

Society and the Psychopath:  
An Examination of Psychopathy Relating to Social Motivation and Moral Decision-  
Making  
by  
Louis Savastano

Honors Thesis  
Appalachian State University  
Submitted to the Department of Psychology  
In partial fulfillment of the requirements for the degree of  
Bachelor of Science  
May, 2018

Approved by:

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Twila Wingrove, PhD., J.D., Thesis Director

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Andrew Monroe, PhD, Second Reader

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Andrew Smith, PhD, Departmental Honors Director

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Louis Savastano  
Appalachian State University

## Abstract

Previous studies assessed the relationship between psychopathy and morality within the field of psychology, however few evaluated the extent to which social-motivational factors, such as social support and social hindrance, affect this relationship (Blair, 2007; Glenn et al., 2009). Thus, the present study tested the relationship between psychopathy, social-motivational factors, and moral decision-making. In a sample of 99 college students, results indicate a significant interaction between social-motivational factors and type of moral transgression. Socially hindered participants rated fairness violations as more morally acceptable and reported being more willing to engage fairness violations compared to socially-supported individuals. By contrast, socially supported participants rated harm violations as more morally acceptable and reported being more willing to engage harm violations compared to socially hindered individuals. Psychopathy scores were positively correlated with willingness to engage in immoral behavior and rating immoral behaviors as more moral. Finally, there was a significant interaction between the social-motivational manipulation and psychopathy score, such that participants with high psychopathy scores rated the behaviors as more moral when they were in the social support condition compared to the social hindrance condition, while the opposite was true for participants with low psychopathy scores. Further research is necessary to explore psychopathy in order to further understand how social-motivational influences can be used to promote prosocial behavior and positive moral-decision making.

*Keywords: psychopathy, morality, social-motivation, social support, social hindrance*

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### Society and the Psychopath:

#### An Examination of Psychopathy Relating to Social Motivation and Moral Decision-Making

Psychopathy, as a mental illness, is not in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) or Fifth Edition (DSM-V) as a stand-alone disorder, but instead is included as a subcategory of Antisocial Personality Disorder, in which the term “psychopath” and “sociopath” are briefly discussed (American Psychiatric Association, 2013). Due to the lack of consensus regarding the definition of psychopathy, there are often misconceptions about what defines a psychopath. Many laypersons believe that psychopathy is synonymous with violence and psychosis and that the “disease” is inalterable, making psychopathic individuals doomed to a life of violent crime and manipulative narcissism (Skeem, Polaschek, Patrick & Lilienfeld, 2011). However, extensive research on the subject has proven that these claims are not true (Lilienfeld, 1994; Lilienfeld & Arkowitz, 2007; Skeem et al., 2011).

Psychopathy does not necessitate violent behavior, although many psychopathy measures emphasize features that are predictive of violence. Psychopathic traits can occur in conjunction with psychotic symptoms in some cases, however psychopathic individuals with psychosis generally look different than people who only have psychosis, as psychopathic individuals are typically “rational, free of delusions, and well oriented to their surroundings” (Skeem et al., 2001, 97; Cleckley, 1988). It is also important to note the claim that psychopathy is inalterable is unsupported in the research literature. Indeed, recent research argues that nearly all personality traits, including psychopathic traits, change across the lifespan (Skeem, Monahan, & Mulvey, 2002; Hollin, 2008; Olver & Wong, 2009). As a result of these misconceptions and popular culture’s skewed depiction of psychopathic individuals as serial killers, con artists, chronic

offenders, and corporate psychopaths, there are numerous definitions for the term “psychopathy,” many of which are contradictory in nature.

### **What is psychopathy?**

Traditionally defined as a personality disorder, *psychopathy* is characterized by persistent antisocial tendencies in terms of thought and behavior, as well as impaired empathic functioning, low remorse and “bold, egotistical, disinhibited traits” (Patrick, Fowles & Krueger, 2009). *The Psychopathy Checklist* (PCL-R) and the *Psychopathic Personality Inventory* (PPI) further define “psychopathy” by breaking the disorder down based on two specific factors: (1) Interpersonal-Affective Personality features and (2) Anti-Social Lifestyle Features (Glenn et al., 2009).

Interpersonal-Affective Personality features, otherwise known as primary psychopathic traits, include manipulateness, shallowness, a grandiose sense of self-worth, pathological lying, a failure to accept responsibility for one's own actions and a lack of remorse, guilt, and empathy (Skeem et al., 2011). Conversely, Anti-Social Lifestyle Features, or secondary psychopathic traits, entail a parasitic lifestyle characterized by a lack of realistic long-term goals, irresponsibility, impulsivity, ongoing behavioral problems and possible criminal versatility (Skeem et al., 2011).

Although psychopathic individuals generally display both primary and secondary psychopathic traits, the extent to which these traits are present is specifically due to individual differences. While primary traits of psychopathy are associated with a "deficiency of emotion" prompted by an assortment of negative genetic factors and internally-defined personality factors (Glaser, 2013), secondary psychopathic traits are primarily caused by the effect that negative environmental influences have on one's emotional and moral development (Yildirim, 2016). In other words, psychopaths who display heightened levels of primary traits are more likely to act

on their psychopathy, as it is ingrained in their character. In contrast, psychopaths who display heightened levels of secondary traits act on their psychopathy as a result of situational influences, altering their behavior to combat their chaotic, emotionally turbulent life (Blonigen, Hicks, Krueger, Patrick, & Iacono, 2005). Nonetheless, individuals suffering from psychopathy generally display both primary traits and secondary traits (Glaser, 2013).

Interestingly, in an effort to conceal the negative connotations associated with the disorder and avoid socially deviant labels, individuals with psychopathic traits typically use good intelligence to understand the social implications of his or her actions and thus, "channel manipulative behaviors into socially acceptable ways of living" (Glaser, 2013). For example, high-level senior business managers who display primary psychopathic traits may demonstrate less impulsivity and more planned antisocial behaviors than those without psychopathic traits, simply as a means to guarantee success both socially and professionally within the competitive business world (Board & Fritzon, 2005; Glaser, 2013). This suggests that although antisocial behavior is a key feature of psychopathy, psychopathy does not always necessitate criminal behavior or unacceptable conduct. In fact, psychopaths can use their traits in socially acceptable ways for personal improvement, as is the case with many high-level senior business managers and CEOs, who get rewarded for their professional behavior in the workplace, regardless of any antisocial behaviors that occur. Despite the need to disguise these negative traits, some psychopathic individuals may continue to act on their psychopathy in non-socially acceptable ways by committing crimes, manipulating situations for personal gain, and lying to get ahead, only to show little empathic concern for others and little to no lack of remorse or guilt for one's harmful actions inflicted upon another (Lilienfeld, Latzman, Watts, Smith & Dutton, 2014).

**What is morality?**

The most cited definition of the word “morality” originates from Turiel’s *The Development of Social Knowledge: Morality and Convention* (1983), in which he defines the moral domain as “prescriptive judgments of justice, rights and welfare pertaining to how people ought to relate to [and treat] each other” (p. 3). Morals specifically refer to the principles which codify a community’s agreed upon conception of right and wrong and thus, govern each individual’s actions. Therefore, it is important to note that distasteful and immoral social acts are sometimes the direct result of an individual lacking a moral compass that helps dictate what is right and wrong (Cima, Tonnaer & Hauser, 2010). A deficient moral compass can severely implicate one’s moral standing, impacting one’s ability to coherently act as a fundamentally moral individual, possibly even inducing *amorality*, or the “absence of, indifference toward, or disregard for morality” (Johnstone, 2008).

While morality is important in understanding the concept of psychopathy, the application of morality in effort to produce the most honorable and just society possible is arguably more critical (Lewis, 1952; Turiel, 1983). Theorists broadly agree that morality evolved to facilitate group life (Carnes, Lickel, & Janoff-Bulman, 2015; Haidt, 2007; Malle et al., 2012; Rai & Fiske, 2011). Indeed blame—as socially expressed disapproval—may be one of the oldest tools for human behavior regulation (Przepiorka & Berger, 2016; Voiklis & Malle, 2017) and is effective at enforcing cooperation (Guala, 2012). In other words, morality is important because it helps maintain cohesion, as the interactions and relationships we have with other individuals in society is pertinent to natural human development and the evolutionary success of the human species as a whole, indicating to humanity how we should act in specific situations for positive health outcomes that boost survivability (i.e., Fight-or-Flight vs. Rest-and-Digest; Buss & Greiling, 1999).



An extension of the idea of morality can be understood via the application of the Moral Foundations Theory, a social psychological theory aimed at explaining human moral reasoning in regard to factors, such as culture, innate characteristics and individual differences (Haidt & Graham, 2007). This theory suggests that the idea of “morality” can be understood in terms of five distinct underlying psychological foundations:

1. **Harm/Care**—entails a concern about violence and the protection or suffering of others. According to this domain, being moral includes the ability to understand and dislike the pain of others to the point that one is able to respond in a compassionate, gentle and nurturing way.
2. **Fairness/Reciprocity**—represents the idea of reciprocal kindness, equality and the fact that everyone is deserving of justice, fairness and mutual autonomy.
3. **Ingroup/Loyalty**—embodies the principle of “all for one, and one for all,” suggesting the moral obligation of standing together with and supporting one's social group (e.g., friends, family, nation, etc.). This domain involves factors related to group membership, such as loyalty, betrayal, and biases in treatment toward in-group members in relation to out-group members (Glenn et al., 2009).
4. **Authority/Respect**—signifies the importance of society's political, social and economic hierarchy, highlighting the importance of leadership and followership and subsequent tenets of the obligation to obey, submit to and have respect for superiors.
5. **Purity/Sanctity**— denotes the moral ideal of living in a noble and less carnal way as a basis for maintaining a pure body, mind, and soul. Builds on the idea that immoral activities act as implications for the religious tenet that suggests the body is a temple that shall not be desecrated.

