ABSTRACT

Title of Dissertation: ARE "THINKERS" MORE ETHICAL THAN "DOERS"? HOW REGULATORY MODE INFLUENCES UNETHICAL BEHAVIOR

Marina Chernikova, Doctor of Philosophy, 2018

Dissertation directed by: Distinguished University Professor, Arie Kruglanski, Department of Psychology

Unethical actions can have a significant impact on both individuals and societies; thus, it is critical to identify factors that can predict such actions. The current research investigated two potential predictors of unethical behavior: locomotion and assessment regulatory mode (Kruglanski et al., 2000). Locomotion refers to the desire for continuous progress or movement in goal pursuit, while assessment refers to the desire to critically evaluate and compare among goals and means. Locomotion was expected to increase individuals' tendency to behave unethically, whereas assessment was expected to decrease this tendency. Guilt proneness was expected to mediate these effects, such that assessors should be more prone to experiencing guilt, and should behave more ethically; locomotors, on the other hand, should be less prone to experiencing guilt, and should therefore behave less ethically. Furthermore, the effect of locomotion on unethical behavior was expected to be stronger when the unethical action saved more (vs. less) time. The effect of assessment on unethical behavior was

expected to depend upon the presence of social standards for such behavior: assessors should act less ethically if there is a strong (vs. weak) social norm for unethical actions. Six studies that utilized a variety of designs and different measures of unethical behavior were carried out in order to test these hypotheses. The results were generally inconsistent with the hypotheses. Some potential explanations and theoretical implications of the findings are discussed.

ARE "THINKERS" MORE ETHICAL THAN "DOERS"? HOW REGULATORY MODE INFLUENCES UNETHICAL BEHAVIOR

by

Marina Chernikova

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2018

Advisory Committee:
Professor Arie Kruglanski, Chair
Professor Edward Lemay
Professor James Grand
Professor Michele Gelfand
Professor Rebecca Ratner

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction

Estimates from the World Bank and the International Monetary Fund suggest that unethical behaviors such as fraud, bribery, and corruption cost the world's economy a staggering $1 to $2 trillion dollars annually (Lawder, 2016; Seager, 2007). Ethical transgressions are frequently in the news as well. Recent high-profile cases—such as the Petrobras corruption scandal in Brazil, which cost the firm billions of dollars and rocked the entire country's economy—offer a vivid example of the potentially devastating consequences of such behavior (Gillespie, 2016). Clearly, unethical behavior can have a significant impact on both individuals and societies. Given these sobering stories and statistics, it is crucial to understand what types of individuals are prone to behaving unethically, as well as what drives them to engage in such behavior.

Regulatory mode theory (Higgins, Kruglanski, & Pierro, 2003; Kruglanski et al., 2000; Kruglanski, Pierro, Mannetti & Higgins, 2013; Kruglanski, Pierro, & Higgins, 2016) can offer an insight into these questions. Being an ethical person is an important goal for most people (Mazar, Amir, & Ariely, 2008), but individuals rarely have just one goal at a time; rather, they pursue many goals simultaneously (Kruglanski et al., 2002). In some cases, several goals may be in conflict with one another: for instance, the goal of obtaining quick results at work can interfere with the goal of adhering to the ethical guidelines set forth by one's organization. In such situations, as the relative importance of one goal (e.g., obtaining quick results) increases, the other goals (e.g., adhering to ethical guidelines) are more likely to be inhibited (Kruglanski et al., 2002; Kruglanski, Jasko, Chernikova, Dugas, & Webber,

2017; Shah, Friedman, & Kruglanski, 2002). It follows that individuals who typically value certain goals, such as getting things done quickly, may suppress or neglect any alternative goals that interfere with obtaining those goals, such as adhering to ethical rules. Regulatory mode theory is relevant to this analysis because it identifies two determinants of the types of goals that people chronically tend to value: assessment and locomotion (Higgins, 2012; Higgins et al., 2003; Kruglanski et al., 2000, 2013, 2016).

Regulatory Mode Theory

According to regulatory mode theory, assessment is the aspect of self-regulation related to evaluation, deliberation, and the comparison of various options. High assessors are concerned with "doing the right thing." They are thorough and careful, and will spend as much time on a decision as necessary in order to ensure that they are making the best choice (Kruglanski et al., 2000). High assessment leads individuals to experience increased worry about potential mistakes during goal pursuit, greater fear about making the wrong choice, and higher standards for personal performance (Pierro et al., 2011). In contrast, locomotion regulatory mode is the aspect of self-regulation related to action, motion, and change. High locomotors are aptly described by the "just do it" dictum: they act first and think later. They are quick to initiate and maintain movement; the direction they are going in matters less to them than the experience of motion from state to state. High locomotion leads individuals to take less time to complete tasks, at the expense of performing those tasks accurately (Kruglanski et al., 2000; Mauro, Pierro, Mannetti, Higgins, & Kruglanski, 2009).

The two regulatory modes can be measured as individual difference variables (Kruglanski et al., 2000) or manipulated as situational states (Avnet & Higgins, 2003). The regulatory mode scales were created in order to gauge individuals' dispositional assessment and locomotion levels: these scales consist of twelve items measuring assessment (e.g., "I spend a great deal of time taking inventory of my positive and negative characteristics") and twelve items measuring locomotion (e.g., "I enjoy actively doing things, more than just watching and observing"; Kruglanski et al., 2000). The two regulatory modes can also be manipulated situationally: past studies have primed a state of locomotion or assessment by asking participants to write about three times they acted like a locomotor (e.g., "Think back to the times when you finished one project and did not wait long before you started a new one") or three times they acted like an assessor (e.g., "Think back to the times when you compared yourself with other people"; Avnet & Higgins, 2003; Pierro, Pica, Klein, Kruglanski, & Higgins, 2013; Pierro, Presaghi, Higgins, & Kruglanski, 2009).

The locomotion and assessment scales have displayed high predictive validity in a variety of participant populations (e.g., employees in organizations, college students, and army rangers; Kruglanski et al., 2000) and in many different cultures (e.g., Fulmer et al., 2010; Guo & Feng, 2015; Pierro et al., 2008, 2009, 2013). Research on the scales' discriminant validity has also demonstrated that they are conceptually distinct from over two dozen related constructs (e.g., Big Five conscientiousness and openness to experience, action-state orientation, and fear of invalidity; Kruglanski et al., 2000). Importantly, none of the scales included in several extensive validation studies could account for more than 32% of the variance in either

assessment or locomotion (Kruglanski et al., 2000). This suggests that regulatory mode theory describes two fundamental motivational orientations that previous constructs did not fully encompass.

Regulatory Mode & Unethical Behavior

As mentioned earlier, locomotion and assessment may be relevant to unethical behavior because each regulatory mode increases the value of certain goals. Locomotors prefer to move swiftly and efficiently whenever possible (Kruglanski et al., 2000; Mauro et al., 2009). However, following ethical rules may not be conducive to the goal of swift forward motion, because acting ethically can often be more effortful, resource-depleting, and slow than simply thwarting those rules and doing something unethical (e.g., Gino, Schweitzer, Mead, & Ariely, 2011; Mead, Baumeister, Gino, Schweitzer, & Ariely, 2009; Shalvi, Eldar, & Bereby-Meyer, 2012). As a result, locomotors might dislike having to abide by ethical requirements and could be more willing to make unethical decisions. In support of this notion, Shalvi and colleagues (2012) found that individuals who were given instructions to complete a task quickly—which presumably induced the corresponding goal of rapid movement—tended to make less ethical decisions (Shalvi et al., 2012). Assessors, on the other hand, have a strong desire to do things right. They are unconcerned with acting quickly or taking shortcuts; rather, they are determined to make the best decision (Mauro et al., 2009). Consequently, assessors should be less inclined to flout ethical rules, because unlike locomotors, they are not motivated to move forward swiftly at any cost. Rather, their principal goal involves "doing the right thing," an

objective which does not conflict with—and should even increase—the regard for ethics.

In addition, locomotors are impulsive (Guo & Feng, 2015) and quick to initiate action (Pierro, Giacomantonio, Pica, Kruglanski, & Higgins, 2011), and therefore unlikely to dwell on the consequences of a particular behavior before deciding to "just do it" if it serves their momentary goals. Impulsivity and low self-control have been shown to predict less ethical behavior in both academic and business contexts (Anderman, Cupp, & Lane, 2010; Kelly & Worell, 1978; Kisamore, Stone, & Jawahar, 2007; Williams & Williams, 2012). Thus, locomotors may be more likely to impulsively engage in unethical behavior in order to attain their goals swiftly and effectively. Unlike locomotors, however, assessors prefer to carefully and thoroughly consider the potential consequences of any given action before choosing to engage in it (Kruglanski et al., 2000); such a tendency to broadly evaluate all of one's choices before acting can lead to more ethical behavior (Schurr, Ritov, Kareev, & Avrahami, 2012). Similarly, paying close attention to one's standards of conduct—a central attribute of assessment—causes individuals to adhere more strictly to ethical rules (Mazar et al., 2008). Assessors are also more self-aware and more perfectionistic (Pierro et al., 2011), both of which have been linked to a lower likelihood of committing unethical acts (Nathanson, Paulhus, & Williams, 2006; Ruedy & Schweitzer, 2010; Whitley, 1998). All of these aspects of assessment should therefore contribute to assessors' reluctance to act unethically.

There are also differences in the extent to which locomotors and assessors dwell on past wrongdoing, and these differences could influence their willingness to

commit such misdeeds again in the future. High locomotors experience less regret over past mistakes (Pierro et al., 2008) and engage in more self-forgiveness after they have wronged someone (Pierro, Pica, Giannini, Higgins, & Kruglanski, 2018). In contrast, assessors experience more regret over past mistakes (Pierro et al., 2008) and engage in less self-forgiveness after they have wronged someone (Pierro et al., 2018). Researchers suggest that such self-forgiveness and lack of regret can actually increase the likelihood that an individual will repeat the same offense, because "forgiving the self for...ongoing harmful behavior brings about an emotional relief that weakens a person's motivation to change their behavior, consequently hindering any progress toward a stage of action" (Wohl & McLaughlin, 2014, p. 426). Thus, assessors' lack of self-forgiveness and regret over their prior misdeeds may lead them to behave more ethically in the future, whereas locomotors' greater self-forgiveness and decreased regret may cause the opposite.

Relatedly, prior research indicates that individuals' guilt proneness—that is, their tendency to experience guilt after doing something wrong—can impact their likelihood of engaging in unethical behavior (Cohen, Panter, & Turan, 2013; Cohen, Wolf, Panter, & Insko, 2011; Tangney, Stuewig, & Mashek, 2007). More specifically, individuals who are prone to feeling guilty are less likely to engage in unethical behavior such as harming others (Cohen et al., 2013), using dishonest negotiation techniques (Cohen, 2010; Cohen et al., 2011), behaving aggressively when angered (Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996), and committing illegal offenses (Stuewig & McCloskey, 2005). A core aspect of the experience of guilt is the unwillingness to

easily forgive oneself for past transgressions (Cohen et al., 2011). Because locomotors are quick to forgive themselves, and assessors are not, it stands to reason that locomotors should feel less guilt after a transgression, while assessors should feel more guilt. This guilt (or lack thereof) should subsequently impact locomotors' and assessors' likelihood of committing unethical actions.

The foregoing analysis suggests the following hypotheses. First, high (vs. low) locomotors should be more likely to act unethically (Hypothesis 1), and high (vs. low) assessors should be more likely to act ethically (Hypothesis 2). Second, locomotors' increased willingness to behave unethically should be mediated by their lesser guilt proneness (Hypothesis 3), while assessors' decreased willingness to behave unethically should be mediated by their greater guilt proneness (Hypothesis 4).

Moderating Variables

Unethical behavior can differ on a variety of dimensions (e.g., Hollinger & Clark, 1982; Lasthuizen, Huberts, & Heres, 2011; Mangione & Quinn, 1974; Pittarello, Rubaltelli, & Motro, 2016; Robinson & Bennett, 1995; Yam, Chen, & Reynolds, 2014), and some of these dimensions could influence the extent to which locomotion, assessment, or both are relevant to the behavior in question. Locomotors, as described in the preceding sections, have a strong preference for moving swiftly and not wasting time (Kruglanski et al., 2000). Thus, one aspect of unethical behavior that should be particularly important to locomotors is how much time it saves them. If an unethical behavior saves more time, locomotors should be especially likely to

engage in it, because acting unethically in such a situation would be highly instrumental to their goal of moving forward quickly.

Assessors, on the other hand, pay close attention to whether their behavior is in line with social standards. Individuals who are high on assessment tend to "focus on evaluations of their actual self in comparison with…standards, including those associated with other people" (Kruglanski et al., 2000, p. 795). This concern for norms and standards is also captured in several of the assessment scale items, such as "I often compare myself with other people" and "I often feel that I am being evaluated by others" (Kruglanski et al., 2000). Prior literature has distinguished between two categories of social norms: injunctive norms, which delineate the behaviors that most people approve or disapprove of, and descriptive norms, which delineate how most people behave (Cialdini, Reno, & Kallgren, 1990; Cialdini, Kallgren, & Reno, 1991; Eriksson, Strimling, & Coultas, 2015; Gelfand & Harrington, 2015; Reno, Cialdini, & Kallgren, 1993). Individuals who are high on assessment should strive to align their behavior with both descriptive and injunctive norms, since both types of norms provide information that assessors care about (i.e., information about what they need to do in order to reach the standards set by others). One intriguing consequence of this is that assessors might be particularly sensitive to the presence of both injunctive and descriptive norms for unethical behavior. Although the typical or "default" norm in most societies is to behave pro-socially and ethically (e.g., Bowles & Gintis, 1998), certain circumstances can evoke a relatively strong emphasis on unethical behavior (e.g., when a company's climate encourages unethical acts; Barnett & Vaicys, 2000; Peterson, 2002; Victor & Cullen, 1988;

Wimbush & Shepard, 1994). Thus, when the (injunctive or descriptive) norm in a given situation is to act unethically, assessors should feel compelled to align their behavior with the standards of the situation, and should be more likely to behave unethically as a result.

This analysis leads to two moderation hypotheses. First, locomotors should be more likely to behave unethically when the unethical behavior in question will save them more (vs. less) time (Hypothesis 5). Second, assessors should be more likely to engage in unethical behavior when there is a strong (vs. weak) social norm for such behavior (Hypothesis 6).

Unethical Behavior

In order to test the six aforementioned hypotheses, it is important to establish precisely what constitutes an ethical (or unethical) action. Unfortunately, there is no clear consensus in the literature as to how to define unethical behavior (see Tenbrunsel & Smith-Crowe, 2008, for a detailed discussion of this issue). Nonetheless, the definition adopted here will be one that is commonly used in ethical decision-making research: unethical behaviors are defined as acts that have harmful effects on others and are either "illegal or morally unacceptable to the larger community" (Jones, 1991, p. 367). Based on this definition, cheating, lying, stealing, and other behaviors that violate ethical norms (e.g., overstating one's performance on a task in order to earn extra money or gain other benefits) all fall under the general umbrella of unethical behavior. In line with this definition, cheating in an academic context and cheating on a lab task were chosen as the measures of unethical behavior for the present research.

Of course, numerous predictors of unethical behavior have already been investigated in prior research. These include situational and cultural factors such as the probability of being caught, the presence of incentives, the extent to which it is easy to justify an unethical action, the salience of other unethical actors, and many more (e.g., Ayal & Gino, 2011; Cojuharenco, Shteynberg, Gelfand, & Schminke, 2012; Gino, Ayal, & Ariely, 2009; Gino & Margolis, 2011; Gino & Pierce, 2009; Keizer, Lindenberg, & Steg, 2008; Mazar et al., 2008; Zhong, Bohns, & Gino, 2010; see Bazerman & Gino, 2012, Ford & Richardson, 1994, and O'Fallon & Butterfield, 2005 for more comprehensive reviews of the literature). Some of the most prominent early psychological studies on the situational determinants of unethical behavior were Stanley Milgram's (1963, 1965) groundbreaking experiments, in which he examined how far participants would go to obey an authority figure who commanded them to carry out actions that were clearly harming another individual. Relevant in this vein, too, was Philip Zimbardo's classic prison study in the 1960s, in which he showed that regular college students could be transformed into cruel and brutal prison guards merely due to the conditions of the experiment (Zimbardo, Maslach, & Haney, 2000).

More recent studies have shown that situational norms for ethical behavior (e.g., the presence of graffiti or litter in an environment) can influence the extent to which individuals engage in unethical behaviors such as littering or theft (Cialdini et al., 1990; Keizer et al., 2008). Relatedly, when individuals observe others in their in-group cheat on a task in order to earn more money, they themselves become more likely to do so (Gino et al., 2009). When a person spends more time with someone else in her social network who tells lies, she shows a greater tendency to lie as well

(Mann, Garcia-Rada, Houser, & Ariely, 2014). Upward social comparisons, too, lead individuals to engage in more unethical behavior: when participants are randomly assigned to be paid less than others for the same dots counting task, they are more likely to cheat on the task (John, Loewenstein, & Rick, 2014). In the same vein, the presence of student honor codes or organizational codes of ethical conduct—which prime individuals with the belief that important others value ethics—both increase the likelihood of adhering to ethical standards (McCabe & Trevino, 1993; McCabe, Trevino, & Butterfield, 1996; McCabe, Trevino, & Butterfield, 1999).

More subtle situational factors can also influence unethical actions. Exposure to the message that human behavior is predetermined (vs. a message endorsing the existence of free will) causes participants to dishonestly overpay themselves for performance on a cognitive task (Vohs & Schooler, 2008). The presence of abundant wealth (i.e., money lying on a table) leads participants to experience envy for those with greater wealth, and therefore cheat more (Gino & Pierce, 2009). Relatedly, being part of a higher social class can lead individuals to cut off pedestrians at a crosswalk, take valued goods from others, and lie more in a negotiation task (Piff, Stancato, Cote, Mendoza-Denton, & Keltner, 2012). Winning a competition causes participants to subsequently steal more money from others in an unrelated task (Schurr & Ritov, 2016). On the other hand, priming the construct of time leads individuals to reflect on who they are, and therefore to cheat less (Gino & Mogilner, 2014). When participants are primed to think more about their future selves, they are also more likely to disapprove of unethical actions (Hershfeld, Cohen, & Thompson, 2012). In addition, adopting a broad perspective (which involves taking a holistic view of all of one's

choices rather than evaluating them in isolation) causes decreased cheating (Schurr et al., 2012).

