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## When “Right Makes Might”: Moral Superiority and its Effects on Decision-making for Others

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When “Right Makes Might”:  
Moral Superiority and its Effects on Decision-making for Others

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A Thesis  
Presented to  
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In Partial Fulfillment  
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by  
Emily Shakal  
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### Abstract

Within the psychological literature of morality, little research has been done on the concept of moral superiority. The aim of this study was to determine whether a self-perception of moral superiority led to increased severity of judgment toward social issues and harsher moral action against perpetrators. Participants in the experimental condition were given a moral identity prime prior to all tasks. The results showed that the moral prime was not effective in increasing a sense of moral superiority in comparison to the control condition. Severity of judgment also did not differ between groups. There was no difference between groups on the harshness of punishment for perpetrators of littering or prostitution, but opposite to the hypothesis, the experimental group sentenced a recreational drug user to significantly less jail time than the control group did. Exploratory analyses and a discussion of morality research and future directions follows.

### When “Right Makes Might”:

#### Moral Superiority and its Effects on Decision-making for Others

Though morality has long been an area of psychological research, as the extant body of psychology literature has grown, the understanding of morality has become more sophisticated and caveated. This is important today, especially given the current social climate. One need not look far to find groups formed around basic ideologies that contribute to a sense of moral superiority that is wielded against others who disagree. Many of these groups are in conflict, but each group feels as though they alone are taking the moral high ground as opposed to the Other. The present research examines the role of a relatively new construct in moral psychological literature: moral superiority, that is, the perception that one has greater moral character than their peers.

Because little research exists on the phenomenon of moral superiority from a psychological perspective, foundational morality is examined in the present literature review through the trajectory toward moral superiority. From a basic outline of how morality develops and the different components of morality’s expression, research in this domain has shifted over time from focusing on mechanisms of moral reasoning to those comprising the moral identity. Later studies considered the influence of yet another moral domain, moral mandates, in explaining morally-motivated behavior. Understanding the mechanisms behind moral identity and conviction is especially important in the current milieu, where moral judgment of social issues has a drastic impact on society. Although research has examined how manipulating moral identity or moral conviction influences subsequent behavior, little research appears to exist on the phenomenon of moral superiority – what it is, whether and how it can be manipulated, and how it influences decision-making; these are the aims of the present study.

### **Developmental Foundations of Morality**

Piaget, fascinated by the way children develop morality, studied and documented the types of moral judgment children made and the reasoning behind those judgments. In his early work, Piaget proposed that from about the age of 10 to 12 children begin to develop their own sense of morality rather than simply endorsing moral rules passed down to them from their caregivers (Piaget, 1965; Sylvia, Mustafa, & Hamilton, 1981). In addition to judgment cognitions that change throughout childhood, Piaget noted that punitive preferences for violations of those rules changed through childhood, where younger children viewed harsher punishment as good and necessary while older children opted for corrective dialogue and behavioral acts of restitution (Adkins, Payne, & O’Malley, 1974; Piaget, 1965; Sylvia et al., 1981).

Kohlberg, the other father of moral psychology, used some of Piaget’s constructs to develop his six stages of morality which were subsumed into three categories. The last of these encompassed the role of issues and institutions, both of which are major components of adult morality (Adkins et al., 1974; Kohlberg, 1971). In both of their theories, moral development expands largely through environmental exposure, which has differential context-specific development in children dependent on the cognitive biases to which they were exposed over time. This also implies that group membership may have differential effects on the development of an individual’s sense of moral self.

Recent research by developmental psychologists has built upon foundational work to examine the facets of morality throughout development. Consistent with foundational research, Krettenauer, Murua, and Fanli (2016) found that moral value domains, or the personal character traits one values, tend to be context-specific in adolescents with the moral self-concept

stabilizing throughout adulthood. Their research demonstrated that in moral identity value domains, younger participants favored traits such as being open-minded, being a hard worker, and being understanding, whereas older adults tended towards traits such as being responsible, being reliable, and having integrity. This supports the idea that although morality begins to emerge from one’s self-concept at adolescence, the traits individuals consider central to moral identity which they desire to espouse are likely to change over the lifespan.

Several individual differences have been noted as significant factors for predicting prosocial behavior or improved ethical decision-making. As previously mentioned, Krettenauer et al. (2016) demonstrated the effects of age on the moral traits that are valued and the accessibility of various moral schemas across the lifespan. While they noted that the strength of moral identity consistently increased with age, their results also suggested that generalized schemas may be less effective at predicting long-term morally motivated behavior across the lifespan due to the variance in the traits individuals tend to desire at different ages and the lack of cross-context consistency in how those traits are valued/enacted in adolescence and early adulthood.

### **Moral Identity**

Though sometimes posed as competing constructs, moral reasoning and moral identity both attempt to capture the origin and initiation of an individual’s morality. Moral reasoning was once the predominant concept that developmental psychologists and ethicists used to conceptualize morality. However, the sociocognitive perspective has broadened the conceptual framework of morality through moral identity theory, which has provided direction for research across many areas of study (Aquino & Reed, 2002).

Moral identity can be defined as a self-construct based on moral values and beliefs that one considers to be essential (Leavitt, Zhu, & Aquino, 2016). This means that there can be significant variance in the types of moral traits one espouses. Aquino and Reed (2002) referred to the individually ascribed value of moral traits and moral identity as “self-importance”. Furthermore, they note that moral identity is comprised of both public and private dimensions, represented in the model as *symbolization* and *internalization*, respectively. Internalization relates to moral traits that an individual considers to be a part of one’s core values and self-concept. Symbolization is more concerned with outward presentation of moral character, where one is primarily concerned with demonstrating that he or she is the kind of person that upholds particular values. As such, Symbolization is often considered a form of impression management or extrinsically-motivated morality (Hertz & Krettenauer, 2016; Vitell et al., 2009).

Other components of the sociocognitive model involve the premises that moral identity motivates behavior in a way that demonstrates self-consistency; that people have many values ascribed with self-importance but that they can only maintain a few of them simultaneously (in the “working self-concept”); and that, in order to activate the moral identity, the construct has to be made accessible by the environment (Aquino, Freeman, Reed, & Lim, 2009; Conway & Peetz, 2012).

### **Experimental Manipulations of Moral Identity**

Moral identity has often been manipulated by increasing environmental accessibility of the moral identity framework via primes. One of the difficulties in determining an effective prime is that there may be individual differences in the centrality of one’s moral identity, meaning that for some individuals moral identity is patently more accessible than it is to other individuals (Aquino et al., 2009). The stakes are higher for those individuals with increased

centrality of moral identity in that they have greater motivation to act morally in order to preserve self-consistency. However, since those individuals already have ready access to their moral identity schemas, the prime does nothing to increase accessibility of the schema. It is individuals with low centrality of moral identity (i.e. those with low scores on the Internalization dimension of moral identity) that are highly responsive to such primes because their accessibility of a moral self-construct is generally low.

Researchers have demonstrated that implicit primes of moral identity can have an effect on behavior by bolstering or threatening moral identity. Abramovitch, Doron, and Altenburger (2013) introduced a subtle threat to moral identity by having participants replicate a bell-curve graph that was presented to them, demarcating the 17<sup>th</sup> percentile with a label that read, “Your morality is low.” After the activity, participants engaged in more obsessive-compulsive cognitions, such as excessive attribution toward the importance of thoughts, an elevated desire to control those thoughts, and an increased proclivity toward valuing perfectionism. This research suggests that individuals experiencing a threat to their moral identity may engage in thought patterns and behaviors directed at repairing the chasm. Alternately, Leavitt et al. (2016) found that a word completion task activated moral identity by implicitly eliciting morally-charged words in relation to self-construct. While Hertz and Krettenauer (2016) found that implicit priming techniques generally had an effect, they admitted that individual differences appeared to most directly account for behavior, which were unaffected by the moral identity prime.

Of explicit primes, the issues reported in various studies elucidate other considerations that must be acknowledged. While some researchers have suggested that observation of a moral exemplar could elicit moral motivation for prosocial behavior (Aquino et al., 2009), it is possible that introducing an exemplar activates social comparison as a motivator rather than moral



identity itself. This may or may not be a confounding factor, dependent on whether the moral model includes social comparison as a possible contributor to moral identity. Primes which are inherently self-relevant and/or self-referent draw a more reliably direct line to moral identity and emotional engagement thereof (Conway & Peetz, 2012; Neesham & Gu, 2015).

Conway and Peetz (2012) discovered that whether a self-described moral act was concrete or abstract had differential predictive effects on successive moral behaviors. They found that participants were most likely to enact moral behavior after recalling a temporally-distant moral act they performed, presumably in order to maintain self-consistency. When participants recalled a recent moral act, they enacted moral licensing, wherein they excused themselves from the responsibility of acting prosocially because they had already demonstrated their morality by a recent act. If participants recalled immoral acts, recent recollections led to compensatory moral behavior and distant acts led to less moral behavior (Conway & Peetz, 2012; Jordan, Mullen, & Murnighan, 2011). Conway and Peetz (2012) proposed that *concrete recent* events stimulate thoughts about how the act is performed which may activate moral reasoning, leading to licensing or compensatory behavior, whereas *abstract distant* events stimulate thoughts about why the act is performed, activating the moral identity and encouraging continued similar behavior to maintain an established self-schema.

Dependent variables using ethically-ambiguous or Trolley Car scenarios have made definitive interpretations of results unreliable (Bauman, McGraw, Bartels, & Warren, 2014). Researchers warned against sociocultural biases in assessment of morality, challenging previous findings that religious conservatives had poor moral discernment as assessed through the Defining Issues Test (Needham-Penrose & Friedman, 2012). The Defining Issues Test and later revision (DIT; Rest, 1979; DIT-2; Rest & Narvaez, 1998) are tests involving ethically-

ambiguous scenarios requiring participants to make hypothetical decisions that necessarily involve sacrificial loss. One example is the classic Trolley Car scenario, wherein a train that cannot be stopped is on a railroad track that is blocked by multiple individuals who will certainly die upon impact. In this scenario, individuals are presented with the choice of pulling a lever which will redirect the train to the other track which has a single individual blocking it, or not pulling the lever and letting the train continue on its current track.

Needham-Penrose and Friedman (2012) claimed that the DIT favors a utilitarian response, one that considers the ultimate good for the greatest number of individuals (e. g. pulling the lever), as the morally correct choice. In their study, religious conservatives were more likely to answer questions from the DIT with deontological responses, characterized by an ultimate ethic with an obligation to act as exhibited by moral exemplars in religious texts and traditions. That a specific group favors a particular philosophical-moral ethic (deontology) is further evidence for variability in the traits that comprise moral reasoning and identity across groups. Researchers must exercise caution with claims of moral rightness in the face of moral relativism.

