The interactive effect of ego depletion and social consensus on unethical behavior (Study 2)*

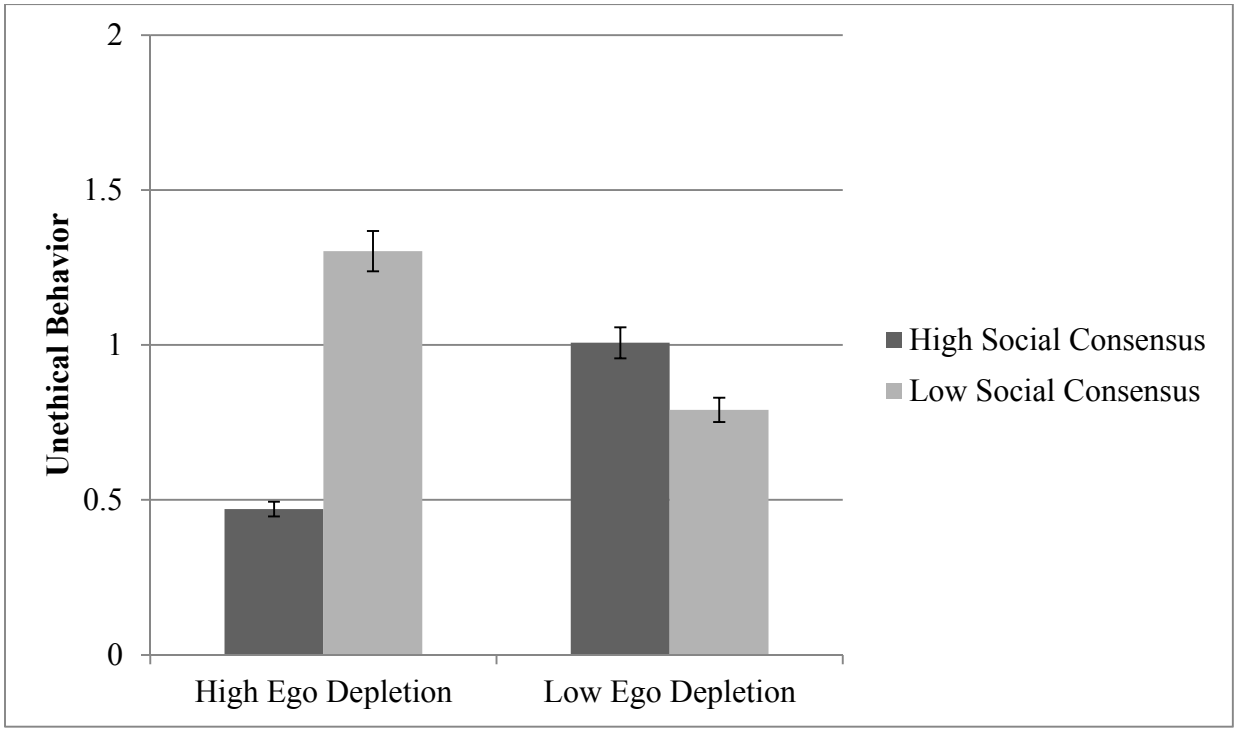


Figure 5. *The interactive effect of ego depletion and social consensus on unethical behavior (Study 3)*

