

Chad D. Hodges, THE EFFECTS OF MORAL SELF-REFLECTIVE PRIMING ON FAKING IN PERSONALITY TESTING (Under the direction of Dr. Jennifer Bowler) Department of Psychology, July 2014.

Personality testing has received considerable criticism due to validity coefficients being weakened by intentional response distortion. The current study investigates whether priming an individual with a moral self-reflective prime will reduce faking behavior on personality tests. Participants were students who took part in the study through a face-to-face administration group or a remote electronic administration group. Using an independent samples design, participants were randomly selected into an experimental prime group, a control prime group, or a no-prime group. Participants in the experimental groups were expected to display higher counterproductive behaviors, lower work ethic, and lower social desirability than participants in the control group or no-prime group. Participants in the control group and no-prime group were not expected to differ. No significant difference was found for counterproductive behaviors or social desirability for either administration groups, but work ethic was significantly lower for the experimental group for both administration groups. Potential explanations and implications are discussed.

THE EFFECTS OF MORAL SELF-REFLECTIVE PRIMING ON FAKING IN
PERSONALITY TESTING

A Thesis

Presented to

the Faculty of the Department of Psychology

East Carolina University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in General-Theoretic Psychology

with a Concentration in Industrial and Organizational Psychology

by

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July, 2014

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Acknowledgements

I would like to sincerely thank Dr. Jennifer Bowler, who directed this thesis, as well as Dr. Karl Wuensch and Dr. Mark Bowler for the invaluable time, aid, and insight that they each contributed to this project.

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CHAPTER I: INTRODUCTION

In the context of personnel selection, optimism for testing, specifically personality testing, has grown due to evidence of criterion-related validity in relation to job performance (Barrick & Mount, 1991; Hough & Oswald, 2000; Ones, Viswesvaran, & Schmidt, 1993; Tett, Jackson, & Rothstein, 1991). However, this initial optimism for personality testing is mitigated by apprehension towards somewhat weak correlations between personality scores and job performance (Morgeson et al., 2007). Despite “faking” (i.e. *intentional response distortion* or *impression management*) being regarded by some as relatively innocuous (e.g., Ellingson, Sackett, & Connelly, 2007; Huws, Reddy, & Talcott, 2009; Ones, Viswesvaran, & Reiss, 1996), research has shown that individuals can distort responses when motivated to do so (e.g., Hough, Eaton, Dunnette, Kamp, & McCloy, 1990; Rogers, Sewell, Martin, & Vitacco, 2003; Viswesvaran & Ones, 1999) and decisions based on personality assessments can be affected by faking (Rosse, Stecher, Miller, & Levin, 1998). Goffin and Boyd (2009) made suggestions in regards to faking: 1) disguised items should not be used due to lower construct validity, and 2) previous research has failed to take advantage of the morality element in faking warnings.

People gravitate toward a feeling of “rightness” in their actions as a sort of “moral mandate” (Skitka & Morgan, 2009). The way in which information is processed in the human mind engenders a sense that people are perceiving reality directly, which may explain some of this attraction (Burton, 2008). Hogan (1970) proposed that moral functioning is made up of two traditions in moral philosophy: the ethics of personal conscience, also known as moral intuitionism, and the ethics of social responsibility, also known as moral rationalism. For many years, the rationalist approach was the dominant view in the field (i.e., Kohlberg, 1981, 1984); however, in recent years the intuitionist approach has cogently challenged that view (Haidt,

2001). Despite the ambiguity surrounding which approach carries the most weight in decision-making, it is clear that intuition plays a major role, if not the largest role, in moral functioning.

With intuitive decision-making, researchers are typically forced to make inferential “leaps of faith” regarding the underlying processes by which decisions are made. Many researchers have accepted so-called dual process theories (Chaiken & Trope, 1999), which are often distinguished by the names “System 1” and “System 2” (Stanovich & West, 2000). System 1 is the automatic process (intuition) that generates impressions and tentative judgments that are accepted, blocked, or corrected by the controlled processes (analytic) of System 2 (Morewedge & Kahneman, 2010). With System 1 being identified with associative memory (Lieberman et al., 2002), Morewedge and Kahneman (2010) suggested using research on the priming paradigm to explain the phenomena of intuitive judgment and how the spread of activation in associative memory is represented. In relation to dishonest behavior, Mazar, Amir, and Ariely (2008a) successfully used a form of moral priming to deter dishonest behavior, but did so with the intent of increasing attention to one’s own moral standards, a mechanism that falls under the self-concept maintenance theory.

Individuals are often torn between two competing motivations: reaping benefits via cheating and dishonest behavior versus maintaining a positive self-concept through honesty (Aronson 1969; Harris, Mussen, & Rutherford, 1976). People solve moral dilemmas by maintaining equilibrium in such a way that gains are made from dishonest behavior while a positive self-concept is maintained (Mazar, Amir, & Ariely, 2008a). In other words, people can take part in dishonest behavior without ever having to confront the morality of their actions. One mechanism that supports the role of self-concept maintenance is “attention to standards,” which is based on Duval and Wicklund’s (1972) theory of objective self-awareness. With a reflection of

dishonest behavior in one's self-concept, people should be more likely to adhere to a stricter criterion of moral behavior. Once again, Mazar et al. (2008a) demonstrated this by reminding participants of honesty standards before administering a paper-and-pencil test, a tactic that led to lower accounts of cheating.

Research has suggested that overt tests are preferable to disguised tests when trying to deter faking (Goffin & Boyd, 2009); thus, in order to maintain construct validity, a solution that involves overt testing is in dire need. In Goffin and Boyd's (2009) proposed decision tree for the thought processes underlying faking, the first question asks whether faking would violate the test taker's moral code. As morality factors heavily into the decision of whether to fake or not, and is largely made up of intuitive decision-making (Haidt, 2010), priming techniques should effectively alter behavior (e.g., Bargh & Williams, 2006). However, as moral functioning is largely comprised of two parts (moral intuitionism and moral rationalism), similar to how decision making is composed (System 1 and System 2), priming may not solely cover the rationalism/System 2 portion or moral decision making. Therefore, use of a self-awareness technique may affect a person's "rationalism" or willingness to perform behavior that would clearly transgress societal norms (Diener & Wallbom, 1976). In the present study, it was hypothesized that priming with a form of moral self-awareness would affect the intuitionistic and rationalistic sides of decision making and therefore, affect faking behavior.

Tests and Faking

The purpose of applicant testing is simple: testing saves money. The savings occur when workers selected by valid tests are more productive than workers selected by less efficient methods (Brogden, 1949). The extent of the economic benefit is contingent on two factors: (1) the percentage of applicants who must be chosen, and (2) the effectiveness of the selection

instruments in predicting efficiency on the job. The effectiveness of these tests has received considerable attention, with significant effort being devoted to developing tests that will produce the highest possible validity in certain contexts. Among these tests, the use of personality measures to explain organizational behavior has increased over the past twenty years (George, 1992; Hogan, Hogan, & Roberts, 1996; Hough, Eaton, Dunnette, Kamp, & McCloy, 1990; Hough & Ones, 2001; Hough & Schneider, 1996; Ones, Viswesvaran, & Dilchert, 2005).

The reemergence of personality measures as a viable option in personnel selection is due in large part to research supporting their validity in these contexts (Ones, Dilchert, Viswesvaran, & Judge, 2007). Personality constructs have been shown to be useful in understanding and predicting attitudes, behaviors, performance, and outcomes in organizational settings (Ones et al., 2007). The simplicity and relatively low cost of administering personality measures, as well as lower adverse impact in comparison with other selection instruments (Hough, Oswald, & Ployhart, 2001), enhances their appeal. A plethora of evidence suggests that personality scores are useful predictors of job performance across occupations (e.g., Barrick & Mount, 1991; Barrick, Mount, & Judge, 2001; Borman, Penner, Allen, & Motowidlo, 2001; Ones & Viswesvaran, 2001; Ones, Viswesvaran, & Schmidt, 1993; Tett, Jackson, & Rothstein, 1991), and may enhance utility (e.g., Ones et al., 2007; Viswesvaran, Deller, & Ones, 2007). However, concerns have been raised regarding the validity coefficients being too low for practical use in personnel selection due to intentional response distortion (Morgeson et al., 2007).

The Issue of Response Distortion

Faking (i.e. *intentional response distortion* or *impression management*) occurs when an individual strategically creates a dishonest presentation of the self when undergoing psychological testing (Grieve & Mahar, 2010). Significant research suggests that faking occurs

during personnel selection (Griffith & Peterson, 2006; Morgeson et al., 2007; Tett & Christiansen, 2007; Viswesvaran & Ones, 1999), with an estimated 30 -50% of job applicants engaging in intentional response distortion (Griffith, Chmielowski, & Yoshita, 2007). What is far less agreed upon, however, is whether faking reflects a social skill (Rosse et al., 1998; Viswesvaran & Ones, 1999), something irrelevant (Ones et al., 2007; Ones, Viswesvaran, & Reiss, 1996), or a shameful lie (Tett & Christiansen, 2007). What we do know is that, first, the effects of distortion usually differ across settings, meaning that lab studies of directed faking are affected by instructions to fake while real-life situations are not affected in the same way (Ones et al., 2007). Lab studies can circumvent this problem by avoiding the use of directed faking, where instructions to fake direct one group of participants to fake in contrast to a non-faking group. Second, faking affects the rank ordering of candidates in top-down selection (Mueller-Hanson, Heggstad, & Thornton, 2003). Response distortion subverts the entire purpose of content-driven personnel selection and instead leads to the hiring of applicants who are especially skilled in impression management rather than skilled on the intended attribute on which they are being tested (Shoss & Strube, 2011). Third, despite disagreement in the past, faking appears unrelated to the criterion-related validity of personality assessments in field settings (Schmitt & Oswald, 2006). With overwhelming evidence in support of the criterion validity of personality measures (Hough & Oswald, 2008; Ones et al., 2007; Tett & Christiansen, 2007), personality scores do predict job performance. Fourth, faking impairs the construct-related validity of personality assessment (Ballenger, Caldwell-Andrews, & Baer, 2001; Pauls & Crost, 2005; Topping & O’Gorman, 1997).