Xu and Ma (2016) also cautioned against extrapolating responses to ethically ambiguous scenarios to be representative of individual moral judgments. They particularly describe a phenomenon in which these scenarios clearly have a utilitarian emphasis when most naturally-occurring ethical scenarios in a person’s daily life are more likely to result in deontological moral judgments. This is significant because different cognitive processes are initiated dependent upon the moral judgment style enacted; utilitarian responses are derived from intentional cognitions and deontological responses often occur automatically with an emotional element, which has also been noted by other researchers (Haidt, 2001; Haidt et al., 2000; Royzman, Kim,

& Leeman, 2015). Moreover, those who used a utilitarian judgment were found to have a weaker moral identity than those who favored a deontological response (Xu & Ma, 2016). Though upon first view this may appear to contradict earlier findings suggesting that the DIT affirms a utilitarian response, these findings act to confirm that the DIT has biases regarding moral reasoning preferences (toward utilitarian reasoning), but that the reasoning style employed may be mediated by moral identity or by group membership.

In the hypothetical decision-making realm, research has shown that individuals can have a strong moral identity yet still show weaknesses in moral reasoning; this and other studies have highlighted potential biases and issues underlying the use of philosophical judgments lacking behavioral output as opposed to concrete judgment resulting in measurable behavioral outcomes (Bauman et al., 2014; Needham-Penrose & Friedman, 2012).

These findings hold important information about how to develop an experimental manipulation of moral superiority. Ambiguous, forced-choice tasks are unlikely to produce the intended effects due to the type of moral reasoning involved, which may not increase one's sense of self-efficacy in moral decision-making. Additionally, those tasks are fraught with the likelihood of a biased response pattern dependent upon group membership, where religious, political, or cultural beliefs may drive black-and-white decision-making since there is no opportunity for individuals to explain their rationale. Consequently, the manipulation should be one that increases the accessibility of one's moral self-schema in a real-world application. In predicting prosocial behavior, it has been shown that recollection of an abstract, distant event is more likely to produce values-consistent moral behavior (Conway & Peetz, 2012). Presumably, the same would hold true for manipulation of moral superiority.

### **Models of Moral Judgments**

While moral identity roots morality in one’s core sense of self, the channels for how that morality is applied through judgment has great impact on behavioral outcomes. Below follows a closer examination of two prominent models of moral judgment. Though there are striking similarities between them, particularly in terms of outcomes, they are posited as competing models driven by distinct mechanisms (For a more comprehensive comparison of the following models, see Napier & Tyler, 2008).

#### **Social Intuitionist Model**

The social intuitionist model of morality opposes the idea that moral judgments are inherently obtained through reason. Within this model, intuition is the prime factor driving decisions, such that moral judgments are instantaneously made, often driven by affective reactions outside of conscious awareness and only reasoned post hoc to support the pre-formed conclusion (Haidt, 2001). This finding is consistent with Xu and Ma’s conclusion (2016), that most decisions in daily life include deontological reasoning. Haidt’s supposition (2001) that moral judgment is primarily emotive, finds support through the mechanism of moral dumbfounding. Moral dumbfounding is the effect of having an inability to justify a moral judgment with sound reasoning, resulting in the conclusion that “it’s wrong because it’s wrong” (Haidt, Bjorkland, & Murphy, 2000). Rather than using a trolley car vignette, which has demonstrated difficulties with poorly understood confounding variables in interpretation (Bauman et al., 2014), this line of research has used the “Julie and Mark” vignette, a story about consensual sibling incest, which found great consistency in eliciting a moral dumbfounding effect (Haidt, 2001; Royzman et al., 2015).

Scenarios like the Julie and Mark vignette support the social intuitionist model by evoking visceral affect which leads to a decision, after which post hoc reasoning is used to support the foregone conclusion. Violations of moral standards have been shown to elicit emotions of disgust, contempt, and righteous anger, all of which lend themselves to Haidt’s theory (Tangney, Stuewig, & Mashek, 2007). Studies have also shown that instantaneous moral judgments may be particularly strong in response to moral shock, though there is disagreement about the mechanisms driving the response to that shock (Wisneski & Skitka, 2017).

Research into procedural justice found that individuals asked to imagine themselves on the jury of various criminal cases recommended significantly longer sentences to criminals when presented with photographs of the crime scene rather than just descriptions, regardless of vividness of those descriptions (Ahola, Hellström, & Christianson, 2010). Though that study did not examine what mediated the effect, the moral shock described above or more specifically an affective response of disgust, could potentially explain that finding.

Research by Zhong, Strejcek, and Sivanathan (2010) examined the role of disgust by priming individuals to think about the cleanliness of themselves or their surrounding environment which yielded the effect that individuals with a cleanliness prime experienced more moral disgust and judged social issues as more immoral than the control group did. This is one of the strongest affective supports for the social intuitionist model since individuals judge issues more harshly when they experience the emotion of disgust (Haidt, 2001).

### **Value Protection Model**

In contrast to the social intuitionist model, the value protection model relies upon conscious attitudes rather than unconscious affective responses, asserting that emotive reactions do not exist in a vacuum but are, in fact, affective responses to either real or imagined violations

of moral standards or moral mandates (Skitka, 2002; Skitka, Bauman, & Stargis, 2005). A moral mandate or moral conviction (used interchangeably from here on) is defined in this literature as an individual’s self-ascribed evaluation of morality, in terms of absolute right or absolute wrong, of a given issue (Skitka, 2002). The reliance on conscious processing for the value protection model was supported by a study demonstrating that eliciting subconscious moral shock had no effect on moral judgment, whereas conscious exposure increased the strength of judgment, suggesting support for conscious awareness of moral mandates rather than simple intuition as proposed in the social intuitionist model (Wisneski & Skitka, 2017). Though the distinction is important, determining whether processing occurs on a conscious or subconscious level may be difficult in some scenarios, such as the study which found that exposure to crime scene photos led to harsher sentences (Ahola et al., 2010). Determining whether judgment is mediated by affect (“disgust”) or by moral mandates is not necessarily clear cut.

The value protection model depends on the premises that a) Values are personally determined dependent on moral conviction or moral mandates, b) These mandates allow individuals to cast people into categories of right and wrong dependent on if mandates are violated, and c) Witnessing or endorsing violations of these mandates should feel threatening to the individual’s identity (Skitka, 2002). Critics of the value protection model may suggest that moral mandates are nothing more than strong attitudes. While attitude theory may inform aspects of the value protection model in that moral mandates almost inherently include attitude strength and its component parts: extremity, importance, certainty, centrality, and accessibility, proponents of the model assert that they are different constructs (Skitka et al., 2005).

Just as the fact that all squares are parallelograms but not all parallelograms are squares, according to Skitka and Houston (2002), so all moral mandates are strong attitudes but not all

strong attitudes are moral mandates. Skitka et al. (2005) distinguished general attitudes from moral mandates by assessing individual participants' ratings of how much their feelings on a given issue related to their “core moral beliefs or convictions”. The results of this study indicated that there were differences in strong attitudes and moral conviction, where differences in moral conviction more strongly predicted a preference for distance from dissimilar others than difference in strong attitudes alone did.

### **Moral Conviction**

Though the exact relationship of moral identity and moral conviction, in terms of correlational strength or causal direction, has not been clearly delineated within the literature, they are distinct constructs conceptualizing an individual's moral framework. The distinction may be difficult to grasp since components of attitude theory may underlie both constructs. The contribution of attitude theory to moral mandates has already been enumerated above, but it may similarly underlie moral identity research, wherein the moral identity is expected to be stronger for those who attribute it with centrality or self-importance, that is, for those who consider morality to be essential to their core identity (Aquino & Reed, 2002). The difference between moral identity and moral conviction reduces primarily to whether the moral object in question is the self in terms of moral traits or an issue in terms of moral mandates. Essentially, moral identity relates to the specific valued behavior of the individual whereas moral mandates relate to one's perception of how the world should work and how others should behave.

### **Experimental Manipulations of Moral Mandates**

Unlike moral identity, which can be made more accessible universally with a wide range of manipulations, because moral mandates are issue-specific per individual, there are more

difficulties in developing effective manipulations. A vast amount of recent research in moral conviction has been geared specifically toward political issues, perhaps because of this difficulty.

Generally, studies of this nature have involved presenting participants with a specific controversial political issue or asking participants to envision a specific issue they feel strongly about (Morgan, 2011; Skitka, Bauman, & Sargis, 2008; Skitka, Hanson, & Wisneski, 2017). Other studies involved a manipulation in which, after the participants divulged their moral mandate on a given topic, they were led to a room where they were told they would interact with another person in the study, only to find confederate props suggestive of an individual holding the opposite viewpoint there, such as a backpack with a pro-life pin prominently displayed on the chair opposite the participant (Skitka et al., 2008; Wright, Cullum, & Schwab, 2008).

In a study involving procedural justice, participants were asked about their expectations of procedural justice via hypothetical questions that began with “a criminal trial is just if” and “the only just outcome of trials is”, followed by various conditions to which participants rated the extent of their agreement (Skitka & Houston, 2001). Moral mandate status was manipulated by asking participants this series of questions about trial outcomes and expectations to determine the extent to which people perceived outcomes in morally mandated perspectives, that is, that “the guilty must be must be convicted” and “the innocent must be acquitted”. In a second study of procedural justice, Skitka and Houston (2001) used newspaper descriptions of a crime with three levels of implied status of the criminal by the journalist: presumed guilt, presumed innocence, or neutral. After this manipulation, individuals were exposed to the idea that the court magistrate came by these details in ways that were procedurally just and unjust. When individuals felt as though they were on the “right” side of the argument, the morally mandated



position, they disregarded procedural justice, favoring whatever earned their desired outcome based on their moral judgment of the scenario.

Finally, a study presented participants with questions about trust in the authority of the Supreme Court, then about moral mandates in three controversial political issues: homosexuality, abortion, and illegal immigration (Skitka, 2002). Individuals were then assigned to two groups based on how they responded to prompts involving the issues described, whether they were strongly for or strongly against a change to current policy that was purportedly supported by either the Supreme Court or a state referendum. Those in the threat condition were supplied with information that either the Supreme Court or state referendum supported a change which they reported they were strongly against. Their results demonstrated that those whose moral mandates were not under threat were able to distinguish procedural fairness from their stance on the issues, whereas those in the threat condition were more likely to experience moral outrage and evaluate the procedure as unjust. Despite that moral mandates cannot be created by experimenters in a research context, development of sophisticated outcome variables has led to more expansive knowledge, not just about morality itself, but also what motivates it.

### **Group Membership and Morality**

The review of previous studies up to this point has examined morality through separate but overlapping frameworks, one that hinges on the identity and one that hinges on the issues. While moral identity and moral convictions are related, they are also distinct. This distinction has led to varying models of moral judgment, two of which have also been examined in the present review. The difficulty researchers face in developing parsimonious explanations of moral development might well be because different factors drive the motivations behind morality and moral judgments, more than just value-protection and moral dumbfounding, including group

membership and social comparison. This suggests that any research into the moral domain, including moral superiority, should account for the effects that may be present due to group membership.

That people are motivated to be, or appear to be, moral is evident given that the self-serving bias, where individuals are driven to see themselves in a better light as compared to peers, is especially strong in the moral domain (Tappin & McKay, 2016). For some, social comparison may be a powerful catalyst for motivating moral self-constructs and moral judgments. Davis (1966) conceived of social comparison by the Frog Pond Effect, noting that it is more satisfying to be a “big frog in a small pond” than the opposite. This may be especially powerful if individuals are motivated to enact the frog pond effect by meting out harsher moral judgments than their peers or than they imagine their peers would.