Other predictors of unethical behavior that have been investigated in past research include individual differences such as the Big Five, Machiavellianism, locus of control, formalist vs. utilitarian ethical orientation, and a wide variety of others (e.g., Anderman, Cupp, & Lane, 2010; Douglas & Martinko, 2001; Egan & Taylor, 2010; Henle, 2005; John & Srivastava, 1999; Kelly & Worell, 1978; Kisamore et al., 2007; Malin & Fowers, 2009; Nagin & Pogarsky, 2003; Pearsall & Ellis, 2011; Salgado, 2002; Skarlicki, Folger, & Tesluk, 1999; Tibbetts & Myers, 1999; Trevino & Youngblood, 1990; Williams & Williams, 2012). For instance, some studies have shown that Big Five conscientiousness and agreeableness are negatively related to unethical behavior: higher scores on each measure lead participants to be less accepting of shoplifting and other unethical consumer activities (Egan & Taylor, 2010). Other studies have demonstrated that the Honesty-Humility factor within the HEXACO model of personality is a strong negative predictor of engaging in unethical behavior, such as misreporting a die roll in order to earn more money (Hilbig & Zettler, 2015). Unsurprisingly, Machiavellianism is consistently positively associated with both unethical intentions and behaviors across a wide variety of studies (Kish-Gephart, Harrison, & Trevino, 2010). Locus of control, too, is related to unethical behavior: individuals with an internal locus of control perceive themselves as more responsible for their own actions, and are therefore less likely to engage in unethical behavior. On the other hand, those with an external locus of control can easily shift the blame for their bad choices onto other factors, and thus engage in more unethical

behavior (Kish-Gephart et al., 2010; Trevino & Youngblood, 1990). Individuals who are chronically high in mindfulness (i.e., those who tend to have a clear awareness of their present state) are more likely to value upholding ethical standards (Ruedy & Schweitzer, 2010). And a utilitarian ethical orientation (i.e., focusing on one's own assessment of the consequences of an ethical decision) is positively associated with unethical choices and actions, while a formalist ethical orientation (i.e., focusing on past precedent and societal norms for ethics) is negatively associated with unethical choices and actions (Pearsall & Ellis, 2011).

The aforementioned inquiries helped shed light on the many diverse factors that can contribute to unethical behavior. However, with the exception of several experiments that examined the impact of primed promotion and prevention regulatory foci on individuals' propensity to cross ethical boundaries (Gino & Margolis, 2011), previous research has largely ignored the question of how chronic and/or situationally-induced self-regulation patterns could affect the choice to act unethically. It also has not explored how chronic self-regulation patterns might interact with aspects of the behavior (e.g., the amount of time an unethical action saves) or aspects of the environment (e.g., the presence of social norms for unethical behavior) to influence the likelihood that an individual will act unethically. The present research aimed to fill these gaps.

The Present Research

The six hypotheses described in the preceding paragraphs were tested in six studies. The first three studies examined whether there were main effects of locomotion and assessment on unethical behavior (Hypotheses 1 and 2). The fourth

study tested whether those effects were mediated by guilt proneness (Hypotheses 3 and 4). The fifth study investigated whether the influence of locomotion on unethical behavior was moderated by the amount of time the behavior saves (Hypothesis 5), and the sixth study examined whether the influence of assessment on unethical behavior was moderated by the presence of strong social norms for such behavior (Hypothesis 6). In order to demonstrate that the effects of locomotion and assessment on unethical actions could not be accounted for by other variables, the proposed studies included three control variables that have been linked to both regulatory mode and unethical behavior in past research: self-control and the Big Five characteristics of conscientiousness and agreeableness (Barnes, Schaubroeck, Huth, & Ghumman, 2011; Cochran, Wood, Sellers, Wilkerson, & Chamlin, 1998; Egan & Taylor, 2010; Giluk & Postlethwaite, 2015; Grasmick, Tittle, Bursik, & Arneklev, 1993; Holtfreter, Reisig, Leeper-Piquero, & Piquero, 2010; Karim, Zamzuri, & Nor, 2009; Malin & Fowers, 2009; Salgado, 2002).

In the first study, college students completed the regulatory mode scales and the control measures online, as well as measures of their attitudes toward unethical behavior and the degree of their past engagement in unethical behavior. The second study added an actual task that measured participants' propensity to behave unethically. In that study, participants completed the locomotion and assessment scales and control measures, then took part in a coordination question task that measured their tendency to behave unethically. The third study added a manipulation of regulatory mode: participants were randomly assigned to work on a writing prompt designed to manipulate locomotion, assessment, or neither. After the writing prompt,

they took part in the same coordination question task as in the second study. The fourth study added a test of the guilt proneness mediation hypothesis: participants completed the regulatory mode scales, control measures, and a measure of the proposed mediator (the guilt subscale of the guilt and shame proneness scale) in one session. They then came to the lab for a second session one to three weeks later, during which they took part in the same coordination question task used in the previous experiments. The fifth study added a test of the time-saving moderation hypothesis: participants first completed the locomotion and assessment scales and the control measures. Then they were led to believe that cheating on a subsequent word jumble task would either save them 10 minutes (less time saved condition) or 45 minutes (more time saved condition); the extent of their cheating on this task was measured. Lastly, the sixth study added a test of the social norm moderation hypothesis. Participants first filled out the regulatory mode scales and the control measures. Then they were led to believe that cheating on a subsequent math matrix task was endorsed either by the majority of others (strong social norm for unethical behavior) or by only a small minority of others (weak social norm for unethical behavior); the extent of their cheating was measured. Each of these studies is described in more detail below.

Chapter 2: Study 1

Method

Objective

The main goal of this study was to provide a preliminary test of Hypotheses 1 and 2 by examining whether there is a relationship between the two regulatory modes, attitudes toward unethical behavior, and past engagement in unethical behavior. In addition, this study included a self-control scale, the Big Five conscientiousness scale, and the Big Five agreeableness scale in order to ascertain whether any potential effects of locomotion and assessment on unethical behavior remained even after those variables were controlled for.

Participants

One hundred and thirty college student participants (91 females; 9 participants who did not report their gender) were recruited through the University of Maryland SONA system; the average age of participants was 19.79 years (*SD* = 1.40). The necessary sample size for this study was determined via a power analysis in the *GPower* program, assuming a medium effect size, $\alpha = 0.05$, and .8 power (Faul, Erdfelder, Lang, & Buchner, 2007). Students completed the study online, and received 1 class credit in exchange for their participation. All participants signed an online consent form and were treated in accordance with APA standards.

Procedure

Introduction. Participants were told that they would be taking part in a study on "personality and academic attitudes."

Regulatory mode scales. Participants completed the 12-item locomotion scale (α = .83) and the 12-item assessment scale (α = .77). The locomotion scale includes items such as "I am a go-getter", "I enjoy actively doing things, more than just watching and observing", and "When I finish one project, I often wait a while before getting started on a new one." The assessment scale includes items such as "I am a critical person", "I often critique work done by myself or others", and "I spend a great deal of time taking inventory of my positive and negative characteristics" (see Appendices A and B for a complete list of items in each scale; Kruglanski et al., 2000). Items from both scales were mixed together at random to ensure that there were no order effects. The response options for both scales ranged from 1 (strongly disagree) to 6 (strongly agree).

Attitudes toward cheating. Participants completed the 34-item Attitudes Toward Cheating scale (α = .81; Gardner & Melvin, 1988), which has been shown to predict actual cheating behavior in student samples (Stone et al., 2007). Items from this scale include: "There is nothing really wrong with cheating, other than the risk of getting caught" and "Students are justified in cheating sometimes." The response options ranged from 1 (strongly disagree) to 5 (strongly agree).

Past cheating behavior. Participants then filled out the 13-item Past Cheating Behavior Scale (α = .87), which measures the extent to which they engaged in any of thirteen cheating behaviors in high school or college (e.g., cutting and pasting sentences from either a print or Internet source without attribution, copying another student's paper during a test, or submitting work done by someone else; McCabe, Trevino, & Butterfield, 2006). Versions of this scale have been validated in prior

studies, which showed that students are willing to admit their own past cheating behaviors under conditions of anonymity (with percentages of self-reported cheating ranging from 47% to 75%; Baird, 1980; Iyer & Eastman, 2006; Kidwell, Wozniak, & Laurel, 2003; McCabe & Trevino, 1993, 1995, 1997; McCabe et al., 2006). The response options for the scale ranged from 1 (never) to 6 (often).

Self-control scale. After the cheating behavior scale, participants filled out the 13-item Brief Self-Control Scale (α = .82; Tangney, Baumeister, & Boone, 2004). This scale contains items such as "I am good at resisting temptation", "I often act without thinking through all the alternatives" (reverse-scored), and "Sometimes I can't stop myself from doing something, even if I know it is wrong" (reverse-scored). The response options ranged from 1 (not at all) to 5 (very much).

Big Five scales. After the self-control scale, participants filled out the 9-item conscientiousness (α = .81) and 9-item agreeableness (α = .73) scales from the Big Five inventory (John & Srivastava, 1999). Sample items from the conscientiousness scale include: "I see myself as someone who does a thorough job" and "I see myself as someone who is a reliable worker". Sample items from the agreeableness scale include: "I see myself as someone who is generally trusting" and "I see myself as someone who is helpful and unselfish with others." The response options for both scales ranged from 1 (strongly disagree) to 5 (strongly agree).

Demographics. Participants reported their age and gender.

Debriefing. Participants were debriefed about the true purpose of the study, and thanked for their participation.

Results

Correlations and descriptive statistics

The complete correlation table of each of the measures, as well as their means and standard deviations, is available in Table 1. As expected, positive attitudes toward cheating and past cheating behavior were significantly positively correlated with one another ($r = .34$, $p < .001$).

Table 1
Inter-correlations and descriptive statistics for all variables in Study 1

	Loc.	Ass.	Agree.	Cons.	Self-Con.	Pos. Att.	Past Ch.
Locomotion	-						
Assessment	.17	-					
Agreeableness	.33***	-.06	-				
Conscientiousness	.58***	-.13	.31***	-			
Self-Control	.34***	-.17	.35***	.62***	-		
Positive Attitudes	-.08	-.11	-.34***	-.12	-.18*	-	
Past Cheating	-.03	.07	-.27**	-.13	-.15	.34***	-
Mean	*4.16*	*4.15*	*3.72*	*3.59*	*3.13*	*2.67*	*1.63*
SD	*0.70*	*0.68*	*0.58*	*0.64*	*0.62*	*0.40*	*0.62*

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

Given that cheating can be a sensitive topic that students may be reluctant to discuss honestly, some analyses and visual inspections of the data (as recommended by, e.g., Ghasemi & Zahediasl, 2012; Goodwin & Leach, 2006) were carried out to test whether there was adequate variability on the two cheating measures used in this study. These analyses suggested that at least one of the scales (the past cheating behavior scale) may have had some issues with restricted range. The average of responses to the past cheating behavior scale (on which the response options ranged from 1 to 6) was only 1.63 ($SD = 0.62$, $Min = 1$, $Max = 4$). A histogram revealed that

responses to the past cheating behavior scale were highly positively skewed (skewness = 1.5), as 26% of participants had a mean score of 1. However, responses to the attitudes toward cheating scale (on which the response options ranged from 1 to 5) did not appear to have the same issue; that scale had a relatively high mean of 2.67 (*SD* = 0.40, *Min* = 1.59, *Max* = 3.59) and was not strongly skewed (skewness = -0.13).

Main analyses

To test the main hypotheses, two regressions were conducted.[1] In the first regression, in the first step, locomotion and assessment were entered as predictors, and attitude toward cheating was entered as the outcome variable. Neither locomotion (p = .517) nor assessment (p = .249) were significant predictors of attitudes toward cheating. In the second step, the interaction between locomotion and assessment was added to the regression.[2] The interaction was also not a significant predictor of attitudes toward cheating (p = .665). The overall model was not significant (R^2 = .02, $F(3, 126) = .75$, p = .527).

[1] The two regressions described here were also run with self-control, Big Five conscientiousness, and Big Five agreeableness included as control variables. Neither the significance level nor the direction of the results reported here changed with the inclusion of those variables.

[2] The original hypotheses and planned analyses focused only on the main effects of locomotion and assessment. However, an exploratory analysis that tested the potential interaction between locomotion and assessment was included in this and the following studies, because such an interaction was observed in Study 3, and I wanted to examine whether that unpredicted effect could be replicated in the other studies.

In the second regression, in the first step, locomotion and assessment were entered as predictors, and past cheating behavior was entered as the outcome variable. Neither locomotion (p = .677) nor assessment (p = .412) were significant predictors of past cheating behavior. In the second step, the interaction between locomotion and assessment was added to the regression. The interaction was also not a significant predictor of past cheating behavior (p = .451). The overall model was not significant (R^2 = .01, $F(3, 126)$ = .44, p = .722).

Discussion

The results of the first study did not provide support for the prediction that individuals who were high (vs. low) on locomotion would have more positive attitudes toward unethical behavior and would report engaging in more such behavior in the past (Hypothesis 1), or the prediction that those who were high (vs. low) on assessment would have more negative attitudes toward such behavior and would report engaging in less such behavior in the past (Hypothesis 2). Rather, this study found that the two regulatory modes appeared to be unrelated to individuals' attitudes toward unethical behavior and their likelihood of having engaged in unethical behavior in the past.

One possible reason that this study may not have found the hypothesized effects of locomotion and assessment could lie in the cheating measures. Self-report measures of attitudes toward cheating and past cheating behavior are susceptible to social desirability effects (Chung & Monroe, 2003; Randall & Fernandes, 1991), wherein participants are unwilling to report their true cheating-related attitudes or behaviors for fear of being negatively perceived by others. Self-report measures of

unethical behavior can also be subject to biased self-perceptions, wherein individuals are reluctant to admit to themselves that they are the kind of person who would cheat or behave dishonestly (Aquino & Reed, 2002; Bryan, Adams, & Monin, 2013; Mazar et al., 2008). Lastly, although participants were assured that their responses to the scales would remain anonymous, all participants were currently enrolled university students, which may have caused them to worry about possible negative repercussions for admitting to academic cheating.

The combination of the three issues described above could have led to a restriction of range in the cheating measures, which would have reduced the strength of any potential correlations between regulatory mode and cheating (cf. Goodwin & Leach, 2006). In line with these notions, the average of responses to the past cheating behavior scale was very low, and the data from that scale appeared to be restricted in range. However, responses to the attitudes toward cheating scale had a relatively high mean and appeared to have adequate variability. Thus, the latter scale does not appear to have had the same problem as the former. Given that regulatory mode was unrelated to either the past cheating behavior or attitudes toward cheating, range restriction could not be entirely responsible for the null effects observed in this study. Nonetheless, an actual task that offers participants the opportunity to behave unethically would provide a stronger test of the main hypotheses. The purpose of the next study was to examine whether a different pattern of results would be obtained when participants were given the chance to actually engage in unethical behavior in the lab.

Chapter 3: Study 2

Method

Objective

The main objective of this study was to provide a more compelling test of Hypotheses 1 and 2. Since there were several possible issues with the self-report measures utilized in Study 1, this study offered participants the chance to actually engage in unethical behavior, with the promise of a monetary incentive if they chose to do so. This experiment was also held in the lab rather than online, in order to ensure that the results of the previous study could not be attributed to the method of administration used in that study.

Participants

One hundred and fifteen college student participants (56 females; 5 participants who did not report their gender) were recruited through the University of Maryland SONA system; the average age of participants was 22.47 years (SD = 5.60). The necessary sample size for this study was determined via a power analysis in the *GPower* program, assuming a medium effect size, $\alpha = 0.05$, and .8 power (Faul et al., 2007). Participants completed the study in the lab, and were told that they could earn up to $10 in exchange for their participation, depending on their performance on the study tasks. All participants signed a consent form and were treated in accordance with APA standards.

Procedure

Introduction. Participants were told that they would be taking part in a study on "personality and trivia questions."

Regulatory mode scales. Participants filled out the locomotion (α = .83) and assessment (α = .79) scales described in the previous study.

Coordination question task. After completing the above scales, participants took part in a coordination question task (adapted from John, Loewenstein, & Rick, 2014). The coordination question task contained forty questions total, and was split into two parts. In each part, participants were told that they would respond to a set of twenty questions, and asked to answer each question *as they expect the majority of a separate group of college student respondents to answer it*. Sample coordination questions included: "Name a sport that requires a net" (answer: *tennis*), "Name a famous street anywhere in the world" (answer: *Wall Street*), and "Name a country that is an island or islands" (answer: *Australia*). The correct majority answers were based on answers given by college students in a pilot study in previous research (John et al., 2014; see Appendix C for a full list of coordination questions and answers). Participants were told that they would earn 25 cents per correct answer, up to a total of $10 (if they got all of the questions correct).

In the first half of the coordination question task (which consisted of twenty questions), participants were shown the question on one screen, and asked to click "continue" when they had a clear answer in mind. Then, on the next screen, they were shown the correct answer and asked to select the appropriate choice: "Yes, I guessed this answer correctly (will earn 25 cents)" or "No, I did not guess this answer." This portion of the coordination question task allowed participants to overstate the amount of answers they got correct without the possibility of getting caught.

In the second half of the coordination question task (which also consisted of twenty questions), participants were shown the question on one screen, and then asked to enter their answer on that same screen. Thus, on the second portion of the task, participants could *not* overstate the amount of answers they got correct. Cheating scores were calculated as the difference between participants' scores on the first half of the coordination question task (the *opportunity to cheat* questions) and their scores on the second half of the coordination question task (the *no opportunity to cheat* questions); see Schurr et al. (2012) for a similar measure of cheating.

In order to make sure that the coordination questions in the first and second half of the task were equivalent, the specific questions that were included in the first and second halves were counterbalanced across participants.[3] The nature of the task means that it is not possible to determine whether any given participant cheated on a specific question. However, because the questions included in each half of the task were counterbalanced across participants, and because participants' talent at answering the coordination questions was unlikely to decline sharply between the first and second half of the task, higher scores on the first (vs. second) half of the task would indicate that participants were cheating on the first half (see Schurr et al., 2012, for similar reasoning).

[3] A pilot study ($N = 27$) was carried out to determine the percentage of participants who got each coordination question correct; the percent correct for each of the forty questions ranged from 15% to 74%. Based on the data from this pilot, the two question blocks created for the purposes of counterbalancing were designed to have an equal mix of easy and difficult questions.

Self-control scale. Participants filled out the self-control scale (α = .85) described in the previous study.

Big Five scales. Participants filled out the Big Five conscientiousness (α = .87) and agreeableness (α = .66) scales described in the previous study.