In light of evidence that applicants are capable of faking in situations when it is advantageous to do so (Griffith & McDaniel, 2006; Viswesvaran & Ones, 1999), what

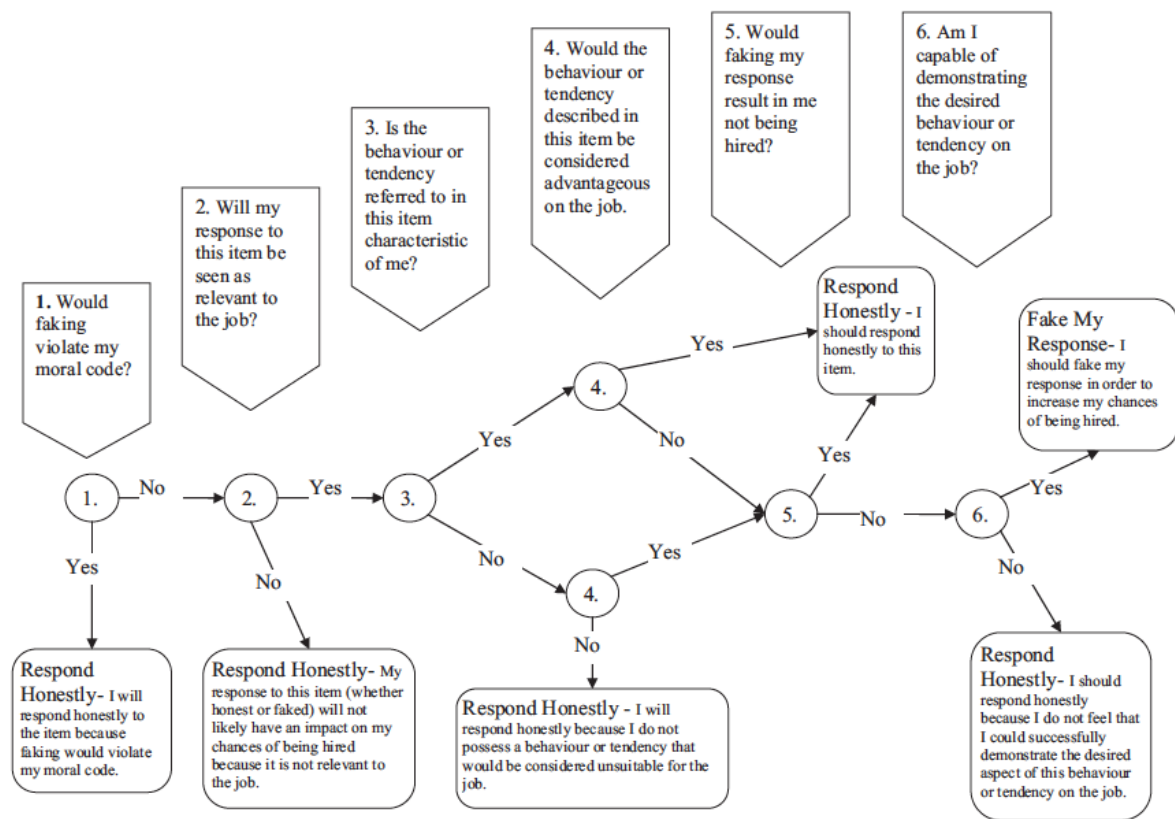
alternatives have been developed to counteract or subvert the effects of faking? Alternate approaches have been suggested as a way of reducing response distortion including elaboration on self-report responses (Schmitt & Kuncze, 2002), using forced-choice item formats (Heggestad, Morrison, Reeve, & McCloy, 2006) and conditional reasoning tests (CRTs; LeBreton, Barksdale, Robin, & James, 2007). With the latter of those approaches, CRTs are designed to indirectly measure implicit biases and rationalizations linked to various latent motives (LeBreton, Barksdale, Robin, & James, 2007), therefore, hoping to measure personality from a different angle. However, in terms of reducing faking, using disguised items such as the Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1989), the California Personality Inventory (Gough, 2000), and the Personnel Reaction Blank (Gough, 1971) is not a suggested solution due to lower construct validity (Goffin & Boyd, 2009; Holden & Jackson, 1985).

As faking undermines the validity of personality tests (Mesmer-Magnus & Viswesvaran, 2006), the next step entails understanding what drives this behavior. An early model proposed by Snell, Sydell, and Lueke (1999) identified “ability to fake” and “motivation to fake” as two independent factors that affect an individual’s tendency to intentionally distort responses. In the interest of creating a decision-making model that takes into account ability and motivation to fake, several proposed models have elaborated on Snell et al.’s (1999) initial model (e.g. McFarland & Ryan, 2000; 2006; Mueller-Hanson et al., 2006). Adding to the previous models, Goffin and Boyd (2009) proposed a model of faking where motivation is a function of individual differences and contextual antecedents. Individuals then continue with the decision process of whether or not to fake on a particular item by working their way through a “decision tree” (see Figure 1; Goffin & Boyd, 2009) that involves determining whether (a) faking violates the participants’ moral code, (b) the item response is job-related, (c) the behavior or tendency in the

item is characteristic of the participant, (d) the behavior or tendency in the item is advantageous to the job, (e) the faking would lead to not being hired, and (f) the individual can demonstrate the behavior or tendency on the job. Therefore, according to this model, whether faking would violate the moral code of a participant is the first process that enters one's mind when debating impression management. If the model behind faking is indeed sequential, then creating a barrier with morality should quell the decision-making process of response distortion before it even begins.

Figure 1

Faking Decision Tree



Morality and Decision Making

Making fair and accurate judgments requires relevant information to be available, information that individuals sometimes don't have or don't attend to. Due to this, judgments are influenced by the surrounding context that governs which intuitions come to the fore and which reasons seem reasonable. Since research has supported that judgments are easily manipulated (Stanovich, 1996), human beings are attracted to processes that make them feel as if they perceive reality more directly (Burton, 2008). With human information processing, people are able to make rapid interpretations and inferences without all of the information while maintaining a moral mandate, or a feeling of "rightness" (Skitka & Morgan, 2009).

According to Kohlberg's (1963, 1964, 1969) theory of moral development, individuals go through a transformational process of moral maturity ultimately ending with an individual who is concerned with the justice and universal laws that can be applied to everyone, breaking the rules only if they are not applicable to their perception of justice. Rest et al. (1999) continued Kohlberg's work by developing a model that was additive, meaning instead of replacing lower levels of moral reasoning with higher levels, the stages accumulate into a person who is morally self-aware. Moral reasoning, a component of moral functioning, dominated the field for years with philosophers agreeing that deliberation reflected a sign of mature decision making (Haidt, 2001). However, intuitionists have challenged this approach in recent years stating that judgment is essentially quick and effortless and is guided by emotion-based heuristics (Narvaez, 2010a).

Moral Rationalism and Moral Intuition

For much of the 20th century, the functioning of morality was emphasized by rationalism, with judgments only being considered moral if moral criteria were applied through deliberation (Kohlberg, Levine, & Hewer, 1983; Narvaez, 2010a). Relating back to Kohlberg (1981), these

judgments are made at the most sophisticated level of reasoning known as post-conventional reasoning. Rest et al. (1999) state that post-conventional reasoning is characterized by quick perspective taking that includes an expectation of reciprocity between the individual and the law. With this view, post-conventional thinking reflects more mature moral functioning than pre-conventional thinking, meaning post-conventional thinking allows the individual to take a step back from his or her own interests and consider more inclusive and holistic forms of cooperation (Narvaez, 2010a). The rationalist approach demonstrates that deliberation changes with experience and age (e.g., Piaget, 1932/1965), illustrating that individuals are not caged by their socialization and are able to question social norms while creating new ones (Narvaez, 2010a). However, this approach has been criticized for being locked in the principle of moral phenomenalism (the need for moral cognition to be conscious), which consequently excludes majority of human behavior from examination (Lapsley & Narvaez, 2005; Narvaez, 2010a).

Since the beginning of the study of psychology, it has been apparent that individuals access a large portion of knowledge without phenomenological awareness (Bargh, 1989). This knowledge also transcends the individual's ability to verbally articulate (e.g., Kihlstrom, Shames, & Dorfman, 1996), meaning that significant knowledge lies outside of conscious awareness. Using the intuitionist approach, moral judgment is the outcome of quick, automatic evaluations (i.e., intuitions; Haidt, 2001). In this regard, decisions regarding morality involve nonconscious pattern recognition accompanied by high levels of affective valence, meaning that reasoning would be considered a post-hoc attribution (Monin, Pizzaro, & Beer, 2007) creating a false impression of control (Dane & Pratt, 2009). When reasoning does follow, it is used primarily to rationalize an intuition. Thus, reasoning may or may not follow intuitive decision-making (Haidt & Bjorklund, 2008). The study of intuition in morality has culminated in significant evidence

indicating that much of human information processing takes place automatically, including processes leading up to moral action (e.g. Lapsley & Narvaez, 2004; Narvaez & Lapsley, 2005). However, the intuitionist perspective has been criticized for oversimplifying moral functioning (e.g. Appiah, 2008; Blasi, 2009; Narvaez, 2008; Pizarro & Bloom, 2003; Saltztein & Kasachkoff, 2004). Narvaez (2010a) criticized the intuitionist approach on the grounds that it (a) is imprecise in its definition of intuition when distinctions are made, (b) is simplistic by overlooking the complexities of moral life, (c) overlooks research support for reasoning and deliberation, and (d) equates enculturation with virtue.

To summarize, moral functioning is far more complex than any intuitionist or rationalist viewpoint can hope to explain. Each of these paradigms is lacking, with the rationalist approach neglecting implicit processes and the intuitionist approach ignoring the complex interplays between various functions of the brain (Narvaez, 2010a). Narvaez (2010a) proposed a concept known as *moral imagination* that involves intuition and reasoning in higher order functioning by having a person work through dramatic rehearsals of alternate actions and outcomes. The more morally imaginative a person is, the more fluent he or she is in making accurate evaluations from a large bank of possibilities. Under this concept, moral intuitions are malleable to reasoning, but at the same time, reasoning can be altered by intuition. This deliberation allows for “self-authorship” (Baxter Magolda, 2001), allowing the person to step back from a response in the face of injustice and question whether an alternative course of action is necessary. In fact, school-based programs in social and emotional learning are designed to teach students to avoid rapid emotional responses by examining their actions more carefully (e.g., Elias et al., 2008) and increasing their cognitive capabilities in decision-making (e.g. Catalano et al., 2008), which in turn allow individuals to monitor their intuitions (Narvaez, 2010a).