Group membership, such as political or religious affiliation, may be especially pertinent since those groups often consider morality to be an integral part of their collective identities. When an individual is subsumed into the collective identity, performance of other in-group members is praised, virtually erasing the frog pond effect (Gardner, Gabriel, & Hochschild, 2002). Though participation in a collective group may reduce social comparison in a way that motivates competition, it may simultaneously provide a means of internalized moral identity that is strengthened by the group, resulting in behavior consistent with that identity. Vitell et al. (2009) found a strong interactional relationship between the nature of religiosity, whether more intrinsic or extrinsic, and moral identity management (internalization vs. symbolization). Their study concluded that self-control entirely mediated the relationship between extrinsic religiosity and symbolization of moral identity. They suggested that extrinsic religiosity led to less self-

control which finally resulted in lesser awareness of the ramifications of their engagement in social, moral decision-making.

However, intrinsic religiosity was related to higher awareness of the ramifications of their involvement with moral actions (Vitell et al., 2009). Similarly, Ortberg, Gorsuch, and Kim (2001) concluded that group membership had the capacity to increase saliency of values which drive moral conviction. This result was bolstered by a doctoral dissertation, which found that the link from moral conviction to moral action was mediated, in part, by group identification and a sense of obligation (Morgan, 2011).

While these findings taken together appear to suggest that group membership plays a causal role in moral conviction and moral action, there also appears to be variance in the degree to which social interaction or group membership influences either moral identity or moral conviction. Research into the link between religiosity and morality has shown that moral and religious convictions are separate and that even within certain ideologies there is often great variance in issue-specific judgment making the link between group membership and moral conviction much less direct (Morgan, Skitka, & Wisneski, 2010; Napier & Tyler, 2008; Skitka, 2010).

Aside from group membership and a bias toward protecting a moral image to others and self, moral motives theory provides two alternate hypotheses on driving factors behind moral behaviors (See Skitka et al., 2017 for a more complete review). The moral asymmetry hypothesis proposes that people are motivated toward restraint and inhibitory behaviors via proscriptive morality (such as *not* taking drugs), driven by a feeling of anticipated regret. The moral symmetry hypothesis conversely stands that people are equally motivated toward positive engagement via prescriptive morality resulting in behaviors toward an end goal. Though both

note a proclivity to avoidance, the moral symmetry hypothesis asserts that proscriptive and prescriptive morality are of equal import in motivating moral decision-making.

### **Behavioral Outcomes and Decision Making**

Studies examining morality have varied in the type of behavioral outcomes they have studied, ranging from prosocial behavior to procedural justice. Experiments by Aquino et al. (2009) on increasing the accessibility and centrality of moral identity had the effect of increasing prosocial behavior, but only in those who had a generally low centrality of moral identity. Ironically, those with a higher centrality of moral identity may be less behaviorally responsive to moral identity primes because the function of those primes is to increase accessibility to a moral identity schema. In another study by Aquino et al. (2009), it was shown that introducing a reward for self-interest in the face of a moral dilemma decreased accessibility of moral identity and subsequent prosocial behavior.

Conway and Peetz (2012) expanded this by positing the self-interest of maintaining self-consistency, that is, there may also exist a self-serving motivation in preserving one's self-image as a moral person. Previous research has demonstrated the effects of moral licensing, that recalling recent acts of individual or group prosocial behavior may counterintuitively reduce future prosocial acts, as though a charity quota existed and previous moral acts licensed a decrease in immediate prosocial behavior (Kouchaki, 2011; Krumm & Corning, 2008; Sachdeva, Ilic, & Medin, 2009). However, Conway and Peetz (2012) found the opposite effect when individuals recalled distant moral acts, in which they acted prosocially to preserve their self-consistency rather than engaging in moral licensing.

In conjunction with self-consistency in moral identity, research has shown that action is likely to result from moral conviction due in part to the desire to re-affirm the self-perception of

morality after a threat to mandates (Skitka & Mullen, 2002). Real or imagined transgressions against moral mandates have been found to produce feelings of anger, contempt, disgust, and moral outrage which have driven behaviors of ostracism and social distance, moral cleansing, and aggression (Rozin, Lowery, Imada, & Haidt, 1999; Skitka & Houston, 2001; Tetlock, Elson, Green, & Lerner, 2000).

Behavioral outcomes have been evaluated across domains, from prosocial acts and intentions to political engagement to procedural justice, with varying results. Where moral identity literature focuses on group identification and prosocial acts consistent with that identity, moral conviction literature primarily highlights intolerance and dis-identification from dissimilar groups, exhibited behaviorally by social distance in terms of: less open disclosure as rated by blind observers, physical distance, and distance as measured by a questionnaire (Skitka, 2010; Skitka et al., 2005; Wright et al., 2008). Perhaps unexpectedly, however, Morgan et al. (2010) found that moral conviction predicted action more than religious conviction did, indicating a differential effect of group membership, challenging the notion that group membership necessarily increases saliency of conviction in a way that influences behavior. Wisneski, Lytle, and Skitka (2009) also found a differential effect of religion in that moral conviction was associated with a general distrust of authority whereas religiosity predicted a general trust in authority to make just decisions.

When it comes to policies and procedural justice, the behavioral outcomes of moral conviction are even graver. Researchers have noted that moral conviction can lead not only to prosocial acts, but also anti-social acts; this propensity is especially great because the greater the strength of moral conviction, the less one values social conformity and its behavioral directives (Aramovich, Lytle, & Skitka, 2012; Skitka & Mullen, 2002). Specifically, in one study,

participants with strong moral conviction in favor of the death penalty for a criminal rated the outcome of death as equally just regardless of whether it was enacted by the government or vigilantes; alternately, those with a moral conviction against the death penalty found both to be equally egregious (Skitka & Houston, 2001).

This means that using moral conviction to make moral judgments and decisions results in a cognitive heuristic that emphasizes the ends as a way to legitimize the means, regardless of procedural fairness (Skitka, 2002; Skitka & Houston, 2001; Skitka & Morgan, 2014). Sneddon (2007) warned that moral reasoning is generally a social process and that moral reasoning in isolation is risky. This risk increases within the realm of moral conviction which, by definition, is a deeply-individual construct and is used as a basis to separate from those with dissimilar attitudes, yielding the same moral dumbfounding means-to-an-end heuristic in lieu of methodical moral reasoning.

### **Moral Superiority**

Moral identity is the most general self-concept of morality. Once individuals move past the idea that they are generally moral people, the specifics of their moral identities emerge in the *types* of issues they tend to moralize, lending to the literature of moral mandates. Research has shown that moral shock, as mediated by external factors via grotesque photographs or manipulating awareness of physical features of cleanliness, leads to stronger moral judgments (Ahola et al., 2010; Wisneski & Skitka, 2017; Zhong et al., 2010). Zhong et al. (2010) found in particular that this effect was mediated by an “inflated moral self”. The present research is aimed at examining the role of moral superiority, a factor which has not been examined often in the literature of moral judgment and decision-making. Conceptually, moral superiority refers to the individuals’ perception of an “inflated sense of morality” in comparison to that of their peers

(Zhong et al., 2010). Research has demonstrated an effect of rating oneself as superior in various domains, with even higher elevations in the realm of morality (Peters, van de Bos, & Bobocel, 2004; Tappin & McKay, 2016). It is expected that an elevated sense of morality, or a heightened sense of moral superiority, will lead to differences in strength of moral judgment and subsequent decision-making.

In re-examination of data from the study of Skitka et al. (2002) which evaluated moral mandates on procedural justice, Napier and Tyler (2008) found an overall effect such that individuals with an issue-specific moral mandate experienced greater moral outrage in response to imagined policies regarding other issues that were not morally mandated. This suggests that there is another latent content structure at work explaining increases across domains, which is hypothesized in the present study to be the effect of moral superiority.

### **Present Study**

Rather than focusing on external cues for a moral superiority effect, as illustrated by previous research surrounding moral judgment (Wisneski & Skitka, 2017; Zhong et al., 2010), it was postulated that the moral superiority effect could be similarly ignited by manipulating awareness of one’s moral identity. Accessibility of moral constructs has been a demonstrable factor in the strength of judgments (Aquino et al., 2009; Bizer & Krosnick, 2001; Neesham & Gu, 2015). A pilot test of accessibility of moral identity demonstrated that, in a manner identical to the present study, inducing participants to recall an instance of their own nobility increased a subsequent self-rating of morality in comparison to controls. In this pilot sample ( $N = 18$ ), participants who were asked to reflect on a noble action scored higher on moral superiority ( $M = 79.63$ ,  $SD = 16.67$ ) than participants in the control group ( $M = 65.90$ ,  $SD = 19.09$ ), Cohen’s  $d = 0.77$ .

Because research has shown differential effects of attitudinal components of centrality, importance, accessibility, etc. (Skitka et al., 2005), and because attitude importance and attitude accessibility are different mechanisms which act causally upon one another dependent on the circumstances (Bizer & Krosnick, 2001), the manipulation used in the present study was intended to combine these factors rather than examine them individually. Factors which may influence attitude importance and accessibility including political orientation, religious factors, and personality makeup may play a role in the salience of moral identity and the effectiveness of the experimental manipulation. These factors are evaluated via exploratory analysis in the present study.

Previous research on moral identity indicated that recalling a distant act of morality encouraged individuals to behave in value-consistent manners which preserve a sense of self-consistency (Conway & Peetz, 2012; Skitka & Mullen, 2008). Thus, it was expected that increasing a sense of moral superiority via the manipulation would result in moral judgments consistent with one’s moral identity and sense of moral superiority. Though it is often posited that moral judgments are stronger in response to personal threat to one’s sense of morality (Skitka, 2002), other research has indicated a value-positive effect, where individuals act more readily in ways affirming their own beliefs rather than simply contradicting opposing beliefs (Skitka et al., 2017). This, taken with other research on moral identity, suggests that regardless of the mechanisms driving the behavior, even a subtle internal cue should affect one’s sense of moral superiority (Abramovitch et al., 2013; Aquino & Reed, 2002; Leavitt et al., 2016).

### **Method**

**Participants.** Participants included 112 undergraduate students enrolled in an introductory psychology class at the University of South Carolina Aiken, obtained through SONA for



research credit (see Table 1). Participants in this sample were 14.3% male ( $N = 16$ ), 84.8% female ( $N = 95$ ), and 0.9% were other ( $N = 1$ ). The age of participants ranged from 18 to 36, averaging 19.2 years old. With regard to ethnicity, 50.0% of individuals ( $N = 56$ ) were Caucasian, 40.2% ( $N = 45$ ) were African American/Black, 2.7% ( $N = 3$ ) were Hispanic/Latino, 1.8% ( $N = 2$ ) were American Indian or Alaskan Native, 0.9% ( $N = 1$ ) was Asian, and 4.5% ( $N = 5$ ) identified as “Other”, citing multiple ethnicities in the free-text box. See Participant Demographics in Table 1. Participants were directed by undergraduate research assistants who were blind to the nature of the study to a computer lab on campus where they answered a series of questions through Survey Gizmo. Survey Gizmo randomly assigned participants to either the control condition ( $N = 59$ ) or experimental condition ( $N = 53$ ) for a between-subjects design.