Demographics. Participants reported their age and gender.

Debriefing. Participants were debriefed about the true purpose of the study, and thanked for their participation.

Results

Correlations and descriptive statistics

The complete correlation table of each of the measures, as well as their means and standard deviations, is available in Table 2.

Table 2

Inter-correlations and descriptive statistics for all variables in Study 2

	Loc.	Ass.	Agree.	Cons.	Self-Con.	Cheat
Locomotion	-					
Assessment	.31**	-				
Agreeableness	.10	-.19*	-			
Conscientiousness	.66***	.17	.25**	-		
Self-Control	.50***	-.04	.25**	.71***	-	
Cheating	.03	.03	.13	.05	.14	-
Mean	*4.31*	*4.23*	*3.69*	*3.74*	*3.08*	*6.46*
SD	*0.71*	*0.69*	*0.54*	*0.66*	*0.64*	*3.86*

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

In accordance with the logic outlined above, the mean scores on the first half of the coordination question task (the *opportunity to cheat* questions: $M = 14.46$, $SD = 3.35$) were significantly higher than the mean scores on the second half of the coordination question task (the *no opportunity to cheat* questions: $M = 8.00$, $SD =$

2.49; $t(111) = 17.71$, $p < .001$). This suggests that at least some participants did cheat on the first half of the task by overstating the amount of questions they got correct.

Cheating scores were calculated by subtracting participants' scores on the *no opportunity to cheat* questions from their scores on the *opportunity to cheat* questions. Thus, higher scores indicate more cheating. Scores on this cheating measure were not highly skewed (skewness = -.24) and appeared to have adequate variability, with a mean of 6.46 ($SD = 3.86$, $Min = -5$, $Max = 15$).

Main analysis

A regression was carried out in order to test the main hypothesis in this study.[4] In the first step, locomotion and assessment were entered as predictors, and the tendency to cheat on the coordination question task was entered as the outcome variable.[5] Neither locomotion ($p = .799$) nor assessment ($p = .815$) were significant predictors of the tendency to cheat. In the second step, the interaction between locomotion and assessment was added to the regression. The interaction was also not a significant predictor of cheating ($p = .237$). The overall model was not significant ($R^2 = .02$, $F(3, 108) = .53$, $p = .660$).

Discussion

[4] The analysis described here was also run with self-control, Big Five conscientiousness, and Big Five agreeableness included as control variables. Neither the significance level nor the direction of the results reported here changed with the inclusion of those variables.

[5] I also conducted a version of this regression that included participants' scores on the *opportunity to cheat* questions as the main outcome variable, and participants' scores on the *no opportunity to cheat* questions as a control variable. The significance level and direction of results in that analysis were the same as those reported in the text.

The results of this study did not provide any evidence that locomotors were more likely to commit unethical actions (Hypothesis 1), or that assessors were less likely to commit such actions (Hypothesis 2). This null effect occurred in spite of the fact that the current study provided participants with an opportunity to cheat that involved no risk of getting caught, and offered them a monetary incentive for cheating. Unlike in the first study, restriction of range does not appear to have been an issue for the cheating outcome measure in the current study, since the cheating scores had a relatively high mean and appeared to have adequate variance. Thus, it is unlikely that the null results in this study were a function of restricted range.

Another potential explanation for the null effects in this study is that the purported measure of cheating was actually capturing something other than cheating. For instance, it could be argued that participants may have subconsciously engaged in wishful thinking (Dunning, 1999; Kruglanski, 1996; Kunda, 1990; Kunda & Sinclair, 1999) or experienced the hindsight bias (Fischhoff, 1975; Guilbault, Bryant, Brockway, & Posavac, 2004) upon seeing the answers for some of the *opportunity to cheat* questions. These biases may have led them to click "Yes, I guessed the answer correctly" not because they intended to cheat, but because they genuinely believed they had had the correct answer in mind (even when they actually had not). If this was the case, then the expected relationship between regulatory mode and cheating would not materialize, since the cheating measure might be flawed.

This explanation of the null results in this study is unlikely for several reasons, however. On the first half of the task, participants were explicitly instructed to have a "clear answer in mind" before clicking through to see the actual answer to each

question. They were shown the correct answer immediately after reading those instructions; there was no delay that would have made it easier for them to misremember the instructions or forget whether they had had the correct answer in mind.[6] Thus, it would have been difficult for participants to convince themselves that they had actually been thinking of the correct answer if they had not, and the difficulty of distorting one's judgments serves as a constraint on motivated reasoning (Belanger, Kruglanski, Chen, & Orehek, 2014; Belanger, Kruglanski, Chen, Orehek, & Johnson, 2015; Kruglanski et al., 2012; Kunda, 1990).

Furthermore, other research that utilized a similar measure of cheating examined the possibility that hindsight bias was responsible for participants' tendency to misreport an answer they had had in mind (Schurr et al., 2012). The cheating measure used by Schurr and colleagues (2012) consisted of two stages. In the first stage (comparable to the *no opportunity to cheat* portion of the task in the current study), participants responded to trivial pursuit questions that they could not cheat on; these questions assessed their baseline trivia knowledge. In the second stage (comparable to the *opportunity to cheat* portion of the task in the current study),

[6] Informal interviews with the participants after they completed the study revealed that some participants understood the task instructions, but purposefully disregarded them and kept two or more answers in mind for each question during the first half of the task. Then, as long as the correct answer matched one of the ones they had had in mind, they allowed themselves to click "Yes, I guessed the answer correctly." However, this does not pose a problem for the validity of the coordination question task as a cheating measure, because intentionally disregarding the task instructions in order to get more correct answers (and thus earn more money) qualifies as cheating on the task.

participants were presented with a question and instructed to silently think of the correct answer. They were then presented with the actual answer and asked to indicate whether it was the answer they had had in mind. As in the current study, cheating was calculated as the difference of participants' scores on the first and second half of the task (Schurr et al., 2012). Those authors found that even when the potential for hindsight bias was eliminated (by having participants write down the answer they had in mind on a slip of paper that no one else would see), the pattern of results was very similar to that obtained in other studies that utilized that same measure of cheating (but did not include participants writing down the answer they had in mind). This provides additional evidence that participants' scores on the cheating measure in the present study reflected actual cheating, and makes it doubtful that the null effects in this study were due to a faulty measure of cheating.

Chapter 4: Study 3

Method

Objective

The main objective of this study was to provide an additional test of Hypotheses 1 and 2, utilizing the same coordination question task described in the last study, but this time including a manipulation (rather than a measure) of regulatory mode. In order to more persuasively address concerns about the validity of the coordination question task as a cheating measure, the current experiment included a self-report cheating question at the end of the study. If the coordination question task effectively measures cheating, I would expect to find a significant positive correlation between self-reported cheating and cheating scores as measured by the coordination question task.

Participants

One hundred and thirty two college student participants (84 females; 5 participants who did not report their gender) were recruited through the University of Maryland SONA system; the average age of participants was 21.30 years (SD = 3.24). The necessary sample size for this study was determined via a power analysis in the *GPower* program, assuming a medium effect size, $\alpha = 0.05$, and .8 power (Faul et al., 2007). Participants completed the study in the lab, and were told that they could earn up to $10 in exchange for their participation, depending on their performance on the study tasks. All participants signed a consent form and were treated in accordance with APA standards.

Procedure

Introduction. Participants were told that they were taking part in a study on "personality and everyday life."

Regulatory mode manipulation. Participants were randomly assigned to complete either a locomotion manipulation, an assessment manipulation, or a neutral (control) writing task (adapted from Avnet & Higgins, 2003).[7] In the locomotion condition, participants were given the following three writing prompts, adapted from the locomotion scale: "Describe several ways in which *acting like a doer* is beneficial to your everyday life", "Describe several ways in which *finishing one project and immediately starting another one* is beneficial to your everyday life", and "Describe several ways in which *actively doing things, rather than just watching and observing,* is beneficial to your everyday life." In the assessment condition, participants were given the following three writing prompts, adapted from the assessment scale: "Describe several ways in which *taking inventory of your positive and negative*

[7] The current manipulation differed from the manipulation created by Avnet and Higgins (2003) in two minor respects, both of which were changed in an attempt to strengthen the effect. First, rather than having participants write about instances in the past when they acted like a locomotor or an assessor (as in the original manipulation), the current manipulation asked participants to write about why acting like a locomotor or an assessor was beneficial for them in their everyday lives. This was meant to induce the goal of behaving like a locomotor or an assessor by convincing participants that such characteristics are desirable. Second, two of the regulatory mode scale items chosen for this manipulation differed from the items used in the original. Arguably, the two new items better captured the essence of locomotion ("actively doing things") and assessment ("analyzing conversations with others") than the items in the original.

characteristics is beneficial to your everyday life", "Describe several ways in which *analyzing conversations you have had with others* is beneficial to your everyday life", and "Describe several ways in which *critiquing work done by yourself or others* is beneficial to your everyday life." In the control condition, participants were given the following three writing prompts: "Describe three foods that you tend to eat in your everyday life", "Describe your typical Wednesday schedule", and "Describe the style of clothing you tend to wear on an everyday basis."

Coordination question task. After completing the regulatory mode manipulation, participants took part in the same coordination question task (adapted from John et al., 2014) described in the previous study.

Manipulation check. Participants completed the locomotion (α = .86) and assessment (α = .77) scales as a manipulation check, in order to investigate whether the regulatory mode manipulation worked as expected.

Demographics. Participants reported their age and gender.

Self-reported cheating. Upon completing the study and receiving the payment they had earned, participants were verbally asked to report whether they had cheated during any part of the study. They were told that their honest response to this question was very important for the research, and assured that their answers would remain completely anonymous.

Debriefing. Participants were then debriefed about the true purpose of the study, and thanked for their participation.

Results

Correlations and descriptive statistics

The complete correlation table of each of the measures, as well as their means and standard deviations, is available in Table 3.

Table 3

Inter-correlations and descriptive statistics for all variables in Study 3

	Loc.	Ass.	SR Cheat	Cheat
Locomotion	-			
Assessment	.07	-		
Self-Report Cheating	-.18*	-.05	-	
Cheating	.10	.09	.39***	-
Mean	*4.19*	*4.17*	*0.48*	*6.02*
SD	*0.79*	*0.67*	*0.50*	*4.64*

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

The mean scores on the first half of the coordination question task (the *opportunity to cheat* questions: $M = 14.25$, $SD = 3.86$) were significantly higher than the mean scores on the second half of the coordination question task (the *no opportunity to cheat* questions: $M = 8.23$, $SD = 2.67$; $t(131) = 14.91$, $p < .001$), which suggests that at least some participants cheated on the first half of the task by overstating the amount of questions they got correct. Scores on the cheating measure were not skewed (skewness = -.01) and appeared to have adequate variability, with a mean of 6.02 ($SD = 4.64$, $Min = -5$, $Max = 17$). There was also a significant correlation between self-reported cheating and the difference between participants' scores on the first and second halves of the coordination question task ($r = .39$, $p < .001$).

Manipulation checks

Two coders read individuals' written responses to the regulatory mode

manipulation and rated how well participants followed the instructions for the condition they had been assigned to (0 = not at all; 1 = somewhat; 2 = very well). Interrater reliability was very high (Cohen's $\kappa = .89$, $p < .001$), so the coders' ratings were averaged to create a composite measure of how well participants completed the manipulation. The majority of participants (83%) received the highest score on this measure, and only 1 person received the lowest score. Excluding participants who did not adhere to the manipulation instructions (i.e., scored below 2 on the composite measure described above; $n = 23$) did not change any of the results of the following analyses; thus, the analyses reported below include all participants.

Two analyses of variance were carried out in order to examine whether the regulatory mode manipulation shifted participants' scores on the locomotion and assessment scales. The first ANOVA examined whether the condition participants were assigned to (locomotion, assessment, or neutral) affected their scores on the locomotion scale. However, there were no significant effects of condition on locomotion scores ($F(2,127) = 0.56$, $p = .57$): the neutral ($M = 4.29$, $SD = 0.71$), locomotion ($M = 4.11$, $SD = 0.84$), and assessment ($M = 4.19$, $SD = 0.82$) conditions did not differ from one another.

The second ANOVA examined whether the condition participants were assigned to (locomotion, assessment, or neutral) affected their scores on the assessment scale. However, there were no significant effects of condition on assessment scores ($F(2,127) = 1.28$, $p = .282$): the neutral ($M = 4.30$, $SD = 0.59$), locomotion ($M = 4.12$, $SD = 0.71$), and assessment ($M = 4.08$, $SD = 0.70$) conditions did not differ from one another. Thus, the manipulation does not appear to have

effectively increased individuals' locomotion and assessment levels.

Main analyses

As in the previous study, cheating scores were calculated by subtracting participants' scores on the *no opportunity to cheat* questions from their scores on the *opportunity to cheat* questions. An ANOVA was carried out in order to examine whether the regulatory mode manipulation affected individuals' tendency to cheat on the coordination question task.[8] However, there were no significant effects of regulatory mode condition on cheating ($F(2,129) = 1.08$, $p = .343$): the neutral ($M = 5.24$, $SD = 4.37$), locomotion ($M = 6.16$, $SD = 4.63$), and assessment ($M = 6.67$, $SD = 4.90$) conditions did not differ from one another.

An exploratory regression was conducted to investigate whether individuals' scores on the regulatory mode scales affected their tendency to cheat on the coordination question task. In the first step, locomotion and assessment were entered as predictors, and the tendency to cheat on the coordination question task was entered as the outcome variable. Neither locomotion ($p = .295$) nor assessment ($p = .345$) were significant predictors of the tendency to cheat. In the second step, the interaction between locomotion and assessment was added to the regression; the interaction was significant ($B = -1.57$, $SE = 0.71$, $t = -2.22$, $p = .028$). When participants were relatively high in assessment (1 *SD* above the mean), locomotion was not

[8] I also conducted a version of this ANOVA that included participants' scores on the *opportunity to cheat* questions as the main outcome variable, and participants' scores on the *no opportunity to cheat* questions as a control variable. The significance level and direction of results in that analysis were the same as those reported in the text.

significantly related to cheating (B = -0.49, SE = 0.69, t = -0.72, p = .475); however, when participants were relatively low in assessment (1 *SD* below the mean), locomotion was positively and significantly related to cheating (B = 1.60, SE = 0.70, t = 2.30, p = .023). The entire model was marginally significant (R^2 = .05, $F(3,126)$ = 2.38, p = .073).

Discussion

As in the last study, scores on the cheating measure in the current study did not seem to have restricted range, since the scores had a relatively high mean and appeared to have adequate variability. In spite of this, the current results did not yield support for the prediction that individuals primed with high locomotion would exhibit more unethical behavior (Hypothesis 1), or the prediction that individuals primed with high assessment would exhibit less unethical behavior (Hypothesis 2). Rather, the results revealed no differences in cheating between the regulatory mode conditions.

This study demonstrated that there was a significant positive correlation between participants' scores on the cheating measure and their self-reported cheating on the task. Of course, there are some potential issues with self-report measures of unethical behavior (as discussed in Study 1), which could account for the fact that the correlation between self-reported cheating and scores on the cheating measure was positive but not extremely high. Nonetheless, the aforementioned correlation still provides some additional evidence for the validity of the coordination question task as a measure of cheating.

One potential explanation for the null results in this study is that the manipulation of regulatory mode may have been ineffective, since it did not shift participants' scores on the locomotion and assessment scales. However, there could be other reasons that the manipulation did not affect participants' scores on those scales. The locomotion and assessment scales were administered at the very end of the study, after participants had spent 20 to 30 minutes working on the coordination question task. Thus, it is possible that any effects of the manipulation had worn off by the time participants completed the manipulation check (cf. Perdue & Summers, 1986). Furthermore, the regulatory mode scales were designed to measure individual differences in locomotion and assessment (Kruglanski et al., 2000), and thus may not be sensitive enough to capture temporary fluctuations in regulatory mode tendencies. Therefore, it is not clear that the manipulation in this study was unsuccessful. Another possibility is that the manipulation did work, but locomotion and assessment are unrelated to cheating, which would account for the null effects observed in this study. The latter explanation is bolstered by the fact that the first two studies utilized a measure rather than a manipulation of regulatory mode, but did not find the predicted effects either.

An exploratory analysis did find that the interaction between measured locomotion and assessment had a marginally significant effect on cheating: when participants were high in assessment, locomotion was not associated with cheating, but when participants were low in assessment, locomotion was positively associated with cheating. From a theoretical point of view, such an interaction makes sense: the presence of assessment might curtail high locomotors' tendency to cheat, while a lack

of assessment could encourage high locomotors to give in to their impulses to cheat. However, the aforementioned interaction should be interpreted with extreme caution, given that (a) the first two studies did not find evidence of a similar interaction, (b) the interaction was not predicted in this study, (c) locomotion and assessment (the predictors in the analysis) were measured *after* the outcome variable, and (d) the regression model was only marginally significant. Thus, it is important to see whether evidence of a similar interaction could be found in any of the following studies before drawing any conclusions about it.

Chapter 5: Study 4

Method

Objective

The main objective of the fourth study was to investigate a potential mechanism that may underlie any effects of locomotion and assessment on unethical behavior. To this end, this study included a mediator: the guilt subscale of the Guilt and Shame Proneness (GASP) scale. This allowed me to test whether assessors' greater tendency to feel guilt, and locomotors' lesser tendency to feel guilt, would lead them to be respectively more and less ethical (Hypotheses 3 and 4). This experiment also included a one to three week break between the measurement of the mediator (the GASP scale) and the measurement of the outcome (cheating behavior), in order to ensure that the participants did not suspect that the true purpose of the study was to investigate unethical behavior.

Participants

One hundred and fifty three college student participants (81 females) were recruited through the University of Maryland SONA system; the average age of participants was 20.23 years (SD = 3.81). The number of participants for this study was determined by following published sample size recommendations for bootstrap mediation analyses, assuming a medium effect size, $\alpha = 0.05$, and .8 power (Fritz & MacKinnon, 2007). Students completed Part 1 of the study online and Part 2 of the study in the lab. After excluding 37 participants who did not complete both sessions of the study, the final analyses were run on 116 participants. Participants were told that they could earn up to $10 in exchange for their participation, depending on their

performance on the study tasks. All participants signed a consent form and were treated in accordance with APA standards.

Procedure

The study consisted of two separate portions. During the first session, prior to coming into the lab, participants completed the regulatory mode scales, the guilt subscale of the Guilt and Shame Proneness (GASP) scale, the self-control scale, and the Big Five conscientiousness and agreeableness scales. During the second session, participants came into the lab and completed a task that measured their propensity to engage in unethical behavior (the coordination question task). There was a one- to three-week interval (M_{days} = 9.35, SD_{days} = 4.20) between the first and second sessions of the study.