Numerous studies have evaluated these five moral domains (Haidt & Graham, 2007; Graham, Haidt, & Nosek, 2009; Graham, Haidt, Koleva, Motyl, Iyer, Wojcik & Ditto, 2012; Day, Fiske, Downing, & Trail, 2014; Clifford, Iyengar, Cabeza, & Sinnott-Armstrong, 2015), all of which have suggested that these foundations are used to define and outline the concept of “morality” within our society.

Although mass amounts of research have studied moral foundations in regard to the conceptualization of morality within our society, there is little research on how psychopaths evaluate and characterize various behaviors and scenarios as moral or immoral. Nevertheless, a study conducted by Glenn et al. (2009) yielded results suggesting there is no significant relationship between psychopathy and immorality in regard to the endorsement of the Authority, Ingroup or Purity foundations; however, they also found that psychopathic individuals have atypical moral perspectives in regard to the Harm and Fairness domains (Blair, 2007; Glenn et al., 2009). So, individuals with higher psychopathic scores are more likely to disregard moral guidelines when they relate to the harm and fairness foundations (Glenn et al., 2009).

### **Social Motivation**

*Homo Sapiens* are a naturally social, cooperative species, interacting with each other in complex ways to ensure that all parties involved receive mutually advantageous outcomes (Forgas, Williams & Laham, 2005). Human beings need to socialize due to a motivation and desire to fit in society in ways that yield meaningful social contact with other individuals like them. This meaningful social contact gives humans the opportunity to cultivate a healthy sense of adjustment to the social groups in which they belong and maybe, even more importantly, foster a sense of identity, encompassed by a degree of morality, mental and social health, genetics and personality (Narvaez & Lapsley, 2014). The healthy adjustment to social groups

and development of a personal identity is thus the direct result of various social-motivational factors that influence one's desire to participate within society in meaningful ways. *Social-motivational factors* are elements or ideas integral in motivating an individual to act in a specific way for some goal (Forgas et al., 2005); two well known social-motivational factors are: (1) social support and (2) social hindrance.

***Social support*** entails the thought, feeling, and reality that one is loved and cared for by a supportive network of numerous friends, family members and peers offering assistance and guidance as needed (Rafaeli, Cranford, Green, Shrout & Bolger, 2008; Reblin & Uchino, 2008). Two main forms of social support are expressive support, which entails providing emotional assistance to those in need, and instrumental support, which necessitates the provision of tangible items to support an individual (Carre & Jones, 2016). The goal of social support is to endorse a sense of belongingness and connectedness to society and one's personal social group(s) as a means to buffer any negative effects that might occur in the face of adversity (Brewin, MacCarthy, & Furnham, 1989; Reblin & Uchino, 2008).

In contrast, ***social hindrance*** refers to "the presence of negative, potentially harmful interactions or relationships" (Ruehlman & Wolchik, 1988, pp. 294) that strive to interfere with an individual's goal-related activities and therefore produce "expressions of anger or other negative emotions or outcomes" (Rafaeli et al., 2008, p. 1704). Social hindrance can be conceptualized in terms of conflict, negativity and relationship strain, evident in one's interaction with his or her adversaries and the associated negative and hateful relationship themes between two enemies or individuals who do not like each other (Lincoln, 2000; Rafaeli et al., 2008).

Research indicates that a lack of social support or the presence of social hindrance is linked to a higher risk of developing physical and mental illnesses, acute psychological distress,

and ultimately, a higher risk for death (Masui, Iriguchi, Terada, Nomura, Ura, 2012; Rafaeli et al., 2008). However, the opposite effect is observed when social support is present and social hindrance is not. Constructive social interactions and relationships have a significant positive effect on well-being, psychological functioning, the ability to cope with stress, and a reduced mortality risk (House, Umberson & Landis, 1988; Reblin & Uchino, 2008).

Despite the positive physical and psychological effects associated with social support, the need to have prosocial interactions and positive interpersonal relationships is not ubiquitous. Results from a study conducted by Bartels and Pizzaro (2011) in which participants were given a 10-item social desirability scale to measure one's willingness to respond in a "socially desirable" or "favorable" way indicated that there is a significant correlation between individuals with high scores of psychopathy and low social desirability. Psychopathic individuals are less concerned with their belongingness and connectedness to society as a means to buffer the negative effects of their actions; in fact, research has shown that individuals with psychopathic traits are less likely to value enduring and meaningful social relationships (Baird, 2002). Instead, individuals high in primary psychopathy may be motivated to act prosocially toward others and engage in socially supportive relationships, only as a means to "be admired, gain attention, and nourish their inflated self-esteem" (Foulkes, Seara-Cardoso, Neumann, Rogers & Viding, 2013, p. 23). Interestingly, a study conducted by Masui et al. (2008), which examined the association between perceived familial social support, psychopathy and aggression, indicated that a lack of social support paired with high psychopathy scores led to a higher endorsement of antisocial behaviors that pertain to psychopathy, such as aggression, unfairness and manipulation. In the study, the participants were divided into four groups according to their scores on the *Quality of Relationship Index (QRI)*, a measure assessing social

support (Cousson-Gélie, de Chalvron, Zozaya, & Lafaye, 2013), and the *Levenson Self-Report Psychopathy* (LSRP) scale (Sellbom, 2011). The four groups were: (1) low social support and low psychopathy; (2) low social support and high psychopathy; (3) high social support and low psychopathy; and (4) high social support and high psychopathy.

Each participant participated in four rounds of an economic decision-making trust game, in which they were told to allocate points that could be traded for money at the end of the study to either themselves or a partner, whom they believed was a person in another room, but was actually a computer. During two of the four rounds, participants were treated “fairly,” where they re-obtained half of the points allocated to their partner, and during two rounds, participants were treated “unfairly,” in which they received no points back from their partner. As the game progressed, participants were given the opportunity to “punish” their partner by assigning penalty points between 0 and 20. After analyzing data, results showed that participants with low social support and high psychopathy scores punished their fair partner significantly more than participants in the high support and high psychopathy and low support and low psychopathy conditions (Masui et al., 2008). This result could possibly be explained by the interaction between psychopathy and low social support, as previous research on psychopathy suggests low social support in psychopathic individuals yields a further reduction of empathic concern for and the inability to adopt the psychological perspective of other individuals (Glenn, Iyer, Graham, Koleva & Haidt, 2009).

Inquiries on social interaction yield results that link a lack of social support, social rejection and social isolation to aggressive behavior (Warburton, Williams & Cairns, 2003). Further, one's inability to act empathetically and their subsequent distaste for or resistance toward understanding the plight of another individual might coalesce with a lack of social

interaction, social support, and social ostracism, to produce aggressive, and potentially violent or morally questionable behaviors, like punishing fair and morally just individuals. If this is the case, then one's degree of social interaction, like the involvement in socially supportive and/or socially hindering situations, could impact one's inability to act empathetically toward another human. While one individual with psychopathic traits might be willing to engage in immoral behaviors due to social ostracism and high levels of psychopathy, it is quite possible that another individual, with the same level of psychopathy, but a more positive social environment, will be inclined to act with more empathic concern than his or her counterpart.

### **Current Study**

There have been various studies evaluating the relationship between psychopathy and morality, and many of these show that individuals with psychopathic traits are more likely to engage in moral transgressions and display immoral thoughts and behaviors, compared to . . . . However, there has been very little research conducted on the extent to which individuals who display psychopathic traits or tendencies act morally or immorally as a result of social motivational factors, such as social support and social hindrance.

In order to identify how social factors specifically play a role in the relationship between psychopathic traits and behavior and morality, participants were given the Psychopathic Personality Inventory (PPI) and randomly assigned to a social prime (i.e., social support or social hindrance) before being shown a vignette depicting a behavior that corresponded to a moral foundation condition (i.e., Harm, Fairness or Control). The participants then indicated their willingness to engage in the behavior and how moral they believed the behavior was. Thus, this study strived to answer the following question(s):

1. Given the relationship between antisocial behaviors and psychopathy (Board & Fritzon, 2005; Patrick, Fowles & Krueger, 2009), to what extent does psychopathy influence morality and one's willingness to commit a moral transgression?

Hypothesis 1.1: Participants with higher psychopathy scores will be more willing to engage in immoral behavior than participants with lower levels of psychopathy.

Hypothesis 2.1: Participants with higher psychopathy scores will rate immoral behaviors as more moral than participants with lower psychopathy scores.

2. Given the research on social support and social hindrance in regard to the positive and negative effects each have on individuals (House, Umberson & Landis, 1988; Karau & Hart, 1988; Forgas et al., 2005), and the research that exists linking socialization to psychopathy (Masui et al., 2012; Rafaeli et al., 2008), what role do social-motivational factors play in the relationship between psychopathic affect and the endorsement of a moral transgression?

Hypothesis 2.1: Participants in the social hindrance condition will show an increased willingness to engage in immoral behavior than participants in the social support condition.

Hypothesis 2.2: Participants in the social hindrance condition will rate immoral behaviors as more moral than participants in the social support condition.

Hypothesis 2.3: Participants in the social hindrance condition with high psychopathy scores will be more willing to engage in immoral behaviors that pertain to the Harm and Fairness moral foundations than participants who have low psychopathy scores or are in the social support condition.