**Experimental Manipulation.** The first question in the survey acted as the experimental manipulation, intended to increase a sense of moral superiority in the experimental group. Participants in the experimental condition were given the prompt, as modified from the prompt used by Conway and Peetz (2012), “Recall and describe a time over 1 year ago when you acted in such a way that you felt honorable or righteous. Perhaps you were loyal to a friend, were generous when you could have been selfish, were kind to someone for no particular reason, or caring toward someone who needed you. Take some time to create a mental image and relive that experience in as much detail as you can. Please write about this experience in as much detail as possible, drawing inspiration from your mental image, and write for no less than 5 minutes.” Participants in the control condition were given the prompt, “Recall and describe a time over 1 year ago when you saw a movie at the movie theater and had a memorable experience. Perhaps you went with a group of friends, or were on a first date; maybe you enjoyed some of the various concessions, or perhaps you just really liked the movie. Take some time to create a mental image

and relive that experience in as much detail as you can. Please write about this experience in as much detail as possible, drawing inspiration from your mental image, and write for no less than 5 minutes.”

**Personal Traits Measure.** After the manipulation, participants were asked to rate themselves on eight personality characteristics (sense of humor, intelligence, moral character, creativity, physical attractiveness, fitness, social sensitivity, and leadership) in comparison to other USCA students on a visibly unnumbered sliding scale from *Much lower* to *Much higher*. This scale actually ranged from 0 to 100 in the researcher’s data view (Zhong et al., 2010).

**Strength of Moral Judgment Measure.** Strength of moral judgment has often been measured by rating scales of various social, political, and moral issues (Morgan et al, 2010; Neesham & Gu, 2015; Zhong et al., 2010). The present study employed the list of moral issues devised by Zhong et al. (2010), which included: abortion, adultery, alcoholic [sic; “alcoholism” in present study], casual sex, recreational drug use, wearing animal fur, homosexuality, littering, masturbation, obesity, pollution, pornography, premarital sex, profane language, prostitution, and smoking. As in previous studies, individuals were asked to rank each item on an 11-pt scale from -5 (*very immoral*) to 5 (*very moral*).

**Moral Action and Decision-Making through Social Issue Vignettes.** Three of the 16 social issues listed above were presented as vignettes, written by the author of the present study: recreational drug use, littering, and prostitution (See Appendices A-C). These vignettes opened with a basic description of the act committed while eliminating identifying features of the subject (gender, race, etc.) to reduce the effects of confounding variables. Each concluded with the subject being caught by the police, eventually resulting in a legal penalty. In line with research by Ahola et al. (2010), participants were then asked to assign the individuals from the vignettes,

who are all verifiably guilty, to length of jail time (as in recreational drug use and prostitution) and amount of a monetary fine (as in littering).

**Religiosity Measures.** Participants were asked to answer the Duke University Religion Index (DUREL; Koenig, Meador, & Parkerson, 1997), a 5-item questionnaire with a 6-pt Likert scale examining involvement in organizational, private, and intrinsic elements of religious life (See Appendix D). Next, participants were directed to the Revised 12-Item Religious Fundamentalism Scale (Altemeyer & Hunsberger, 2004), where they ranked 12 items assessing religious fundamentalism on an 8-pt Likert scale, ranging from -4 (*very strongly disagree*) to 4 (*very strongly agree*) averaged to yield a single composite score (See Appendix E).

**Political Orientation Measure.** This study employed a similar political orientation measure as the one used by Skitka et al. (2017), which first asks participants how they generally consider their political orientation: *liberal*, *conservative*, *moderate*, or *something else*. Those in the liberal and conservative categories were then directed to indicate the strength of their leaning: *slightly strong*, *moderately strong*, or *very strong*. Those in the moderate or something else categories were asked to indicate whether they lean toward being *more liberal* or *more conservative*, where their answers were automatically coded as “*slightly strong*” or *neither*, yielding a complete neutral score. See Appendix F for full measure. The scores were coded from 1 (*very strong liberal*) to 7 (*very strong conservative*) for analyses.

**Big Five Inventory.** Participants completed the Big Five Inventory (BFI; John & Srivastava, 1999). This inventory involves questions to which participants indicate their level of agreement with statements about their personality on a 5-point Likert scale from 1 (*disagree strongly*) to 5 (*agree strongly*). This results in scores across the scales of: extraversion, agreeableness,

conscientiousness, neuroticism and openness. Since openness is known to be a factor in assessment of social issues, this is the only scale which was analyzed in the present study.

**Demographic Survey.** Finally, participants were asked demographic information (See Appendix G): age, gender (male, female, other), race (American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino or Spanish Origin, Native Hawaiian or Other Pacific Islander, White – not Hispanic or Latino or Spanish Origin, and Other – Fill in the Blank), and religious affiliation (Christianity, Islam, Judaism, Buddhism, Hinduism, Atheist, Non-religious, and Other – Fill in the Blank).

### **Hypotheses**

Hypothesis 1: After recalling distant past moral acts, participants in the experimental condition were hypothesized to demonstrate a significant increase in their rating of “Moral Character” on the personal trait measure in comparison with those who were in the control group.

Hypothesis 2: It was hypothesized that there would be an overall significant difference in strength of moral judgment between groups, with the experimental group meting out more stringent judgment.

Hypothesis 3: Those in the experimental group were hypothesized to take significantly harsher moral action, evidenced by longer prison sentences and higher fines on the Moral Decision Task, than those in the control group.

Hypothesis 4: The relationship between moral priming and judgments (social issues and punishment for transgression) would be mediated by self-reported moral superiority.

Additionally, due to complex and conflicting interaction effects of religious, political, and personality factors across various moral outcomes, no hypotheses were made in this regard, but exploratory analysis was used to identify trends.

## Results

### Correlation Analysis

Before examining hypothesis testing, I conducted correlational analyses of the variables. See Table 3 for the correlation matrix. There were significant positive correlations between participants' ratings of their moral character and the Big Five Inventory subscales of openness ( $p = .002$ ,  $r = .294$ ) and extraversion ( $p = .002$ ,  $r = .293$ ), also trending toward significance in conscientiousness ( $p = .080$ ,  $r = .166$ ). The BFI openness score was not significantly associated with DUREL, fundamentalism, or political orientation scores. However, the scores on the DUREL were significantly related to those on the political orientation scale at  $p = .008$ ,  $r = .251$ . This means that those who rated themselves as more conservative also rated the frequency of their religious practices more highly. The DUREL was also significantly correlated with participants' overall severity of judgment of social issues ( $p = .008$ ,  $r = .248$ ). Fundamentalism, however, was not significantly associated with political orientation, DUREL, or the BFI openness scale.

The severity of judgment of prostitution and recreational drug use are significantly correlated at  $p < .001$  ( $r = .387$ ), but neither are significantly correlated with littering. This also translated to the sentencing of these issues such that the severity of sentencing was significantly related for the vignettes of prostitution and recreational crack use at  $p < .001$  ( $r = .402$ ), but not related to the severity of the fine for littering.

Despite these findings, the overall judgment severity on broad social issues by participants was not significantly correlated with the severity of sentencing or fining within the vignettes. On an issue-specific level, the severity of judgment on the social issue of recreational drug use was not correlated with the severity of sentence for a recreational crack user, nor the social issue of littering on the severity of fine for a litterer. The only significant correlation emerged for the severity of judgment regarding prostitution and the severity of sentence for a prostitute ( $p = .009$ ,  $r = -.246$ ) wherein those who rated prostitution as more moral recommended a less harsh sentence for the prostitute in the vignette.

Most unexpectedly, collapsed across conditions, no correlation was identified between those that rated themselves as morally superior and any rating of either the social issues themselves (recreational drug use, littering, prostitution) or the harshness of punishment for the same issues in the vignettes. There was, however, a correlation between one’s self-appraisal of morality and their rating of openness, such that those who perceived themselves to be more moral *also* perceived themselves to be more open to experiences ( $p = .002$ ,  $r = .294$ ).

### **Hypothesis Testing**

**Hypothesis 1: Moral Character.** I conducted an independent  $t$  test to determine if the experimental group responded in a way that was indicative of moral superiority, that is, that they saw themselves as having greater moral character than peers as compared with the control group. The Moral Character rating in the moral superiority condition ( $M = 67.00$ ,  $SD = 12.18$ ) was not significantly different ( $p = .93$ ) than the rating in the control condition ( $M = 67.22$ ,  $SD = 15.31$ ). The difference between conditions, 0.22, 95% CI [-5.00, 5.44], was not significant  $t(110) = .08$ ,  $p = .093$ . See Figure 1. This finding failed to reject the null hypothesis. This was unexpected due to the findings in the pilot study, in which participants in the control condition ( $M = 65.90$ ,  $SD =$

19.09) rated themselves significantly lower on morality than those in the experimental condition ( $M = 79.63$ ,  $SD = 16.67$ ). The findings of the current study also were not in line with those in research conducted by Zhong et al. (2010) which found that participants in the “clean” condition rated themselves significantly higher on morality ( $M = 80.44$ ,  $SD = 15.24$ ) than those in the “dirty” condition ( $M = 75.03$ ,  $SD = 15.70$ ).

**Hypothesis 2: Severity of Judgment.** Next, I created a composite severity of judgment score for each condition by averaging the rating of all 16 social issues by group. Then, I ran an independent  $t$  test to examine the difference in the severity of judgment of social issues which were independently rated from -5 to 5. Counter to the hypothesis, the severity of judgment from the experimental group ( $M = -1.24$ ,  $SD = 1.12$ ) was not significantly different ( $p = .32$ ) from that of the control group ( $M = -1.01$ ,  $SD = 1.28$ ), as shown in Figure 2. See Figure 3 for an issue-by-issue comparison by condition.

**Hypothesis 3: Harsher Moral Action.** Independent  $t$  tests were conducted to examine the relationship between condition and moral action (i.e., choosing length of sentence or price of fine). On average, participants in the moral superiority group sentenced the individual in the crack use vignette a shorter prison sentence ( $M = 9.42$ ,  $SD = 11.966$ ), than those in the control group ( $M = 16.03$ ,  $SD = 17.309$ ). This difference, 6.61, 95% CI [-12.283, -.938], was significant  $t(109) = -2.310$ ,  $p = .023$ . This finding was significant in the opposite direction than was hypothesized.

Two participants were excluded from the analysis on the severity of moral action in the littering vignette. Their scores were greater than 10 standard deviations away from the mean, indicating that their exaggerated responses were likely the result of mistyped entries into the free-text box on the survey. Of the remaining values, those in the moral superiority condition

desired a higher fine for the litterer in the littering vignette ( $M = 347.60$ ,  $SD = 319.706$ ) than those in the control condition ( $M = 313.77$ ,  $SD = 419.493$ ), but this difference, 33.83, was not significant ( $p = .639$ ).

Those in the moral superiority condition gave shorter sentences to the prostitute in the prostitution vignette ( $M = 8.21$ ,  $SD = 10.32$ ) than those in the control group ( $M = 10.63$ ,  $SD = 12.736$ ), but this difference was not significant at  $p = .28$ . This finding was in the opposite direction than was predicted.