First session (online)

Introduction. Participants were told that they would be taking part in a study on "personality and trivia questions."

Regulatory mode scales. Participants filled out the locomotion (α = .85) and assessment (α = .80) scales described in the previous studies.

Guilt and shame proneness scale. Participants completed the 8-item guilt proneness subscale (α = .69) from the Guilt and Shame Proneness scale (GASP; Cohen et al., 2011). The guilt proneness subscale contains four items capturing *guilt negative behavior evaluations* (which focus on the extent to which individuals feel bad about their ethical transgressions) and four items capturing *guilt repair responses* (which focus on behavioral intentions that aim to correct or compensate for private transgressions). Sample items from the guilt proneness subscale include: "After

realizing you have received too much change at a store, you decide to keep it because the salesclerk doesn't notice. What is the likelihood that you would feel uncomfortable about keeping the money?" and "You lie to people but they never find out about it. What is the likelihood that you would feel terrible about the lies you told?" The response options ranged from 1 (very unlikely) to 7 (very likely).

Self-control scale. Participants filled out the self-control scale (α = .85) described in the previous studies.

Big Five scales. Participants filled out the Big Five conscientiousness (α = .85) and agreeableness (α = .75) scales described in the previous studies.

Demographics. Participants reported their age and gender.

Second session (in lab)

Coordination question task. Upon coming in to the lab for the second session, participants took part in the same coordination question task (adapted from John et al., 2014) described in the previous study.

Self-reported cheating. After completing the study and receiving the payment they had earned, participants were verbally asked to report whether they had cheated during any part of the study. They were told that their honest response to this question was very important for the research, and assured that their answers would remain completely anonymous.

Debriefing. Participants were debriefed about the true purpose of the study, and thanked for their participation.

Results

Correlations and descriptive statistics

The complete correlation table of each of the measures, as well as their means and standard deviations, is available in Table 4.

Table 4

Inter-correlations and descriptive statistics for all variables in Study 4

	Loc.	Ass.	Agree.	Cons.	Self-Con.	Guilt	SR Cheat	Cheat
Locomotion	-							
Assessment	.13	-						
Agreeableness	.17	-.11	-					
Conscientiousness	.55***	-.07	.21*	-				
Self-Control	.43***	-.27**	.12	.64***	-			
Guilt Proneness	.05	.17	.22*	.15	.12	-		
SR Cheating	-.03	-.06	.01	-.09	.01	-.05	-	
Cheating	.07	.14	-.04	.09	-.05	-.13	.37***	-
Mean	*4.19*	*4.05*	*3.75*	*3.75*	*2.98*	*5.39*	*0.51*	*5.75*
SD	*0.76*	*0.74*	*0.59*	*0.66*	*0.68*	*0.86*	*0.50*	*4.37*

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

The mean scores on the first half of the coordination question task (the *opportunity to cheat* questions: $M = 13.92$, $SD = 3.58$) were significantly higher than the mean scores on the second half of the coordination question task (the *no opportunity to cheat* questions: $M = 8.17$, $SD = 2.42$; $t(115) = 14.19$, $p < .001$), which suggests that at least some participants cheated on the first half of the task by overstating the amount of questions they got correct. Scores on the cheating measure were not highly skewed (skewness = .30) and appeared to have adequate variability, with a mean of 5.75 ($SD = 4.37$, $Min = -4$, $Max = 16$). There was also a significant correlation between self-reported cheating and the difference between participants' scores on the first and second halves of the coordination question task ($r = .37$, $p < .001$).

Main analyses

As in the previous study, cheating scores were calculated by subtracting participants' scores on the *no opportunity to cheat* questions from their scores on the *opportunity to cheat* questions. In order to test the main mediation hypothesis, two mediation analyses[9] were conducted using Process (Model 4; Hayes, 2013). In the first mediation analysis, locomotion was included as a predictor, guilt proneness[10] was treated as the mediator, and cheating was included as the outcome variable[11] (see Figure 1 for an illustration of the model). The total effect of locomotion on cheating was not significant ($B = 0.38$, $SE = 0.54$, $p = .475$). Locomotion did not have a significant effect on guilt proneness ($B = 0.05$, $SE = 0.11$, $p = .634$). Guilt proneness

[9] The two mediation analyses and the regression described here were also run with self-control, Big Five conscientiousness, and Big Five agreeableness included as control variables. Neither the significance level nor the direction of the results reported here changed with the inclusion of those variables.

[10] Both of the four-item subscales of the guilt proneness scale—guilt negative behavior evaluations (GNBE) and guilt repair responses (GRR)—were expected to function similarly in this analysis. Since the reliability of the guilt proneness scale as a whole was adequate, and there was no theoretical reason to assume that the GNBE and GRR subscales would be differentially related to either the predictors or the outcome variables in this study, those two subscales were not examined separately in the mediation analyses.

[11] I also conducted a version of each mediation analysis that included participants' scores on the *opportunity to cheat* questions as the main outcome variable, and participants' scores on the *no opportunity to cheat* questions as a control variable. The significance level and direction of results in that analysis were the same as those reported in the text.

did not have a significant effect on cheating (B = -0.68, SE = 0.47, p = .154). The indirect effect of locomotion through guilt proneness on cheating, estimated with 20,000 bootstrapped samples, was not significant (B = -0.03, 95% CI [-0.28, 0.07]). The direct effect of locomotion on cheating was not significant (B = 0.42, SE = 0.53, p = .435). The entire model was not significant (R^2 = .02, F(2,113) = 1.29, p = .280).

In the second mediation analysis, assessment was included as a predictor, guilt proneness was treated as the mediator, and cheating was included as the outcome variable (see Figure 2 for an illustration of the model). The total effect of assessment on cheating was not significant (B = 0.80, SE = 0.55, p = .146). However, assessment had a marginally significant and positive effect on guilt proneness (B = 0.19, SE = 0.11, p = .078). Guilt proneness had a marginally significant and negative effect on cheating (B = -0.80, SE = 0.47, p = .095). The indirect effect of assessment through guilt proneness on cheating, estimated with 20,000 bootstrapped samples, was not significant (B = -0.15, 95% CI [-0.61, 0.03]). The direct effect of assessment on cheating was marginally significant (B = 0.95, SE = 0.55, p = .086). The entire model was marginally significant (R^2 = .04, F(2,113) = 2.51, p = .086).

In order to examine whether the interaction observed in the previous study could be replicated, an exploratory regression was conducted to investigate whether individuals' scores on the regulatory mode scales affected their tendency to cheat on the coordination question task. In the first step, locomotion and assessment were entered as predictors, and the tendency to cheat on the coordination question task was entered as the outcome variable. Neither locomotion (p = .593) nor assessment (p = .171) were significant predictors of the tendency to cheat. In the second step, the

interaction between locomotion and assessment was added to the regression. Unlike in the previous study, the interaction was not a significant predictor of cheating (p = .268). The overall model was not significant (R^2 = .03, F(3, 112) = 1.22, p = .306).

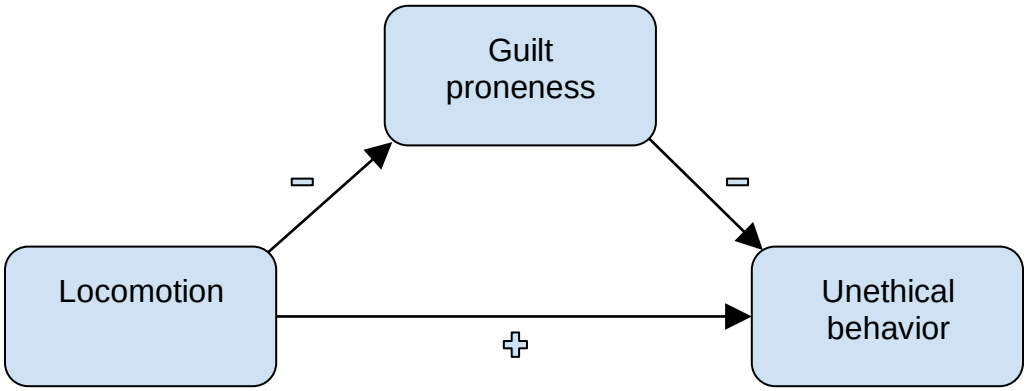

Figure 1. Hypothesized mediation model of the expected relationship between locomotion, guilt proneness, and unethical behavior (Study 4).

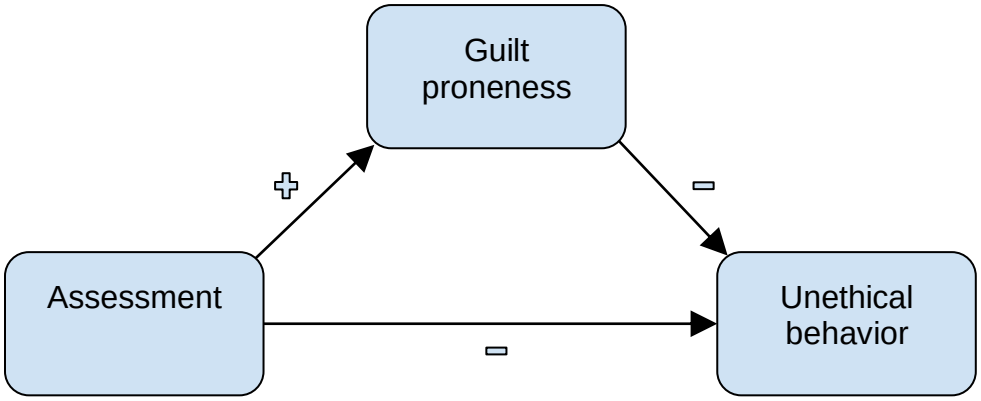

Figure 2. Hypothesized mediation model of the expected relationship between assessment, guilt proneness, and unethical behavior (Study 4).

Discussion

This study furnished additional evidence of the validity of the coordination question task used in the previous two studies, since participants' scores on the cheating measure were significantly correlated with their self-reported cheating on the task. Furthermore, as in the previous two studies, scores on the cheating measure in

this study did not appear to have any problems with restricted range. Nonetheless, the results of this study did not find support for the prediction that decreased guilt proneness underlies locomotors' tendency to engage in more unethical behavior (Hypothesis 3), and found only weak support for the prediction that greater guilt proneness underlies assessors' tendency to engage in more ethical behavior (Hypothesis 4). The interaction between locomotion and assessment on cheating behavior that was observed in the previous study was also not replicated in the current study, suggesting that that finding in the third study was likely due to statistical chance.

The next two studies were conducted in order to investigate whether there are moderators that can influence the relationship between regulatory mode and unethical behavior. If some such moderators were found, they could potentially account for the lack of results observed in the first four studies, since their existence would demonstrate that regulatory mode influences cheating only under certain circumstances. The two moderators examined in the following studies were the amount of time that engaging in an unethical action saves (Study 5), and the presence of social norms for unethical behavior (Study 6).

Chapter 6: Study 5

Method

Objective

The main goal of this study was to test the prediction that high locomotors are sensitive to the amount of time that unethical behavior saves them, and will therefore be more likely to engage in unethical behavior if it saves them more (vs. less) time (Hypothesis 5). In addition, this study employed a different measure of unethical behavior—a word jumble task—in order to investigate whether the results of the previous studies are generalizable beyond the specific tasks used in those studies.

Participants

One hundred and sixty one college student participants (104 females; 2 participants who did not report their gender) were recruited through the University of Maryland SONA system; the average age of participants was 19.93 years (*SD* = 2.74). The necessary sample size for this study was determined via a power analysis in the *GPower* program, assuming a medium effect size, $\alpha = 0.05$, and .8 power (Faul et al., 2007). Participants completed the study in the lab, and were told that they would earn 1 SONA credit and up to $5 in exchange for their participation. All participants signed a consent form and were treated in accordance with APA standards.

Procedure

Introduction. Participants were told that they would be taking part in a study on "personality and verbal tasks."

Regulatory mode scales. Participants filled out the locomotion ($\alpha = .86$) and assessment ($\alpha = .75$) scales described in the previous studies.

Time saving incentive manipulation. After they completed the regulatory mode scales, participants were told that the study involved two main tasks: a word jumble task followed by a letter counting task. They read instructions explaining that the letter counting task involved counting how often the letter "y" appears in a set of words, how often a second set of words contains both the letters "o" and "m", and how many out of third set of words are more than eight characters long (Hilbig & Zettler, 2015). In one condition (less time saved), participants were informed that the letter counting task lasts around 10 minutes. In the second condition (more time saved), they were informed that the letter counting task lasts around 45 minutes. Importantly, participants were also told that if they did well on the first task in the study (i.e., solved all of the presented word jumbles successfully), they would earn a bonus of $5 and be able to skip the subsequent letter counting task.[12]

Time saved manipulation check & comprehension checks. Before continuing to the word jumble task, participants were asked to rate their agreement with the following item: "Doing well on the word jumble task would save me a lot of time." Response options ranged from 1 (strongly disagree) to 7 (strongly agree). Participants also answered two additional questions that assessed whether they correctly understood the task: "I need to get all three word jumbles correct in order to skip the second task in the study (the letter counting task)", with response options of

[12] The monetary incentive was identical across the two time saved conditions; thus, any differences in cheating between the two conditions could only be attributed to the effects of the time saving incentive.

true and false, and "How long will the second task in the study (the letter counting task) take?", with response options of 10 minutes, 20 minutes, and 45 minutes.[13]

Word jumble task. After answering the questions described above, participants were presented with three jumbled words, one at a time, with a maximum of one minute to identify each word (adapted from Hoffmann, Diedenhofen, Verschuere, & Musch, 2015 and Wiltermuth, 2011). Participants saw the jumbled word on a computer screen, and were instructed to click "continue" once they had an answer in mind. If they did not click "continue," they were automatically advanced to the next screen after one minute. On the next screen, participants were shown the anagram solution and asked to select the appropriate choice: "Yes, I unscrambled the word correctly" or "No, I did not unscramble the word correctly." Thus, participants had the opportunity to over-report the number of word scrambles they solved during this task. The first two words presented were very easy: *unhted* and *eoshu* (which were solved correctly by every single participant in a pre-test; Wiltermuth, 2011). However, the last word was impossible to solve: *unaagt*[14] (an obscure word which no participant in a pre-test was able to solve correctly; Wiltermuth, 2011). Cheating was defined as claiming to have solved all three anagrams.

Self-control scale. Participants filled out the self-control scale (α = .86) described in the previous studies.

Big Five scales. Participants filled out the Big Five conscientiousness (α = .86) and agreeableness (α = .77) scales described in the previous studies.

[13] The correct answer to the last question differed by condition.

[14] The solutions for the three word jumbles are *hunted*, *house*, and *taguan*, respectively.

Letter counting task. In reality, all participants skipped the letter counting task, regardless of whether they claimed to have solved all the word jumbles or not. After completing the Big Five scales, any participants who had not solved all three word jumbles were informed that due to a technical error, they did not need to complete the letter counting task.

Demographics. Participants reported their age and gender.

Self-reported cheating. Upon completing the study, participants were verbally asked to report whether they had cheated during any part of the study. They were told that their honest response to this question was very important for the research, and assured that their answers would remain completely anonymous.

Debriefing. Participants were debriefed about the true purpose of the study, and thanked for their participation.

Results

Correlations and descriptive statistics

The complete correlation table of each of the measures, as well as their means and standard deviations, is available in Table 5.

There was a significant correlation between self-reported cheating and participants claiming to get all three words correct on the word jumble task ($r = .44$, $p < .001$), suggesting that the word jumble task was in fact a valid measure of unethical behavior. The overall rate of cheating in this study (20%) was comparable to the cheating rates observed in previous studies with a similar paradigm (which ranged from 15% to 44%; Hoffmann et al., 2015; Wiltermuth, 2011).

Comprehension and manipulation checks

90% of participants understood that they needed to get all three word jumbles correct in order to skip the second task in the study, and 91% of participants correctly identified the time saved condition they were assigned to. Excluding participants who failed one or both of the comprehension checks (n = 26) did not change any of the results of the following analyses; thus, the analyses reported below include all participants.

Table 5

Inter-correlations and descriptive statistics for all variables in Study 5

	Loc.	Ass.	Agree.	Cons.	Self-Con.	SR Cheat	Cheat
Locomotion	-						
Assessment	.12	-					
Agreeableness	.31***	-.16*	-				
Conscientiousness	.63***	.01	.34***	-			
Self-Control	.56***	-.16*	.33***	.73***	-		
Self-Report Cheating	.06	-.03	.12	-.10	-.06	-	
Cheating	.13	-.09	.15	-.05	-.09	.44***	-
Mean	*4.37*	*4.16*	*3.92*	*3.89*	*3.21*	*.11*	*.20*
SD	*0.73*	*0.61*	*0.56*	*0.63*	*0.68*	*0.31*	*0.40*

*p < .05. **p < .01. ***p < .001

A *t*-test was conducted in order to examine whether individuals in the more time saved condition had higher scores on the manipulation check item ("Doing well on the word jumble task would save me a lot of time") than individuals in the less time saved condition. There were no significant differences between the less time saved condition (M = 6.13, SD = 1.40) and the more time saved condition (M = 6.20, SD = 1.61) on responses to the manipulation check item (t(159) = -0.32, p = .748).

Interestingly, however, a chi square analysis revealed significantly higher rates of cheating in the more time saved condition (28%) than in the less time saved condition (12%; $\chi^2(1, N = 161) = 6.60$, $p = .01$).

Main analysis

A logistic regression was conducted in order to test the main moderation hypothesis.[15] In the first step, locomotion, assessment, and time saved condition were entered as predictors, and the tendency to cheat on the word jumble task was entered as the outcome variable. Neither locomotion ($p = .202$) nor assessment ($p = .199$) were significant predictors, but time saved condition was a significant predictor of the tendency to cheat ($B = .99$, $SE = .44$, Exp(B) = 2.68, $p = .026$): individuals in the more (vs. less) time saved condition were more likely to cheat. In the second step, the interactions between locomotion and assessment, locomotion and time saved condition, and assessment and time saved condition were added to the regression. None of the two-way interactions were significant (locomotion x assessment: $p = .395$; locomotion x time saved condition: $p = .644$; assessment x time saved condition: $p = .612$). In the third step, the three-way interaction between time saved condition, locomotion, and assessment was added to the regression. The three-way interaction was not significant ($p = .389$). The overall logistic regression was not significant ($\chi^2(7) = 12.2$, $p = .094$).