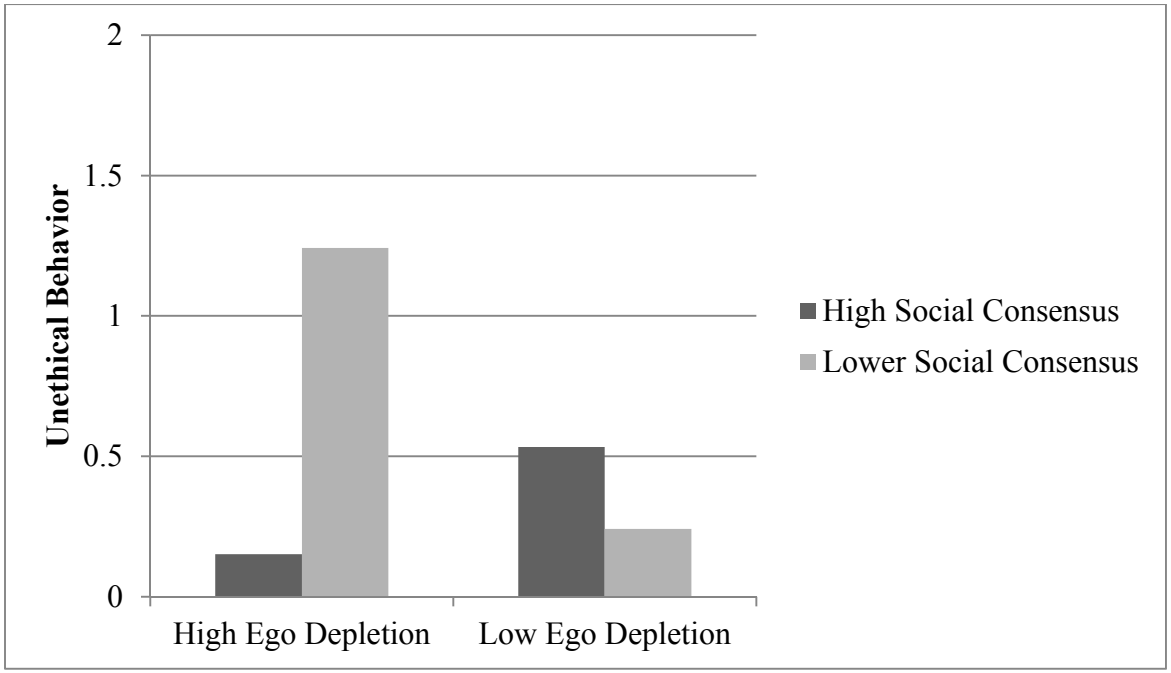


Figure 6. *The interactive effect of subjective fatigue and social consensus on unethical behavior (Study 3)*