**Hypothesis 4: Moral Superiority Mediation.** Although a regression analysis was originally proposed to identify mediation effects of the moral prime. Because no effect was found for the moral prime, this analysis no longer applies.

**Exploratory Analysis.** Regression analyses were conducted to examine whether the moral superiority manipulation worked differently regarding moral action for individuals dependent upon their political orientation, their religiosity, or their fundamentalism. I created interaction terms for each of these potential moderators with experimental condition. Then I built regression models that tested main effects of condition and the moderators in step one, along with their interaction in step two.

There was no main effect of political orientation on length of sentencing for recreational crack use at  $p = .95$ . There was, however, a main effect of condition on the sentence for crack use such that the participants receiving the moral prime gave a shorter sentence length,  $b = -.22$ ,  $t(109) = -2.30$ ,  $p = .02$ . There was no interaction effect of political orientation and condition on the length of sentence for crack use ( $p = .34$ ). There were no main or interactive effects of condition or political orientation on littering fine ( $ps > .25$ ). Finally, there were no main or interactive effects of political orientation on the length of prostitution sentence ( $ps > .29$ ).



In considering the impact of religiosity on moral action, there was no main effect of religiosity as measured by the DUREL on length of sentencing for recreational crack use at  $p = .96$ . There was a main effect of condition on the sentence for crack use such that condition negatively predicted the sentence length,  $b = -.22$ ,  $t(109) = -2.27$ ,  $p = .03$ . There were no interaction effects of condition and DUREL on the sentence for crack use ( $p = .93$ ). There were no main effects of DUREL ( $p = .41$ ) or condition ( $p = .56$ ) on littering fine and no interaction effects of the two together ( $p = .32$ ). There were no main or interactive effects of DUREL or condition ( $p = .38$ ) on prostitution sentence ( $ps > .20$ ).

Finally, the measure of fundamentalism was examined for main and interactive effects on moral action. There was a main effect of condition such that it significantly predicted the length of sentencing for recreational crack use,  $b = -.21$ ,  $t(109) = -2.22$ ,  $p = .03$ . There was no main effect of fundamentalism ( $p = .35$ ) nor was there an interaction of fundamentalism and condition ( $p = .45$ ). There was not a main effect of fundamentalism ( $p = .18$ ) or condition ( $p = .60$ ) on littering fine and there were no interaction effects ( $p = .56$ ). Similarly, there was no main effect of fundamentalism ( $p = .91$ ) or condition ( $p = .28$ ) on prostitution sentence and there were no interaction effects ( $p = .63$ ).

### **Discussion**

The results of this study did not support my hypotheses. The first step of this experiment involved a writing exercise that was intended to increase the accessibility of one's moral identity as a means of increasing moral superiority. Since moral superiority as indicated by the self-rating of moral character was not different between groups, it is clear that the writing exercise did not function in the expected way, given the results of the pilot study. Being that the prompt was identical in the pilot and the present study, the difference in moral superiority appears to simply

be the result of increased power. This implies that either the prompt or the writing task itself was not the most effective prime for moral superiority. There are many reasons why this may be the case.

First, all participants were asked to write about the event in as much detail as they could remember for at least 5 minutes. Only 62 of 112 participants (55.36%) wrote for a minimum of five minutes. The mean amount of time spent on the writing prompt was 5.74 minutes, ranging from 1.17 minutes to 22.73 minutes. The number of words used in the writing prompts ranged from 18 words to 393 words, with a mean of 122.63 words. Finally, the number of sentences ranged from 1 to 20, with a mean of 6.73 sentences. No participants were excluded based on the quality of the writing, which may have dampened the effects of the moral manipulation in the experimental condition. However, a correlational analysis showed that the number of words participants wrote in response to the prompt was not correlated with their self-rating of moral character, their severity of judgment, or the harshness of the punishment for transgressions. This suggests that the prompt itself may have been ineffective, regardless of the level of participant engagement.

In reviewing the content of the responses to the moral superiority manipulation, it became clear that the content of the free-text responses could have differential impacts on outcome variables. Some of the responses contained self-reflection that indicated an internal struggle, such as the following:

In the year 2012, my family and I went on a trip around the United States of America. On this trip, we stopped in a city in Arkansas. This little city had many boutiques, cafes, and restaurants. One night, my family and I went out to eat and ate at this Italian place and I order a pizza. I had no clue how big the pizza was, so when it arrived at our table I

already knew I would need a to go box. I was looking forward to eating it the next day or maybe even later that night. I was set on it. When I was walking to put it in our truck I noticed this old man who was smaller than me. I could see nearly all of his bones that weren't covered by clothing and this made me sad, obviously. I didn't give him the pizza. at least not at first. I kept going towards my truck and I had honestly assumed he would have asked for money or something of that nature, so when he didn't I was surprised. I went to my truck, gathered all the snacks we had, and bottles of water, and came back to where he had been seated. I gave him all the snacks, water, and the pizza, and the smile this man gave me was breathtaking. I have always cherished this particular interaction and I think about it a lot because I did that for someone else.

Some of the responses, however, indicated that other factors may have driven their honorable and righteous acts. In the following example, the participant refers to external causes to her moral behavior. This may indicate that their moral behavior is not a salient part of their identity. Additionally, the act the participant described is one that could take place any time. Despite that it had significance to the participant, the writing itself does not reflect internal struggle, and the result of honorable behavior rooted from a categorical understanding of the self, that is, being a “big sister” or acting within her religious beliefs.

I always strive to be a very caring person because I believe that is how God wants is to be; caring for others. There have been times where I wasn't always caring to my family members, especially my little sister. But last year, she was having trouble in school and she needed help. So as a big sister, I step in to help her and taught her how to do a certain algebra problem the way I was taught. Afterwards, she thanked me and I felt so proud knowing that I helped my little sister.

Additional confounding effects could have occurred by utilizing free-text entry. First, not all the participants outlined the timeframe to verify that the honorable/righteous act occurred over a year ago and some definitively stated time frames that were more recent (for instance, “a couple of months ago”). Since recall of recent events could lead to a moral licensing effect, the use of free-text entry may have limited the impact of the exercise, possibly even leading to effects opposite of what was hypothesized. Next, some expressed hesitation about considering their acts as honorable or righteous and actively resisted self-praise, such as, “I don't really like to think of my helping others in that way.” This may have also impacted the salience of a moral superiority effect. Finally, some experiences introduced feelings of dissonance that likely impacted the accessibility of pride in one’s experience of morality, such as, “Instead, I felt some mixture of pity and sympathy, and some guilt at the potential prospect of having enabled his addiction.”

Collectively, these phenomena are uncontrolled in a free-text-entry form of survey response and may have limited or counteracted in the opposite direction the hypothesized outcomes. Similarly, since moral superiority as a construct was not activated by the experimental manipulation, it is no surprise that those in the moral superiority condition were not harsher in judgment either on broad social issues or on implicated criminal acts in the vignettes.

Both the social intuitionist model and the value protections model were expected to emerge in the writing task. Although there did seem to be variety in the moral appeal individuals made when describing an event in their past, this effect was not statistically analyzed in the present study in terms of moral judgments and the severity of moral action. Theoretically in the present study, both models would have been accessed to evoke participant responses. For some individuals the vignettes may represent a social issue that evokes disgust while for others the

emphasis would be on promoting values that they highly esteem. The present study was not aimed at delineating the two models but attempted, instead, to harness the power of both models in order to escalate the likelihood that moral superiority might emerge.

The present study aimed to demonstrate the relationship between a feeling of moral superiority and harsher moral judgments that direct moral action. Because the experimental manipulation failed to increase a sense of moral superiority, the relationship between moral superiority and moral judgments and action could not be tested. However, recent research by Tappin and McKay (in press) failed to find a predictive relationship between self-perceived moral superiority and moral behavior. They offered several suggestions for why the relationship could not be identified that may also be relevant to the current study and to future goals for research within this realm. First, they suggested that specific moral traits, such as honesty, trustworthiness, fairness, respectfulness and being principled may be more likely to predict behavior than a collapsed single global score of morality. Second, it is unclear whether a rating on self-perceived moral character is more reflective of an aggrandized view of moral self-righteousness or of a “moral cynicism” within regard to others, each of which may have a differential effect on behavioral outcomes. Ultimately, they concluded that there was little validity in the construct of moral superiority since two processes are simultaneously at work within social comparison: self-perception and other-perception (Tappin & McKay, in press). In short, moral superiority could be due to thinking more highly of oneself or it could be due to thinking less of others, which is more difficult to conceptualize and to control within a study.

Apart from the influence of moral superiority, it is still puzzling that there was a lack of correlation between impersonal judgments of social issues and those of the vignettes, such that those who judged the issues of recreational drug use, littering, and prostitution more strongly did

not necessarily prescribe higher sentences or fines for criminal actions in those realms. This would seem to stand in opposition to the concept of moral mandates determining the harshness of judgment. One would need to measure the degree to which a person indicates that their strong attitude is the result of a core sense of self in order to determine whether the attitude constituted a moral mandate (Skitka et al., 2005).

Counter to hypotheses, those who were in the moral superiority condition did not give longer sentences to those in the crack use and the prostitution vignettes. In fact, they gave shorter sentences than the control did, though this finding was only significant in the crack use vignette. One possible explanation for this unexpected outcome is the positive correlation of one’s self-rating of moral character and the endorsement of openness to experiences on the Big Five Inventory. Previous research has shown that the openness to experience scale is related to one’s tolerance of human diversity and resulting judgments (Butrus & Witenberg, 2013). Additionally, it has been found that openness is related to moral reasoning and that Openness predicted behavior just as well as a measure of moral maturity did (Day, 1997).

In comparison with moral superiority, moral maturity depends on moral reasoning rather than moral identity. Day (1997) measured moral maturity by mapping content of free-text writing onto Colby and Kohlberg’s (1987) conception of moral development, where individuals were presented with moral dilemmas and asked to make moral decisions with explanation of reasoning behind those decisions. This realm of morality was beyond the scope of the present study, but further research should examine influences on moral reasoning across social issues including internal vs. external drive, moral stage of development, and resulting moral behavior.

While no hypotheses were made regarding political orientation, exploratory analyses showed that there was no main effect of political orientation on meting out judgment in the

vignettes. Research by Silver and Silver (2017) suggested that it is the specific moral foundations one endorses that predicts punitiveness over and above political orientation. They stated that endorsement of the moral domains of harm and fairness are more likely to result in less punitive judgments whereas those that endorse the authority, loyalty, and purity domains are likely to be more punitive. This suggests that the style of moral reasoning predicts judgment severity over and above political orientation.

While previous research has found that religious fundamentalism is negatively correlated to openness (Saroglou, 2002), no significant relationship between the two was identified in the present study. Research by Brandt and Van Tongeren (2017) found that both individuals high in fundamentalism and low in fundamentalism have equal proclivity to be prejudiced and that perceived threats to individual rights was the most robust mediator of that effect. In relation to the present study, this would suggest that it is the specific values individuals hold that are more likely to affect severity of judgment than fundamentalism would.