## **Method**

## Participants

We recruited a total of 118 participants; however, 19 participants failed to respond to all items, leaving a final total sample of 99 participants in the study. The majority of participants identified as female ( $n = 78$ ), and 21 participants identified as male. Participants' ages ranged from 18 to 34 years, where 96.9% (96 participants) were between the ages of 18 and 24, while 2.1% (3 participants) were aged 25 to 34. Further, 83.8% ( $n = 83$ ) were Caucasian, 6.1% ( $n = 6$ ) were Hispanic, 5.05% ( $n = 5$ ) were Black, and 5.05% ( $n = 5$ ) were Asian. All participants were recruited via recruitment ads posted on SONA recruitment systems. Participants received 1 Experiential Learning Credit (ELC) for completing the study.

## Design

This was an experimental study using a 2 (social motivation: support, hindrance) x 3 (moral foundation: harm, fairness, control) between-subjects design. Psychopathic traits were measured as a continuous construct. The primary dependent variables were (1) one's willingness to engage in immoral behavior, and (2) one's moral rating of the behavior depicted.

## Materials

There were three independent variables in the study: (1) Social motivation, (2) Moral Foundation, and (3) PPI score. I describe each of these measures below.

**Social Motivation.** Participants were randomly assigned to either: (1) a social support condition or (2) a social hindrance condition. *Social support* was operationalized by giving the participant pictures that depicted supportive groups and group cohesion while asking them to think of strong positive social bonds they have with individuals in their lives (family member, friend, significant other, etc.). Additionally, after viewing the pictures, participants were asked to write about someone or something they have a strong positive bond to, why they think of it as a



positive relationship, and why it is important to them (see Appendix A). *Social hindrance* was operationalized by giving the participant pictures that depicted social ostracism and discord or disunity while asking them to think of strong negative social bonds they have with someone in their lives (a bully, family member, peer, etc.). After viewing the, participants were asked to write about someone or something they have a strong negative bond to, why they think of it as a negative bond, and why this negative relationship exists (see Appendix B).

**Moral Foundation.** Moral Foundation was manipulated such that participants were randomly assigned to either: (1) a harm foundation condition, (2) a fairness foundation condition, or (3) a control condition. To operationalize the harm foundation condition, the participant was given a vignette that corresponded to the Harm domain of Moral Foundations Theory (i.e., At the soccer game, Paul knocked out another parent who made fun of his son). To operationalize the fairness foundation condition, the participant was given a vignette depicting a scenario that corresponds to the Fairness domain of Moral Foundations Theory (i.e., For her term paper, Debra searched the internet and copied liberally from someone else's paper). Finally, to operationalize the control condition, the participant was given a vignette depicting a control scenario (i.e., Donald put his American flag in a metal trash can on his driveway and lit it on fire).

Stimuli sentences were employed as a resource to develop the vignettes used to question, test and analyze moral decision-making. These stimuli sentences come from another study conducted by a faculty member in the Department of Psychology at Appalachian State University. Each stimuli sentence used in the study was chosen based on the similarity of valence ratings, which was derived from pilot tests. Further, the stimuli sentences used for the Harm (Valence = -2.35), Fairness (Valence = -2.52), and Control (Valence = -2.35) vignettes were

specifically chosen as their valences were similar too each other and in the middle of the scale (see Appendix C).

**Psychopathic Traits.** The Psychopathic Personality Inventory-Revised (PPI-R) was used in the study to measure each participant's psychopathic affect and personality characteristics. Without assuming criminal tendencies or anti-social behaviors, the PPI-R assesses psychopathic traits in non-criminal and clinical populations by utilizing a self-report assessment (Malterer, Lilienfeld, Neumann, & Newman, 2010). The PPI-R consists of 154 questions in which participants respond to each statement depending on how false or true it is as a description of them, where F = False, MF = Mostly False, MT = Mostly True and T = True. This inventory includes measures to detect both careless responding and impression management, thus increasing the reliability of the scale (Nikolova, Hendry, Douglas, Edens, & Lilienfeld, 2012). The PPI-R is presented in Appendix D.

**Dependent Variables.** The first 5-point scale in the study was used to measure each participant's willingness to commit the action depicted via the vignette, where 1 indicated extremely unwilling and 5 indicated extremely willing. The second 7-point scale in the study was used to measure each participant's belief that the scenario or action depicted was moral or immoral. In this case, 1 indicated a highly immoral action and a 7 indicated a highly moral act.

### **Procedure**

Participants were recruited for the study via the Psychology Department's participant pool website (SONA). If they chose to participate, they followed a link from SONA to Qualtrics, where the study was posted. After reading the consent form (see Appendix E), agreeing to participate in the study and finishing a demographic questionnaire (see Appendix F), participants were given the Psychopathic Personality Inventory (PPI), which assesses psychopathic traits in

non-criminal and clinical populations. Following the PPI, participants were randomly assigned to one of two conditions: (1) social support and (2) social hindrance. Participants were then randomly assigned to respond to one of the three vignettes (Harm, Fairness, or Control). After viewing the vignette, participants were asked to answer the dependent variable items. Upon completion, participants were awarded course credit in SONA.

## Results

This goal of this study was to better understand how psychopathy might influence moral decision-making and one's willingness to commit a moral transgression, as well as the extent to which one's social environment (i.e., social support and social hindrance) plays a role in the relationship. As a result, we ran two ANCOVAs and follow-up analyses to specifically determine the strength of the relationships between psychopathic affect, social-motivation, and moral decision-making. Results are organized below describing the model predicting one's willingness to engage in immoral behavior followed by the model describing one's moral rating of the behavior depicted.

### Willingness to Engage in Immoral Behavior

In order to test whether the manipulations and psychopathy scores were related to one's willingness to engage in immoral behavior, I ran a 2 (social-motivational prime: social support, social hindrance) x 3 (moral behavior: harm, fairness, control) ANCOVA with PPI scores entered as a covariate and willingness to engage included as the dependent variable. Contrary to expectations, the ANCOVA revealed no main effects for the moral foundation manipulation,  $F(2, 89) = .64, p = .53, \eta_p^2 = .014$ , or the social-motivational manipulation,  $F(1, 89) = .83, p = .36, \eta_p^2 = .009$ . However, as predicted and consistent with hypothesis 1.1, there was a main effect for PPI score,  $F(1, 89) = 12.86, p = .001, \eta_p^2 = .13$ . PPI scores were positively correlated with

willingness to engage in immoral behavior,  $r = .28, p = .005$ . The higher the psychopathy score, the more willing one was to engage in immoral behavior.

In regard to hypothesis 2.1, there was a significant interaction between the moral foundation manipulation and social-motivational manipulation,  $F(2, 89) = 3.51, p = .034, \eta_p^2 = .073$  (see Figure 1), however the relationship was not as initially expected. In particular, participants in the social hindrance condition were more willing to engage in the moral transgression related to the fairness foundation, while participants in the social support condition were more willing to engage in the moral transgression in regard to the harm foundation. See Table 1 for means and standard deviations.

### **Morality Ratings of Behavior**

In order to test whether the manipulations and psychopathy scores were related to participants' morality ratings of the behavior depicted, I ran another 2 (social-motivational prime: social support, social hindrance) x 3 (moral behavior: harm, fairness, control) ANCOVA with PPI scores entered as a covariate and participant moral ratings of the behavior depicted as the dependent variable. Contrary to expectations, the ANCOVA revealed no main effect for the moral foundation manipulation,  $F(2, 89) = .38, p = .686, \eta_p^2 = .008$ , but did reveal a main effect for the social-motivational manipulation,  $F(1, 89) = 4.59, p = .035, \eta_p^2 = .05$ . Contrary to hypothesis 2.2, participants in the social hindrance condition rated the behaviors as less moral ( $M = 2.53, SD = 1.12$ ) than participants in the social support condition ( $M = 2.64, SD = 2.53$ ) (see Table 2). In regard to hypothesis 1.2, there was also main effect for PPI score,  $F(1, 89) = 9.67, p = .003, \eta_p^2 = .098$ . PPI scores were positively correlated with participant ratings of the moral transgressions,  $r = .26, p = .01$ . This suggests that participants with higher PPI scores rated the behaviors depicted as more moral than individuals with lower PPI scores.

Unlike with the engagement dependent variable, there was no significant interaction between the moral foundation manipulation and the social-motivational manipulation on the morality dependent variable,  $F(2, 89) = .575, p = .565, \eta_p^2 = .013$ . However, as predicted, the ANCOVA did reveal a significant interaction between the social-motivational manipulation and PPI score,  $F(1, 89) = 4.71, p = .033, \eta_p^2 = .050$  (see Table 2). To follow-up, we conducted a median split on PPI scores and explored the means for those low and high on PPI within the two social motivational conditions. As hypothesis 2.3 suggested, participants with high PPI scores in the social support condition rated the morality of the behaviors higher than participants with high PPI scores in the social hindrance condition (see Table 3). However, contrary to expectations outlined in hypothesis 2.3, participants with low PPI scores in the social hindrance condition ( $M = 2.36, SD = 1.14$ ) rated the morality of the transgressions higher than participants with low PPI scores in the social support condition ( $M = 2.11, SD = 1.22$ ) (see Figure 2).

### **Discussion**

The present study explored the extent to which psychopathic traits and social-motivational factors (social support and social hindrance) affected individuals' ratings of moral transgressions, as well as one's willingness to engage in immoral behavior. Previous research on psychopathy and morality has indicated that psychopathic individuals lack the ability to engage in conventional moral decision-making as a result of their inability to fully understand what is morally right and wrong, especially in regard to immoral behaviors that pertain to the Harm and Fairness moral foundations (Blair, 2007; Glenn et al., 2009; Cima et al., 2010; Aharoni, Antonenko, & Kiehl, 2011). Prior research on psychopathy and social motivation has suggested that psychopathic individuals are less likely to value meaningful social relationships and their connectedness to society (Baird, 2002; Masui et al., 2008). This research further suggests that the

lack of social support or the presence of social hindrance yields a reduced empathic concern that ultimately produces the inability to engage in conventional moral decision-making (Warburton et al., 2003; Glenn et al., 2009).