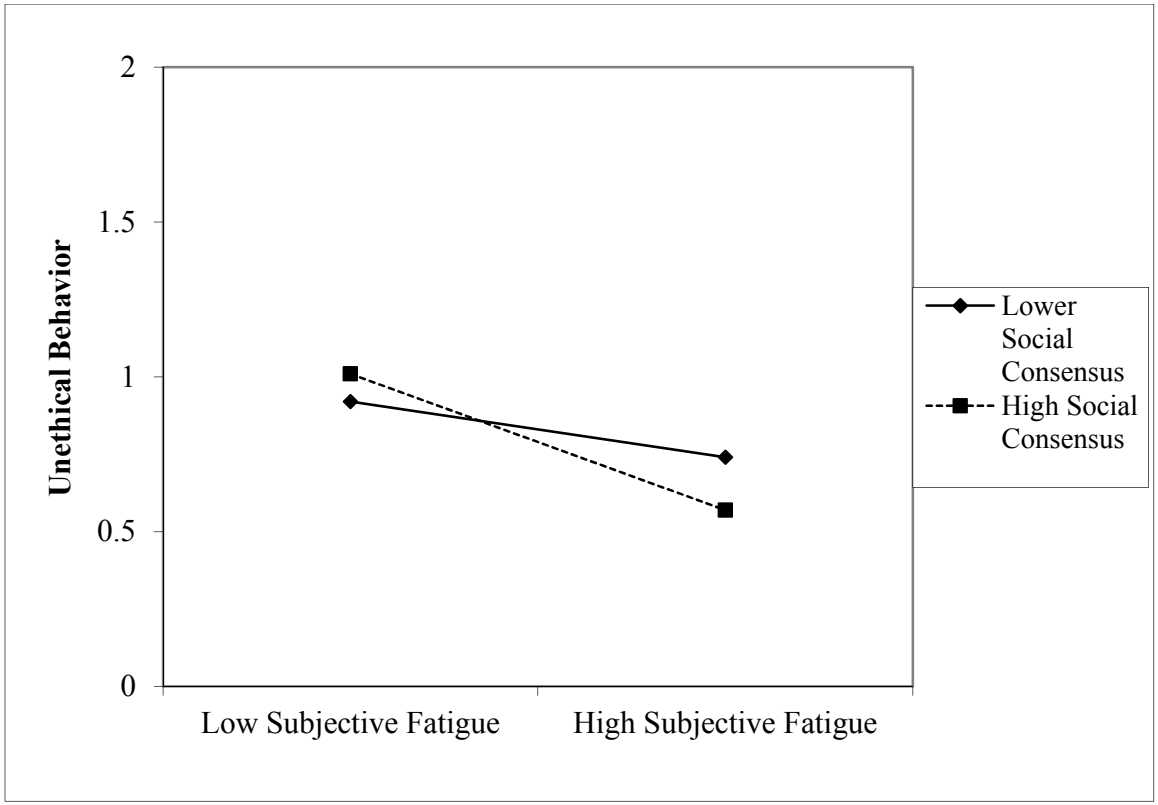


Figure 7. Theoretical Model

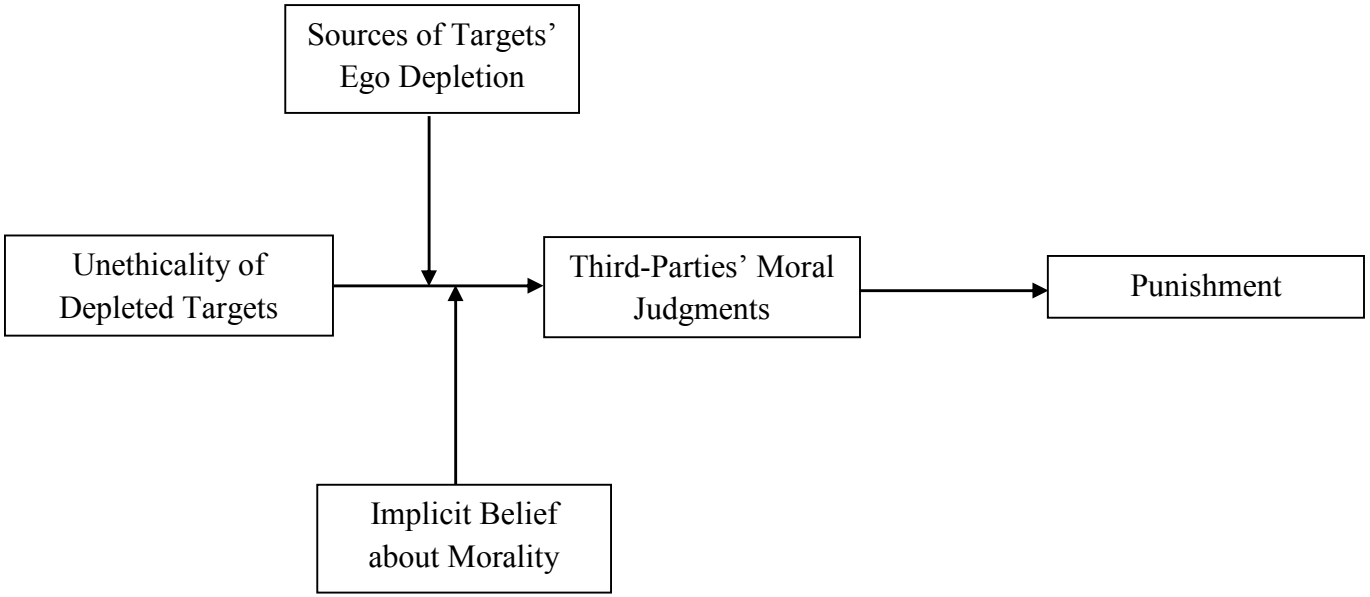


Figure 8. The interactive effect of ego depletion and sources of ego depletion on third-party moral judgment (Study 1)