However, in response to Narvaez (2010a), Haidt (2010) claims that Narvaez's idea of moral function being equal parts intuition and rationalism is far fetched according to previous research. To clarify, Haidt elaborates on the three debates of partnership between reasoning and intuition. The first debate, reasoning as a senior partner, is essentially Kohlberg's (1963, 1964, 1969) view that reasoning drives emotions to moral behavior. The second debate, equal partnership, is Narvaez's view, claiming, "intuition danced with conscious reasoning, taking turns doing the leading" (Narvaez, 2008, p. 235). The third argument, intuition as a senior partner, is Haidt's view, and states that reasoning is present but intuition drives the majority of moral behavior. Haidt (2010) explains that no one has found a method to teach people to actively seek alternate viewpoints after formulating one's first intuition, as proposed by Narvaez (2010a), particularly if measurement of the criterion for success takes place outside the context in which the teaching took place (Willingham, 2007). Problems with reducing biases have also been a persistent problem (Lilienfeld, Ammirati, & Landfield, 2009). Haidt (2010) goes on to argue that because human behavior is largely directed by automatic processes, easier and more effective interventions are possible by altering social contexts, triggering concerns of accountability, or activating other unconscious processes (e.g., Ariely, 2008) as opposed to teaching people "rationalist" decision-making skills. Narvaez (2010b), responded simply by saying that conscious deliberation is the guiding hand in ensuring that things do not fall flat, and with modern moral psychology's roots growing from the study of cooperation, perhaps we should return to the study of these complexities. While the debate regarding which bridge best handles the traffic remains open, it is apparent that intuition plays an important role in moral functioning, if not the biggest role.

Intuitive Decision Making and Priming

Intuitions have been defined as “affectively charged judgments that arise through rapid, nonconscious, and holistic associations” (Dane & Pratt, 2007, p. 40). In recent years, intuition research has experienced a resurgence due to many notable advances (e.g., Glöckner & Witteman, 2010a; Plessner, Betsch, Schallies, & Schwieren, 2008). Researchers have learned about intuition and its power to integrate massive amounts of complex information (e.g., Betsch, Plessner, Schwieren, & Gütig 2001; Dijksterhuis, 2004), its malleable efficiency (e.g., Gigerenzer et al., 1999), its guiding foresight for the decision-maker (e.g., Bowers, Regehrs, Balthazard, & Parker, 1990; Metcalfe, 1986), its deep correlation with affect (e.g., Baumann & Kuhl, 2002; Bolte, Goschke, & Kuhl, 2003), and its many shortcomings (e.g., Kahneman & Frederick, 2002; Tversky & Kahneman, 1973). However, according to Liberman (2000), intuition is best regarded as mysterious and unexplainable. Catty and Halberstadt (2008, p.295) stated that intuition is still the “black box of modern psychology” due to little being known about the underlying cognitive and affective processes that lead to intuitive hunches. With so much of intuitive functioning being unknown, there are some aspects that have generated unanimous agreement.

For starters, there is increasing evidence that intuitive judgments, which are far from unmediated, initiate from preexisting knowledge that is activated in memory and may guide conscious decision-making without ever being consciously retrieved (e.g., Bastick, 1982; Bowden & Beeman, 1998; Cleeremans, Destrebecqz, & Boyer, 1998; Dorfman, Shames, & Kihlstrom, 1996; Goschke, 1997; Hassin, Uleman, & Bargh, 2005; Kahneman, 2003; Kihlstrom, 1987; Metcalfe & Wiebe, 1987; Perrig & Wippich, 1995; Volz & von Cramon, 2006; Yaniv & Meyer, 1987). As summarized by Goldstein and Gigerenzer (2002), intuitive judgments tend to

be holistic and are based on reactions to specific cues (e.g. recognition). Also, there is almost unanimous agreement that intuition is shaped by learning (Hogarth, 2010; Seligman, 1970). Intuitions formed from learning appear to be quite accurate across the life cycle and hardly vary in relation to individual differences (Hasher & Zacks, 1979, 1984; Zacks & Hasher, 2002; see also earlier). On top of all of that, decision-making literature has shown that emotional states affect judgments of things such as risk and probability (e.g., Isen, 1993; Loewenstein, Weber, Hsee, & Welch, 2001). Of specific interest, priming of emotions can have important effects on judgment outcomes (De Vries, Holland, & Witteman, 2008a, 2008b; Hsee & Rottenstreich, 2004).

Despite empirical progress, intuition is continually treated as a unitary construct (e.g., Ambady, 2010; Salas, Rosen, & DiazGranados, 2010). Hogarth (2010) urged that research needed to focus on identifying the different types of intuition and classify the different mechanisms in order to progress in understanding unconscious functioning. While some researchers have claimed that different types of intuition are in relation to either intuitive outcome or intuitive process (e.g., Dane & Pratt, 2009; Glöckner & Witteman, 2010b; Sadler-Smith, 2008, 2010; Sinclair, 2010), Gore and Sadler-Smith (2011) state that a more integrative approach is needed that encompasses both outcomes *and* processes. Dane and Pratt (2007) noted that a common misconception in intuition research is for intuitive processes and associated outcomes to be called “intuition.” They suggested that it would be better to refer to intuition in terms of its process (i.e. mechanisms and processes) and its outcome (types of intuition). Mechanisms will be discussed later on, so first, the three different types of intuition will be reviewed: problem- solving, creativity, moral judgment (Dane & Pratt, 2009; Haidt, 2001; Klein, 2003; Reynolds, 2006; Sinclair, 2010; Sonenschein, 2007)

The Different Types of Intuition

Problem-solving intuition is defined as expertise-based, domain-specific responses to tightly structured problems based on nonconscious processing of information, triggered automatically, activating correspondence of complex patterns of multiple cues against prototypes and scripts held within long-term memory (Gore & Sadler-Smith, 2011). Dane and Pratt (2009) described problem-solving intuition as pattern matching “honed through repeated training and practice” (2009, p. 5). This type of intuition is typically deployed by experts in a particular domain to deal with tightly specified problems. Creative intuition on the other hand is slow-forming, affectively charged judgments that occur in advance of insight, combining knowledge in novel ways based on divergent associations (Gore & Sadler-Smith, 2011). This type of intuition is the “gut feelings” that are the result of subjective experience to phenomena. The major difference between creative intuition and problem-solving intuition is that the latter does not necessarily combine knowledge in novel ways, but instead rely upon the matching of an observed response to a prototype stored in long-term memory (Salas et al., 2010). Therefore, the difference is that creative, unlike problem-solving, is divergent instead of convergent (Dane & Pratt, 2009).

Last but not least is moral intuition, which is defined as automatic, rapid, affect-based judgments, arrived at nonconsciously, that are in response to an ethical dilemma (Haidt, 2001). The concept of moral intuition, drawn from Haidt’s (2001) social intuitionist model of moral judgment, involves nonconscious pattern matching which comes with a relatively high level of affective charge. With this, reasoning is a post hoc attribution (Monin, Pizzaro, & Beer, 2007), which creates an “illusion of control” (Dane & Pratt, 2009) due to individuals ascribing their moral judgments and behaviors to rationality, but are instead due to “emotion-backed” intuitions

(Sonenschein, 2007). According to Hauser (2006), moral intuitions generate from culturally variable moral systems, operating on universal sets of principles, honed by a set of moral norms based on prototypes. Normative moral judgment is thought to involve exchange between the reflexive pattern-matching X-system and the pensive, conscious reasoning C-system (Salvador & Folger, 2007) discovered by Lieberman, Jarcho, and Satpute (1994) (Gore & Sadler-Smith, 2011). In terms of moral intuition, the X-system functions on the support of moral prototypes that, depending on whether the results are a match or mismatch, may be further processed by the C-system (Reynolds, 2006). This X-system and C-system sounds very similar to the dual-processing system commonly referred to in the decision-making literature.

Dual-Processing Systems and Associative Memory

Among behavioral and brain scientists, a view that two separate systems underlie human thinking, reasoning, and decision-making is the dominant approach (Stanovich & West, 2000). Within the dual-processing framework, reasoning and thinking are partitioned between the titles of “System 1” and “System 2” (Morewedge & Kahneman, 2010). The evolutionarily more ancient of the two systems, System 1 (Evans, 2003), is governed by rapid, parallel, and automatic core processes that permit judgment in the absence of conscious reasoning (Epstein, 1994; Stanovich & West, 2000). The more recent of the two systems, System 2, is governed by slower, serial, and effortful core processes that permit hypothetical thinking and conscious abstract reasoning (see Bargh & Chartrand, 1999; Evans, 2008; Schneider & Shiffrin, 1977; Wilson, Lindsay, & Schooler, 2000). Dual-system models of reasoning attribute errors in judgment to two problems: faulty intuition is generated by the automatic functions of System 1, which fail to be detected or corrected by the controlled operations of System 2. Intuition is identified as a System 1 process (Stanovich & West, 2000), which is identified with the automatic operations of

associative memory (Lieberman et al., 2002). Associative memory is defined as “a network of long-term memory for semantic information, emotions, and goals that is governed by the spread of activation, as determined by the strengths of interconnecting weights (associations)” (Morewedge & Kahneman, 2010, p. 435).

Priming in Relation to Associative Memory

A real breakthrough in understanding associative memory and its structure took place when studies of social judgment began to explore the underpinnings of accessibility in the priming paradigm (Bargh & Morsella, 2008; Uleman, Saribay, & Gonzalez, 2008). Probes of the structure of memory were neither random nor restricted to logical relations, but instead, were guided by specific hypotheses as to the governing rules of the spread of activation in associative memory (Morewedge & Kahneman, 2010). Generally speaking, research on priming has illustrated links that connect emotions, verbal representations, motor responses, visual perception, facial expressions, and conscious/unconscious goals (Förster & Liberman, 2007). For example, holding a cup of warm coffee increases the likelihood of perceiving a stranger’s personality as warm (Williams & Bargh, 2008). In simple terms, judgments can be thought of as weighted combinations of bits of information, where biases can be described as an overweighting of certain aspects while other aspects are underweighted or neglected, relative to a criterion of accuracy (Kahneman & Frederick, 2002). Therefore, according to Morewedge and Kahneman (2010), strongly activated information is likely to be given more weight than it deserves while other relevant knowledge that is not activated will be underweighted or neglected (e.g., Mussweiler, 2007; Weber & Johnson, 2006).

Morewedge and Kahneman (2010) went on to say that the specifications for their understanding of intuition and associative memory were drawn from studies of priming. In their

view, evidence of the priming paradigm implies that activation spreading selectively within associative memory creates and maintains a coherent and fairly precise representation of the current situation, as well as providing links to the past and possible future. With so much emphasis being placed on using priming to understand intuition and associative memory, it would be best to first gain a better understanding of what priming is. Priming consists of presenting some stimulus with the intention of activating a specific idea, category, or feeling and then measuring the effects of the prime on performance (Cameron, Brown-Iannuzzi, & Payne, 2012). Due to the human mind being organized as networks of associations, activating a specific idea will spontaneously draw to mind associated thoughts, memories, and feelings. Priming plays the role of mapping the networks of associations for an individual, since different primes activate different associative links for different people (Cameron et al., 2012).