Although previous research elucidates the relationships between psychopathy and morality, and psychopathy and social motivation, there is a lack of research regarding the interaction between psychopathy, morality and social motivation. To answer my research questions, an experiment was conducted to test the relationships between psychopathy, morality and social motivation in regard to one's willingness to engage in immoral behavior and one's moral rating of said immoral behavior. I also explored the correlation between psychopathy score and willingness to engage in immoral behavior, as well as the correlation between psychopathy score and one's moral rating of the immoral behavior.

As hypothesized, my findings showed that psychopathy scores were positively correlated with participants' moral ratings of the behaviors depicted in the vignettes. These findings are congruent with previous research on the relationship between psychopathy and morality (Glenn et al., 2009; Cima et al., 2010; Brosius, 2017). A wealth of psychological research suggests antisocial behaviors are critical to the construct of psychopathy, as psychopathic individuals sometimes use lying and manipulative behaviors as a means to achieve success (Board & Fritzon, 2005; Patrick, Fowles & Krueger, 2009; American Psychiatric Association, 2013; Glaser, 2013). Glenn et al. (2009) determined that psychopathic individuals are more likely than others to act immorally, perhaps due to a psychopath's lack of empathic concern, which ultimately produces a diminished willingness to consider how their actions affect others when making a morally relevant decision (Cima et al., 2010; Decety & Cowell, 2015). Cima, et al. (2010) proposes that lack of empathic concern is critical to why psychopaths have deficient

moral compasses, as they understand and perceive the distinction between right and wrong, but do not seem to care, endorsing behaviors, both moral or immoral, as a means to get ahead regardless of who gets hurt. My findings suggest that psychopathy shares significant positive correlation with both willingness to engage in immoral behaviors and participant moral ratings of behaviors depicted; however, in this study, the relationship between psychopathy score and willingness to engage in immoral behavior was the strongest.

Prior literature observing the role of social environments on individual behavior has indicated that the goal of social support is to ultimately adhere one to the social group to which they belong, in order to influence positive moral decision-making, prosocial behavior, and avoid any negative effects in the face of adversity (Warburton et al., 2003; Rafaeli et al., 2008; Reblin & Uchino, 2008; Glenn et al., 2009). In contrast, Warburton et al. (2003) and Rafaeli et al. (2008) have linked a lack of social support and the presence of social hindrance to aggressive and potentially morally questionable behaviors. I found that the social-motivational primes interacted with the moral behavioral manipulation; however, results were not as expected. The results indicate that socially hindered individuals were more likely to engage in immoral behavior only when it pertains to the Fairness domain, as opposed to both the Harm and Fairness foundations, as initially expected (Glenn et al., 2009). On the other hand, these findings indicate socially supportive individuals were more likely to engage in an immoral behavior when it pertains to the Harm domain.

In regard to the moral rating of the behavior depicted via each vignette, socially hindered individuals unexpectedly rated moral transgressions as less moral than socially supported individuals. Although it is uncertain why socially hindered individuals rated immoral behaviors as less moral, socially supported individuals rated immoral behaviors as more moral, perhaps due

to the fact that the vignette chosen to satisfy the harm foundation relates heavily to social support (i.e., At the soccer game, Paul knocked out another parent who made fun of his son). If an individual is reflecting on the numerous positive bonds in their life, viewing a scenario which entails defending someone who is extremely close to them could induce them to believe that acting immorally as a means to protect said positive bond and close relationship, is in fact moral.

Lastly, in regard to the final hypothesis, my research findings show that there is a significant interaction between psychopathy score and the social-motivational manipulation in regard to moral ratings of behaviors depicted via the vignettes. Research (Glenn et al., 2009; Cima et al., 2010; Graham et al., 2012) suggests that social support acts as a buffer from negative effects, including the characteristics of psychopathy, while social hindrance and ostracism yield undesirable consequences that can drive someone to the point of acting on their psychopathy. In congruence with this research, it was initially believed socially hindered individuals with high PPI scores would be most likely to rate immoral behaviors as more moral. On the contrary, this study interestingly suggests that participants who scored high on psychopathy and were a part of the social support condition rated immoral behaviors more moral than the other three conditions.

Further, participants with low psychopathy scores in the social hindrance condition rated immoral behaviors as more moral than participants with low psychopathy scores in the social support condition. It is possible that individuals with low psychopathy scores and high levels of social hindrance are inclined to act immorally, simply as a result of the negative perception associated with social ostracism and socially hindering situations, which effectively yield negative consequences and emotions, such as anger, sadness, and annoyance, among other traits. Then again, it is quite possible the PPI also negatively primed participants by providing them with numerous negative phrases they had to reflect on to determine if it applied to them. In



regard to individuals high in psychopathy, it is feasible to believe that regardless of their social-motivational prime, their psychopathic affect makes them see each vignette as a means to personally benefit, in which they attempt to take advantage of the situation to the best of their ability. High moral ratings of immoral behavior could be due to the effect social support has on individuals, as the Harm vignette used in the study specifically dealt with social support, potentially increasing one's likelihood to commit an undesirable behavior for a desirable and necessary outcome (i.e., engaging in violent or harmful behavior to protect a strong bonded relationship).

### **Limitations**

There are several limitations in this study that should be noted. First, the sample of participants utilized in the study was highly imbalanced in terms of gender. If the study included a larger sample of males, or a larger sample than 99 participants in general, results might have been different. Most psychopathy research is conducted with primarily male samples, so differences we found here could be related to having a primarily female sample. Moreover, the sample of the study was largely ethnically homogenous, with 83.8% of participants indicating they are Caucasian, which poses additional concerns regarding the representativeness of the sample used. Second, due to the fact that a portion of this study was correlational in nature, it is impossible to conclude that specific levels of psychopathy scores *caused* differences in willingness to engage in immoral behavior or differences in moral ratings of immoral behavior. Lastly, although the PPI is recognized as a valid measure of psychopathic traits (Nikolova et al., 2012), the very fact that psychopathy was assessed using a self-report measure could have led to an inaccurate assessment of psychopathic traits and psychopathy score.

### **Future Directions**

Future research aimed at evaluating the interaction between psychopathy, social-motivational factors and morality should strive to improve the findings of this study by first addressing the limitations discussed above. A larger, more heterogeneous sample is needed to more accurately assess the extent to which individuals of different ages, genders, ethnicities and majors/lines of work are truly psychopathic and PPI scores do in fact correlate and interact with social-motivational factors to yield immoral behavior. More research is needed to determine the relationship between PPI scores, moral foundations and moral-decision making. The PPI is extremely easy to distribute to a large number of participants relatively easily; however, if necessary, alternate psychopathy measures, like the PCL-R (Venables, Hall, & Patrick, 2004), which include other means of assessment, such as a semi-structured interview paired with the review of official records (i.e., hospital and psychiatric documents, health history, etc.), can be adopted to avoid any inaccurate assessment that might result from a self-report survey.

Future studies should consider the constructs used to measure morality in regard to Moral Foundations Theory, especially the Harm and Fairness foundations. The present study analyzed moral decision-making via the response to a single vignette that corresponded to the Harm, Fairness, or Control conditions. The inclusion of more vignettes depicting the three conditions might lead to a better and more concrete understanding of how psychopathy and social-motivation influence moral decision-making. Further, it is possible that future studies can adopt a more statistically reliable measure regarding the evaluation of morals and moral competence, such as The Moral Competence Test (Biggs & Colesante, 2015), making morality a measured construct within the study and, thus, easier to assess the extent psychopathic individuals are willing to change their morals in the face of social support and social hindrance. Research might also consider adding a valid measure of empathy in order to better gauge the role that empathic

functioning and emotional processing has on the relationship between psychopathy and moral decision-making.

Prospective studies interested how social-motivational factors relate to psychopathy and moral-decision making should broaden research on social support and social hindrance by operationalizing conditions differently than in this study. Researchers should consider the inclusion of a statistically reliable construct that induces and measures a feeling of social support and social hindrance. For example, instead of measuring social-motivation using a social prime to influence behavior one way or another via pictures and the analysis of responses to a question posed to participants, researchers should operationalize social support and social hindrance by placing participants in operationalized socially supportive and socially hindering settings/situations.

Finally, due to lack of research on psychopathy within the general public, there is no definitively known prevalence rate within the general population (Werner, Few & Bucholz, 2015), although some research suggests the prevalence within the general population is 1%, while the prevalence in the institutionalized population is estimated to be even higher (Werner et al., 2015). Thus, future research should more thoroughly examine the epidemiology of psychopathy in both the general public and within the institutionalized population, in an effort to better determine the true prevalence of the disorder. Knowing the true prevalence of the disorder could provide significant details on how to not only combat and buffer the negative traits and undesirable behaviors that occur as a result of psychopathy, but also further understand the concept of psychopathy and its' implications on moral decision-making and society as a whole.