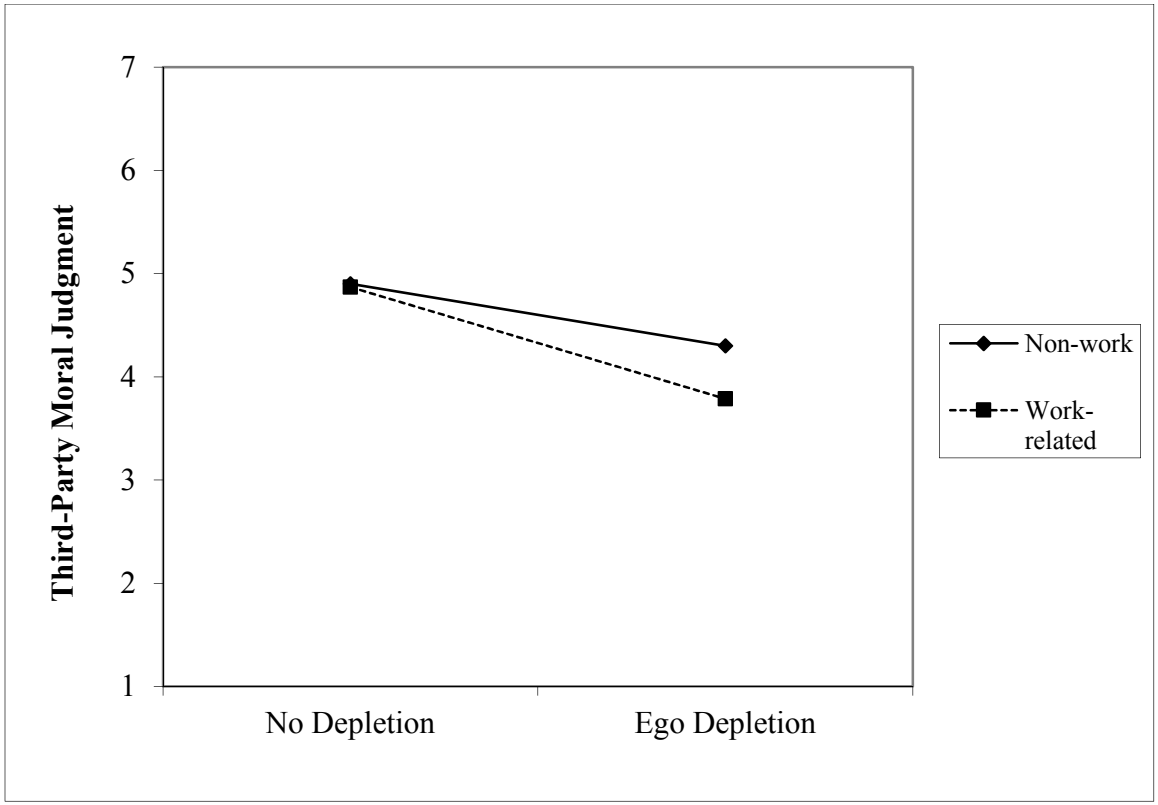


Figure 9. The interactive effect of ego depletion and sources of ego depletion on third-party moral judgment (Study 2)