[15] The logistic regression described here was also run with self-control, Big Five conscientiousness, and Big Five agreeableness included as control variables. Neither the significance level nor the direction of the results reported here changed with the inclusion of those variables.

Discussion

The results of this study did not support the prediction that individuals who are high (vs. low) on locomotion are particularly concerned with the amount of time an unethical behavior saved them (Hypothesis 5), since locomotors' rates of cheating did not differ based upon the amount of time the cheating could save them. These results also did not provide support for the prediction that locomotors are more likely to cheat in general (Hypothesis 1), or the prediction that assessors are less likely to cheat in general (Hypothesis 2).

This study utilized a different measure of unethical behavior than the prior three studies, in order to examine whether the results observed in those studies could be replicated with another measure. Although overall rates of cheating in this study were not particularly high, they were within the range of what other studies with similar designs had obtained (Hoffmann et al., 2015; Wiltermuth, 2011), indicating that restricted range does not pose a problem for testing the main hypotheses. As in the previous studies, the cheating variable in this study was significantly associated with self-reported cheating, suggesting that it was in fact a valid measure of cheating. Thus, the fact that cheating was not predicted by locomotion and assessment in the current study implies that there may not be a relationship between regulatory mode and cheating.

There were no significant differences in participants' scores on the time saved manipulation check ("Doing well on the word jumble task would save me a lot of time") based on the condition they were assigned to; at first glance, this makes it seem as though an ineffective time saving manipulation may have been responsible

for the null results in this study. However, there are several reasons that this is unlikely to be the case. First, overall scores on the time saved manipulation check item were very high (with a mean of 6.17 on a scale of 1 to 7), and the majority of participants in both conditions (66%) selected 7 on the scale. This suggests that the lack of differences between the time saved conditions might have been due to ceiling effects, since *all* participants reported believing that they could save a lot of time by cheating, regardless of condition. Importantly, participants in both time saved conditions believing that cheating would save them a lot of time still allows for a test of how locomotors behave when cheating saves them time. If locomotors are particularly responsive to the amount of time cheating saves them, high (vs. low) locomotors should have exhibited higher rates of cheating in the present study, regardless of the time saved condition they had been assigned to. The fact that this was not the case indicates that locomotors may not actually be attuned to the amount of time that cheating saves them.

It is worth noting that there were significant differences in overall rates of cheating between the two time saved conditions. This indicates that even though participants in the more (vs. less) time saved condition did not consciously recognize that they could save more time, the larger amount of time they could save nonetheless served as a stronger incentive for cheating. Crucially, however, the value of that incentive did not appear to differ for locomotors and assessors, because although rates of cheating differed by time saved condition, the expected interaction with regulatory mode did not materialize. This pattern of results suggests that, in contrast to Hypothesis 5, locomotors may not be more likely to cheat when cheating saves a

larger quantity of time.

The next study examined another potential moderator of the link between regulatory mode and cheating: the presence (vs. absence) of social norms for unethical behavior.

Chapter 7: Study 6

Method

Objective

The main goal of this study was to test the prediction that assessors strive to ensure that their behavior is in accordance with social standards, and are therefore more likely to act unethically if they believe it is the norm in a particular circumstance (Hypothesis 6).

Participants

One hundred and thirty eight college student participants (88 females; 2 participants who did not report their gender) were recruited through the University of Maryland SONA system; the average age of participants was 19.83 years (*SD* = 1.91). The necessary sample size for this study was determined via a power analysis in the *GPower* program, assuming a medium effect size, $\alpha = 0.05$, and .8 power (Faul et al., 2007). Participants completed the study in the lab, and were told that they would earn up to $10 in exchange for their participation, depending on their performance on the study tasks. All participants signed a consent form and were treated in accordance with APA standards.

Procedure

Introduction. Participants were told that they would be taking part in a study on "personality and number tasks."

Regulatory mode scales. Participants completed the locomotion ($\alpha = .85$) and assessment ($\alpha = .75$) scales described in the previous studies.

Social norm manipulation. Participants were asked to read a brief news story about a fictitious website (adapted from Yam et al., 2014):

> Two graduate students at Dartmouth are on a mission to make opinions on different social issues more public through a new web polling site called *Open Vote*. 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 conducted online surveys of more than 20,000 individuals nationwide, from large major metropolitan areas to rural areas." When polling University of Maryland students specifically, the *Open Vote* website found the following.

Participants were then presented with a list of ten findings that were ostensibly taken from the organization's website (e.g., "71% of University of Maryland students believe that global warming is a serious problem"; see Appendix D for the full list). Embedded within those findings was a manipulation of the acceptability of unethical behavior among University of Maryland students. In the strong social norm for cheating condition, participants read that 62% of University of Maryland students consider it acceptable to cheat if there is no chance of getting caught. In the weak social norm for cheating condition, participants read that 11% of University of

Maryland students consider it acceptable to cheat if there is no chance of getting caught.[16]

Since there is no theoretical reason to believe that assessors would react differently to injunctive vs. descriptive norms for cheating, the current manipulation focused on injunctive norms because some studies have shown that injunctive norms have a stronger effect on behavior (e.g., Choi, Park, & Noh, 2016; Reno, Cialdini, & Kallgren, 1993; but see Lally, Bartle, & Wardle, 2011 and Rivis & Sheeran, 2003 for the opposite claim). The manipulation specifically emphasized norms for cheating among University of Maryland students, in line with prior research and theorizing

[16] A pre-test was conducted in order to assess the efficacy of this manipulation on University of Maryland students (N = 46). Pre-test participants were randomly assigned to read either the strong (n = 22) or weak (n = 24) social norms for cheating article. They were then asked to report their opinion about how many University of Maryland students consider it acceptable to cheat if there is no chance of getting caught, whether the article they read provided accurate information about University of Maryland students, whether *Open Vote* is a reliable source of information about University of Maryland students, and how carefully they read the article they were presented with. In line with predictions, participants in the strong social norm condition reported believing that more University of Maryland students found it acceptable to cheat (M = 4.32, SD = 1.32), compared to participants in the weak social norm condition (M = 2.79, SD = 1.41; $t(44) = -3.77$, $p < .001$). Importantly, there were no significant differences between conditions in how accurate (p = .804) or reliable (p = .972) participants believed the information in the article to be, or in how carefully they read the article (p = .984).

which suggests that the norms of one's in-group (vs. an out-group) are more likely to influence behavior (Tajfel, 1982; Tajfel & Turner, 1979, 1986; Wenzel, 2004).

Math matrix task. In the next part of the study, participants were given a set of twenty matrices filled with 3-digit numbers (see Figure 3 for a sample matrix). They had fifteen seconds to find the pair of numbers in each matrix that adds up to 10 (a total of five minutes for the twenty matrices). Previous research has shown that five minutes is not enough time to solve all twenty math matrices (Gino & Wiltermuth, 2014; Mazar et al., 2008; Welsh & Ordonez, 2014; Yam et al., 2014). Participants were informed that they would earn 50 cents for each correctly solved matrix, up to a total of $10 (if they solved all of the matrices). They were shown one matrix per screen, and asked to click "continue" when they had an answer in mind. If they did not click "continue," they were automatically advanced to the next screen after fifteen seconds. On the next screen, participants were shown the correct answer to the matrix and asked to select the appropriate choice: "Yes, I guessed this answer correctly (will earn 50 cents)" or "No, I did not guess this answer." Thus, participants had the opportunity to over-report the number of matrices they got correct during this task.

7.62	3.54	4.44
2.83	5.87	2.38
6.24	5.46	4.21
3.21	8.23	2.14

Figure 3. A sample matrix from the math matrix task (Study 6).

Self-control scale. Participants completed the self-control scale (α = .85) described in the previous studies.

Big Five scales. Participants completed the Big Five conscientiousness (α = .84) and agreeableness (α = .82) scales described in the previous studies.

Social norm manipulation check. Participants responded to the following question as a manipulation check: "In your opinion, how many University of Maryland students consider it acceptable to cheat if there is no chance of getting caught?" Response options ranged from 1 (none of them) to 7 (all of them), with a midpoint of 4 (half of them). They were also asked three additional questions to probe the efficacy of the manipulation: "Do you think the article you read provided accurate information about University of Maryland students?", with response options ranging from 1 (not at all accurate) to 7 (very accurate); "Do you think *Open Vote* is a reliable source of information about University of Maryland students?", with response options ranging from 1 (not at all reliable) to 7 (very reliable); and "How carefully did you read the article you were presented with?", with response options ranging from 1 (not at all carefully) to 7 (very carefully). These questions were embedded among nine filler items such as "In your opinion, how many University of Maryland students believe it is important to save for retirement?" and "In your opinion, how many University of Maryland students believe global warming is a serious issue?"

Math ability. Participants responded to the following question about their math ability[17]: "How good are you at math?" Response options ranged from 1 (very bad) to 7 (very good), with a midpoint of 4 (about average).

Demographics. Participants reported their age and gender.

Self-reported cheating. Upon completing the study and receiving the payment they had earned, participants were verbally asked to report whether they had cheated during any part of the study. They were told that their honest response to this question was very important for the research, and assured that their answers would remain completely anonymous.

Debriefing. Participants were debriefed about the true purpose of the study, and thanked for their participation.

Results

Correlations and descriptive statistics

The complete correlation table of each of the measures, as well as their means and standard deviations, is available in Table 6.

Scores on the matrix task in this study were not highly skewed (skewness = -.60) and appeared to have adequate variability, with a mean of 14.36 (SD = 4.56, Min = 2, Max = 20). There was a significant correlation between self-reported cheating and participants claiming to have solved more matrices (r = .44, p < .001), suggesting that the matrix task was a valid measure of unethical behavior. In a regression that included both self-reported cheating and self-reported math ability, although both

[17] Due to a programming error, responses to this question were not collected for the first 28 participants in the study.

variables were significant predictors of scores on the matrix task (R^2 = 0.26, F(2, 106) = 18.59, p < .001), self-reported cheating was a stronger predictor (β = .47, p < .001) than math ability (β = .24, p = .005).

Table 6

Inter-correlations and descriptive statistics for all variables in Study 6

	Loc.	Ass.	Agree.	Cons.	Self-Con.	Math Ab.	SR Cheat	Cheat
Locomotion	-							
Assessment	.13	-						
Agreeableness	.11	-.22**	-					
Conscientiousness	.57***	-.18*	.24**	-				
Self-Control	.44***	-.27**	.17	.69***	-			
Math Ability	.24*	.16	-.07	.18	.14	-		
SR Cheating	-.05	-.08	.13	-.02	-.06	-.07	-	
Cheating	.08	.07	.07	-.02	-.09	.21*	.44***	-
Mean	*4.32*	*4.28*	*3.81*	*3.76*	*3.13*	*5.25*	*.50*	*14.36*
SD	*0.72*	*0.62*	*0.62*	*0.63*	*0.67*	*1.27*	*0.50*	*4.56*

*p < .05. **p < .01. ***p < .001

Manipulation check

A *t*-test was carried out to examine whether individuals in the strong (vs. weak) social norm for cheating condition had higher scores on the main manipulation check item ("In your opinion, how many University of Maryland students consider it acceptable to cheat if there is no chance of getting caught?"). In line with the results of the pre-test, participants in the strong social norm condition reported believing that a higher proportion of students at their university consider it acceptable to cheat if there is no chance of getting caught (M = 5.14, SD = 0.71), compared to participants in the weak social norm condition (M = 2.29, SD = 1.06; t(136) = 18.58, p < .001).

There were no significant differences between social norm conditions in how accurate (p = .172) or reliable (p = .125) participants believed the information in the article to be, or in how carefully they read the article (p = .476).

Another t-test revealed that social norm condition did not influence the number of matrices a participant claimed to have solved ($t(136) = 0.04$, p = .970). Participants in the strong social norm condition (M = 14.38, SD = 4.18) and the weak social norm condition (M = 14.35, SD = 4.94) had similar scores on the matrix task. Interestingly, however, the social norm manipulation did influence self-reported cheating ($\chi^2(1, N = 138) = 8.38$, p = .004): rates of self-reported cheating were significantly higher in the strong social norm for cheating condition (62%) than in the weak social norm for cheating condition (38%).

Main analysis

Cheating was operationalized as the number of matrices a participant claimed to have solved. A multiple regression analysis was conducted in order to test the main moderation hypothesis.[18] In the first step, locomotion, assessment, and social norm condition were entered as predictors, and cheating was entered as the outcome variable. Neither locomotion (p = .404), assessment (p = .484), nor social norm condition (p = .906) were significant predictors of cheating. In the second step, the interactions between locomotion and assessment, locomotion and social norm

[18] The multiple regression described here was also run with self-reported math ability, self-control, Big Five conscientiousness, and Big Five agreeableness included as control variables. Neither the significance level nor the direction of the results reported here changed with the inclusion of those variables.

condition, and assessment and social norm condition were added to the regression. None of the two-way interactions were significant (locomotion x assessment: p = .707; locomotion x social norm condition: p = .812; assessment x social norm condition: p = .728). In the third step, the three-way interaction between social norm condition, locomotion, and assessment was added to the regression. The three-way interaction was not significant (p = .525). The overall model was not significant (R^2 = .02, $F(7, 130) = .29$, p = .957).

Discussion

This study did not find evidence that high (vs. low) assessors were particularly sensitive to the presence of social norms for unethical behavior, such that they exhibited a stronger tendency to act unethically if they believed that this type of behavior was the norm in a given situation (Hypothesis 6). These results also did not yield any support for the prediction that locomotors are more likely to cheat in general (Hypothesis 1), regardless of social norms for cheating.

One possible explanation for this null effect is that the measure of cheating used in this study may have been flawed. Because the current study did not contain a baseline evaluation of participants' performance on the math matrices (i.e., how well they did when they could not cheat), scores on the matrix measure may have been determined not just by participants' willingness to cheat, but also by their math ability. Relatedly, the social norm manipulation in this study effectively influenced manipulation check responses and rates of self-reported cheating, which suggests that the manipulation was successful. Since cheating was expected to be affected by the presence of strong (vs. weak) social norms for unethical behavior, the fact that the

norm manipulation did not impact scores on the matrix task could signify that the matrix task may not have been a clean measure of cheating.

In an attempt to address this issue, this study included measures of self-reported math ability and self-reported cheating in order to help determine whether math skills or cheating were truly driving higher scores on the matrix measure. Admittedly, a self-report measure of math aptitude is less than ideal, because (a) participants might not have accurate insight into their level of math skills, and (b) participants responded to the math ability question after the matrix task, which means their performance on the matrix task may have biased their evaluations of their math skills—in other words, if participants cheated on the matrix task, they may have been unwilling to report low math aptitude for fear of being suspected of cheating. Nonetheless, such a measure can still provide some insight into participants' general perceptions of their math talent, which can be useful for distinguishing between the two possible explanations for higher scores on the math task. Thus, the fact that scores on the matrix task were more strongly associated with the self-reported cheating measure than with the math ability question implies that higher scores on the math matrix task were mainly indicative of increased cheating. Furthermore, controlling for math aptitude in the analyses did not change any of the main results, which also suggests that the null effects in this study cannot simply be attributed to the possibility that higher scores on the matrix task were due to higher math ability.

Notably, many studies have shown that locomotion has a positive main effect on task performance across a wide variety of performance measures (Pierro, Chernikova, Lo Destro, Higgins, & Kruglanski, in press; Pierro, Pica, Mauro,

Kruglanski, & Higgins, 2012). If the matrix scores in the current task were truly indicative of higher performance, then locomotion would still be expected to predict them, given past findings on the relationship between locomotion and performance. Thus, the fact that locomotion was not associated with scores on the matrix task can actually be interpreted as another piece of evidence for the argument that the matrix task was measuring cheating rather than math performance.

More broadly, any potential flaws in the matrix measure of cheating used in this study cannot have led to the null results observed in all the studies, since the first five studies utilized different measures of cheating but obtained similar results. Rather, the most reasonable explanation for the results of this and the other studies is that there is no association between locomotion, assessment, and unethical behavior; this point will be discussed in more detail in the General Discussion.

It is interesting to note that the social norm manipulation appeared to be effective in this study, but in spite of that, assessors did not respond to it as expected—they did not align their behavior with the norm. While it is unclear from the current results whether assessors are not particularly attuned to social norms in general, not particularly attuned to injunctive norms, or not particularly attuned to norms for cheating, future research should probe the potentially intriguing relationship between assessment and norms.

Chapter 8: General Discussion

The effects of regulatory mode on unethical behavior are an intriguing but heretofore unexplored area of research. Across six studies, I aimed to show that locomotion would lead to more unethical behavior, whereas assessment would lead to more ethical behavior. Moreover, I investigated whether guilt proneness mediated the relationship between the two regulatory modes and unethical behavior, such that assessment would lead to increased guilt proneness and therefore more ethical behavior, while locomotion would lead to decreased guilt proneness and therefore more unethical behavior. Lastly, I tested two potential moderators of the effects of locomotion and assessment on unethical behavior: the amount of time that an unethical behavior saves, and the presence of strong social norms for unethical behavior. To enhance the generalizability of the effects, the proposed studies utilized a variety of methods (i.e., both online and in-lab study administration) and included several different operationalizations of unethical behavior (i.e., self-reports of attitudes toward cheating and past cheating behavior, a coordination question task, a word jumble task, and a math matrix task). However, with some limited exceptions, the results of the studies generally did not provide support for the hypotheses. Some possible explanations for these null effects are discussed in more detail below.

One reason that the first study may not have found the hypothesized effects of regulatory mode could involve the self-report measures utilized in that study. Self-report measures of attitudes toward cheating and past cheating behavior could be susceptible to a social desirability bias, in which participants are hesitant to report that they cheat (or even have positive attitudes about cheating) because they worry that

such an admission would make others view them negatively (Chung & Monroe, 2003; Randall & Fernandes, 1991). Self-report measures of cheating can also be subject to biased self-evaluations. Individuals are typically motivated to view themselves positively (e.g., Baumeister, 1993; Epstein, 1973; Leary, Tambor, Terdal, & Downs, 1995; Steele, 1988; Tesser, 1988) and do not wish to think of themselves as cheaters (Aquino & Reed, 2002; Bryan et al., 2013; Mazar et al., 2008). These motivations may bias their memory of the extent to which they engaged in unethical behavior in the past, and lead them to underreport their actual degree of cheating. In addition, all of the participants in the first study were current college students; although they were assured that the survey was anonymous, they may nonetheless have been concerned that admitting to holding positive attitudes toward cheating, or having cheated in the past, could get them in trouble with the university.