## References

- Aharoni, E., Antonenko, O., & Kiehl, K. A. (2011). Disparities in the moral intuitions of criminal offenders: The role of psychopathy. *Journal of Research in Personality, 45*(3), 322-327. doi: 10.1016/j.jrp.2011.02.005
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Blair, R. J. (2007). The amygdala and ventromedial prefrontal cortex in morality and psychopathy. *Trends in Cognitive Sciences, 11*, 387-392. doi: 10.1016/j.tics.2007.07.003
- Blonigen, D. M., Hicks, B. M., Krueger, R. F., Patrick, C. J., & Iacono, W. G. (2005). Psychopathic personality traits: Heritability and genetic overlap with internalizing and externalizing psychopathology. *Psychological Medicine, 35*(5), 637-648. doi: 10.1017/S0033291704004180
- Board, B., & Fritzon, K. (2005). Disordered personalities at work. *Psychology Crime and Law, 11*(1), 17-32. doi: 10.1080/10683160310001634304
- Bock, G. R. & Goode, J. A. (Eds.) (2006). *Empathy and fairness*. London, United Kingdom: Wiley.
- Brewin, C. R., MacCarthy, B., & Furnham, A. (1989). Social support in the face of adversity: The role of cognitive appraisal. *Journal of Research in Personality, 23*(3), 354-372. doi: 10.1016/0092-6566(89)90007-X
- Brosius, E. C. (2017). The dark triad of personality: A discussion of the moral and evolutionary implications (Honors thesis). Retrieved from <https://scholarship.depauw.edu/cgi/viewcontent.cgi?article=1062&context=studentresearch>

- Buss, D. M., & Greiling, H. (1999). Adaptive individual differences. *Journal of Personality*, 67(2), 209-243. doi: 10.1111/1467-6494.00053.
- Carnes, N. C., Lickel, B., & Janoff-Bulman, R. (2015). Shared perceptions: Morality is embedded in social contexts. *Personality and Social Psychology Bulletin*, 41(3), 351-362. doi: 10.1177/0146167214566187
- Cima, M., Tonnaer, F., & Hauser, M. D. (2010). Psychopaths know right from wrong but don't care. *Social Cognitive and Affective Neuroscience*, 5(1), 59-67. doi:10.1093/scan/nsp051
- Cleckley, H. (1988). *The mask of sanity: An attempt to clarify some issues about the so-called psychopathic personality* (5th ed.). St. Louis, MO: Augusta, GA: E.S. Cleckely.
- Clifford, S., Iyengar, V., Cabeza, R., & Sinnott-Armstrong, W. (2015). Moral foundations vignettes: A standardized stimulus database of scenarios based on moral foundations theory. *Behavior Research Methods*, 47(4), 1178-1198. doi: 10.3758/s13428-014-0551-2
- Cousson-Gélie, F., de Chalvron, S., Zozaya, C., & Lafaye, A. (2013). Structural and reliability analysis of quality of relationship index in cancer patients. *Journal of Psychosocial Oncology*, 31(2), 153-167. doi: 10.1080/07347332.2012.761317
- Day, M. V., Fiske, S. T., Downing, E. L., & Trail, T. E. (2014). Shifting liberal and conservative attitudes using moral foundations theory. *Personality and Social Psychology Bulletin*, 40(12), 1559-1573. doi:10.1177/0146167214551152
- Decety, J. & Cowell, J. M. (2015). Friends or foes: Is empathy necessary for moral behavior? *Perspectives on Psychological Science*, 9(4), 525-537. doi: 10.1177/1745691614545130
- Efferson, L., Glenn, A., Rempel, R. & Iyer, R. (2017). The influence of gender on the relationship between psychopathy and five moral foundations. *Personality and Mental Health*, 11(4), 355-343. doi: 10.1002/pmh.1395.

- Forgas, J. P., Williams, K. D., & Laham, S. M. (2005). *Social motivation: Conscious and unconscious processes*. Cambridge, United Kingdom: Cambridge University Press.
- Glaser, M. K. (2013). *A comparison of primary and secondary psychopathy in the prediction of explicit and implicit measures of empathy*. Retrieved from OhioLINK Electronic Theses and Dissertations Center (dayton1375127938).
- Glenn, A. L., Iyer, R., Graham, J., Koleva, S. & Haidt, J. (2009). Are all types of morality compromised in psychopathy? *Journal of Personality Disorders, 23*(4), 384-398. doi: 10.1521/pedi.2009.23.4.384
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S. P., & Ditto, P. H. (2012). Moral foundations theory: The pragmatic validity of moral pluralism. *Advances in Experimental Social Psychology, 47*, 55-130. doi:10.1016/B978-0-12-407236-7.00002-4
- Graham, J., Haidt, J. & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology, 96*(5), 1029-1046. doi: 10.1037/a0015141
- Guala, F. (2012). Reciprocity: Weak or strong? What punishment experiments do (and do not) demonstrate. *Behavioral and Brain Sciences, 35*, 1-59. doi: 10.1017/S0140525X11000069
- Haidt, J. (2007). The new synthesis in moral psychology. *Science, 316*(5827), 998-1002. doi: 10.1126/science.1137651
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research, 20*, 98-116. doi: 10.1007/s11211-007-0034-z

- Hollin, C. (2008). Evaluating offending behavior programmes: Does only randomization glister? *Criminology & Criminal Justice*, 8, 89-106. doi: 10.1177/1748895807085871
- Johnstone, M. J. (2008). *Bioethics: A nursing perspective* (5th ed.). Elsevier, Australia: Churchill Livingstone.
- Karau, S. J., & Hart, J. W. (1998). Group cohesiveness and social loafing: Effects of a social interaction manipulation on individual motivation within groups. *Group Dynamics: Theory, Research, and Practice*, 2(3), 185-191. Doi: 10.1037/1089-2699.2.3.185
- Lewis, C. S. (2001). *Mere Christianity: A revised and amplified edition, with a new introduction, of the three books, Broadcast talks, Christian behaviour, and Beyond personality* (1st HarperCollins ed.). San Francisco: HarperSanFrancisco.
- Lilienfeld, S. O. (1994). Conceptual problems in the assessment of psychopathy. *Clinical Psychology Review*, 14, 17-38. doi: 10.1016/0272-7358(94)90046-9
- Lilienfeld, S. O., & Arkowitz, H. (2007, December). What “psychopath” means: It is not quite what you think. *Scientific American Mind*, 90-91. Retrieved from <http://www.scientificamerican.com/>
- Lilienfeld, S. O., Litzman, R. D., Watts, A. L., Smith, S. F., & Dutton, K. (2014). Correlates of psychopathic personality traits in everyday life: Results from a large community survey. *Frontiers in Psychology*, 5, 1-11. doi: 10.3389/fpsyg.2014.00740
- Lin N., Simeone R. S., Ensel W. M., & Kuo W. (1979). Social support, stressful life events, and illness: A model and an empirical test. *Journal of Health and Social Behavior*, 20 108–19. doi: 10.2307/2136433
- Lincoln, K. D. (2000). Social support, negative social interactions, and psychological well-being. *The Social Service Review*, 74(2), 231-252. doi: 10.1086/514478

- Malle, B. F., Guglielmo, S., & Monroe, A. E. (2012). Moral, cognitive, and social: The nature of blame. In J. Forgas, K. Fiedler, and C. Sedikides (Eds.), *Social thinking and interpersonal behaviour* (pp. 311-329). Philadelphia, PA: Psychology Press.
- Malterer, M. B., Lilienfeld, S. O., Neumann, C. S., & Newman, J. P. (2010). Concurrent validity of the psychopathic personality inventory with offender and community samples. *Assessment, 17*(1), 3-15. doi: 10.1177/1073191109349743.
- Mill, J. S. (1861). *Utilitarianism*. London, England: Longmans, Green, Reader, and Dyer.
- Narvaez, D. & Lapsley, D. (2014). Becoming a moral person – Moral development and moral character education as a result of social interactions. In M. Christen et al. (eds.), *Empirically informed ethics: Morality between facts and norms*. doi: 10.1007/978-3-319-01369-5\_13
- Nikolova, N. L., Hendry, M. C., Douglas, K. S., Edens, J. F., & Lilienfeld, S. O. (2012). The inconsistency of inconsistency scales: A comparison of two widely used measures. *Behavioral Sciences & The Law, 30*(1), 16-27. doi: 10.1002/bsl.1996
- Olver, M. E., & Wong, S. C. P. (2009). Therapeutic responses to psychopathic sexual offenders: Treatment attrition, therapeutic change, and long-term recidivism. *Journal of Consulting and Clinical Psychology, 77*, 328-336. doi: 10.1037/a0015001.
- Pachucki, M. C. (2016). The importance of social relationships over the life course. *National Institute of Health's Office of Behavioral and Social Sciences Research*. Retrieved from <https://obsr.od.nih.gov/the-importance-of-social-relationships-over-the-life-course/>
- Patrick, C. J., Fowles, D. C., & Krueger, R. F. (2009). Triarchic conceptualization of psychopathy: Developmental origins of disinhibition, boldness, and meanness. *Development and Psychopathology, 21*, 913-938. doi: 10.1017/S0954579409000492



Prinz, J. J. (2011). Is Empathy Necessary for Morality? In A. Coplan and P. Goldie (Eds.)

*Empathy: Philosophical and Psychological Perspectives* (1-20). doi:

10.1093/acprof:oso/9780199539956.001.0001

Przepiorka, W., & Berger, J. (2016). The sanctioning dilemma: A quasi-experiment on social norm enforcement in the train. *European Sociological Review*, 32(1), 439-451. doi:

10.1093/esr/jcw014

Rafaeli, E., Cranford, J. A., Green, A. S., Shrout, P. E., & Bolger, N. (2008). The good and bad of relationships: How social hindrance and social support affect relationship feelings in daily life. *Personality and Social Psychology Bulletin*, 34(12), 1703-1718. doi:

10.1177/0146167208323742

Rai, T. S., & Fiske, A. P. (2011). Moral psychology is relationship regulation: Moral motives for unity, hierarchy, equality, and proportionality. *Psychological Review*, 118(1), 57-75. doi:

10.1037/a0021867

Reblin, M., & Uchino, B. N. (2008). Social and emotional support and its implication for health.