### **Limitations**

There are several limitations to the present study, partially because moral superiority is under-researched and there are no validated assessments to date to measure moral superiority. The moral superiority prime selected for this study was limited in its utility due to the variability in compliance with instructions (“write for no less than 5 minutes”). A more direct prime may have been utilized to increase the salience of moral superiority and reduce interference of other cognitions and emotions that may have arisen as participants completed the writing assignment. Since mechanisms that drive both moral superiority and moral decision-making appear to overlap, more research is warranted in the development of a more appropriate prime. Perhaps a

study utilizing content analysis of free-text responses to questions of morality could be used to develop a more effective prime.

As previously mentioned, a single global measure of moral character may not be the best measure of morality or moral superiority. A more caveated measure examining specific traits of morality might be more useful. Additionally, since the effectiveness of moral manipulations may depend upon the centrality of moral identity to a person’s self-concept, there also exists a limitation because no measure was given to account how that may have impacted the results (Aquino et al., 2009).

Finally, participants were all recruited from a pool of students in an introductory psychology course at a small university in the southeastern United States. While all studies utilizing a similar pool may face the issue of a lack of generalization to the broader populace, this may be especially true in the present study, especially given that consistency of moral beliefs and action are still developing through young adulthood (Krettenauer et al., 2016). The sample was also not representative of the general population due to the disproportionate representation of gender, where females made up 84.8% of the sample. This study also took place in the Bible Belt, where societal impacts on moral development may occur differently than in other areas of the U.S. The sample was also comprised of young college students with only five participants over the age of 21. Individuals at this age group are still undergoing large moral development as many of them are experiencing independence from direct familial influence for the first time. Future research would benefit from a more varied sample.

### **Areas for Future Research**

That this study failed to reject the null hypotheses begs the question of whether the construct of moral superiority truly emerges as a distinct and helpful construct to study above



and beyond other constructs such as moral foundations, moral identity, moral mandates. Specifically, as alluded to by Tappin and McKay (in press), future research should seek to differentiate the self vs. other perceptions involved in moral superiority, as it is likely that they function differently mechanistically.

Future research could also re-orient to determine what components of moral self-perception lead to a belief that one is morally superior, drawing on existing research about moral identity and moral mandates. For instance, does someone with a more consistent moral identity perceive themselves to be morally superior? Does the number of morally mandated beliefs one holds influence their level of perceived moral superiority? Does the openness to experience scale on the BFI hamper the moral superiority effect? What implications would those findings have on future research in this domain?

The realm of morality is a difficult one to study as it overlaps many disciplines. Morality is both intrinsic and extrinsic, applying both to social factors and identity factors. It overlaps personality, group membership, religion, and political orientation. While much research has been done on each of these facets, morality research remains a rich ground for future exploration.

## References

- Abramovitch, A., Doron, G., Sar-El, D., & Altenburger, E. (2013). Subtle threat to moral self-perceptions trigger obsessive-compulsive related cognitions. *Cognitive Therapy and Research, 37*, 1132-1139.
- Adkins, D. C., Payne, F. D., & O'Malley, J. M. (1974). Moral development. *Review of Research in Education, 2*, 108-144.
- Ahola, A. S., Hellström, Å., & Christianson, S. (2010). Is justice really blind? Effects of crime descriptions, defendant gender and appearance, and legal practitioner gender on sentences and defendant evaluations in a mock trial. *Psychiatry, Psychology and Law, 17*(2), 304-324.
- Altemeyer, B. & Hunsberger, B. (2004). A revised religious fundamentalism scale: The short and sweet of it. *The International Journal for the Psychology of Religion, 14*(1), 47-54.
- Aramovich, B., Lytle, B. & Skitka, L. J. (2012). Opposing torture: Moral conviction and resistance to majority influence. *Social Science, 7*, 21-34.
- Aquino, K., Freeman, D., Reed II, A., & Lim, V. K. G. (2009). Testing a social-cognitive model of moral behavior: The interactive influence of situations and moral identity centrality. *Journal of Personality and Social Psychology, 97*(1), 123-141.
- Aquino, K. & Reed II, A. (2002). The self-importance of morality. *Journal of Personality and Social Psychology, 83*(6), 1423-1440.
- Bauman, C. W., McGraw, A. P., Bartels, D. M., & Warren, C. (2014). Revisiting external validity: Concerns about trolley problems and other sacrificial dilemmas in moral psychology. *Social and Personality Psychology Compass, 8*(9) 536-554.

- Bizer, G. Y. & Krosnick, J. A. (2001). Exploring the structure of strength-related attitude features: The relation between attitude importance and attitude accessibility. *Journal of Personality and Social Psychology, 81*(4), 566-586.
- Brandt, M. J. & Van Tongeren, D. R. (2017). People both high and low on religious fundamentalism are prejudiced toward dissimilar groups. *Journal of Personality and Social Psychology, 112*(1): 76-97.
- Butrus, N. & Witenberg, R. T. (2013). Some personality predictors of tolerance to human diversity: The role of openness, agreeableness, and empathy. *Australian Psychologist, 48*, 290-298.
- Conway, P. & Peetz, J. (2012). When does feeling moral actually make you a better person? Conceptual abstraction moderates whether past moral deeds motivate consistency or compensatory behavior. *Personality and Social Psychology Bulletin, 38*(7), 907-919.
- Davis, J. A. (1966). The campus as a frog-pond: An application of the theory of relative deprivation to career decisions of college men. *American Journal of Sociology, 72*, 17-31.
- Day, R. W. C. (1997). Relations between moral reasoning, personality traits, and justice decisions on hypothetical and real-life moral dilemmas. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 58*(12-B), 6795.
- Gardner, W. L., Gabriel, S., & Hochschild, L. (2002). When you and I are “we,” you are not threatening: The role of self-expansion in social comparison. *Journal of Personality and Social Psychology, 82*(2), 239-251.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review, 108*(4), 814-834.

- Haidt, J., Bjorklund, F., & Murphy, S. (2000). *Moral dumbfounding: When intuition finds no reason*. Unpublished manuscript, University of Virginia.
- Hertz, S. G. & Krettenauer, T. (2016). Does moral identity effectively predict moral behavior?: A meta-analysis. *Review of General Psychology*, 20(2), 129-140.
- John, O. P., Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2, pp. 102-138). New York: Guilford Press.
- Jordan, J., Mullen, E., & Murnighan, J. K. (2011). Striving for the moral self: The effects of recalling past moral actions on future moral behavior. *Personality and Social Psychology Bulletin*, 37(5), 701-713.
- Koenig, H. G., Meador, K. G., & Parkerson, G. (1997). Religion index for psychiatric research. *American Journal of Psychiatry*, 154, 432-443.
- Kohlberg, L. (1971). *From is to ought: How to commit the naturalistic fallacy and get away with it in the study of moral development*. New York: Academic Press.
- Kouchaki, M. (2011). Vicarious moral licensing: The influence of others' past moral actions on moral behavior. *Journal of Personality and Social Psychology*, 101(4), 702-715.
- Krettenauer, T., Murua, A., & Fanli, J. (2016). Age-related differences in moral identity across adulthood. *Developmental Psychology*, 52(6), 972-984.
- Krumm, A. J. & Corning, A. F. (2008). Who believes us when we try to conceal our prejudices? The effectiveness of moral credentials with in-groups versus out-groups. *The Journal of Social Psychology*, 148(6), 689-709.

- Leavitt, K., Zhu, L., & Aquino, K. (2016). Good without knowing it: Subtle contextual cues can activate moral identity and reshape moral intuition. *Journal of Business Ethics, 137*, 785-800.
- Morgan, G. S. (2011). *Toward a model of morally motivated behavior: Investigating mediators of the moral conviction-action link* (Doctoral dissertation). Retrieved from ProQuest LLC Database (UMI 3551265).
- Morgan, G. S., Skitka, L. J., & Wisneski, D. C. (2010). Moral and religious convictions and intentions to vote in the 2008 presidential election. *Analyses of Social Issues and Public Policy, 10*(1), 307-320.
- Napier, J. L. & Tyler, T. R. (2008). Does moral conviction really override concerns about procedural justice? A reexamination of the value protection model. *Social Justice Research, 21*, 509-528.
- Needham-Penrose, J. & Friedman, H. L. (2012). Moral identity versus moral reasoning in religious conservatives: Do Christian Evangelical leaders really lack moral maturity? *The Humanistic Psychologist, 40*, 343-363.
- Neesham, C. & Gu, J. (2015). Strengthening moral judgment: A moral identity-based leverage strategy in business ethics education. *Journal of Business Ethics, 131*, 527-534.
- Ortberg, Jr., J. C., Gorsuch, R. L., & Kim, G. J. (2001). Changing attitude and moral obligation: Their independent effects on behavior. *Journal for the Scientific Study of Religion, 40*(3), 489-496.
- Peters, S. L., van de Bos, K., & Bobocel, D. R. (2004). The moral superiority effect: Self versus other differences in satisfaction with being overpaid. *Social Justice Research, 17*(3), 257-273.

- Piaget, J. (1960). *The moral judgment of the child*. (1960). Glencoe, III: Free Press.
- Rest, J. (1979). *Development in judging moral issues*. Minneapolis: University of Minnesota Press.
- Rest, J. & Narvaez, D. (1998). *Guide for DIT-2*. Minneapolis: Center for the Study of Ethical Development.
- Royzman, E. B., Kim, K., & Leeman, R. F. (2015). The curious tale of Julie and Mark: Unraveling the moral dumbfounding effect. *Judgment and Decision Making*, 10(4), 296-313.
- Rozin, P., Lowery, L., Imada, S., & Haidt, J. (1999). The CAD triad hypothesis: A mapping between three moral emotions (contempt, anger, disgust) and three moral codes (community, autonomy, divinity). *Journal of Research in Personality*, 29, 318-340.
- Sachdeva, S., Iliev, R., & Medin, D. L. (2009). Sinning saints and saintly sinners: The paradox of moral self-regulation. *Psychological Science*, 20(4), 523-528.
- Saroglou, V. (2002). Religion and the five factors of personality: A meta-analytic review. *Personality and Individual Differences*, 32, 15-25.
- Silver, J. R. & Silver, E. (2017). Why are conservatives more punitive than liberals? A moral foundations approach. *Law and Human Behavior*, 41(3), 258-272.
- Skitka, L. J. (2002). Do the means always justify the ends, or do the ends sometimes justify the means? A value protection model of justice reasoning. *Personality and Social Psychology Bulletin*, 28, 588-597.
- Skitka, L. J. (2010). The psychology of moral conviction. *Social and Personality Psychology Compass*, 4, 267-281.