Priming techniques were initially developed to study implicit social cognition. The use of sequential priming tasks to measure individual differences in racial attitudes, reported by Fazio and colleagues (1995), accelerated research in the area. Fazio and colleagues (1995) research illustrated that priming could be used as a valid predictor of human behavior in areas where people are typically motivated to control the overt expressions of attitudes (Cameron et al., 2012). Despite the overzealous excitement over this new tool, priming has been shown to suffer from psychometric limitations, specifically low reliability (Bosson, Swann, & Pennebaker, 2000; Fazio & Olson, 2003). With controversial alternatives attempting to take the place of priming (Greenwald, McGhee, & Schwartz, 1998), recent innovations have been shown to improve the reliability in priming tasks. Two changes that greatly increase reliability are measuring accuracy and evaluations of ambiguous stimuli, instead of measuring reaction times (Cameron et al., 2012). Together with recent improvements in reliability, Cameron et al.'s (2012) comprehensive

meta-analysis of 167 studies found that priming techniques function well as measures of implicit social cognition.

Going back to the idea of moral intuition, the question must be asked whether or not priming a person with “morality” will ultimately affect behavior. As has already been reviewed, moral intuition operates on a dual-processing system in a very similar way to the dual-processing system of decision-making. On top of that, Morewedge and Kahneman (2010) explained that biases in intuitive judgments come from the areas of associative memory, which is the area under which the priming paradigm functions. In Mazar et al.’s (2008a) experiment, a moral “reminder” was used to deter respondents from cheating on a test. More specifically, the experiment had respondents recall the Ten Commandments before an assessment in order to increase the respondent’s “attention to standards”, a concept that falls within the self-concept maintenance theory (which will be discussed shortly). It is possible to consider the Ten Commandments reminder as “priming” (Mazar et al., 2008a), which means that the results, which demonstrated a lower cheating rate for the Ten Commandments recall task, could be due to the prime affecting the associative memory/intuition area of System 1 decision-making. However, Mazar et al. (2008a) is inclined to believe that the deterrence of dishonest behavior is due to an increase in attention of standards, which is possibly linked more to the System 2 area of decision-making. Either way, it would be beneficial to further examine this self-concept maintenance theory.

Self-Concept Maintenance and Self-Awareness

The standard economic model of rational and selfish human behavior is the belief that people take part in dishonest acts consciously and deliberately by trading off the expected external benefits and costs of the dishonest act (Allingham & Sandmo, 1972; Becker, 1968). This standard external cost-benefit perspective creates three theories as to what is expected to increase

the magnitude and frequency of dishonesty: higher magnitude of external rewards, lower probability of being caught, and lower magnitude of punishment (Mazar et al., 2008a). People have been shown to internalize the norms and values of their society (Campbell 1964; Henrich et al., 2001), which act as benchmarks to compare his or her behavior against. Compliance with the internal values system provides positive rewards, which based on brain imaging studies, activate the same primary reward centers in the brain as external benefits (Knutson et al. 2001; O'Doherty et al., 2002). Mazar et al. (2008a) went on to propose that one major way behavior is controlled by this internal reward system is by how a person perceives him or herself, also known as self-concept (Aronson, 1969).

People committing dishonest behavior are often torn between two competing motivations: gaining from cheating versus maintaining a positive self-concept through honesty (Aronson, 1969; Harris, Mussen, & Rutherford 1976). Typically, people solve this dilemma by finding a balance or equilibrium between the two motivations, such that they still gain the benefits from behaving dishonestly while at the same time maintaining their self-concept of being honest. One mechanism that can be used to allow people to find this equilibrium is known as attention to standards (Mazar et al., 2008a). Under the failure of this mechanism, people can take part in actions without ever confronting the moral meaning of their actions. The attention people pay to their own standards of conduct is closely related to Duval and Wicklund's (1972) theory of objective self-awareness (Mazar et al., 2008a).

The original objective self-awareness theory (Duval & Wicklund, 1972) assumed that the orientation of conscious attention was the essence of self-evaluation. Self-evaluations, or focusing on the self, bring about an automatic comparison of the self against standards (Silvia & Duval, 2001). The self is broadly defined as the knowledge of oneself while a standard is defined

as a “mental representation of correct, behavior, attitudes, and traits. All of the standards of correctness taken together define what a “correct” person is” (Duval & Wicklund, 1972, pp. 3-4). Attempting to change one’s standards to match one’s actions is referred to as “moral hypocrisy” (Batson, Kobrynowicz, Dinnerstein, Kampf, & Wilson, 1997), which is specifically defined as the “motivation to appear moral while, if possible, avoiding the cost of actually being moral” (Batson, Thompson, Seufferling, Whitney, & Strongman, 1999, p. 526). Batson et al. (1999) asked participants to decide whether to assign another participant to work on a positive or neutral task. A self-awareness manipulation was included in which a mirror was added to the room and participants were told that adding another participant to a positive consequence task was perceived as being more morally right. Batson et al. (1999) found that high self-awareness increased the proportion who assigned the other participant to the positive task.

In addition, Mazar et al. (2008a) have claimed that people who attend to their own moral standards are more likely to have their dishonest behaviors reflected in their self-concept, which will cause adherence to stricter rules for delineation of honesty/dishonesty. However, if people are inattentive to their own moral standards, their actions will not be compared to any set standards, causing behavior to diverge from their standards. Therefore, “attention to standards” predicts that when standards of morality are more accessible, people will need to confront the meaning of their actions, thus being more honest. In Mazar et al.’s (2008a) study, two task conditions were created to compare the performance of respondents in the control group, in which no opportunity to be dishonest was present, with that of the respondents in the “cheating” group, in which dishonesty was possible. In the first task, respondents were asked to write down in two minutes either the names of ten books they have read in high school (no moral reminder) or the Ten Commandments (moral reminder). In the second, respondents were given a test sheet

and an answer sheet. The test sheet consisted of 20 matrices, each based on 12 digit numbers, in which the respondents had four minutes to find two numbers per matrix that added up to 10. This allowed for the student to unambiguously evaluate whether they had solved the problem. At the end of the session, students were promised that two randomly selected participants would receive \$10 for each set of matrices that was solved. Results showed that despite the type of reminder having no effect on performance, respondents who were given the book recall task cheated more than respondents who were given the Ten Commandments recall task. In fact, cheating was eliminated completely in the Ten Commandments recall task.

The Present Study

The present research strives to find an applicable solution for impression management on personality tests as well as advance the current research on test faking. To summarize everything that has been explained thus far, if Goffin and Boyd's (2009) decision making tree for faking is correct and the decision process is linear, then setting up a moral "deterrent" should divert faking behavior in the early stages, similar to that seen in Mazar et al.'s (2008a) study. However, the decision making process is far more complex than this study could possibly hope to illustrate and far more variables, moderators, etc. would affect the linearity of Goffin and Boyd's (2009) model than their studies could possibly hope to illustrate. With that said, research has supported the idea that decisions are made through two processes (Haidt, 2010; Narvaez, 2010a): an automatic, intuitive process, which is likely responsible for the majority of moral decision-making (Haidt, 2010), and a rationalistic, reasoning process. Mazar et al.'s (2008a) self-concept theory, based off Duval and Wicklund's (1972) self-awareness theory, essentially operates off of the rationalistic process by encouraging participants to draw attention to their own standards and avoid moral hypocrisy. By creating a priming measure (which also operates off the associative

memory functions of intuition; Cameron et al., 2012) that will affect the intuitive processes of decision making, faking should be halted at the first hurdle of the decision making process (morality), according to Goffin and Boyd (2009). If the intuitive processes do not deter faking behavior, the rationalistic processes in the self-concept theory should activate self-reflection and limit moral hypocrisy if the participant is morally inclined. In sum, the act of priming participants with a moral self-reflective measure is expected to decrease faking behavior. Thus, with regard to the remote electronic administration group it is expected that participants in the experimental (moral prime) group will answer more candidly (i.e., honestly) than those in the control (placebo prime) group, resulting in higher scores on the Counterproductive Student Behavior Scale and lower scores on the Multidimensional Work Ethic Profile and the Social Desirability Scale. Thus, it is proposed that

Hypothesis 1: Experimental group scores on the Counterproductive Student Behavior Scale, Multidimensional Work Ethic Profile, and Social Desirability Scale will display less intentional response distortion than corresponding scores on these measures in the no-prime group.

Exposure to the placebo prime is not expected to influence participants' responses to any of the measures. Thus, it is anticipated that scores in the control (placebo prime) group will be comparable to those in the no-prime group. Hence,

Hypothesis 2: Control group scores on the Counterproductive Student Behavior Scale, Multidimensional Work Ethic Profile, and Social Desirability Scale will not differ from corresponding scores on these measures in the no-prime group.

Due to the innocuous nature of the placebo prime, it is expected that exposure to this prime will not influence the nature of participants' responses, whereas exposure to the moral prime will encourage participants to respond more truthfully. Thus,

Hypothesis 3: Experimental group scores on the Counterproductive Student Behavior Scale, Multidimensional Work Ethic Profile, and Social Desirability Scale will display less intentional response distortion than corresponding scores on these measures in the control group.

The same trends are expected for the face-to-face administration group, as follows:

Hypothesis 4: In the face-to-face administration group, experimental group scores on the Counterproductive Student Behavior Scale, Multidimensional Work Ethic Profile, and Social Desirability Scale will display less intentional response distortion than corresponding scores on these measures in the no-prime group.

Hypothesis 5: In the face-to-face administration group, control group scores on the Counterproductive Student Behavior Scale, Multidimensional Work Ethic Profile, and Social Desirability Scale will not differ from corresponding scores on these measures in the no-prime group.

Hypothesis 6: In the face-to-face administration group, experimental group scores on the Counterproductive Student Behavior Scale, Multidimensional Work Ethic Profile, and Social Desirability Scale will display less intentional response distortion than corresponding scores on these measures in the control group.

CHAPTER II: METHOD

Participants

Participants were 869 students at a university in the southeastern United States. Participants received course credit in exchange for completion of the study. The sample was primarily female (70.6%) and Caucasian (73.8%), with 17.5% of participants identifying as African American, 2.9% as Asian, and 7% as Hispanic or Latino. The mean age of participants was 18.8 years, with ages ranging from 17 to 35. The majority of participants were in their first (77.2%) or second (16.7%) year of study, although third year (4.5%), fourth year (1.5%), and fifth year (.1%) students were also present in the sample.

Procedure

Due to Norman et al.'s (2010) finding that the pattern of responses differed by mode of administration, participants were randomly assigned to either a face-to-face administration group ($n = 337$) or a remote electronic administration group ($n = 532$). Within each of those groups, participants were randomly assigned to one of three subgroups: an experimental group ($n = 114$ for face-to-face administration; $n = 185$ for remote electronic administration), a control group ($n = 113$ for face-to-face administration; $n = 181$ for remote electronic administration), or a "no-prime" group ($n = 110$ for face-to-face administration; $n = 166$ for remote electronic administration). All three groups completed the same series of personality measures. The no-prime group completed only the series of personality measures while both the experimental group and the control group completed a priming instrument first and then completed the personality measures. The experimental group completed the moral self-reflective prime instrument while the control group completed a placebo prime instrument.