*Current Opinion in Psychiatry*, 21(2), 201-205. doi: 10.1097/YCO.0b013e3282f3ad89

Sellbom, M. (2011). Elaborating on the construct validity of the Levenson self-report

psychopathy scale in incarcerated and non-incarcerated samples. *Law and Human*

*Behavior*, 35(6), 440-451. doi: 10.1007/s10979-010-9249-x.

Skeem, J. L., Monahan, J., & Mulvey, E. (2002). Psychopathy, treatment involvement, and

subsequent violence among civil psychiatric patients. *Law and Human Behavior*, 26 577-

603. doi: 10.1023/A:1020993916404

Skeem, J. L., Polaschek, D. L., Patrick, C. J., & Lilienfeld, S. O. (2011). Psychopathic

personality: Bridging the gap between scientific evidence and public policy.

- Psychological Science in the Public Interest*, 12(3), 95-162. doi:  
10.1177/1529100611426706.
- Turiel, E. (1983). *The development of social knowledge: Morality and convention*. Cambridge, United Kingdom: Cambridge University Press.
- Venables, N. C., Hall, J. R., & Patrick, C. J. (2013). Differentiating psychopathy from antisocial disorder: A triarchic model perspective. *Psychological Medicine*, 44(5), 1005-1013. doi:  
10.1017/S003329171300161X
- Voiklis, J. and Malle, B. F. (in press). Moral Cognition and its Basis in Social Cognition and Social Regulation. In K. J. Gray and J. Graham (Eds.), *Atlas of Moral Psychology*. New York: Guilford Publications, Inc.
- Werner, K. B., Few, L. R., & Bucholz, K. K. (2015). Epidemiology, comorbidity, behavioral genetics of antisocial personality disorder and psychopathy. *Psychiatric Annals*, 45(4), 195-199. doi: 10.3928/00485713-20150401-08
- Yildirim, B. O. (2016). A treatise on secondary psychopathy: Psychobiological pathways to severe antisociality. *Aggression and Violent Behavior*, 31, 165-185.  
doi: 10.1016/j.avb.2016.09.004

Table 1

*Means and Standard Deviations of Willingness to Engage as a Function of Social Motivation and Moral Foundation*

	<i>M</i>	<i>SD</i>
Social Support		
Harm	2.72	1.43
Fairness	1.60	1.06
Control	2.13	1.41
Social Hindrance		
Harm	2.23	1.01
Fairness	2.17	1.11
Control	1.94	1.39

Table 2

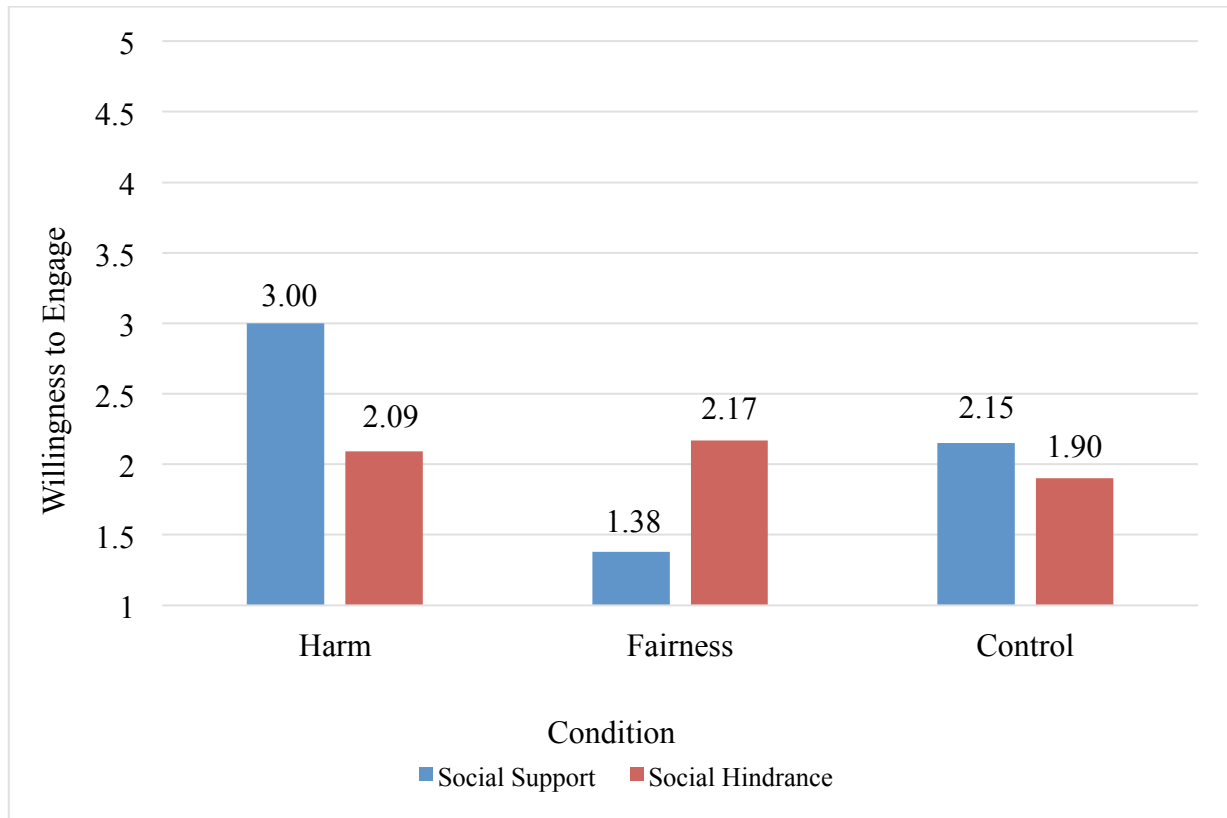
*Means and Standard Deviations of Moral Ratings as a Function of Social-Motivation and Moral Foundation*

	<i>M</i>	<i>SD</i>
Social Support		
Harm	3.04	1.49
Fairness	2.33	1.50
Control	2.31	1.49
Social Hindrance		
Harm	2.92	.86
Fairness	2.42	.90
Control	2.33	1.37

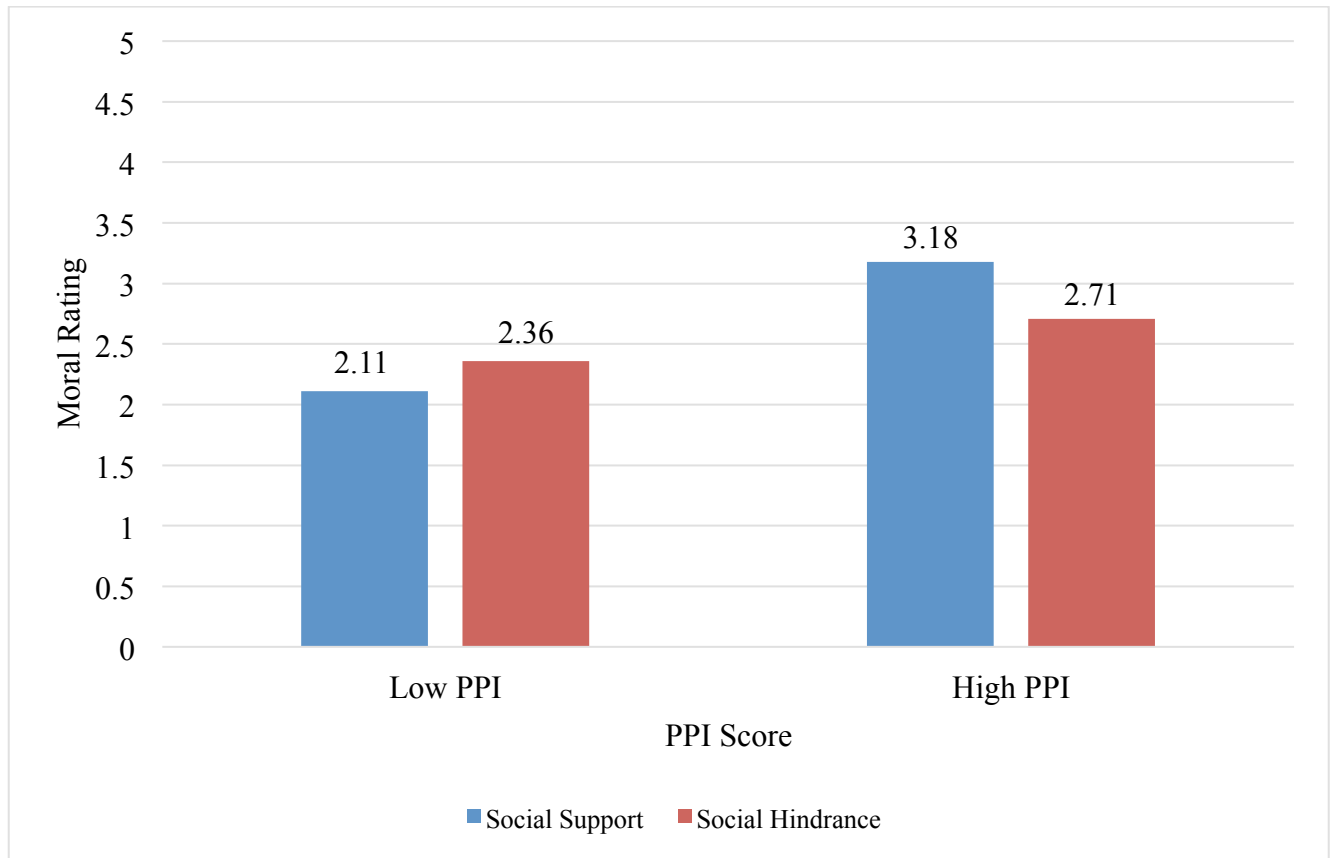
Table 3

*Means and Standard Deviations of Moral Ratings as a Function of PPI score and Social-Motivation*

	<i>M</i>		<i>SD</i>
		Social Support	
Low PPI	2.11		1.22
High PPI	3.18		1.59
		Social Hindrance	
Low PPI	2.36		1.14
High PPI	2.71		1.10



*Figure 1. Mean willingness to engage as a function of social motivation and type of moral transgression.*



*Figure 2. Mean morality ratings of immoral behavior as a function of PPI score.*

## Appendix A

For this next portion of the survey, take a look at the pictures below and think of strong positive social bonds you may have with various individuals in your lives. These relationships could include, but are not limited to: family members, friends, and significant others.