All three of the aforementioned issues in the first study could have led to a restriction of range in scores on the self-report scales, particularly on the past cheating behavior scale. In line with this notion, average scores on the past cheating behavior measure were very low, and other analyses suggested that restricted range may have been an issue for that specific scale. However, restricted range could not entirely explain the null effects in the first study, since one of the two scales (the attitudes toward cheating scale) did not have any issues with restricted range. Furthermore, social desirability concerns, biased self-evaluations, and worries about the negative repercussions of cheating were less of a concern in the other five studies, since participants in those studies had the opportunity to cheat with no risk of getting caught. Accordingly, the cheating outcome variable in the other five studies was not

restricted in range, which suggests that even if range restriction was an issue in the first study, it cannot be a plausible explanation for the null effects observed across all the studies.

A potential reason that the second study may not have found the hypothesized effects of regulatory mode on cheating could have been related to the measure of cheating utilized in that study. More specifically, it is possible that when participants were presented with the answers to the *opportunity to cheat* questions, wishful thinking (Dunning, 1999; Kruglanski, 1996; Kunda, 1990; Kunda & Sinclair, 1999) or the hindsight bias (Fischhoff, 1975; Guilbault et al., 2004)—rather than any conscious intention to cheat—led them to overstate the amount of answers they had actually gotten correct. If the cheating measure was flawed in this way, then the study could not provide a strong test of the hypothesis that regulatory mode should influence unethical behavior.

However, there are several reasons to believe that the coordination question task in the second study was, in fact, a valid measure of cheating. Participants were directed to "have a clear answer in mind" before viewing each answer on the *opportunity to cheat* portion of the task. They saw the correct answer immediately after having read those instructions, so if they followed the directions[19], the memory of the answer they had chosen should have been fresh in their thoughts, and thus

[19] As mentioned earlier, some participants in the study admitted to intentionally ignoring the instructions and keeping multiple answers in mind during the task. However, this does not affect the validity of the cheating measure, because purposefully disregarding the task instructions in order to get more correct answers counts as cheating on the task.

difficult to distort. Prior studies have demonstrated that motivated cognition is constrained by the difficulty of biasing one's beliefs or impressions (Belanger et al., 2014; Belanger et al., 2015; Kruglanski et al., 2012; Kunda, 1990), suggesting that motivated distortion is not a plausible explanation for participants' higher scores on the *opportunity to cheat* portion of the coordination question task.

Other research involving a cheating measure that resembled the coordination question task directly addressed the possibility that hindsight bias, rather than cheating, may have been responsible for the obtained results (Schurr et al., 2012). Those researchers asked participants to make an explicit self-commitment to a specific answer (by writing it down on a piece of paper no one else would see); this should eliminate the possibility of the hindsight bias, since participants could not deceive themselves about the answer they had chosen. Even with this change in their design, however, Schurr et al. (2012) obtained comparable results to those observed in other studies that had utilized the same measure of cheating. This offers further support for the notion that participants' scores on the coordination question task are due to actual cheating rather than a manifestation of the hindsight bias. Importantly, the other two studies that used the coordination question task (Studies 3 and 4) included a self-report measure of cheating in order to provide additional evidence that the coordination question task was a valid measure of cheating. Scores on the self-report cheating item were consistently positively correlated with cheating as measured by the coordination question task, suggesting that the coordination question task effectively measured cheating. This in turn implies that the null effects in Study 2 were not driven by flaws in the cheating measure, but by the lack of relationship

between regulatory mode and unethical behavior.

The null results of the third study could be attributed to the fact that the manipulation of locomotion and assessment may have been unsuccessful, since it did not shift participants' scores on the regulatory mode scales administered at the end of the study. However, there are several reasons to believe that this is not necessarily the case. First, there was a long (20 to 30 minute) gap between when participants completed the manipulation and when they filled out the regulatory mode scales. This means that it is possible that participants *were* in the appropriately manipulated locomotion or assessment mindset during the coordination question task, but that it had worn off by the time they reached the end of the study (cf. Perdue & Summers, 1986). Another possibility is that because the regulatory mode scales were originally developed as a measure of chronic individual differences (Kruglanski et al., 2000), they may be ill-equipped to capture fleeting situational fluctuations in locomotion and assessment. Moreover, if an ineffective manipulation of regulatory mode led to the null results in this study, we would expect the other five studies—which utilized the regulatory mode scales rather than a manipulation—to have found the predicted results. However, the fact that this was not the case suggests that the null results in the third study should not necessarily be ascribed to an unsuccessful manipulation of regulatory mode; rather, they are most likely due to the lack of association between regulatory mode and unethical behavior.

A possible explanation for the lack of results in the fifth study is that the time saved manipulation did not work as expected, since participants in both time saved conditions reported believing that cheating could save them a large quantity of time

(with a mean of over 6 on a 7-point scale in both conditions). However, the lack of differences between conditions does not necessarily pose a problem for examining how locomotors react when cheating saves them a lot of time. Since participants in both conditions were convinced that they could save time by cheating, if high (vs. low) locomotors were truly more sensitive to the amount of time cheating saves them, they should have cheated more in this study. There were also higher rates of cheating in the more (vs. less) time saved condition, demonstrating that even if participants did not consciously perceive it, they had greater incentive to cheat in the more time saved condition. Importantly, however, the expected interaction with regulatory mode was not obtained, which signifies that the value of the time saved incentive did not differ for locomotors and assessors. Thus, the null results in the fifth study point to the conclusion that locomotors are not more likely to cheat, even when they believe it will save them a large amount of time.

The null effects in the sixth study could be related to a potential flaw in the cheating measure. That study did not include a way to measure participants' performance on the matrices when they did not have the opportunity to cheat, which means that higher scores on the math matrices may have been indicative not only of increased cheating, but also of higher math ability. Importantly, the social norm manipulation appeared to be effective in that study, because it shifted rates of self-reported cheating and manipulation check responses in the predicted direction. Since actual cheating was also expected to be impacted by the social norm manipulation, one explanation for why it was not is that the matrix measure was not an adequate measure of cheating (i.e., it measured mostly math ability rather than cheating).

In an effort to disentangle the two possible reasons for higher scores on the matrix task, the sixth study included self-report questions of both math aptitude and cheating. Of course, there are some problems with a self-report measure of math skills: participants may not be able to accurately identify their true level of math ability, or their evaluation of their math aptitude could be distorted by the fact that they completed the ability item after the matrix task. (For instance, it is possible that participants would hesitate to report low math ability if they had just cheated and gotten a very high score on the matrices.) Despite these potential issues, however, a self-report measure of math aptitude can still offer a glimpse into participants' judgments of their own math skills, which can help detect whether increased scores on the matrix task were mostly due to cheating. In fact, matrix scores were more strongly associated with self-reported cheating than to math ability, suggesting that the matrix scores constituted a reasonable measure of cheating. Controlling for math ability in the analyses did not influence any of the findings, which provides additional evidence that the null results in the sixth study occurred not because of a problem with the cheating task, but because there is no relationship between regulatory mode and unethical behavior.

Although each of the individual studies discussed above had some weaknesses, when taken as a whole, the studies provided a reasonable test of the six hypotheses outlined in the introduction. In other words, after ruling out the other explanations discussed above, the most likely explanation for the current findings is that there is, in fact, no association between regulatory mode and unethical behavior. This conclusion is supported by the fact that null results were consistently obtained

across six studies that utilized a variety of designs and several different measures of cheating.

It is worth noting that were two exceptions to the null results. In Study 3, there was an unpredicted, marginally significant interaction of locomotion and assessment on cheating behavior, such that locomotion was significantly related to increased cheating only when participants were low (vs. high) on assessment. In Study 4, there was a marginally significant mediation effect: increased assessment led to increased guilt proneness, which in turn led to decreased cheating. Unfortunately, however, these findings do not provide compelling evidence for the existence of a link between regulatory mode and cheating, since one of the results was unpredicted, each effect was observed only in a single study, and each of the analyses was one of numerous other statistical analyses conducted in the course of the research—all of which can increase the likelihood of false positive findings (Funder et al., 2014; Gelman & Loken, 2013; Ioannidis, 2005; Simmons, Nelson, & Simonsohn, 2011). Thus, the most reasonable conclusion from the present research seems to be that there is no connection between locomotion, assessment, and unethical behavior.

That said, there is a caveat to the aforementioned claim about the lack of relationship between regulatory mode and unethical behavior. Because cheating is a prototypical example of unethical behavior, and because the present studies all used cheating to measure unethical behavior, the terms "cheating" and "unethical behavior" have been used interchangeably throughout this manuscript. Nonetheless, the specific unethical behaviors that were examined in the current research were limited in scope: the studies focused on cheating in high school or college (Study 1)

or cheating on a lab task (Studies 2-6). While cheating is certainly a common manifestation of unethical behavior, it is far from the only manifestation, and it is easy to think of unethical behaviors that do not fall into the category of cheating (e.g., blackmail, bribery, sexual harassment, and discrimination, to name just a few). Thus, although the present set of studies provided some evidence that regulatory mode is not associated with cheating, these results do not necessarily mean that regulatory mode is unrelated to all aspects of ethics or morality. Future studies should therefore examine whether there are other types of ethical thought or behavior that locomotion and assessment may be associated with.

Future Directions

Interestingly, some recent experiments have found that high locomotion was associated with greater endorsement of binding moral foundations (i.e., moral foundations that emphasize individuals' binding to groups such as their family, their country, or their religious organization; Haidt & Graham, 2007), because those foundations were perceived as useful for coordinating action (Cornwell & Higgins, 2014). This finding provides some preliminary evidence that regulatory mode can be related to differences in moral beliefs; future research should probe this relationship and investigate whether locomotors' variations in moral beliefs lead to differences in their moral behavior. For instance, prior research has shown that stronger endorsement of the binding foundations is linked to an increased willingness to harm (or fail to help) outgroup members (Smith, Aquino, Koleva, & Graham, 2014). It would be intriguing to examine whether locomotors exhibit an increased willingness to harm outgroup members (which could be mediated by their endorsement of the

binding moral foundations).

Future studies could also explore whether there are some other moderating variables—beyond the ones tested in the present research—that differentially influence locomotors' and assessors' tendencies to behave unethically. For instance, it is possible that when an extremely important goal is blocked (e.g., when one encounters a traffic jam on the way to a high-stakes job interview), an individual who is high on locomotion would be more likely to behave unethically (e.g., by running red lights), because the locomotor would be so frustrated by the obstacle that he or she would be willing to do anything to work around it. The current studies may not have included goals that were of adequate importance to bring out locomotors' tendency to do anything necessary (including acting unethically) in order to get around goal blockages or delays. Future studies should examine whether the combination of increasing goal importance *and* adding an obstacle on the path to goal attainment would lead locomotors to behave unethically, when doing so would enable them to quickly get around the obstacle and achieve their valued goal.

The Big Five, Self-control, and Unethical Behavior

It is interesting to note that with the (partial) exception of the first study, Big Five conscientiousness, Big Five agreeableness, and self-control were not correlated with cheating in the present research (see Tables 1-6). These findings contrast with some research that demonstrated that those constructs were associated with unethical behavior (e.g., Barnes et al., 2011; Cochran et al., 1998; Egan & Taylor, 2010; Giluk & Postlethwaite, 2015; Gino et al., 2011; Grasmick et al., 1993; Holtfreter et al., 2010; Karim et al., 2009; Malin & Fowers, 2009; Salgado, 2002). However, other

studies have demonstrated that conscientiousness and agreeableness are unrelated to unethical behavior (Hilbig & Zettler, 2015), and researchers have theorized and found that unethical behavior should be linked to the Honesty-Humility factor within HEXACO rather than to any of the Big Five (Ashton & Lee, 2008; Hilbig & Zettler, 2015; Lee, Ashton, & de Vries, 2005; Lee, Ashton, Morrison, Cordery, & Dunlop, 2008). Similarly, some studies have found that self-control is only a weak predictor of unethical behavior, and its effect disappears once other variables are accounted for (Tibbetts & Myers, 1999; Wolfe & Higgins, 2009). The mixed results in prior research suggest that the mostly non-significant correlations between agreeableness, conscientiousness, self-control, and cheating obtained in the present studies are not entirely surprising. It is possible that different operationalizations of the predictors (e.g., manipulating self-control via an ego depletion task [Gino et al., 2011] vs. measuring it with a scale) or different operationalizations of the outcome measures (e.g., self-reports of fraud or shoplifting [Grasmick et al., 1993; Holtfreter et al., 2010] vs. cheating in the lab) may have contributed to the inconsistency between the prior research and the current results. Future studies could fruitfully investigate why self-control and the Big Five are associated with unethical behavior in some studies but not others.

Theoretical Implications

The fact that the current results were inconsistent with the original hypotheses may have some intriguing theoretical implications. Regulatory mode theory typically characterizes locomotion regulatory mode as a single-minded focus on movement, action, and speed (Kruglanski et al., 2000; Kruglanski et al., 2013). Research and

theorizing on locomotion almost invariably includes the following one-sentence summary of locomotion: "[locomotion is] the aspect of self-regulation concerned with movement from state to state"—a line that originated in Kruglanski and colleagues' (2000, p. 794) first theoretical paper on regulatory mode, and has been quoted extensively ever since (e.g., Amato, Pierro, Chirumbolo, & Pica, 2014, p. 1; Avnet & Higgins, 2003, p. 526; Cesario, Grant, & Higgins, 2004, p. 400; Higgins et al., 2003, p. 295; Higgins, 2012, p. 268; Lucidi et al., 2016, p. 703; Kumashiro, Rusbult, Finkenauer, & Stocker, 2007, p. 595; Mannetti et al., 2009, p. 1120; Pierro et al., 2012, p. 249). This more recent quote paints a very similar portrait of locomotion: "Heightened locomotion is epitomized by a craving for movement and an impatience with barriers, blockages, and delays" (Kruglanski et al., 2013, p. 81). These conceptualizations of locomotion as the pure desire for movement make it reasonable to hypothesize that locomotors will be willing to engage in any behavior—including unethical behavior—if doing so helps them quickly move toward their goals.

However, there are other aspects of the locomotion construct which are often neglected, but which may prove to be key facets of locomotion regulatory mode. One example of this is the strong association between locomotion and conscientiousness, which has been demonstrated both in the United States (Kruglanski et al., 2000) and in a variety of other cultures (Higgins, 2008; Pierro, Kruglanski, & Higgins, 2006a; Pierro et al., 2011). The current studies consistently replicated the positive link between locomotion and conscientiousness (with correlations ranging from .55 to .66), while also revealing a fairly strong association between locomotion and self-control (with correlations ranging from .34 to .56). These findings suggest that

locomotion cannot involve *only* a single-minded concentration on action, motion, and change. Conscientiousness encompasses at least some goals that may conflict with engaging in psychological movement (e.g., the desire to be orderly, responsible, and dependable, which may require a *lack* of change in order to be accomplished effectively; Costa & McCrae, 1992; Goldberg, 1990; John & Srivastava, 1999). Relatedly, many acts of self-control, such as resisting a temptation, involve *refraining* from engaging in action (Baumeister, 2002; Mischel, Shoda, & Rodrigues, 1989; Muraven & Baumeister, 2000; Tangney et al., 2004). Prior research has also found that locomotion is associated with persevering on goals even in the face of difficulty or adversity, rather than simply moving on from them (Pierro et al., 2011; Pierro, Kruglanski, & Higgins, 2006b)—which again seems to contradict the picture of locomotion as a simple "craving for movement." In short, all of these findings appear to be incompatible with the notion that locomotors are solely concerned with swiftly moving from state to state and avoiding blockages or delays.

Taken together, the aforementioned relationships between locomotion and other constructs, as well as the null results in the current studies—which imply that locomotors do not, in fact, go to any lengths to move quickly toward their goals—suggest that the current theoretical conceptualization of locomotion may need to be revised. Locomotors may sometimes have competing goals—e.g., to be quick *and* to be conscientious—and these goals could sometimes cancel each other out. Alternatively, depending on the situation, one or the other goal may take priority. The theoretical construct of locomotion may need to be reworked in order to incorporate the idea that locomotion can be a multi-faceted motivation that encompasses several

goals, some of which may even be incompatible with one another. Future studies could then examine the circumstances under which one aspect of locomotion (e.g., the desire for speed) predominates over other facets of locomotion (e.g., the desire to be conscientious and thorough).

To a certain extent, the theoretical concept of assessment may face a related issue. Assessment is often described as involving a strong emphasis on "doing the right thing" (Kruglanski et al., 2000, p. 793) and a "desire for perfection, often accompanied by anxiety about possible errors" (Kruglanski et al., 2013, p. 81). In spite of these theoretical descriptions of assessment, both the current research and prior studies have found that assessment is typically unrelated to conscientiousness (Higgins, 2008; Kruglanski et al., 2000; Pierro et al., 2006a; Pierro et al., 2011)—even though conscientiousness involves several of the aforementioned characteristics ascribed to assessment, such as avoiding mistakes and striving for perfection (Costa & McCrae, 1992; Stoeber, Otto, & Dalbert, 2009). Furthermore, recent theorizing on regulatory mode has suggested that there is an ethical component to high assessment: assessors are motivated to seek truth (Higgins, 2012), and "in seeking the truth, people want to establish not only what is correct and real but also what is right, including morally right" (Cornwell, Franks, & Higgins, 2017, p. 204). However, the current studies offered some evidence that assessment is unrelated to "doing the right thing" in the domain of ethical behavior. These results may necessitate a theoretical refinement of the assessment construct, in order to elucidate how and why assessors' desire to "do the right thing" (Kruglanski et al., 2000, p. 793) may be limited in scope, insofar as it does not appear to translate into increased conscientiousness, nor

into doing the right thing ethically.

Another intriguing possibility is that the construct of assessment may involve competing goals that camouflage its effects on unethical behavior. For instance, assessors' higher perfectionism (Pierro et al., 2011) could prime them with the goal of performing well at all costs—which might actually incline assessors to engage in *more* unethical behavior in order to attain that goal. If assessors simultaneously have the goal of doing the right thing in the ethical sense, the aforementioned desire for perfectionism might conflict with the ethical goal, and the two goals could cancel each other out (thus leading assessment to seem unrelated to unethical behavior). Future research could investigate the circumstances under which one or the other goal is more salient for assessors, and subsequently examine how such goal salience influences assessors' behavior in both the ethical domain and in other spheres.