- Skitka, L. J., Bauman, C. W., & Sargis, E. G. (2005). Moral conviction: Another contributor to attitude strength or something more? *Journal of Personality and Social Psychology*, *88*(6), 895-917.
- Skitka, L. J., Hanson, B. E., & Wisneski, D. C. (2017). Utopian hopes of dystopian fears? Exploring the motivational underpinnings of moralized political engagement. *Personality and Social Psychology Bulletin*, *43*(2), 177-190.
- Skitka, L. J. & Houston, D. A. (2001). When due process is of no consequence: Moral mandates and presumed defendant guilt or innocence. *Social Justice Research*, *14*(3), 305-326.
- Skitka, L. J. & Morgan, G. S. (2014). The social and political implications of moral conviction. *Advances in Political Psychology*, *35*(1), 95-110.
- Skitka, L. J. & Mullen, E. (2002). The dark side of moral conviction. *Analyses of Social Issues and Public Policy*, *2*, 35-41.
- Sneddon, A. (2007). A social model of moral dumbfounding: Implications for studying moral reasoning and moral judgment. *Philosophical Psychology*, *20*(6), 731-748.
- Sylvia, R. D., Mustafa, H., & Hamilton, H. (1981). Political value judgments of children: An application of moral development theory. *Polity*, *13*(3), 383-409.
- Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annual Review of Psychology*, *58*, 345-372.
- Tappin, B. M. & McKay, R. T. (2016). The illusion of moral superiority. *Social Psychological and Personality Science*, 1-9.
- Tappin, B. M. & McKay, R. T. (in press). Investigating the relationship between self-perceived moral superiority and moral behavior using economic games. *Social Psychological and Personality Science*.

- Tetlock, P. E., Kristel, O. V., Elson, S. B., Green, M. C., & Lerner, J. S. (2000). The psychology of the unthinkable: Taboo trade-offs, forbidden base rates, and heretical counterfactuals. *Journal of Personality and Social Psychology, 78*(5), 853-870.
- Vitell, S. J., Bing, M. N., Davison, H. K., Ammeter, A. P., Garner, B. L., & Novicevic, M. M. (2009). Religiosity and moral identity: The mediating role of self-control. *Journal of Business Ethics, 88*, 601-613.
- Wisneski, D. C., Lytle, B. L., & Skitka, L. J. (2009). Gut reactions: Moral conviction, religiosity, and trust in authority. *Psychological Science, 20*(9), 1059-1063.
- Wisneski, D. C. & Skitka, L. J. (2017). Moralization through moral shock: Exploring emotional antecedents to moral conviction. *Personality and Social Psychology Bulletin, 43*(2), 139-150.
- Wright, J. C., Cullum, J., & Schwab, N. (2008). The cognitive and affective dimensions of moral conviction: Implications for attitudinal and behavioral measures of impersonal tolerance. *Personality & Social Psychology Bulletin, 34*(11), 1461-1476.
- Xu, Z. X. & Ma, H. K. (2016) How can a deontological decision lead to moral behavior? The moderating role of moral identity. *Journal of Business Ethics, 137*, 537-549.
- Zhong, C., Strojcek, B., & Sivanathan, N. (2010). A clean self can render harsh moral judgment. *Journal of Experimental Social Psychology, 46*, 859-862.



Table 1

*Participant Demographics*

| Variables | Category      | <i>n</i> | Percent |
|-----------|---------------|----------|---------|
| Sex       |               |          |         |
|           | Male          | 16       | 14.3    |
|           | Female        | 95       | 84.8    |
|           | Other         | 1        | 0.9     |
| Ethnicity |               |          |         |
|           | White         | 56       | 50.0    |
|           | AA/Black      | 45       | 40.2    |
|           | Hispanic      | 3        | 2.7     |
|           | Indigenous    | 2        | 1.8     |
|           | Asian         | 1        | 0.9     |
|           | Other         | 5        | 4.5     |
| Religion  |               |          |         |
|           | Christian     | 102      | 91.1    |
|           | Atheist       | 0        | 0.0     |
|           | Non-religious | 9        | 8.0     |
|           | Other         | 1        | 0.9     |

Table 2

*Descriptive Statistics for Key Study Variables*

|                         | Mean   | SD    | Range of Scores |
|-------------------------|--------|-------|-----------------|
| Moral Character         | 67.12  | 13.86 | 23-100          |
| Social Issue: Drugs     | -1.26  | 2.55  | -5-5            |
| Social Issue: Littering | -1.93  | 2.15  | -5-4            |
| Social Issue: Prost.    | -3.08  | 2.24  | -5-5            |
| Judgment Severity       | -1.12  | 1.21  | -4.19-2.13      |
| Drug Prison Time        | 12.94  | 15.34 | 1-60            |
| Littering Fine          | 329.91 | 373.9 | 20-2500         |
| Prost. Prison Time      | 9.5    | 11.68 | 1-60            |
| DUREL                   | 3.38   | .95   | 1-5.4           |
| Fundamentalism          | -.16   | .71   | -2.67-1.92      |
| Conservatism            | 3.37   | 2.2   | 0-7             |
| BFI-Openness            | 3.56   | .57   | 1.8-4.89        |

Table 3

*Correlation Matrix of Key Study Variables*

| Variables | 1     | 2    | 3      | 4     | 5     | 6     | 7     | 8      | 9    | 10    | 11   | 12   | 13 |
|-----------|-------|------|--------|-------|-------|-------|-------|--------|------|-------|------|------|----|
| 1. SI-D   | --    |      |        |       |       |       |       |        |      |       |      |      |    |
| 2. SI-L   | .00   | --   |        |       |       |       |       |        |      |       |      |      |    |
| 3. SI-P   | .40** | .15  | --     |       |       |       |       |        |      |       |      |      |    |
| 4. V-D    | -.07  | .04  | -.15   | --    |       |       |       |        |      |       |      |      |    |
| 5. V-L    | .05   | -.01 | .13    | .09   | --    |       |       |        |      |       |      |      |    |
| 6. V-P    | -.13  | -.10 | -.25** | .39** | .32** | --    |       |        |      |       |      |      |    |
| 7. MC     | -.01  | -.12 | -.13   | .12   | -.06  | .06   | --    |        |      |       |      |      |    |
| 8. JS     | -.06  | -.05 | -.14   | .65** | .38** | .59** | -.02  | --     |      |       |      |      |    |
| 9. PT     | .88** | .08  | .79**  | -.13  | .10   | -.22* | -.07  | -.12   | --   |       |      |      |    |
| 10. DRL   | .03   | .07  | .14    | -.16  | .12   | -.14  | .05   | -.25** | .09  | --    |      |      |    |
| 11. FND   | -.11  | -.13 | .01    | -.07  | -.06  | .06   | -.01  | .14    | -.08 | -.01  | --   |      |    |
| 12. CNS   | .01   | .11  | .11    | -.21* | .12   | -.18  | -.12  | -.14   | .06  | .25** | .01  | --   |    |
| 13. BFI-O | -.02  | -.09 | -.22*  | .17   | .05   | .07   | .29** | .11    | -.14 | .03   | -.02 | -.10 | -- |

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

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

SI-D = Social issue rating for drug use, SI-L = Social issue rating for littering, SI-P = social issue rating for prostitution, V-D = vignette punishment for drug use, V-L = vignette punishment for littering, V-P = vignette punishment for prostitution, MC = moral character rating, JS = judgment severity overall, PT = prison time overall, DRL = DUREL score, FND = fundamentalism score, CNS = conservatism, BFI-O = openness to experience

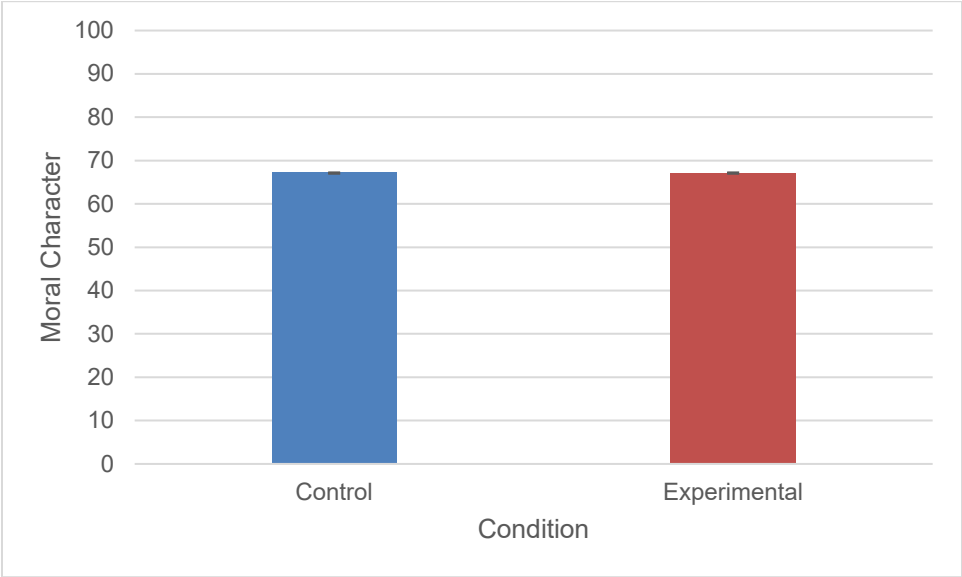


Figure 1. Moral Character Ratings by Condition.

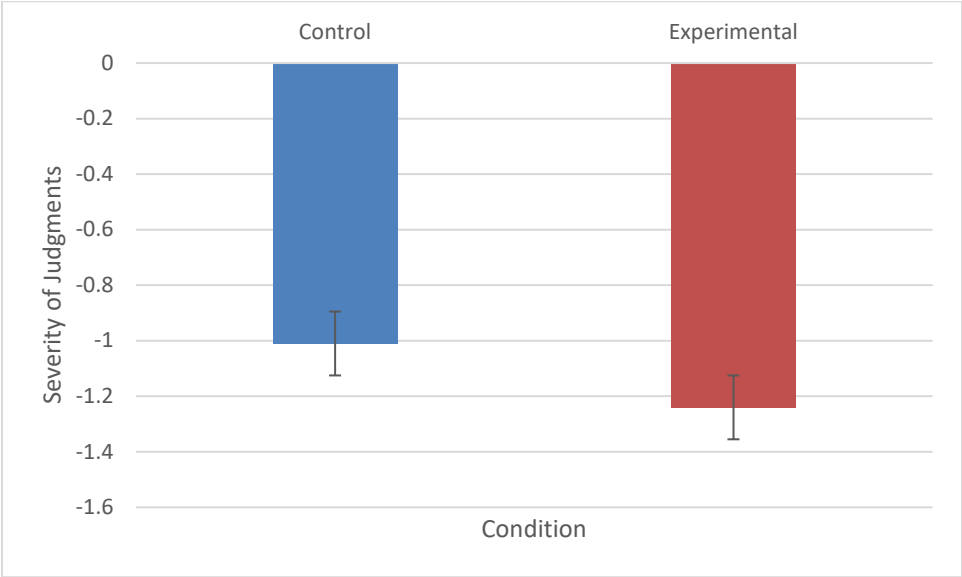


Figure 2. Severity of Judgment by Condition.