Measures

Priming Measure. In an effort to affectively charge participants in the experimental group with moral standards and introspection, a moral self-reflective priming measure was used. This priming measure consisted of eight items that ask participants to select from a group of 15 characteristics (i.e. honest, selfish, self-centered, etc.) those that best answer questions such as “What are some of the characteristics of a person who lies or deceives people?” and “What are some good examples of moral characteristics?” The priming measure is displayed in Appendix A. Participants in the control group were given a placebo priming measure that also consisted of eight items that are similar in format to the experimental prime. The placebo priming measure is displayed in Appendix B.

Social Desirability Scale. The Social Desirability Scale-17 (SDS-17; Stöber, 2001) was used to assess social desirability. This measure consists of 17 items that reflect the propensity to respond in a manner that reflects favorably on oneself (e.g., “I never hesitate to help someone in case of emergency”; “When I have made a promise, I keep it – no ifs, ands or buts.”).

Participants were asked to read each statement carefully and indicate whether each statement describes them by providing a true or false response. This scale demonstrated an internal consistency of .62 in the remote electronic administration group and .64 in the face-to-face administration group.

Counterproductive Student Behavior Scale. The Counterproductive Student Behavior Scale (CSBS; Rimkus, 2012) was used to measure counterproductive behavior in students. This measure is comprised of 58 questions that assess the propensity to engage in a range of counterproductive student behaviors. For the purposes of this study, 18 items from the following five subscales of the CSBS were used: cheating/plagiarism (11 items), deviant behavior (3

items), alcohol use (1 item), laziness (2 items), and lying (1 item). Respondents answered these items using a 9-point Likert-type scale ranging from “Never” to “Every day.” The subscale of cheating/plagiarism displayed an internal consistency of .85 in the remote electronic administration group and .88 in the face-to-face administration group. Reliability coefficients were not computed for the other subscales due to the scarcity of items in each of the subscales.

Multidimensional Work Ethic Profile (MWEP). The Multidimensional Work Ethic Profile Short Form (MWEP-SF; Meriac, Woehr, Gorman, & Thomas, 2013) was used to measure work ethic. This measure consists of 28 items that assess seven distinct components of work ethic (4 items each): (1) centrality of work, (2) self-reliance, (3) hard work, (4) leisure, (5) morality/ethics, (6) delay of gratification, and (7) wasted time. Items are rated on a 5-point Likert-type scale ranging from “Strongly Disagree” to “Strongly Agree.” This measure displayed an internal consistency of .88 in the remote electronic administration group and .84 in the face-to-face administration group.

Analyses

SPSS version 21 for Mac was used for all statistical analyses. One-way analyses of variance were used to test the effect of group membership on the MWEP and SDS-17 scores, with Fisher’s LSD tests being used for pairwise comparisons. As the skewness and kurtosis for the CSBS scores were extreme, especially in the no-prime group, the non-parametric Kruskal-Wallis test was used to compare groups on the CSBS with Wilcoxon rank-sum tests being used for pairwise comparisons. These analyses were conducted separately for the online sample and the face-to-face sample.

CHAPTER III: RESULTS

Remote Electronic Administration Group

Results of the Kruskal-Wallis ANOVA indicated that group membership did not significantly affect overall CSBS scores, $H(2, N = 532) = 4.90, p = .086$. With Fisher's procedure, pairwise comparisons are not appropriate if the omnibus (Kruskal-Wallis) test is not significant. Descriptive statistics are shown in Table 1. These results failed to support Hypothesis 1, 2, or 3.

Table 1

Mean CSBS Scores by Priming Group

Group	Mean	SD
Experimental	1.45	.65
Control	1.34	.43
No-prime	1.34	.50

Results of the Kruskal-Wallis ANOVA indicated that group membership did not significantly affect cheating/plagiarism scores on the CSBS, $H(2, N = 532) = 3.91, p = .142$. With Fisher's procedure, pairwise comparisons are not appropriate if the omnibus (Kruskal-Wallis) test is not significant. Descriptive statistics are shown in Table 2. These results failed to support Hypothesis 1, 2, or 3.

Table 2

Mean Cheating/Plagiarism Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.58	.72
Control	1.46	.59
No-prime	1.45	.53

Results of the Kruskal-Wallis ANOVA indicated that group membership did not significantly affect deviant behavior scores on the CSBS, $H(2, N = 532) = .971, p = .616$. With Fisher's procedure, pairwise comparisons are not appropriate if the omnibus (Kruskal-Wallis) test is not significant. Descriptive statistics are shown in Table 3. These results failed to support Hypothesis 1, 2, or 3.

Table 3

Mean Deviant Behavior Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.16	.58
Control	1.09	.24
No-prime	1.12	.53

Results of the Kruskal-Wallis ANOVA indicated that group membership did not significantly affect laziness scores on the CSBS, $H(2, N = 532) = 3.52, p = .172$. With Fisher's procedure, pairwise comparisons are not appropriate if the omnibus (Kruskal-Wallis) test is not significant. Descriptive statistics are shown in Table 4. These results failed to support Hypothesis 1, 2, or 3.

Table 4

Mean Laziness Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.24	.77
Control	1.13	.47
No-prime	1.17	.65

Results of the Kruskal-Wallis ANOVA indicated that group membership significantly affected lying scores on the CSBS, $H(2, N = 532) = 6.93, p < .031$. As shown in Table 5, scores in the experimental group were significantly higher than scores in the control group, but scores in

the no-prime group were not significantly different from either of the other group's scores. These results failed to support Hypothesis 1 or 2, but did provide partial support for Hypothesis 3.

Table 5

Mean Lying Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.32 ^a	.75
Control	1.15 ^b	.32
No-prime	1.24 ^{ab}	.71

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Wilcoxon rank-sum test.

Results of the Kruskal-Wallis ANOVA indicated that group membership did not significantly affect alcohol use scores on the CSBS, $H(2, N = 532) = 3.62, p = .06$. With Fisher's procedure, pairwise comparisons are not appropriate if the omnibus (Kruskal-Wallis) test is not significant. Descriptive statistics are shown in Table 6. These results failed to support Hypothesis 1, 2, or 3.

Table 6

Mean Alcohol Use Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.40	1.16
Control	1.43	1.24
No-prime	1.23	.96

Group membership significantly affected MWEP scores, $F(2, 529) = 19.99, MSE = 0.16, p < .001, \eta^2 = .07, 95\% CI [.04, .11]$. As shown in Table 7, scores on the MWEP in the experimental group were significantly lower than scores on the MWEP in the control group (partially supporting Hypothesis 3) and the no-prime group (partially supporting Hypothesis 1).

Scores on the MWEP in the control group did not significantly differ from scores on the MWEP in the no-prime group (partially supporting Hypothesis 2).

Table 7

Mean MWEP Scores by Priming Group

Group	Mean	SD
Experimental	3.60 ^a	.40
Control	3.82 ^b	.41
No-prime	3.84 ^b	.37

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Fisher's LSD test.

Group membership did not significantly affect scores of self-reliance on the MWEP, $F(2, 529) = 2.19$, $MSE = .43$, $p = .113$, $\eta^2 = .008$, 95% CI [.00, .03]. Descriptive statistics are shown in Table 8. These results failed to support Hypothesis 1, 2, or 3.

Table 8

Mean Self-Reliance Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.81	.69
Control	3.95	.66
No-prime	3.92	.61

Group membership significantly affected scores of morality/ethics on the MWEP, $F(2, 529) = 234.01$, $MSE = .35$, $p < .001$, $\eta^2 = .47$, 95% CI [.41, .52]. As shown in Table 9, scores in the experimental group were significantly lower than scores in the control group (partially supporting Hypothesis 3) and the no-prime group (partially supporting Hypothesis 1). Scores in the control group did not significantly differ from scores in the no-prime group (partially supporting Hypothesis 2).

Table 9

Mean Morality/Ethics Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.22 ^a	.71
Control	4.34 ^b	.55
No-prime	4.43 ^b	.46

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Fisher's LSD test.

Group membership significantly affected scores of leisure on the MWEP, $F(2, 529) = 76.03$, $MSE = .40$, $p < .001$, $\eta^2 = .22$, 95% CI [.16, .28]. As shown in Table 10, scores in the experimental group were significantly lower than scores in the control group (partially supporting Hypothesis 3) and the no-prime group (partially supporting Hypothesis 1). Scores in the control group did not significantly differ from scores in the no-prime group (partially supporting Hypothesis 2).

Table 10

Mean Leisure Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	2.96 ^a	.72
Control	3.67 ^b	.60
No-prime	3.66 ^b	.55

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Fisher's LSD test.

Group membership significantly affected scores of centrality of work on the MWEP, $F(2, 529) = 25.68$, $MSE = .44$, $p < .001$, $\eta^2 = .09$, 95% CI [.05, .13]. As shown in Table 11, scores in the experimental group were significantly lower than scores in the control group (partially supporting Hypothesis 3) and the no-prime group (partially supporting Hypothesis 1). Scores in

the control group did not significantly differ from scores in the no-prime group (partially supporting Hypothesis 2).

Table 11

Mean Centrality of Work Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.77 ^a	.79
Control	4.17 ^b	.57
No-prime	4.23 ^b	.60

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Fisher's LSD test.

Group membership did not significantly affect scores of hard work on the MWEP, $F(2, 529) = .421$, $MSE = .28$, $p = .657$, $\eta^2 = .002$, 95% CI [.00, .01]. Descriptive statistics are shown in Table 12. These results failed to support Hypothesis 1, 2, or 3.

Table 12

Mean Hard Work Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	4.05	.50
Control	4.04	.54
No-prime	4.09	.54

Group membership did not significantly affect scores of wasted time on the MWEP, $F(2, 529) = .515$, $MSE = .39$, $p = .60$, $\eta^2 = .002$, 95% CI [.00, .01]. Descriptive statistics are shown in Table 13. These results failed to support Hypothesis 1, 2, or 3.

Table 13

Mean Wasted Time Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.89	.65
Control	3.95	.63
No-prime	3.89	.58

Group membership did not significantly affect scores of delay of gratification on the MWEP, $F(2, 529) = 1.39$, $MSE = .55$, $p = .25$, $\eta^2 = .005$, 95% CI [.00, .02]. Descriptive statistics are shown in Table 14. These results failed to support Hypothesis 1, 2, or 3.