Conclusion

Six studies were conducted in order to test the idea that locomotion and assessment regulatory modes can influence individuals' likelihood of engaging in unethical behavior (which was operationalized as cheating in the present research). The studies utilized multiple methods of administration (i.e., both online and in the lab) and included a variety of cheating measures (i.e., self-reported attitudes toward cheating and past cheating behavior, a coordination question task, a word jumble task, and a math matrix task). The studies also tested a potential mediator of the proposed effects (individuals' tendency to experience guilt), as well as two potential moderators of the proposed effects (the amount of time an unethical behavior saves, and the presence of social norms for unethical behavior). The results of the six studies

did not provide support for the hypotheses; overall, the findings imply that there may be no relationship between regulatory mode and unethical behavior.

Appendix A

The complete list of items in the locomotion regulatory mode scale (Kruglanski et al., 2000).

1. I don't mind doing things even if they involve extra effort.
2. When I finish one project, I often wait awhile before getting started on a new one. *(Reverse-coded)*
3. I am a "workaholic."
4. I feel excited just before I am about to reach a goal.
5. I enjoy actively doing things, more than just watching and observing.
6. I am a "doer."
7. When I decide to do something, I can't wait to get started.
8. By the time I accomplish a task, I already have the next one in mind.
9. I am a "low energy" person. *(Reverse-coded)*
10. Most of the time my thoughts are occupied with the task I wish to accomplish.
11. When I get started on something, I usually persevere until I finish it.
12. I am a "go-getter."

Appendix B

The complete list of items in the assessment regulatory mode scale (Kruglanski et al., 2000).

1. I never evaluate my social interactions with others after they occur. *(Reverse-coded)*
2. I spend a great deal of time taking inventory of my positive and negative characteristics.
3. I like evaluating other people's plans.
4. I often critique work done by myself or others.
5. I often compare myself with other people.
6. I often feel that I am being evaluated by others.
7. I am very self-critical and self-conscious about what I am saying.
8. I rarely analyze the conversations I have had with others after they occur. *(Reverse-coded)*
9. I am a critical person.
10. I don't spend much time thinking about ways others could improve themselves. *(Reverse-coded)*
11. I often think that other people's choices and decisions are wrong.
12. When I meet a new person I usually evaluate how well he or she is doing on various dimensions (e.g., looks, achievements, social status, clothes).

Appendix C

The complete list of coordination questions and answers used in Studies 2-4 (John, Loewenstein, & Rick, 2014).

Question	Answer
1. Name something you eat that starts with the word "Corn".	(corn) bread
2. Name a country in which there seems to be never-ending violence.	Israel
3. Name a summer vacation state.	Florida
4. Name a source of energy that people used before oil.	coal
5. Name a word used to describe people who are overweight (other than 'big').	fat
6. Name something you eat by the slice.	pizza
7. Name a sport that requires a net.	tennis
8. Something that melts easily.	butter
9. Name a country that was involved in World War II.	Germany
10. Name a specific kind of whale.	killer (whale)
11. Name a quiet animal.	cat
12. Name something that starts with the word "French".	(french) fries
13. Name someone famous whose last name is "Marx".	Karl (Marx)
14. Name a landmark famous for its height.	Empire State Building
15. Name a kind of engineer.	mechanical (engineer)
16. Name a bird that has long legs.	ostrich
17. What board game do you play best?	Monopoly
18. Name something that gives off heat.	fire
19. Name a fruit you might buy and let ripen in your home.	banana
20. Name a country that's an island or islands.	Australia
21. Name the one household appliance you would hate to be without.	microwave
22. Name something you measure in measuring cups.	flour
23. Name something you wear that has holes in it that you don't want seen.	underwear
24. Name a food that's terrible when consumed cold.	soup
25. Name a holiday or occasion when parents let their kids eat lots of sweets.	Halloween

26. Write down a word that begins with "under__".	underwear
27. Past or present, name a famous artist.	(Pablo) Picasso
28. Name a famous street anywhere in the world.	Wall (Street)
29. Name an American city that begins with the letter "S".	San Francisco
30. Name a city that tourists flock to.	New York City
31. A word you might hear in a courtroom during a trial.	guilty
32. Name a composer of classical music.	Mozart
33. Name a state that was part of the confederacy during the American civil war.	South Carolina
34. Name something in a grocery store whose price stays pretty much the same.	milk
35. Name a kind of seed that people eat.	sunflower (seeds)
36. Name something with holes in it.	(Swiss) cheese
37. Name a food that you buy more than one of at a time.	eggs
38. Name a person, past or present, who is adored by most Americans.	(George) Washington
39. Name something people fall out of.	love
40. Name an item people buy for the beach that starts with the word "Beach".	(beach) ball

Appendix D

The full text of the strong social norm for cheating article used in Study 6. The weak social norm for cheating article was identical to this one, except that it stated that "11% of University of Maryland students consider it acceptable to cheat if there's no chance of getting caught."

PSYCHOLOGY

New Polling Website Seeks to Examine Public Opinion on Social Issues

Two graduate students at Dartmouth are on a mission to make opinions on different social issues more public through a new web polling site called *Open Vote*. 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 conducted online surveys of more than 20,000 individuals nationwide, from large major metropolitan areas to rural areas." When polling University of Maryland students specifically, the *Open Vote* website found the following:

- **30%** of University of Maryland students like McDonalds more than Burger King.
- **39%** of University of Maryland students prefer dogs over cats.
- **62%** of University of Maryland students consider it acceptable to cheat if there's no chance of getting caught.
- **71%** of University of Maryland students believe that global warming is a serious problem.
- **73%** of University of Maryland students think that checking their phone on a date is rude.
- **15%** of University of Maryland students consider tomatoes a vegetable.
- **48%** of University of Maryland students prefer to drive rather than using public transportation.
- **23%** of University of Maryland students report their favorite color to be blue.
- **38%** of University of Maryland students state that pop music is their favorite genre.
- **11%** of University of Maryland students believe it is important to save for retirement.

Bibliography

Amato, C., Pierro, A., Chirumbolo, A., & Pica, G. (2014). Regulatory modes and time management: How locomotors and assessors plan and perceive time. *International Journal of Psychology*, *49*(3), 192-199.

Anderman, E. M., Cupp, P. K., & Lane, D. (2009). Impulsivity and academic cheating. *The Journal of Experimental Education*, *78*(1), 135-150.

Aquino, K., & Reed, I. I. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, *83*(6), 1423-1440.

Ashton, M. C., & Lee, K. (2008). The HEXACO model of personality structure and the importance of the H factor. *Social and Personality Psychology Compass*, *2*(5), 1952-1962.

Avnet, T., & Higgins, E. T. (2003). Locomotion, assessment, and regulatory fit: Value transfer from ‘‘how’’ to ‘‘what’’. *Journal of Experimental Social Psychology*, *39*, 525–530.

Ayal, S., & Gino, F. (2011). Honest rationales for dishonest behavior. In M. Mikulincer & P. R. Shaver (Eds.), *The Social Psychology of Morality: Exploring the Causes of Good and Evil.* Washington, DC: American Psychological Association.

Baird, J. S. (1980). Current trends in college cheating. *Psychology in the Schools*, *17*(4), 515-522.

Barnes, C. M., Schaubroeck, J., Huth, M., & Ghumman, S. (2011). Lack of sleep and unethical conduct. *Organizational Behavior and Human Decision Processes*, *115*(2), 169-180.

Barnett, T., & Vaicys, C. (2000). The moderating effect of individuals' perceptions of ethical work climate on ethical judgments and behavioral intentions. *Journal of Business Ethics, 27*(4), 351-362.

Baumeister, R. F. (1993). Understanding the inner nature of low self-esteem: Uncertain, fragile, protective, and conflicted. In R. F. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard* (pp. 201-218). New York, NY: Plenum.

Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *Journal of Consumer Research, 28*(4), 670-676.

Bazerman, M. H., & Gino, F. (2012). Behavioral ethics: Toward a deeper understanding of moral judgment and dishonesty. *Annual Review of Law and Social Science, 8*, 85-104.

Belanger, J. J., Kruglanski, A. W., Chen, X., & Orehek, E. (2014). Bending perception to desire: Effects of task demands, motivation, and cognitive resources. *Motivation and Emotion, 38*(6), 802-814.

Belanger, J. J., Kruglanski, A. W., Chen, X., Orehek, E., & Johnson, D. J. (2015). When Mona Lisa smiled and love was in the air: On the cognitive energetics of motivated judgments. *Social Cognition, 33*(2), 104-119.

Bowles, S., & Gintis, H. (1998). The moral economy of communities: Structured populations and the evolution of pro-social norms. *Evolution and Human Behavior, 19*(1), 3-25.

Bryan, C. J., Adams, G. S., & Monin, B. (2013). When cheating would make you a cheater: Implicating the self prevents unethical behavior. *Journal of*

Experimental Psychology: General, *142*(4), 1001-1005.

Cesario, J., Grant, H., & Higgins, E. T. (2004). Regulatory fit and persuasion: Transfer from" feeling right.". *Journal of Personality and Social Psychology*, *86*(3), 388-404.

Choi, J., Park, D. J., & Noh, G. Y. (2016). Exploration of the Independent and Joint Influences of Social Norms and Drinking Motives on Korean College Students' Alcohol Consumption. *Journal of Health Communication*, *21*(6), 678-687.

Chung, J., & Monroe, G. S. (2003). Exploring social desirability bias. *Journal of Business Ethics*, *44*(4), 291-302.

Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. *Advances in Experimental Social Psychology*, *24*, 201-234.

Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology*, *58*(6), 1015-1026.

Cochran, J. K., Wood, P. B., Sellers, C. S., Wilkerson, W., & Chamlin, M. B. (1998). Academic dishonesty and low self-control: An empirical test of a general theory of crime. *Deviant Behavior*, *19*(3), 227-255.

Cohen, T. R. (2010). Moral emotions & unethical bargaining: The differential effects of empathy and perspective taking in deterring deceitful negotiation. *Journal of Business Ethics*, *94*, 569-579.

Cohen, T. R., Panter, A. T., & Turan, N. (2013). Predicting counterproductive work

behavior from guilt proneness. *Journal of Business Ethics*, *114*(1), 45-53.

Cohen, T. R., Wolf, S. T., Panter, A. T., & Insko, C. A. (2011). Introducing the GASP scale: a new measure of guilt and shame proneness. *Journal of Personality and Social Psychology*, *100*(5), 947–966.

Cojuharenco, I., Shteynberg, G., Gelfand, M., & Schminke, M. (2012). Self-construal and unethical behavior. *Journal of Business Ethics*, *109*(4), 447-461.

Cornwell, J. F., Franks, B., & Higgins, E. T. (2017). How the "truth" self relates to altruism: When your problem is mine. *Social Cognition, 35*(2), 204-226.

Cornwell, J. F., & Higgins, E. T. (2014). Locomotion concerns with moral usefulness: When liberals endorse conservative binding moral foundations. *Journal of Experimental Social Psychology*, *50*, 109-117.

Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factor Inventory (NEO-FFI).* Odessa, FL: Psychological Assessment Resources.

Douglas, S. C., & Martinko, M. J. (2001). Exploring the role of individual differences in the prediction of workplace aggression. *Journal of Applied Psychology*, *86*(4), 547-560.

Dunning, D. (1999). A newer look: Motivated social cognition and the schematic representation of social concepts. *Psychological Inquiry, 10,* 1–11.

Egan, V., & Taylor, D. (2010). Shoplifting, unethical consumer behaviour, and personality. *Personality and Individual Differences*, *48*(8), 878-883.

Epstein, S. (1973). The self-concept revisited: Or a theory of a theory. *American Psychologist*, *28*(5), 404-416.

Eriksson, K., Strimling, P., & Coultas, J. C. (2015). Bidirectional associations between descriptive and injunctive norms. *Organizational Behavior and Human Decision Processes, 129,* 59-69.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39,* 175-191.

Fischhoff, B. (1975). Hindsight is not equal to foresight: The effect of outcome knowledge on judgment under uncertainty. *Journal of Experimental Psychology: Human perception and performance, 1*(3), 288-299.

Ford, R. C., & Richardson, W. D. (1994). Ethical decision making: A review of the empirical literature. *Journal of Business Ethics, 13*(3), 205-221.

Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science, 18*(3), 233-239.

Fulmer, C. A., Gelfand, M. J., Kruglanski, A. W., Kim-Prieto, C., Diener, E., Pierro, A., & Higgins, E. T. (2010). On "feeling right" in cultural contexts: how person-culture match affects self-esteem and subjective well-being. *Psychological Science, 21*(11) 1563-1569.

Funder, D. C., Levine, J. M., Mackie, D. M., Morf, C. C., Sansone, C., Vazire, S., & West, S. G. (2014). Improving the dependability of research in personality and social psychology: Recommendations for research and educational practice. *Personality and Social Psychology Review, 18*(1), 3-12.

Gardner, W. M., & Melvin, K. B. (1988). A scale for measuring attitude toward cheating. *Bulletin of the Psychonomic Society, 26*(5), 429-432.

Gelfand, M. J., & Harrington, J. R. (2015). The motivational force of descriptive norms: For whom and when are descriptive norms most predictive of behavior?. *Journal of Cross-Cultural Psychology, 46*(10), 1273-1278.

Gelman, A., & Loken, E. (2013). The garden of forking paths: Why multiple comparisons can be a problem, even when there is no "fishing expedition" or "p-hacking" and the research hypothesis was posited ahead of time. *Department of Statistics, Columbia University*.

Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: a guide for non-statisticians. *International Journal of Endocrinology and Metabolism*, *10*(2), 486-489.

Gillespie, P. (2016, March 21). Brazil's oil giant loses billions amid corruption scandal. *CNN Money*. Retrieved from http://money.cnn.com/2016/03/21/investing/petrobras-brazil-oil-scandal/

Giluk, T. L., & Postlethwaite, B. E. (2015). Big Five personality and academic dishonesty: A meta-analytic review. *Personality and Individual Differences*, *72*, 59-67.

Gino, F., Ayal, S., & Ariely, D. (2009). Contagion and differentiation in unethical behavior the effect of one bad apple on the barrel. *Psychological Science*, *20*(3), 393-398.

Gino, F., & Margolis, J. D. (2011). Bringing ethics into focus: How regulatory focus and risk preferences influence (un) ethical behavior. *Organizational Behavior and Human Decision Processes, 115*(2), 145-156.

Gino, F., & Mogilner, C. (2014). Time, money, and morality. *Psychological*

Science, *25*(2), 414-421.

Gino, F., & Pierce, L. (2009). The abundance effect: Unethical behavior in the presence of wealth. *Organizational Behavior and Human Decision Processes*, *109*(2), 142-155.

Gino, F., Schweitzer, M. E., Mead, N. L., & Ariely, D. (2011). Unable to resist temptation: How self-control depletion promotes unethical behavior. *Organizational Behavior and Human Decision Processes*, *115*(2), 191-203.

Gino, F., & Wiltermuth, S. S. (2014). Evil genius? How dishonesty can lead to greater creativity. *Psychological Science*, *25*(4), 973-981.

Goldberg, L. R. (1990). An alternative "description of personality": the big-five factor structure. *Journal of Personality and Social Psychology*, *59*(6), 1216-1229.

Goodwin, L. D., & Leech, N. L. (2006). Understanding correlation: Factors that affect the size of *r*. *The Journal of Experimental Education*, *74*(3), 249-266.

Grasmick, H. G., Tittle, C. R., Bursik Jr, R. J., & Arneklev, B. J. (1993). Testing the core empirical implications of Gottfredson and Hirschi's general theory of crime. *Journal of Research in Crime and Delinquency*, *30*(1), 5-29.

Guilbault, R. L., Bryant, F. B., Brockway, J. H., & Posavac, E. J. (2004). A meta-analysis of research on hindsight bias. *Basic and Applied Social Psychology*, *26*(2-3), 103-117.

Guo, Y., & Feng, T. (2015). The mediating role of LPFC–vmPFC functional connectivity in the relation between regulatory mode and delay discounting. *Behavioural Brain Research*, *292*, 252–258.

Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research*, *20*(1), 98-116.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.

Henle, C. A. (2005). Predicting workplace deviance from the interaction between organizational justice and personality. *Journal of Managerial Issues*, 247-263.

Hershfield, H. E., Cohen, T. R., & Thompson, L. (2012). Short horizons and tempting situations: Lack of continuity to our future selves leads to unethical decision making and behavior. *Organizational Behavior and Human Decision Processes*, *117*(2), 298-310.

Higgins, E. T. (2008). Culture and personality: Variability across universal motives as the missing link. *Social and Personality Psychology Compass*, *2*(2), 608-634.

Higgins, E. T. (2012). *Beyond Pleasure and Pain: How Motivation Works*. New York, NY: Oxford University Press.

Higgins, E. T., Kruglanski, A. W., & Pierro, A. (2003). Regulatory mode: Locomotion and assessment as distinct orientations. *Advances in Experimental Social Psychology*, *35*, 293–344.

Higgins, E.T., Pierro, A., Kruglanski, A.W. (2008). Re-thinking culture and personality: How self-regulatory universals create cross-cultural differences. In R. Sorrentino (Ed.), *Handbook of Motivation and Cognition Within and Across Cultures* (pp. 161-190). New York, NY: Guilford Press.

Hilbig, B. E., & Zettler, I. (2015). When the cat's away, some mice will play: A basic

trait account of dishonest behavior. *Journal of Research in Personality*, *57*, 72–88.

Hoffmann, A., Diedenhofen, B., Verschuere, B., & Musch, J. (2015). A strong validation of the crosswise model using experimentally-induced cheating behavior. *Experimental Psychology*, *62*, 403-414.

Hollinger, R. C., & Clark, J. P. (1982). Formal and informal social controls of employee deviance. *The Sociological Quarterly*, *23*(3), 333-343.

Holtfreter, K., Reisig, M. D., Leeper Piquero, N., & Piquero, A. R. (2010). Low self-control and fraud: Offending, victimization, and their overlap. *Criminal Justice and Behavior*, *37*(2), 188-203.

Ioannidis, J. P. (2005). Why most published research findings are false. *PLoS Medicine*, *2*(8), e124.

Iyer, R., & Eastman, J. K. (2006). Academic dishonesty: Are business students different from other college students?. *Journal of Education for Business*, *82*(2), 101-110.

John, L. K., Loewenstein, G., & Rick, S. I. (2014). Cheating more for less: Upward social comparisons motivate the poorly compensated to cheat. *Organizational Behavior and Human Decision Processes*, *123*(2), 101–109.

John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of Personality: Theory and Research* (Vol. 2, pp. 102–138). New York, NY: Guilford Press.

Jones, T. M. (1991). Ethical decision making by individuals in organizations: An

issue-contingent model. *Academy of Management Review, 16*(2), 366–395.