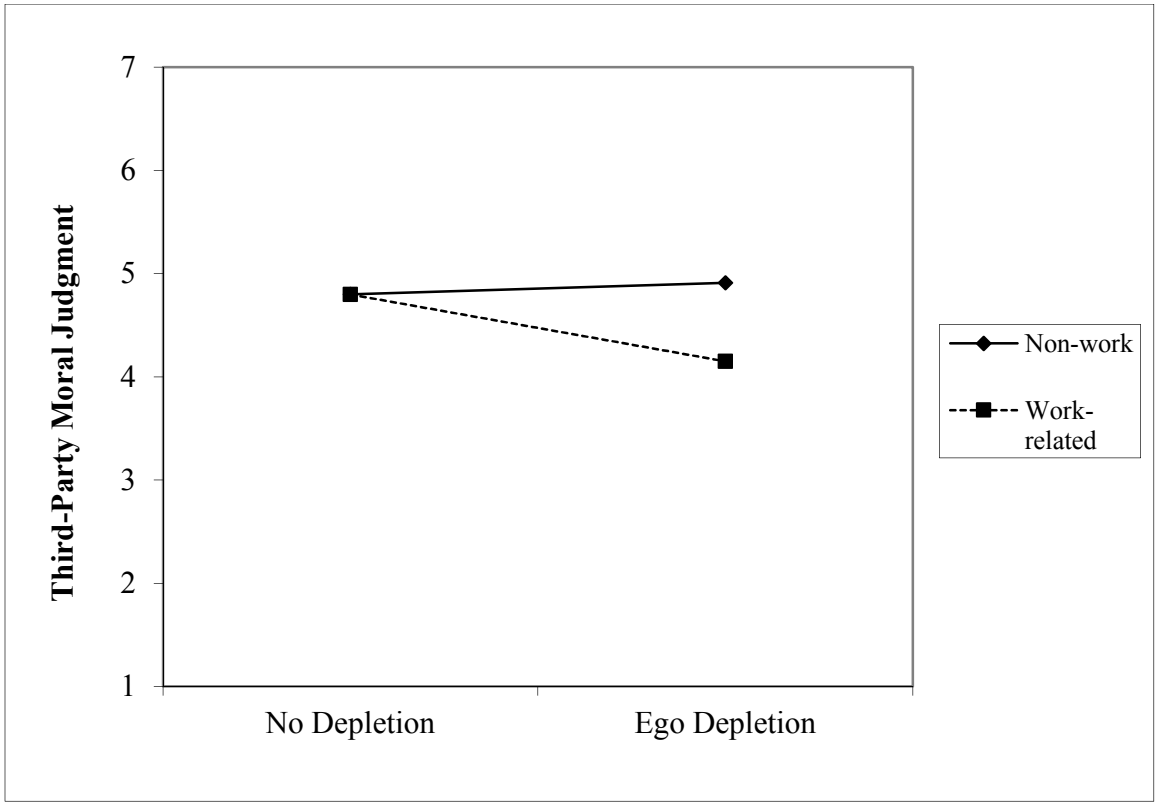
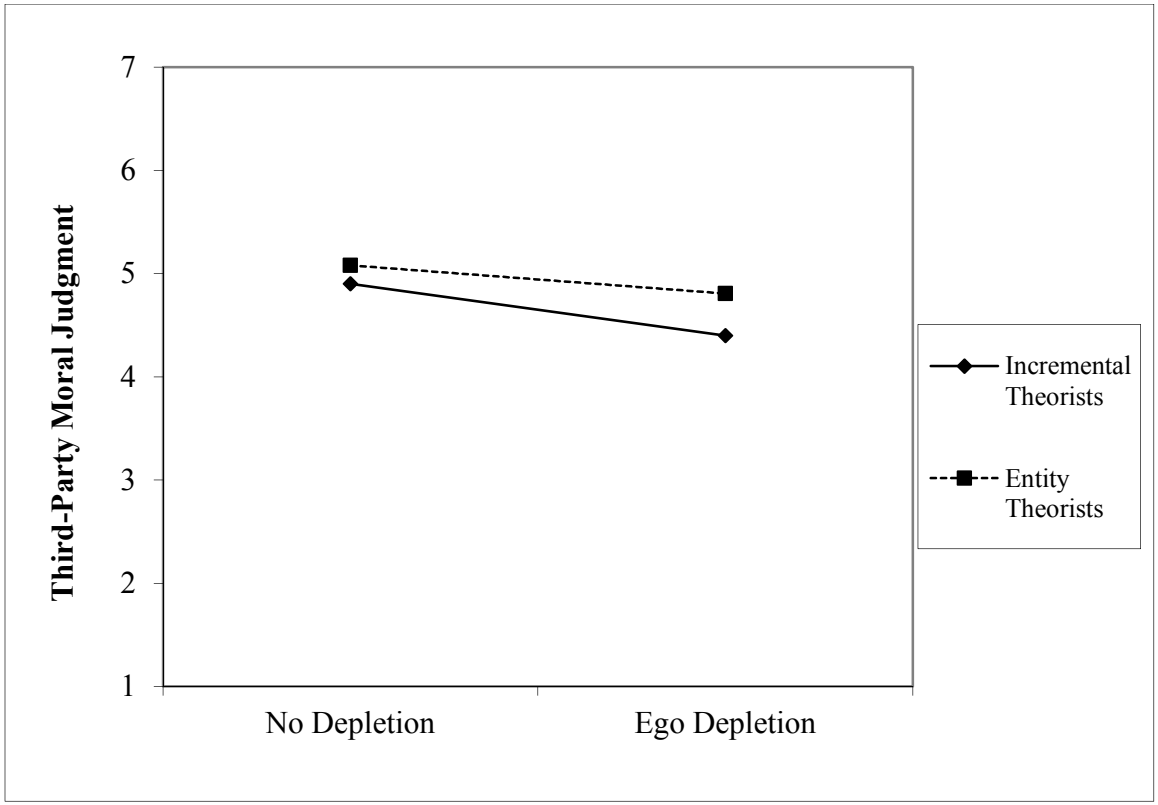