Write 1-3 sentences about the positive relationships in your life. Who did you think of when you were thinking of positive social bonds in your life? Why are these positive bonds? Why are they positive relationships?






Appendix B

For this portion of the study, take a look at the pictures below and try to think of strong negative social bonds you may have with someone in your life. These relationships could include, but are not limited to: bullies, family members, peers, and past significant others.



Write 1-3 sentences about the negative relationships in your life. Who did you think of when you were thinking of negative social bonds in your life? Why are these negative bonds? Why are they negative relationships?



Appendix C

Valence	Sentence	Fairness	Harm	Control
-2.35	Donald put his American flag in a metal trash can on his driveway and lit it on fire.			
-2.52	For her term paper, Debra searched the internet and copied liberally from someone else's paper.			
-2.10	Keith borrowed an electric drill from his neighbor's unlocked garage without asking.			
-1.65	New employee Sven, not knowing the U.S. laws, sold cigarettes to a 16-year-old.			
-0.45	Anna emphasized that she had already returned the shirt she borrowed from her house mate, but she was mistaken.			
-3.95	The voice in Deborah's head told her to protect her children from the evil world, so she killed them.			
-2.90	An expensive lung transplant was the patient's last option, but the insurance adjuster did not approve it.			
-1.20	After being assaulted from behind, Chris stabbed the attacker with a piece of glass.			
-2.20	A man threatened to kill Michael's daughter if he did not steal a camera for him so Michael stole it.			
-2.25	Helen started smoking right next to someone in a non-smoking waiting room.			
-1.50	As one of the company's workers sat down next to Donna (a high-ranking executive), Donna moved to another table.			
-2.25	Robert spotted a nice-looking clock radio lying in a car and broke in but didn't steal it.			
-1.95	A girl on a bike approached a car and said to the driver, "You are ugly", and rode off.			
-1.70	After her husband refused to help her clean the house, Maria dropped cat poop in her husband's shoe.			
-0.20	Carolyn discovered a young man breaking into her house, so she grabbed her gun and shot him.			
-2.45	Karen dedicated weeks to perfect the chemical formula for a massively addictive street drug.			
-1.52	Eric saw someone drop a \$20 bill, so he picked it up and walked away.			

*A screenshot of stimuli sentences, categorized by condition with valence ratings present, which were used to choose the vignettes implemented in the study.*

Appendix D

PSYCHOPATHIC PERSONALITY INVENTORY – REVISED

This test measures different personality characteristics- that is, the ways in which people’s personality styles make them different from each other. Read each statement carefully and decide how false or true it is as a description of you. Then, mark the best choice that corresponds to your answer on this form. Use the answer choices provided as follows: F = False(1), MF = Mostly False(2), MT = Mostly True(3), T = True(4). Even if you feel that a statement is neither false nor true about you, or if you are not sure which answer to choose, select the answer that is the closest to describing you. Try to be as honest as you can. Please be sure to give your own opinion about whether each statement is false or true about you. Remember, you have the right to leave any and/or all of the questions blank.

	<b>False (1)</b>	<b>Mostly False (2)</b>	<b>Mostly True (3)</b>	<b>True (4)</b>
1. If I really want to, I can persuade most people of almost anything.	F	MF	MT	T
2. When I meet people, I can often make them interested in me with just one smile.	F	MF	MT	T
3. Dangerous activities like skydiving scare me more than they do most people. <b>RS</b>	F	MF	MT	T
4. I have always seen myself as something of a rebel.	F	MF	MT	T
5. I hate having to tell people bad news. <b>RS</b>	F	MF	MT	T
6. Sometimes I wake up feeling nervous without knowing why. <b>RS</b>	F	MF	MT	T
7. I like to act first and think later.	F	MF	MT	T
8. Sometimes I forget my name.	F	MF	MT	T
9. At times, I worry that I have hurt the feelings of others. <b>RS</b>	F	MF	MT	T
10. I am easily flustered in pressured situations. <b>RS</b>	F	MF	MT	T
11. I tell a lot of “white lies.”	F	MF	MT	T
12. I would find the job of a movie stunt person exciting.	F	MF	MT	T
13. When my life gets boring, I like to take chances.	F	MF	MT	T

14. I've never cared about society's "values of right and wrong."	F	MF	MT	T
15. I might like to hang out with people who "drift" from city to city with no permanent home.	F	MF	MT	T
16. If I'd had fewer bad breaks in life, I'd be more successful.	F	MF	MT	T
17. It would bother me to cheat on a test even if no one was hurt by it. <b>RS</b>	F	MF	MT	T
18. A lot of people have tried to "stab me in the back."	F	MF	MT	T
19. People's reactions to the things I do often are not what I would expect.	F	MF	MT	T
20. On big holidays, I never eat more than I should.	F	MF	MT	T
21. I find it hard to make small talk with people I don't know well. <b>RS</b>	F	MF	MT	T
22. I'm not good at getting people to do favors for me. <b>RS</b>	F	MF	MT	T
23. I get mad if I don't receive special favors I deserve.	F	MF	MT	T
24. I am hardly ever the center of attention. <b>RS</b>	F	MF	MT	T
25. It might be exciting to be on a plane that was about to crash but somehow landed safely.	F	MF	MT	T
26. I pride myself on being offbeat and different from others.	F	MF	MT	T
27. A lot of times, I worry when a friend is having personal problems. <b>RS</b>	F	MF	MT	T
28. I tend to get crabby and irritable when I have too many things to do. <b>RS</b>	F	MF	MT	T
29. A lot of times, I repeat the same bad decisions.	F	MF	MT	T
30. I think that it should be against the law to badly injure someone on purpose. <b>RS</b>	F	MF	MT	T

31. I get mad when I hear about the injustices in the world <b>RS</b>	F	MF	MT	T
32. I don't let everyday hassles get on my nerves.	F	MF	MT	T
33. I could be a good "con artist."	F	MF	MT	T
34. I have a talent for getting people to talk to me.	F	MF	MT	T
35. I like (or would like) to play sports with a lot of physical contact.	F	MF	MT	T
36. I might like to travel around the country with some motorcyclists and cause trouble.	F	MF	MT	T
37. I have never wished harm on someone else.	F	MF	MT	T
38. People usually give me the credit that I have coming to me. <b>RS</b>	F	MF	MT	T
39. If I want to, I can get people to do what I want without them ever knowing.	F	MF	MT	T
40. When I'm with people who do something wrong, I usually get the blame.	F	MF	MT	T
41. People are impressed with me after they first meet me.	F	MF	MT	T
42. I have no bad habits.	F	MF	MT	T
43. In conversations, I'm the one who does most of the talking.	F	MF	MT	T
44. I try to be the best at everything I do. <b>RS</b>	F	MF	MT	T
45. To be honest, I believe that I am more important than most people.	F	MF	MT	T
46. I feel sure of myself when I'm around other people.	F	MF	MT	T
47. Parachute jumping would really scare me. <b>RS</b>	F	MF	MT	T
48. I'd like to spend my life writing poetry in a commune.	F	MF	MT	T
49. I look out for myself before I look out for anyone else.	F	MF	MT	T

50. I am high-strung. <b>RS</b>	F	MF	MT	T
51. When people lend me something, I try to get it back to them quickly. <b>RS</b>	F	MF	MT	T
52. Whenever I hear an airplane flying above me, I look down at the ground.	F	MF	MT	T
53. I often feel guilty about small things. <b>RS</b>	F	MF	MT	T
54. When I'm in a frightening situation, I can "turn off" my fear almost at will.	F	MF	MT	T
55. I'll break a promise if it's too hard to keep	F	MF	MT	T
56. I like to stand out in a crowd	F	MF	MT	T
57. It would be fun to fly a small airplane by myself	F	MF	MT	T
58. I like to dress differently from other people.	F	MF	MT	T
59. Every once in a while, I nod my head when people speak to me even though I'm not paying attention to them. <b>RS</b>	F	MF	MT	T
60. People "rake me over the coals" for no good reason.	F	MF	MT	T
61. In school or at work, I try to "stretch" the rules just to see what I can get away with.	F	MF	MT	T
62. I've often been betrayed by people I trusted.	F	MF	MT	T
63. The opposite sex finds me sexy and appealing.	F	MF	MT	T
64. I have never pretended to know something I didn't know.	F	MF	MT	T
65. I have a hard time standing up for my rights. <b>RS</b>	F	MF	MT	T
66. When a task gets too hard, I'll drop it and move on to something else.	F	MF	MT	T
67. I enjoy seeing someone I don't like get into trouble.	F	MF	MT	T
68. I get embarrassed more easily than most people. <b>RS</b>	F	MF	MT	T
69. High places make me nervous. <b>RS</b>	F	MF	MT	T