Karim, N. S. A., Zamzuri, N. H. A., & Nor, Y. M. (2009). Exploring the relationship between Internet ethics in university students and the big five model of personality. *Computers & Education*, *53*(1), 86-93.

Keizer, K., Lindenberg, S., & Steg, L. (2008). The spreading of disorder. *Science*, *322*(5908), 1681-1685.

Kelly, J. A., & Worell, L. (1978). Personality characteristics, parent behaviors, and sex of subject in relation to cheating. *Journal of Research in Personality*, *12*(2), 179-188.

Kidwell, L. A., Wozniak, K., & Laurel, J. P. (2003). Student reports and faculty perceptions of academic dishonesty. *Teaching Business Ethics, 7*(3), 205-214.

Kisamore, J. L., Stone, T. H., & Jawahar, I. M. (2007). Academic integrity: The relationship between individual and situational factors on misconduct contemplations. *Journal of Business Ethics*, *75*(4), 381-394.

Kish-Gephart, J. J., Harrison, D. A., & Treviño, L. K. (2010). Bad apples, bad cases, and bad barrels: Meta-analytic evidence about sources of unethical decisions at work. *Journal of Applied Psychology*, *95*(1), 1-31.

Kruglanski, A. W. (1996). Motivated social cognition: Principles of the interface. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 493-520). New York, NY, US: Guilford Press.

Kruglanski, A. W., Bélanger, J. J., Chen, X., Köpetz, C., Pierro, A., & Mannetti, L. (2012). The energetics of motivated cognition: A force-field analysis. *Psychological Review, 119*(1), 1-20.

Kruglanski, A.W., Jasko, K., Chernikova, M., Webber, D., & Dugas, M.A. (2017). To the fringe and back: Violent extremism and the psychology of deviance. *American Psychologist, 72*(3), 217-230.

Kruglanski, A. W., Pierro, A., & Higgins, E. T. (2016). Experience of Time by People on the Go: A Theory of the Locomotion–Temporality Interface. *Personality and Social Psychology Review*, *20*(2), 100-117.

Kruglanski, A. W., Pierro, A., Mannetti, L., & Higgins, T. E. (2013). The distinct psychologies of "looking" and "leaping": Assessment and locomotion as the springs of action. *Social and Personality Psychology Compass*, *7*(2), 79-92.

Kruglanski, A. W., Shah, J. Y., Fishbach, A., Friedman, R., Chun, W. Y., & Sleeth-Keppler, D. (2002). A theory of goal systems. *Advances in Experimental Social Psychology*, *34*, 331-378.

Kruglanski, A. W., Thompson, E. P., Higgins, E. T., Atash, M., Pierro, A., Shah, J. Y., & Spiegel, S. (2000). To "do the right thing" or to "just do it": Locomotion and assessment as distinct self-regulatory imperatives. *Journal of Personality and Social Psychology*, *79*(5), 793-815.

Kumashiro, M., Rusbult, C. E., Finkenauer, C., & Stocker, S. L. (2007). To think or to do: The impact of assessment and locomotion orientation on the Michelangelo phenomenon. *Journal of Social and Personal Relationships, 24*, 591–611.

Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin, 108*(3), 480-498.

Kunda, Z., & Sinclair, L. (1999). Motivated reasoning with stereotypes: Activation,

application, and inhibition. *Psychological Inquiry*, *10*, 12–22.

Lally, P., Bartle, N., & Wardle, J. (2011). Social norms and diet in adolescents. *Appetite*, *57*(3), 623-627.

Lasthuizen, K., Huberts, L., & Heres, L. (2011). How to measure integrity violations: towards a validated typology of unethical behavior. *Public Management Review*, *13*(3), 383-408.

Lawder, D. (2016, May 11). IMF: Global corruption costs trillions in bribes, lost growth. *Reuters Business News*. Retrieved from http://www.reuters.com/article/us-imf-corruption-idUSKCN0Y22B7

Leary, M. R., Tambor, E. S., Terdal, S. K., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, *68*(3), 518-530.

Lee, K., Ashton, M. C., & de Vries, R. E. (2005). Predicting workplace delinquency and integrity with the HEXACO and five-factor models of personality structure. *Human Performance*, *18*(2), 179-197.

Lee, K., Ashton, M. C., Morrison, D. L., Cordery, J., & Dunlop, P. D. (2008). Predicting integrity with the HEXACO personality model: Use of self-and observer reports. *Journal of Occupational and Organizational Psychology*, *81*(1), 147-167.

Lucidi, F., Pica, G., Mallia, L., Castrucci, E., Manganelli, S., Bélanger, J. J., & Pierro, A. (2016). Running away from stress: How regulatory modes prospectively affect athletes' stress through passion. *Scandinavian Journal of Medicine & Science in Sports*, *26*(6), 703-711.

Malin, J., & Fowers, B. J. (2009). Adolescent self-control and music and movie piracy. *Computers in Human Behavior, 25*(3), 718-722.

Mangione, T. W., & Quinn, R. P. (1975). Job satisfaction, counterproductive behavior, and drug use at work. *Journal of Applied Psychology*, *60*(1), 114-116.

Mann, H., Garcia-Rada, X., Houser, D., & Ariely, D. (2014). Everybody else is doing it: Exploring social transmission of lying behavior. *PLOS One*, *9*(10), e109591.

Mannetti, L., Leder, S., Insalata, L., Pierro, A., Higgins, T., & Kruglanski, A. (2009). Priming the ant or the grasshopper in people's mind: How regulatory mode affects inter-temporal choices. *European Journal of Social Psychology*, *39*(6), 1120-1125.

Mauro, R., Pierro, A., Mannetti, L., Higgins, E. T., & Kruglanski, A. W. (2009). The perfect mix: Regulatory complementarity and the speed-accuracy balance in group performance. *Psychological Science*, *20*(6), 681-685.

Mazar, N., Amir, O., & Ariely, D. (2008). The dishonesty of honest people: A theory of self-concept maintenance. *Journal of Marketing Research*, *45*(6), 633-644.

McCabe, D. L., Butterfield, K. D., & Trevino, L. K. (2006). Academic dishonesty in graduate business programs: Prevalence, causes, and proposed action. *Academy of Management Learning & Education*, *5*(3), 294-305.

McCabe, D. L., & Trevino, L. K. (1993). Academic dishonesty: Honor codes and other contextual influences. *Journal of Higher Education*, 522-538.

McCabe, D. L., & Trevino, L. K. (1995). Cheating among business students: A

challenge for business leaders and educators. *Journal of Management Education*, *19*(2), 205-218.

McCabe, D. L., & Trevino, L. K. (1997). Individual and contextual influences on academic dishonesty: A multicampus investigation. *Research in Higher Education*, *38*(3), 379-396.

McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (1996). The influence of collegiate and corporate codes of conduct on ethics-related behavior in the workplace. *Business Ethics Quarterly*, 461-476.

McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (1999). Academic integrity in honor code and non-honor code environments: A qualitative investigation. *The Journal of Higher Education*, *70*(2), 211-234.

Mead, N. L., Baumeister, R. F., Gino, F., Schweitzer, M. E., & Ariely, D. (2009). Too tired to tell the truth: Self-control resource depletion and dishonesty. *Journal of Experimental Social Psychology*, *45*(3), 594-597.

Milgram, S. (1963). Behavioral study of obedience. *The Journal of Abnormal and Social Psychology*, *67*(4), 371-378.

Milgram, S. (1965). Some conditions of obedience and disobedience to authority. *Human Relations*, *18*(1), 57-76.

Mischel, W., Shoda, Y., & Rodriguez, M. I. (1989). Delay of gratification in children. *Science*, *244*(4907), 933-938.

Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, *126*(2), 247-259.

Nagin, D. S., & Pogarsky, G. (2003). An experimental investigation of deterrence: Cheating, self-serving bias, and impulsivity. *Criminology, 41*(1), 167-194.

Nathanson, C., Paulhus, D. L., & Williams, K. M. (2006). Predictors of a behavioral measure of scholastic cheating: Personality and competence but not demographics. *Contemporary Educational Psychology, 31*(1), 97-122.

O'Fallon, M. J., & Butterfield, K. D. (2005). A review of the empirical ethical decision-making literature: 1996–2003. *Journal of Business Ethics, 59*(4), 375-413.

Orehek, E., Mauro, R., Kruglanski, A. W., & van der Bles, A. M. (2012). Prioritizing association strength versus value: The influence of self-regulatory modes on means evaluation in single goal and multigoal contexts. *Journal of Personality and Social Psychology, 102*, 22–31.

Pearsall, M. J., & Ellis, A. P. (2011). Thick as thieves: The effects of ethical orientation and psychological safety on unethical team behavior. *Journal of Applied Psychology, 96*(2), 401.

Perdue, B. C., & Summers, J. O. (1986). Checking the success of manipulations in marketing experiments. *Journal of Marketing Research*, 317-326.

Peterson, D. K. (2002). The relationship between unethical behavior and the dimensions of the ethical climate questionnaire. *Journal of Business Ethics, 41*(4), 313-326.

Pierro, A., Chernikova, M., Lo Destro, C., Higgins, E.T., & Kruglanski, A.W. (in press). Assessment and locomotion conjunction: How looking complements leaping…but not always. *Advances in Experimental Social Psychology*.

Pierro, A., Giacomantonio, M., Pica, G., Kruglanski, A. W., & Higgins, E. T. (2011). On the psychology of time in action: Regulatory mode orientations and procrastination. *Journal of Personality and Social Psychology*, *101*(6), 1317-1331.

Pierro, A., Leder, S., Mannetti, L., Higgins, E.T, Kruglanski, A. W., & Aiello, A. (2008). Regulatory mode effects on counterfactual thinking and regret. *Journal of Experimental Social Psychology, 44*, 321–329.

Pierro, A., Kruglanski, A. W., & Higgins, E. T. (2006a). Regulatory mode and the joys of doing: Effects of 'locomotion' and 'assessment' on intrinsic and extrinsic task-motivation. *European Journal of Personality, 20*(5), 355-375.

Pierro, A., Kruglanski, A. W., & Higgins, E. T. (2006b). Progress takes work: Effects of the locomotion dimension on job involvement, effort investment, and task performance in organizations. *Journal of Applied Social Psychology, 36*, 1723-1743.

Pierro, A., Pica, G., Klein, K., Kruglanski, A. W., & Higgins, E. T. (2013). Looking back or moving on: How regulatory modes affect nostalgia. *Motivation and Emotion*, *37*(4), 653-660.

Pierro, A., Pica, G., Giannini, A. M., Higgins, E. T., & Kruglanski, A. W. (2018). "Letting myself go forward past wrongs": How regulatory modes affect self-forgiveness. *PloS One*, *13*(3), e0193357.

Pierro, A., Pica, G., Mauro, R., Kruglanski, A. W., & Higgins, E. T. (2012). How regulatory modes work together: Locomotion-assessment complementarity in work performance. *Testing, Psychometrics, Methodology in Applied*

Psychology, *19*, 247-262.

Pierro, A., Presaghi, F., Higgins, T. E., & Kruglanski, A. W. (2009). Regulatory mode preferences for autonomy supporting versus controlling instructional styles. *British Journal of Educational Psychology*, *79*(4), 599-615.

Piff, P. K., Stancato, D. M., Côté, S., Mendoza-Denton, R., & Keltner, D. (2012). Higher social class predicts increased unethical behavior. *Proceedings of the National Academy of Sciences*, *109*(11), 4086-4091.

Pittarello, A., Rubaltelli, E., & Motro, D. (2016). Legitimate lies: The relationship between omission, commission, and cheating. *European Journal of Social Psychology*, *46*(4), 481-491.

Randall, D. M., & Fernandes, M. F. (1991). The social desirability response bias in ethics research. *Journal of Business Ethics*, *10*(11), 805-817.

Reno, R. R., Cialdini, R. B., & Kallgren, C. A. (1993). The transsituational influence of social norms. *Journal of Personality and Social Psychology, 64*(1), 104-112.

Rivis, A., & Sheeran, P. (2003). Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis. *Current Psychology*, *22*(3), 218-233.

Robinson, S. L., & Bennett, R. J. (1995). A typology of deviant workplace behaviors: A multidimensional scaling study. *Academy of Management Journal*, *38*(2), 555-572.

Ruedy, N. E., & Schweitzer, M. E. (2010). In the moment: The effect of mindfulness on ethical decision making. *Journal of Business Ethics*, *95*(1), 73-87.

Salgado, J. F. (2002). The Big Five personality dimensions and counterproductive behaviors. *International Journal of Selection and Assessment*, *10*(12), 117-125.

Schurr, A., & Ritov, I. (2016). Winning a competition predicts dishonest behavior. *Proceedings of the National Academy of Sciences*, *113*(7), 1754-1759.

Schurr, A., Ritov, I., Kareev, Y., & Avrahami, J. (2012). Is that the answer you had in mind? The effect of perspective on unethical behavior. *Judgment and Decision Making*, *7*(6), 679.

Seager, A. (2007, July 11). Bribery costs $1 trillion a year - World Bank. *The Guardian*. Retrieved from https://www.theguardian.com/business/2007/jul/11/4

Shah, J. Y., Friedman, R., & Kruglanski, A. W. (2002). Forgetting all else: On the antecedents and consequences of goal shielding. *Journal of Personality and Social Psychology*, *83*(6), 1261-1280.

Shalvi, S., Eldar, O., & Bereby-Meyer, Y. (2012). Honesty requires time (and lack of justifications). *Psychological Science*, *23*(10), 1264-1270.

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*, *22*(11), 1359-1366.

Skarlicki, D. P., Folger, R., & Tesluk, P. (1999). Personality as a moderator in the relationship between fairness and retaliation. *Academy of Management Journal*, *42*(1), 100-108.

Smith, I. H., Aquino, K., Koleva, S., & Graham, J. (2014). The moral ties that bind... even to out-groups: The interactive effect of moral identity and the binding moral foundations. *Psychological Science, 25*(8), 1554-1562.

Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 21, pp. 261-302). San Diego, CA: Academic Press.

Stoeber, J., Otto, K., & Dalbert, C. (2009). Perfectionism and the Big Five: Conscientiousness predicts longitudinal increases in self-oriented perfectionism. *Personality and Individual Differences*, *47*(4), 363-368.

Stone, T. H., Kisamore, J., & Jawahar, I. M. (2007). Predicting academic dishonesty: Theory of planned behavior and personality. *Administrative Sciences Association of Canada, 28*(10), 40-57.

Stuewig, J., & McCloskey, L. A. (2005). The relation of child maltreatment to shame and guilt among adolescents: Psychological routes to depression and delinquency. *Child Maltreatment, 10*(4), 324-336.

Stuewig, J., Tangney, J. P., Heigel, C., Harty, L., & McCloskey, L. (2010). Shaming, blaming, and maiming: Functional links among the moral emotions, externalization of blame, and aggression. *Journal of Research in Personality, 44*(1), 91-102.

Tajfel, H. (1982). *Social identity and intergroup relations*. Cambridge, UK: Cambridge University Press.

Tajfel, H., & Turner, J.C. (1979). An integrative theory of intergroup conflict. In W.G. Austin & S. Worchel (Eds.), *The social psychology of intergroup*

relations (pp. 33–47). Pacific Grove, CA: Brooks/Cole.

Tajfel, H., & Turner, J.C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W.G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, *72*(2), 271-324.

Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annual Review of Psychology*, *58*, 345-372.

Tangney, J. P., Wagner, P. E., Hill-Barlow, D., Marschall, D. E., & Gramzow, R. (1996). Relation of shame and guilt to constructive versus destructive responses to anger across the lifespan. *Journal of Personality and Social Psychology, 70,* 797-809.

Tenbrunsel, A. E., & Smith-Crowe, K. (2008). Ethical decision making: Where we've been and where we're going. *The Academy of Management Annals*, *2*(1), 545-607.

Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 21, pp. 181-227). San Diego, CA: Academic Press.

Tibbetts, S. G., & Myers, D. L. (1999). Low self-control, rational choice, and student test cheating. *American Journal of Criminal Justice, 23*(2), 179-200.

Trevino, L., & Youngblood, S. (1990). Bad apples in bad barrels: A causal analysis of ethical decision-making behavior. *Journal of Applied Psychology, 75*, 378–

385.

Victor, B., & Cullen, J. B. (1988). The organizational bases of ethical work climates. *Administrative Science Quarterly*, 101-125.

Vohs, K. D., & Schooler, J. W. (2008). The value of believing in free will: Encouraging a belief in determinism increases cheating. *Psychological Science, 19*(1), 49-54.

Welsh, D. T., & Ordonez, L. D. (2014). The dark side of consecutive high performance goals: Linking goal setting, depletion, and unethical behavior. *Organizational Behavior and Human Decision Processes*, *123*(2), 79-89.

Wenzel, M. (2004). An analysis of norm processes in tax compliance. *Journal of Economic Psychology*, *25*(2), 213-228.

Whitley, B. E. (1998). Factors associated with cheating among college students: A review. *Research in Higher Education*, *39*(3), 235-274.

Williams, M. W. M., & Williams, M. N. (2012). Academic dishonesty, self-control, and general criminality: A prospective and retrospective study of academic dishonesty in a New Zealand university. *Ethics & Behavior*, *22*(2), 89-112.

Wiltermuth, S. S. (2011). Cheating more when the spoils are split. *Organizational Behavior and Human Decision Processes*, *115*(2), 157-168.

Wimbush, J. C., & Shepard, J. M. (1994). Toward an understanding of ethical climate: Its relationship to ethical behavior and supervisory influence. *Journal of Business Ethics*, *13*(8), 637-647.

Wohl, M. J., & McLaughlin, K. J. (2014). Self-forgiveness: The Good, the Bad, and

the Ugly. *Social and Personality Psychology Compass*, *8*(8), 422-435.

Wolfe, S. E., & Higgins, G. E. (2009). Explaining deviant peer associations: An examination of low self-control, ethical predispositions, definitions, and digital piracy. *Western Criminology Review, 10*(1), 43-55.

Yam, K. C., Chen, X. P., & Reynolds, S. J. (2014). Ego depletion and its paradoxical effects on ethical decision making. *Organizational Behavior and Human Decision Processes*, *124*(2), 204-214.

Zhong, C. B., Bohns, V. K., & Gino, F. (2010). A good lamp is the best police: Darkness increases self-interested behavior and dishonesty. *Psychological Science 21*(3), 311-314.

Zimbardo, P. G., Maslach, C., & Haney, C. (2000). Reflections on the Stanford prison experiment: Genesis, transformations, consequences. *Obedience to authority: Current perspectives on the Milgram paradigm*, 193-237.