Table 14

Mean Delay of Gratification Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.82	.74
Control	3.71	.74
No-prime	3.71	.75

Group membership did not significantly affect SDS scores, $F(2, 528) = 1.64$, $MSE = 0.03$, $p = .194$, $\eta^2 = .01$, 95% CI [.00, .02]. Descriptive statistics are shown in Table 15. These results failed to support Hypothesis 1, 2, or 3.

Table 15

Mean SDS Scores by Priming Group

Group	Mean	SD
Experimental	1.47	.19
Control	1.49	.19
No-prime	1.46	.17

Face-to-Face Administration Group

Results of the Kruskal-Wallis ANOVA indicated that group membership significantly affected overall CSBS scores, $H(2, N = 337) = 16.23, p < .001$. As shown in Table 16, scores in the no-prime group were significantly higher than in the other two groups, which did not significantly differ from each other. These results failed to support Hypotheses 4, 5, and 6.

Table 16

Mean CSBS Scores by Priming Group

Group	Mean	SD
Experimental	1.37 ^a	.33
Control	1.39 ^a	.03
No-prime	1.58 ^b	.53

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Fisher's LSD test.

Results of the Kruskal-Wallis ANOVA indicated that group membership significantly affected cheating/plagiarism scores on the CSBS, $H(2, N = 337) = 11.22, p = .004$. As shown in Table 17, scores in the experimental group and control group were significantly lower than scores in the no-prime group, while scores in the experimental group did not significantly differ from scores in the control group. These results failed to support Hypothesis 4, 5, or 6.

Table 17

Mean Cheating/Plagiarism Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.50 ^a	.43
Control	1.54 ^a	.44
No-prime	1.72 ^b	.63

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Wilcoxon rank-sum test.

Results of the Kruskal-Wallis ANOVA indicated that group membership significantly affected deviant behavior scores on the CSBS, $H(2, N = 337) = 13.05, p = .001$. As shown in Table 18, scores in the experimental group and control group were significantly lower than scores in the no-prime group, while scores in the experimental group did not significantly differ from scores in the control group. These results failed to support Hypothesis 4, 5, or 6.

Table 18

Mean Deviant Behavior Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.11 ^a	.23
Control	1.13 ^a	.23
No-prime	1.29 ^b	.52

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Wilcoxon rank-sum test.

Results of the Kruskal-Wallis ANOVA indicated that group membership did not significantly affect laziness scores on the CSBS, $H(2, N = 337) = 1.06, p = .587$. With Fisher's procedure, pairwise comparisons are not appropriate if the omnibus (Kruskal-Wallis) test is not significant. Descriptive statistics are shown in Table 19. These results failed to support Hypothesis 4, 5, or 6.

Table 19

Mean Laziness Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.14	.39
Control	1.21	.51
No-prime	1.22	.57

Results of the Kruskal-Wallis ANOVA indicated that group membership significantly affected lying scores on the CSBS, $H(2, N = 337) = 14.17, p = .001$. As shown in Table 20,

scores in the experimental group and control group were significantly lower than scores in the no-prime group, while scores in the experimental group did not significantly differ from scores in the control group. These results failed to support Hypothesis 4, 5, or 6.

Table 20

Mean Lying Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.24 ^a	.49
Control	1.14 ^a	.29
No-prime	1.39 ^b	.62

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Wilcoxon rank-sum test.

Results of the Kruskal-Wallis ANOVA indicated that group membership did not significantly affect alcohol use scores on the CSBS, $H(2, N = 337) = 5.57, p = .062$. With Fisher's procedure, pairwise comparisons are not appropriate if the omnibus (Kruskal-Wallis) test is not significant. Descriptive statistics are shown in Table 21. These results failed to support Hypothesis 4, 5, or 6.

Table 21

Mean Alcohol Use Scores on the CSBS by Priming Group

Group	Mean	SD
Experimental	1.25	.91
Control	1.22	.76
No-prime	1.64	1.58

Group membership significantly affected MWEP scores, $F(2, 334) = 9.28, MSE = 0.11, p < .001, \eta^2 = .05, 95\% CI [.02, .09]$. As shown in Table 22, overall scores on the MWEP in the experimental group were significantly lower than those in the control group (partially supporting Hypothesis 6) and the no-prime group (partially supporting Hypothesis 4). Scores on the MWEP

in the control group did not significantly differ from scores on the MWEP in the no-prime group (partially supporting Hypothesis 5).

Table 22

Mean MWEP Scores by Priming Group

Group	Mean	SD
Experimental	3.68 ^a	.34
Control	3.86 ^b	.32
No-prime	3.83 ^b	.32

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Fisher's LSD test.

Group membership did not significantly affect scores of self-reliance on the MWEP, $F(2, 337) = .236$, $MSE = .51$, $p = .790$, $\eta^2 = .001$, 95% CI [.00, .01]. Descriptive statistics are shown in Table 23. These results failed to support Hypothesis 4, 5, or 6.

Table 23

Mean Self-Reliance Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.88	.70
Control	3.82	.69
No-prime	3.85	.75

Group membership significantly affected scores of morality/ethics on the MWEP, $F(2, 337) = 131.07$, $MSE = .30$, $p < .001$, $\eta^2 = .44$, 95% CI [.36, .50]. As shown in Table 24, scores in the experimental group were significantly lower than scores in the control group (partially supporting Hypothesis 6) and the no-prime group (partially supporting Hypothesis 4). Scores in the control group did not significantly differ from scores in the no-prime group (partially supporting Hypothesis 5).

Table 24

Mean Morality/Ethics Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.47 ^a	.71
Control	4.51 ^b	.55
No-prime	4.49 ^b	.46

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Fisher's LSD test.

Group membership significantly affected scores of leisure on the MWEP, $F(2, 337) = 42.88$, $MSE = .36$, $p < .001$, $\eta^2 = .20$, 95% CI [.13, .27]. As shown in Table 25, scores in the experimental group were significantly lower than scores in the control group (partially supporting Hypothesis 6) and the no-prime group (partially supporting Hypothesis 4). Scores in the control group did not significantly differ from scores in the no-prime group (partially supporting Hypothesis 5).

Table 25

Mean Leisure Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.00 ^a	.69
Control	3.62 ^b	.55
No-prime	3.66 ^b	.54

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Fisher's LSD test.

Group membership significantly affected scores of centrality of work on the MWEP, $F(2, 337) = 10.57$, $MSE = .38$, $p < .001$, $\eta^2 = .06$, 95% CI [.02, .11]. As shown in Table 26, scores in the experimental group were significantly lower than scores in the control group (partially supporting Hypothesis 6) and the no-prime group (partially supporting Hypothesis 4). Scores in

the control group did not significantly differ from scores in the no-prime group (partially supporting Hypothesis 5).

Table 26

Mean Centrality of Work Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.92 ^a	.76
Control	4.24 ^b	.52
No-prime	4.26 ^b	.54

Note. Means sharing a letter in their superscript are not significantly different at the .05 level according to a Fisher's LSD test.

Group membership did not significantly affect scores of hard work on the MWEP, $F(2, 337) = 1.62$, $MSE = .23$, $p = .199$, $\eta^2 = .01$, 95% CI [.00, .04]. Descriptive statistics are shown in Table 27. These results failed to support Hypothesis 4, 5, or 6.

Table 27

Mean Hard Work Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	4.14	.47
Control	4.07	.45
No-prime	4.03	.50

Group membership did not significantly affect scores of wasted time on the MWEP, $F(2, 337) = 1.25$, $MSE = .33$, $p = .287$, $\eta^2 = .01$, 95% CI [.00, .03]. Descriptive statistics are shown in Table 28. These results failed to support Hypothesis 4, 5, or 6.

Table 28

Mean Wasted Time Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	4.06	.62
Control	4.02	.56
No-prime	3.94	.55

Group membership did not significantly affect scores of delay of gratification on the MWEP, $F(2, 337) = .125$, $MSE = .58$, $p = .882$, $\eta^2 = .001$, 95% CI [.00, .01]. Descriptive statistics are shown in Table 29. These results failed to support Hypothesis 4, 5, or 6.

Table 29

Mean Delay of Gratification Scores on the MWEP by Priming Group

Group	Mean	SD
Experimental	3.67	.81
Control	3.62	.80
No-prime	3.63	.65

Group membership did not significantly affect SDS scores, $F(2, 334) = 2.07$, $MSE = 0.04$, $p = .127$, $\eta^2 = .01$, 95% CI [.00, .04]. As shown in Table 30, scores on the SDS differed very little from each other. These results failed to support Hypothesis 4 and 6, but did provide support for Hypothesis 5.

Table 30

Mean SDS Scores by Priming Group

Group	Mean	SD
Experimental	1.46	.18
Control	1.47	.21
No-prime	1.51	.17

CHAPTER IV: DISCUSSION

Review of the results obtained in this study reveals some consistent patterns among both the online administration group and the face-to-face administration group. First, scores on the counterproductive scale were unaffected by the priming measures except in the face-to-face administration group in which both the experimental and control groups displayed lower scores (the opposite of what was expected) than the no-prime group. Secondly, scores on the work ethic scale were affected by the priming measures for both administration groups. As expected, the experimental group received lower work ethic scores than the other two groups. Finally, social desirability was unaffected by either of the priming measures for either administration group. To summarize, the experimental priming measure was consistently effective in compelling participants to respond more honestly about their (lower) work ethic, but it did not compel participants to respond more honestly about their (higher) counterproductive student behaviors.

Neither the overall CSBS scores nor the subscale scores displayed significant support for the hypotheses. Only the lying subscale in the online administration group was affected by the moral self-reflective prime, however this subscale consists of only one item, limiting inferences that can be made from these results. In comparing response patterns associated with online administration and face-to-face administration, Norman et al. (2010) found that online administration yielded larger standard deviations and a greater number of central and extreme responses (responses at -1, 0, and 1). In the current study, only the experimental group answering the CSBS displayed results similar to those reported by Norman et al. Although the standard deviation ($s = .33$), skewness ($g_1 = 1.42$), and kurtosis ($g_2 = 2.05$) remained at reasonable levels in the face-to-face group, the standard deviation ($s = .65$), skewness ($S = 4.09$), and kurtosis ($K = 24.03$) for the online group were much more extreme. Perhaps these extreme scores were

influenced by the same factors that influenced Norman et al.'s (2010) results; however, that does not explain why scores on the MWEP and SDS remained relatively stable across administration groups. A more plausible observation may be that items on the counterproductive behavior scale evoked more diffuse responses from participants compared to the work ethic and social desirability scales, and this combined with online administration engendered more central and extreme responses and yielded larger standard deviations, skewness, and kurtosis in the distribution. Specifically, the experimental (i.e., morality) prime elicited the most variable responses in the CSBS distribution; however, group membership did not significantly affect scores for the online administration group.