Figure 10. The interactive effect of ego depletion and implicit belief about morality on third-party moral judgment (Study 2)



Appendix A

Scenarios used in Study 1

Ego Depletion/Word-Related

Digital Analysis Corporation (DAC) is a business consulting firm based in Bothell, WA. It is generally perceived to be a good place to work. John was recently hired as a middle manager at the R&D department at DAC, and his primary responsibility is to manage junior R&D analysts in the department. For the past three days, John has worked long hours and has become sleep deprived. Yesterday, John took a client out for lunch. John knows that the administrative assistant in accounting never reviews the reimbursement receipts, and so when he returned to the office, he over-reported the amount spent on lunch in his reimbursement report.

Ego Depletion/Word-Unrelated

Digital Analysis Corporation (DAC) is a business consulting firm based in Bothell, WA. It is generally perceived to be a good place to work. John was recently hired as a middle manager at the R&D department at DAC, and his primary responsibility is to manage junior R&D analysts in the department. For the past three days, John has stayed up late to watch soccer games and has become sleep deprived. Yesterday, John took a client out for lunch. John knows that the administrative assistant in accounting never reviews the reimbursement receipts, and so when he returned to the office, he over-reported the amount spent on lunch in his reimbursement report.

No Depletion Depletion/Word-Related

Digital Analysis Corporation (DAC) is a business consulting firm based in Bothell, WA. It is generally perceived to be a good place to work. John was recently hired as a middle manager at the R&D department at DAC, and his primary responsibility is to manage junior R&D analysts in the department. For the past three days, John has worked regular hours (from 9am to 5pm) and has been feeling refreshed. Yesterday, John took a client out for lunch. John knows that the administrative assistant in accounting never reviews the reimbursement receipts, and so when he returned to the office, he over-reported the amount spent on lunch in his reimbursement report.

No Depletion Depletion/Word-Unrelated

Digital Analysis Corporation (DAC) is a business consulting firm based in Bothell, WA. It is generally perceived to be a good place to work. John was recently hired as a middle manager at the R&D department at DAC, and his primary responsibility is to manage junior

R&D analysts in the department. For the past week, John has been going to bed early and has been feeling refreshed. Yesterday, John took a client out for lunch. John knows that the administrative assistant in accounting never reviews the reimbursement receipts, and so when he returned to the office, he over-reported the amount spent on lunch in his reimbursement report.