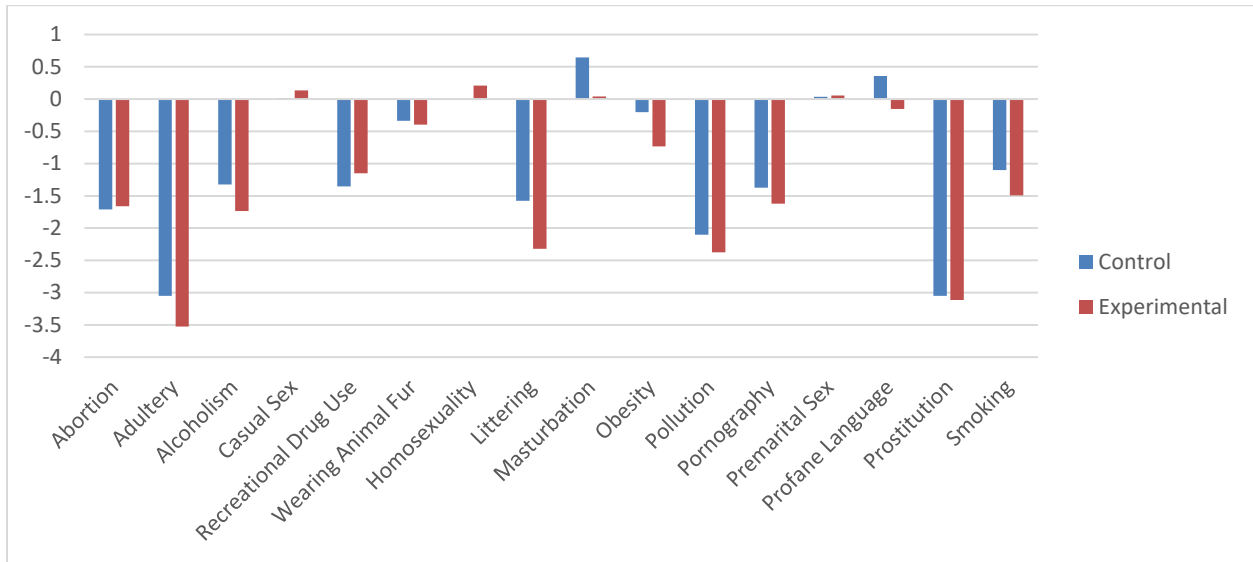


Figure 3. Moral Judgment of Social Issues (-5 very immoral to 5 very moral).

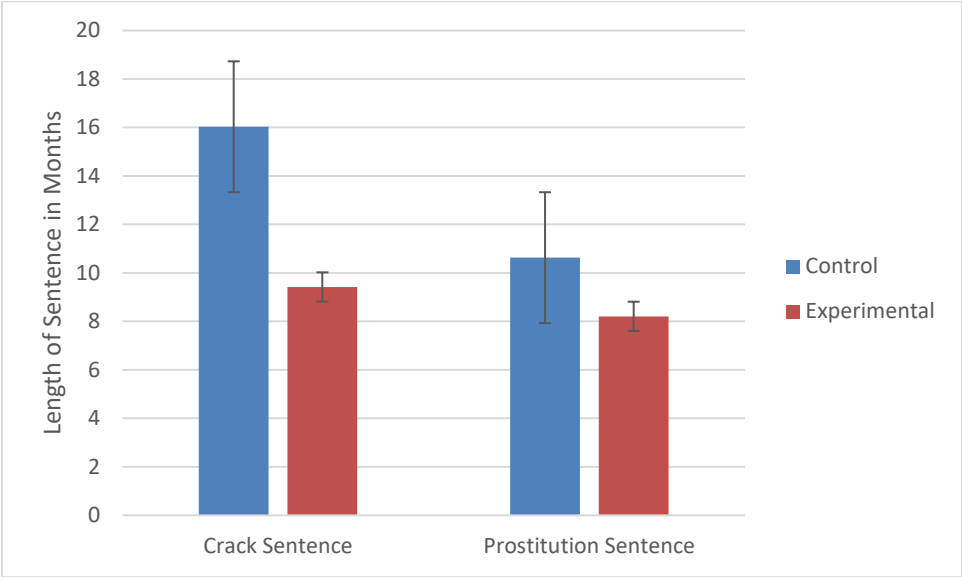


Figure 4. Length of Prison Sentences in Recreational Drug Use and Prostitution Vignettes.

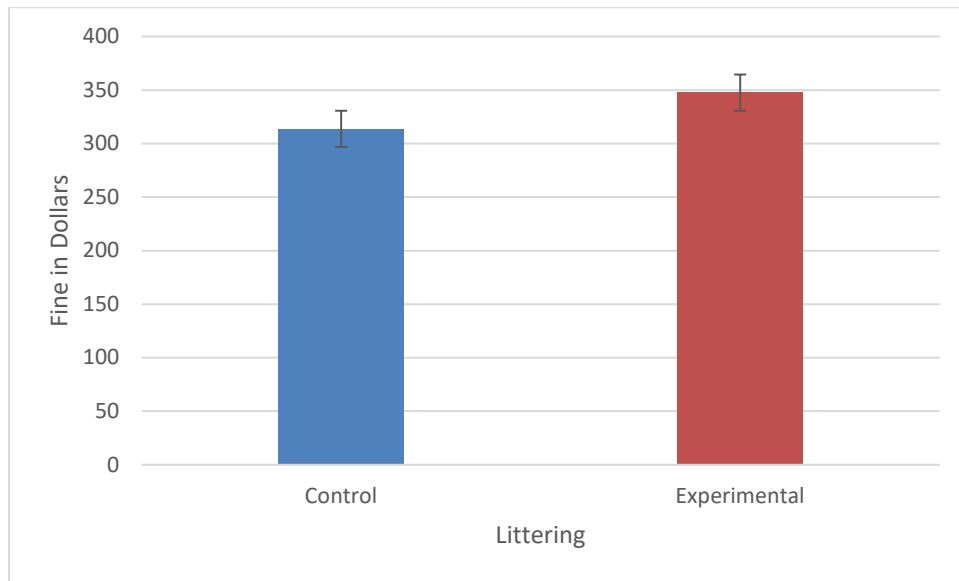


Figure 5. Amount of Fine in Littering Vignette.



## Appendix A

## Recreational Drug Use Vignette

A police dispatcher receives a call from an individual complaining that their neighbor’s backyard “smelled funny” and that they “seemed to be up to no good”. When the police arrive on the scene, they find an individual smoking crack. In addition to the drugs that the individual is smoking, the police find an additional private stash which was clearly intended for use by the individual at a later date. The police issue an arrest and the case is brought before the court. Imagine that after finding the individual guilty as charged you, as a member of the jury, must deliberate upon a fair sentence. Indicate below your recommendation for jail time to be served.

## Appendix B

## Littering Vignette

On duty police officers are in their squad car driving around town. They follow a vehicle for a short time before the driver throws a heavy, crumpled fast food bag out of their window. After pulling the driver over and showing them the dash-cam video of them littering, the individual confesses to the act. Imagine that after finding the individual guilty as charged, you, as the judge, must deliberate upon a fair fine. Indicate below your recommendation for fine to be paid; use the blank to indicate the number of dollars the individual should be required to pay as a fine.

## Appendix C

## Prostitution Vignette

On duty police officers are in their undercover squad car driving around town at night. They come to an intersection when they are approached by an individual appearing to be in their mid-30s, propositioning sex acts for cash. When the police issue an arrest, it becomes clear that the individual runs their own business and is not managed by a pimp. The police issue an arrest and the case is brought before the court. In court, other individuals have corroborated this evidence. Imagine that after finding the individual guilty as charged you, as a member of the jury, must deliberate upon a fair sentence. Indicate below your recommendation for time to be served; use the blank to indicate the number. Use the drop-down menu to indicate the unit of time.

## Appendix D

## Duke University Religion Index (DUREL)

1. How often do you attend religious meetings?  
1 – Never; 2 – Once a year or less; 3 – A few times a year; 4 – A few times a month;  
5 – Once a week; 6 – More than once/week
2. How often do you spend time in private religious activities, such as prayer,  
meditation or Bible study?  
1 – Rarely or never; 2 – A few times a month; 3 – Once a week; 4 – Two or more  
times/week; 5 – Daily; 6 – More than once a day
3. In my life, I experience the presence of the Divine (i.e., God)  
1 – Definitely *not* true; 2 – Tends *not* to be true; 3 – Unsure; 4 – Tends to be true; 5 –  
Definitely true of me
4. My religious beliefs are what really lie behind my whole approach to life.  
1 – Definitely *not* true; 2 – Tends *not* to be true; 3 – Unsure; 4 – Tends to be true; 5 –  
Definitely true of me
5. I try hard to carry my religion over into all other dealings in life.  
1 – Definitely *not* true; 2 – Tends *not* to be true; 3 – Unsure; 4 – Tends to be true; 5 –  
Definitely true of me

## Appendix E

## Revised 12-Item Religious Fundamentalism Scale

Please indicate your degree of agreement or disagreement with each statement according to the following scale:

- 4 if you *very strongly disagree* with the statement
- 3 if you *strongly disagree* with the statement
- 2 if you *moderately disagree* with the statement
- 1 if you *slightly disagree* with the statement
- 0 if you feel exactly and precisely neutral about an item
- 1 if you *slightly agree* with the statement
- 2 if you *moderately agree* with the statement
- 3 if you *strongly agree* with the statement
- 4 if you *very strongly agree* with the statement

You may find that you sometimes have different reactions to different parts of a statement. For example, you might very strongly disagree with one idea in a statement (“-4”), but slightly agree with another idea in the same item (“+1”). When this happens, please combine your reactions, and select how you feel on a balance (a “-3” in this case).

1. God has given humanity a complete, unfailing guide to happiness and salvation, which must be totally followed.
2. No single book of religious teachings contains all the intrinsic, fundamental truth about life.
3. The basic cause of evil in this world is Satan, who is still constantly and ferociously fighting against God.
4. It is more important to be a good person than to believe in God and the right religion.
5. There is a particular set of religious teachings in the world that are so true, you can't go any “deeper” because they are the basic, bedrock message that God has given humanity.
6. When you get right down to it, there are basically only two kinds of people in the world: the Righteous, who will be rewarded by God; and the rest, who will not.
7. Scripture may contain general truths, but they should NOT be considered completely, literally true from beginning to end.
8. To lead the best, most meaningful life, one must belong to the one, fundamentally true religion.
9. “Satan” is just a name people give to their own bad impulses. There really is *no such thing* as a diabolical “Prince of Darkness” who tempts us.
10. Whenever science and sacred scripture conflict, *science* is probably right.
11. The fundamentals of God's religion should never be tampered with or compromised with others' beliefs.
12. *All* of the religions in the world have flaws and wrong teachings. There is *no* perfectly true and right religion.

Appendix F

Political Orientation Measure

Do you generally think of yourself as?

- Liberal
- Conservative
- Moderate
- Something Else

*If answered “Liberal” or “Conservative”, this question follows:*

How strongly do you identify as liberal/conservative?

- Slightly Strong
- Moderately Strong
- Very Strong

*If answered “Moderate” or “Something Else”, this question follows:*

- More liberal
- More conservative
- Neither

Appendix G

Demographic Survey

What is your age?

What is your gender?

- Male
- Female
- Other: \_\_\_\_\_

What is your race/ethnicity?

- American Indian or Alaskan Native
- Asian
- Black or African American
- Hispanic, Latino, or Spanish Origin
- Native Hawaiian or Other Pacific Islander
- White, non-Hispanic, Latino, or Spanish Origin
- Other: \_\_\_\_\_

What is your religious affiliation?

- Christianity
- Islam
- Judaism
- Buddhism
- Hinduism
- Atheism
- Non-religious, non-atheist
- Other: \_\_\_\_\_