Respondents have been shown to provide more socially desirable responses in face-to-face surveys as opposed to self-administration (e.g., online, postal) surveys (Presser & Stinson, 1998; Tourangeau & Smith, 1996), even when controlling for order and contextual effects (Bowling, Bond, Jenkinson, & Lamping, 1999; Lyons, Wareham, Lucas, Price, Williams, & Hutchings, 1999). As face-to-face administration involves social interaction respondents may take social norms into effect, resulting in social desirability bias, more specifically the over-reporting of desirable behaviors and under-reporting of undesirable behaviors (Bowling, 2005). The mere presence of an interviewer/administrator can be distracting to respondents and may elicit such self-presentation tactics; therefore, one benefit of online self-administration modes is that they circumvent this source of bias. Moreover, the self-administration of surveys can increase a respondents' willingness to disclose sensitive information as opposed to face-to-face administration (Bowling, 2005). Thus, the combination of offering greater anonymity and negating the social presence engenders more accurate reporting, particularly when sensitive topics are of interest (Parker & Dewey, 2000; Pruchno & Hayden, 2000; Siemiatycki, 1979). It

could be argued that admitting to counterproductive behaviors is sensitive information, as individuals may be apprehensive to report such behavior. Thus, considering that face-to-face administration results in greater social desirability biases, online administration results in more accurate responses when dealing with sensitive information, and online administration results in a greater number of central and extreme responses, it seems reasonable that CSBS scores in the face-to-face group were significantly lower in the experimental and control groups as opposed to the no-prime group.

An additional point of interest is the finding that CSBS scores for the experimental and control groups in the face-to-face administration were *both* significantly lower than those of the no-prime group. Specifically, these results were evident in the subscales of cheating/plagiarism, deviant behavior, and lying, as well as in the overall CSBS results. One theory is that the experimental and control groups became more cognitively aware or “on edge” after having to complete a mentally taxing priming measure. Combining this with the idea that face-to-face administration results in more social desirability bias, it is possible that heightened levels of cognitive awareness amplify the influence of the administration method (thus engendering greater degrees of social desirability). Another possible explanation is that because the experimental and control groups completed a longer overall measure than the no-prime group, these two groups may have suffered from some type of testing effect (e.g., testing fatigue). However, that does not explain why the experimental and control group responses appeared to be more thoughtful (evidenced by more socially desirable responses). In any case, it appears that some aspect of the priming measures served to amplify the influence of face-to-face administration in both the experimental and the control groups, resulting in greater social desirability bias.

With regard to work ethic, participants responded as expected, with MWEP scores in the control group and the no-prime group being comparable while those in the experimental group were significantly lower than the other two groups. This illustrates that the moral self-reflective prime effectively influenced both the intuitive and rationalistic aspects of decision-making when admitting to lower work ethic. Specifically, the moral self-reflective prime consistently influenced the subscales of morality/ethics, leisure, and centrality of work, but it did not affect self-reliance, hard work, wasted time, and delay of gratification. As these results illustrate a difference between the subscales when admitting to lower scores, it is possible that either a) the subscales that were not affected were too sensitive, or b) the overall MWEP results are more representative of true student work ethic in the experimental group as opposed to the other groups. Given that scores on the overall MWEP and three of the seven subscales were consistently lower in the experimental group than in the other two groups, it seems reasonable to infer that participants were affected by the moral self-reflective prime when answering the MWEP. Thus, as opposed to illustrating a failure of the moral self-reflective prime, it is plausible that the experimental group's MWEP scores are more representative of students' perceptions of their own work ethic as opposed to what was illustrated in the other groups, with students honestly believing themselves to have higher self-reliance, hard work, wasted time, and delay of gratification than morality/ethics, leisure, and centrality of work.

This pattern of results also suggests that work ethic is a less sensitive topic than counterproductive behavior. One plausible observation based on this finding is that the moral self-reflective prime did not consistently influence the intuitive and rationalistic aspects of decision-making when dealing with sensitive topics (i.e., counterproductive behavior) but was effective when applied to a more socially acceptable construct (i.e., work ethic). This begs the

question: is work ethic not a sensitive construct? Psychological constructs are considered sensitive when they have socially acceptable alternatives, are threatening, and have different psychological costs associated with disclosure (Dalal, 2013). In Dalal's (2013) dissertation, a measure of counterproductive workplace behaviors was used to represent a sensitive construct. Even though there is no mention of work ethic being a sensitive construct, it does have socially acceptable alternatives and could be threatening in certain contexts (e.g., when completing a job application). It should also be noted that Dalal's (2013) findings suggest that indirect questioning yields the best results with sensitive constructs, however as mentioned before, indirect questioning may lead to lower construct validity (Goffin & Boyd, 2009; Holden & Jackson, 1985). However, it is plausible that students do not perceive work ethic to be as sensitive a construct when pertaining to an academic context.

Finally, with regard to social desirability, scores on the SDS in the experimental, control, and no-prime groups failed to significantly differ for either administration group. As the experimental prime was intended to reduce intentional response distortion (i.e., social desirability), it did not perform as intended in this aspect of the study. However, these results are nevertheless informative. In light of the finding that the experimental prime did not mitigate the influence of social desirability when reporting counterproductive behaviors, it is not surprising that scores on the SDS did not differ across groups. The influence of social desirability was clearly present when participants responded to the CSBS; thus, it follows that social desirability was equally present when responding to the SDS.

The most noteworthy results of this study are that participants in both administration groups reported lower work ethic after completing the experimental prime. These findings suggest that a discrepancy exists in the willingness to admit to lower work ethic as opposed to

higher counterproductive behaviors, and that this difference likely stems from the relative sensitivity of these constructs.

Limitations and Directions for Future Research

The primary objective of this study was to evaluate the effectiveness of employing of a moral self-reflective prime that could potentially be used to combat response distortion in selection contexts. However, as a convenience sample of undergraduate students were used, the generalizability of the findings is somewhat limited. First, the average age of participants was 18.8 years, with the majority (77.2%) of students being in their first year of school. Even though the personality tests used were structured to accommodate non-working students (e.g., the CSBS assessed counterproductive student behaviors rather than counterproductive work behaviors), most of the students had only worked during the summer months if at all. Second, course credit was the only incentive offered for completing the study. As mentioned by Ones et al. (2007), lab studies of directed faking are affected by instructions to fake, but real-life situations are not affected in the same way. If this study had used a sample of actual job applicants, it is presumed that the incentive of obtaining a job would also have affected the sensitivity of the constructs.

Future research should focus on the sensitivity of these constructs and seek to develop primes that are potent enough to affect both the intuitive and rationalistic aspects of the decision making process. The results of this study neither supported nor unsupported Goffin and Boyd's (2009) faking decision tree, but they did illustrate that construct sensitivity can be a contributing factor when weighing the severity of a decision. Future research should examine why counterproductive behavior appears to be a sensitive construct to report but work ethic does not. Does this mean that admitting to lower work ethic is viewed as more socially acceptable? Future

research efforts should also focus on job applicants, as the necessity for a job in terms of survival would greatly skew the sensitivity of a construct.

As mentioned earlier, Mazar et al.'s (2008a) Ten Commandments research provided significant insight into the current study. However, several authors argued that the study by Mazar and associates overlooked several key factors with regard to motivation to fake. As noted in a commentary by Rick and Loewenstein (2008), evidence suggests that people who find themselves in a place of desperation and believe that dishonest behavior is the only option are more likely to lie, cheat, and steal (e.g., Chang & Schultz, 1990; Schepanski & Kelsey, 1990). Kahneman and Tversky's (1979) prospect theory illustrated the concept of loss aversion and they coined the term "hypermotivation" to denote a visceral state in which individuals engage in behaviors that would normally be viewed as unacceptable in an effort to avoid loss. Loss aversion implies that the motivation to avoid loss is approximately two to three times greater than the motivation to obtain a gain of equivalent value. Relating to the current study, this "hypermotivation" could be exemplified in job applicants who are desperate for a job and willing to take part in unacceptable behavior to ensure that they do not incur future loss.

In a response by Mazar, Amir, and Ariely (2008b), it is suggested that if dishonesty lies primarily in motivation and standard rational dishonesty (i.e., dishonesty that stems from an explicit analysis of external cost and benefit), the benefits of being dishonest must exceed the costs. Therefore, they propose that the best solution is to shift the imbalance so that the costs associated with dishonesty are greater than the benefits by manipulating external factors, specifically, increasing the probability of being caught and/or the severity of the punishment. An interesting suggestion for future research is that employees whose on-the-job performance dramatically differs from their personality test responses (e.g., employees' test responses imply

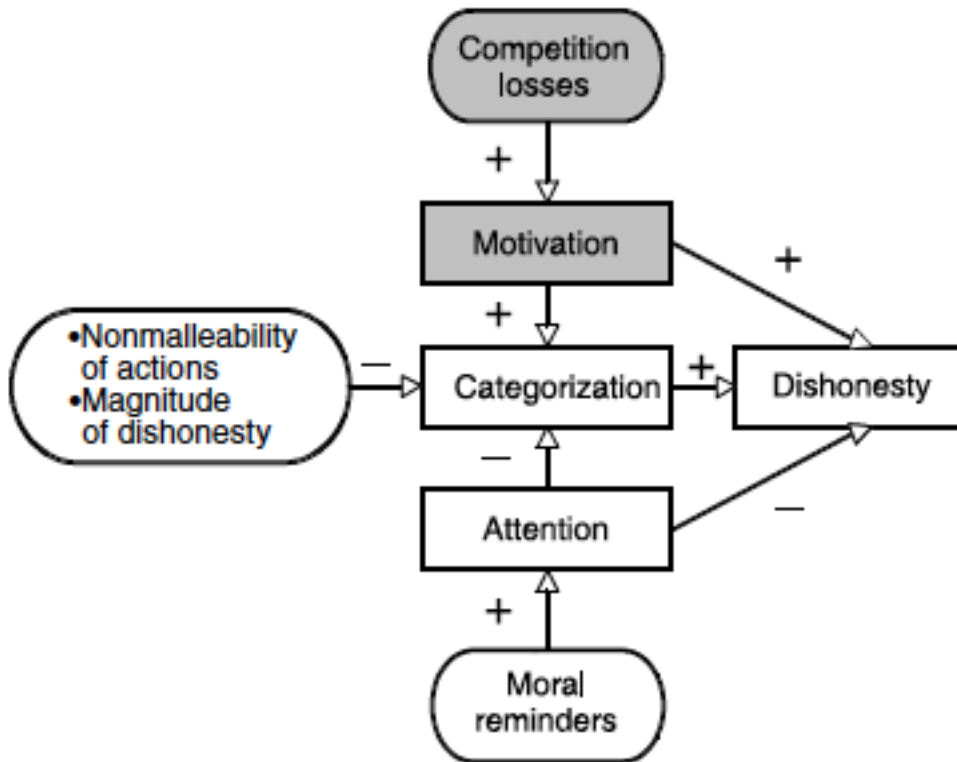
that they would effectively assume leadership roles but in actuality they consistently shrink from leadership roles) could be challenged regarding the honesty of their responses (Goffin & Boyd, 2009). If organizations publicize this practice to job applicants it could significantly impact the honesty of their test responses. A study by Robie, Brown, and Beaty (2007) showed that test takers show genuine concern with regard to being confronted about their dishonesty. If future research finds that moral self-reflective primes are not consistently effective against sensitive constructs such as counterproductive behaviors, challenging employees' honesty may be a potential area of future research. However, the major issue with this method is the ethicality of confronting someone about his or her honesty in the workplace.

One final but very important note mentioned by Mazar and colleagues (2008b) is that dishonesty is complex and may be driven by a variety of factors, many of which were not addressed in their initial study. Their study emphasized the role of two distinct but interrelated mechanisms of self-concept maintenance: categorization and attention to standards. With categorization, people can categorize their actions into more compatible terms and create rationalizations for them. In addition, Mazar et al.'s response (2008b) illustrated that other factors contribute to dishonesty, as shown in Figure 2. Rick and Loewenstein (2008) emphasized that the role of motivation in dishonesty has two sources: competition and avoidance or recoup of losses. As mentioned earlier about how dishonesty is more apparent when someone is in a desperate position, this same motivation can increase a person's propensity for self-serving categorization, increasing self-concept maintenance dishonesty. Also, motivation for dishonesty can have a direct effect through standard rational dishonesty, leading to a point where the perceived external costs and benefits of dishonesty trump maintaining an honest self-concept. In

summary, future researchers should consider the factors included in Figure 2 in developing methods to reduce dishonesty.

Figure 2

An Extended Framework for Dishonesty



Conclusion

This study sought to create a tangible solution to faking on personality tests by using moral self-reflective priming to influence the dual processes of decision-making. The present results suggest that moral self-reflective priming may effectively reduce faking so long as the topics of interest are not overly sensitive in nature. When the benefits of being dishonest exceed the cost, individuals will behave dishonestly. Therefore, future research needs to focus on creating ways to remind participants that the costs of dishonesty exceeds the benefits, either through more potent moral self-reflective primes or via other methods. Future research should also take the sensitivity of the construct into account as well as consider one's motivation for

being dishonest. Overall, the moral self-reflective prime developed for this study showed promise, but needs to be greatly improved to compensate for the effects of sensitive constructs and motivation to fake.

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Appendix A. Priming Measure (Experimental Group)

Below you will find a list of statements. Please read each statement carefully and choose the three words (or more) that best answer the corresponding statement.

1. What are some of the characteristics of a person who lies or deceives people?

Honest	Weak	Hurtful	Disrespectful	Trustworthy
Undependable	Considerate	Dependable	Egotistic	Courageous
Selfish	Empathetic	Greedy	Caring	Manipulative

2. What are some of the characteristics of a person who is truthful and upfront?

Honest	Weak	Hurtful	Disrespectful	Trustworthy
Undependable	Considerate	Dependable	Egotistic	Courageous
Selfish	Empathetic	Greedy	Caring	Manipulative

3. What are some good examples of immoral characteristics?

Self-restraint	Pretentious	Irresponsible	Altruistic	Dependable
Selfish	Self-Centered	Trustworthy	Modest	Cheating
Charitable	Courteous	Truthful	Deceptive	Faking

4. Imagine the person you hope to become. What characteristics does that person have?

Dependable	Self-restraint	Altruistic	Irresponsible	Pretentious
Cheating	Selfish	Modest	Trustworthy	Self-Centered
Faking	Charitable	Deceptive	Truthful	Courteous

5. Which of the following characteristics would your parents detest the most?

Self-restraint	Altruistic	Pretentious	Irresponsible	Dependable
Selfish	Modest	Self-Centered	Trustworthy	Cheating
Charitable	Deceptive	Courteous	Truthful	Faking

6. What are some good examples of moral characteristics?

Irresponsible	Dependable	Self-restraint	Altruistic	Pretentious
Trustworthy	Cheating	Selfish	Modest	Self-Centered
Truthful	Faking	Charitable	Deceptive	Courteous

7. What are some characteristics a person must have for you to disrespect them?

Altruistic	Irresponsible	Dependable	Pretentious	Self-restraint
Modest	Trustworthy	Cheating	Self-Centered	Selfish
Deceptive	Truthful	Faking	Courteous	Charitable

8. From the previous question, which of those characteristics apply to you?

Irresponsible	Dependable	Self-restraint	Altruistic	Pretentious
Trustworthy	Cheating	Selfish	Modest	Self-Centered
Truthful	Faking	Charitable	Deceptive	Courteous

Appendix B: Priming Measure (Control Group)

Below you will find a list of statements. Please read each statement carefully and choose the three words (or more) that best answer the corresponding statement.

1. Which of the following are variations of the color red?

Cream	Azure	Scarlet	Indigo	Auburn
Harlequin	Rust	Khaki	Maize	Teal
Celeste	Olive	Asparagus	Vermillion	Aureolin

2. What of the following are variations of the biological family of Felidae (i.e. Felines)?

Steppe polecat	Cougar	Shrew	Saurischia	Margay
Ocelot	Dingo	Leopard	Anole	Lynx
European mink	Vole	Lion	Anthdon	Dilong

3. Which of the following are regions of the human brain?

Thoracic	Trachea	Bronchioles	Optic chiasm	Endocardium
Myocardium	Pulvinar	Hippocampus	Alveoli	Basal ganglia
Thalamus	Epicardium	Amygdala	Cerebellum	Pleura

4. Which of the following are famous psychologists?

Edwin Hubble	Tycho Brahe	Carl Jung	Walter Baade	B.F. Skinner
Carl Sagan	Albert Bandura	Johann Bode	Fritz Zwicky	Jean Piaget
Frank Drake	Anna Freud	Kurt Lewin	Ivan Pavlov	Otto Struve

5. Which of the following are famous authors?

Sebastian Loeb	Lewis Carroll	A.J. Foyt	Walt Whitman	Jackie Stewart
Ian Fleming	Ayrton Senna	J.K. Rowling	Larry McMurty	Alex Zanardi
Mark Donohue	Lewis Hamilton	Mark Twain	Jane Austen	James Hunt

6. Which of the following are fruit?

Pumpkin	Tomato	Pawpaw	Olive	Nutmeg
Chaya	Beet	Turnip	Catsear	Orache
Pea	Squash	Amaranth	Cherry	Tatsoi

7. Which of the following are countries?

Dmitrovsk	Dubai	Osa	Algeria	Chad
Moscow	Mikhaylov	Zhirnovsk	Sweden	Uzbekistan
Kyrgyzstan	Ostrov	Vysokovsk	Iran	Brazil

8. Which of the following people, who have been featured on US currency, were US presidents?

G. Cleveland	A. Hamilton	F.D. Roosevelt	M. Hillegas	J. Monroe
S. B. Anthony	B. Franklin	D. Webster	T.H. Benton	U.S. Grant
D. Eisenhower	W. Wilson	W. McKinley	J. Marshall	S.P. Chase

Appendix C: Informed Consent Document

**CONSENT TO PARTICIPATE
DEPARTMENT OF PSYCHOLOGY
EAST CAROLINA UNIVERSITY
GREENVILLE, NORTH CAROLINA, 27858**

Title Investigating the relationship between personality and reasoning processes

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Greenville, NC 27858
252-328-6474
bowlerj@ecu.edu

Purpose You have been asked to participate in a research study being conducted by Dr. Jennifer Bowler. This research study seeks to examine the influence of personality on reasoning processes.

Plan and Procedure During the study you will complete several survey measures. After the study is complete, all data and related information will be kept indefinitely in a locked file cabinet.

Privacy and Confidentiality All information collected about you will be completely confidential. Your name will not be connected with any of the responses you provide on any of the measures.

Potential Risks and Discomforts There are no known risks to participating in this study.

Compensation For completing the study you will receive ½ credit toward your research participation requirement for PSYC1000/PSYC1060.

Freedom to withdraw Participation is completely voluntary. You may refuse to participate in this study or withdraw at any time. There is no penalty of any kind for either non-participation or withdrawal. However, if you choose to withdraw from the study before you complete the measures you will not receive your research participation credit.

Availability of results A summary of these results will be available from the researcher on or about 12/31/2014. The summary will include only aggregated (i.e., combined) data for the entire sample.
No individual results will be available.

Investigator availability The investigator will be available to answer any questions concerning this research, now or in the future. You may contact the investigators, Dr. Jennifer Bowler via phone (252-328-6474) or email (bowlerj@ecu.edu). If you have questions about your rights as a research subject, you may call the University and Medical Center Institutional Review Board at phone number 252-744-2914.

I agree to participate in this study.

I do not agree to participate in this study.

Appendix D: Debriefing Form

Debriefing Form

Study: Personality and Reasoning Processes

Please read the information below.

Thank you for your participation in this study. This study investigates whether perceptions of morality influence impression management behavior.

There is no risk involved in participating in this study. Your participation will enable psychologists to better identify strategies that may encourage the provision of objective responses to self-report measures. Other than noting your participation in the study, you will not be identified and your responses cannot be linked to you.

If you have any further questions regarding this study, please contact Dr. Jennifer Bowler via email (bowlerj@ecu.edu) or by phone (252-328-6474).

Appendix E: IRB Documentation

5/29/2014

epirate.ecu.edu/app/Doc/GUKPNAJ4HB0DKF7HGKR93JNA065/fromString.html



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board Office
4N-70 Brody Medical Sciences Building- Mail Stop 682
600 Moye Boulevard - Greenville, NC 27834
Office 252-744-2914 • Fax 252-744-2284 • www.ecu.edu/irb

Notification of Exempt Certification

From: Social/Behavioral IRB
To: [Jennifer Bowler](#)
CC:
Date: 11/7/2013
Re: [UMCIRB 13-002258](#)
The relationship between morality and faking behavior

I am pleased to inform you that your research submission has been certified as exempt on 11/7/2013. This study is eligible for Exempt Certification under category #2.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

The UMCIRB office will hold your exemption application for a period of five years from the date of this letter. If you wish to continue this protocol beyond this period, you will need to submit an Exemption Certification request at least 30 days before the end of the five year period.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

IRB00000705 East Carolina U IRB #1 (Biomedical) IORG0000418
IRB00002781 East Carolina U IRB #2 (Behavioral/SS) IORG0000418