70. I get restless when my life gets too predictable.	F	MF	MT	T
71. It would break my heart to see a poor or homeless person walking the streets at night. <b>RS</b>	F	MF	MT	T
72. Some people say that I am a “worry wart.” <b>RS</b>	F	MF	MT	T
73. I like having my vacations planned out. <b>RS</b>	F	MF	MT	T
74. I smile at a funny joke at least once in a while. <b>RS</b>	F	MF	MT	T
75. It bothers me a lot when I see someone crying. <b>RS</b>	F	MF	MT	T
76. I get stressed out when I’m “juggling” too many tasks. <b>RS</b>	F	MF	MT	T
77. I like to (or would like to) wear expensive and “showy” clothing.	F	MF	MT	T
78. It’s easy for me to go up to a stranger and introduce myself.	F	MF	MT	T
79. I would not like to be a race-car driver. <b>RS</b>	F	MF	MT	T
80. I don’t care about following the “rules”; I make my own rules as I go along.	F	MF	MT	T
81. I never give an opinion unless I’ve thought it over carefully.	F	MF	MT	T
82. Few people in my life have taken advantage of me. <b>RS</b>	F	MF	MT	T
83. I don’t take advantage of people even when it would be good for me. <b>RS</b>	F	MF	MT	T
84. I’ve been the victim of a lot of bad luck.	F	MF	MT	T
85. When people are mad at me, I usually win them over with my charm.	F	MF	MT	T
86. I sometimes put off unpleasant tasks. <b>RS</b>	F	MF	MT	T
87. I’m hardly ever the “life of the party.” 87. I’m hardly ever the “life of the party.” <b>RS</b>	F	MF	MT	T

88. I am careful when I do work that involves detail. <b>RS</b>	F	MF	MT	T
89. I've thought a lot about my long-term career goals. <b>RS</b>	F	MF	MT	T
90. Some people have gone out of their way to make my life difficult.	F	MF	MT	T
91. I would make a good actor.	F	MF	MT	T
92. I sometimes lie just to see if I can get someone to believe me.	F	MF	MT	T
93. I agree with the motto, "If you are bored with life, risk it."	F	MF	MT	T
94. If I had grown up during the 1960s, I would have been a "hippie."	F	MF	MT	T
95. I can honestly say that I've never met anyone I disliked.	F	MF	MT	T
96. I function well under stress.	F	MF	MT	T
97. I feel bad about myself after I tell a lie. <b>RS</b>	F	MF	MT	T
98. I get deeply attached to people I like. <b>RS</b>	F	MF	MT	T
99. People who know me well know they can depend and rely on me. <b>RS</b>	F	MF	MT	T
100. I feel that life has treated me fairly. <b>RS</b>	F	MF	MT	T
101. If I do something that gets me in trouble, I don't do it again. <b>RS</b>	F	MF	MT	T
102. I frequently have disturbing thoughts that become so powerful that I think I can hear clasps of thunder or crashes of cymbals inside my head.	F	MF	MT	T
103. I have to admit that I'm a bit of a materialist.	F	MF	MT	T
104. I like my life to be unpredictable and surprising.	F	MF	MT	T
105. I like to poke fun at established traditions.	F	MF	MT	T
106. I occasionally feel like giving up on difficult tasks. <b>RS</b>	F	MF	MT	T



107. When I'm stressed, I often see big, red, rectangular shapes moving in front of my eyes.	F	MF	MT	T
108. I push myself as hard as I can when I'm working. <b>RS</b>	F	MF	MT	T
109. I get very upset when I see photographs of starving people. <b>RS</b>	F	MF	MT	T
110. Ending a friendship is (or would be) very painful for me. <b>RS</b>	F	MF	MT	T
111. I haven't thought much about what I want to do with my life.	F	MF	MT	T
112. I'm sure some people would be pleased to see me fail in my life.	F	MF	MT	T
113. I hardly ever end up being the leader of a group. <b>RS</b>	F	MF	MT	T
114. I often lose patience with people when I have to keep explaining things.	F	MF	MT	T
115. I might like flying across the ocean in a hot-air balloon.	F	MF	MT	T
116. Many people see my political beliefs as "radical."	F	MF	MT	T
117. I occasionally feel annoyed at people. <b>RS</b>	F	MF	MT	T
118. I don't get nervous under pressure.	F	MF	MT	T
119. I worry about things even when there's no reason to. <b>RS</b>	F	MF	MT	T
120. I do favors for people even when I know I won't see them again. <b>RS</b>	F	MF	MT	T
121. When I am doing something important, like taking a test or doing my taxes, I check it over first. <b>RS</b>	F	MF	MT	T
122. People I thought were my "friends" have gotten me into trouble	F	MF	MT	T
123. I often put off doing fun things so I can finish my work. <b>RS</b>	F	MF	MT	T

124. When an important person is talking to me, I usually try to pay attention. <b>RS</b>	F	MF	MT	T
125. How much I like someone really depends on how much that person does for me.	F	MF	MT	T
126. Sometimes I do dangerous things on a dare.	F	MF	MT	T
127. Keeping the same job for most of my life would be dull.	F	MF	MT	T
128. I occasionally have bad thoughts about people who hurt my feelings. <b>RS</b>	F	MF	MT	T
129. When a friend says hello to me, I generally either wave or say something back. <b>RS</b>	F	MF	MT	T
130. I think long and hard before I make big decisions. <b>RS</b>	F	MF	MT	T
131. When someone is hurt by something I say or do, that's their problem.	F	MF	MT	T
132. I tell people only the part of the truth they want to hear.	F	MF	MT	T
133. I've learned from my big mistakes in life. <b>RS</b>	F	MF	MT	T
134. I get blamed for many things that aren't my fault	F	MF	MT	T
135. It bothers me to talk in front of a big group of strangers. <b>RS</b>	F	MF	MT	T
136. I quickly get annoyed with people who do not give me what I want.	F	MF	MT	T
137. If I were a firefighter, I would like the thrill of saving someone from the top of a burning building.	F	MF	MT	T
138. I would like to have a "wild" hairstyle.	F	MF	MT	T
139. Even when I'm busy, I never have second thoughts about helping people who ask for favors.	F	MF	MT	T
140. I can remain calm in situations that would make many other people panic.	F	MF	MT	T

141. I'm the kind of person who gets "stressed out" pretty easily. <b>RS</b>	F	MF	MT	T
142. I cringe when an athlete gets badly injured during a game on TV. <b>RS</b>	F	MF	MT	T
143. I usually think about what I'm going to say before I say it. <b>RS</b>	F	MF	MT	T
144. Some people have made up stories about me to get me in trouble	F	MF	MT	T
145. I watch my finances closely. <b>RS</b>	F	MF	MT	T
146. During the day, I see the world in color rather than in black-and-white. <b>RS</b>	F	MF	MT	T
147. To be honest, I try not to help people unless there's something in it for me	F	MF	MT	T
148. I am a daredevil	F	MF	MT	T
149. I would like to hitchhike across the country with no plans.	F	MF	MT	T
150. I have never exaggerated a story to make it sound more interesting.	F	MF	MT	T
151. Sometimes I go for several days at a time not knowing if I'm awake or asleep.	F	MF	MT	T
152. I try to use my best manners when I'm around other people. <b>RS</b>	F	MF	MT	T
153. I often place my friends' needs above my own. <b>RS</b>	F	MF	MT	T
154. If I can't change the rules, I try to get others to bend them for me.	F	MF	MT	T

Reverse scored items are marked with an **RS**

## Appendix E

**Consent to Participate in Research**  
*Information to Consider About this Research*

***Society and the psychopath: An examination of psychopathy in relation to social motivation and moral decision***

**Principal Investigator:** Louis Savastano

**Department:** Psychology

**Contact Information:** Dr. Twila Wingrove P.O. Box 32109 222 Joyce Lawrence Ln.  
Boone, NC 28608 (828) 262-2272 Ext. 440

You are being invited to take part in a research study regarding the spectrum disorder known as psychopathy and its relation to morality. If you take part in this study, you will be one of roughly 100 people to do so. By doing this study we hope to learn how various social factors play a role in influencing psychopathic affect and behavior, and subsequently, moral decision-making according to 5 moral domains.

The research procedures will be conducted online via Appalachian State University's Psychology SONA Recruitment System, Amazon's mTurk Recruiting tool, and Qualtrics, a leading online recruitment and survey tool provider.

You will be asked to read vignettes depicting various moral dilemmas, according to Moral Foundations theory. You will be provided the Psychopathic Personality Inventory (PPI), followed by short vignettes (stories) detailing various moral dilemmas. Based on the information given, you will be asked the extent to which you believe each scenario depicted is moral or immoral, as well as your willingness to commit the action depicted in each vignette.

*Due to the requirements of the study, you cannot volunteer for this study if are under 18 years of age.*

**What are possible harms or discomforts that I might experience during the research?**

To the best of our knowledge, the risk of harm for participating in this research study is no more than you would experience in everyday life.

**What are the possible benefits of this research?**

There may be no personal benefit from your participation but the information gained by doing this research may help others in the future by providing insight on psychopathy and morality in relation to social functioning within society.

**Will I be paid for taking part in the research?**

You will be compensated for the time you volunteer while being in this study. Each participant will receive 1 ELC credit for class credit for his or her completion of the research study.

**How will you keep my private information confidential?**

We will make every effort to prevent anyone who is not conducting research from knowing that you gave us information or what that information is. Any identifying information, such as name, email and/or student identification number, will be deidentified by the Principal Investigator (PI) and Faculty Advisor. Your data will be protected under the full extent of the law and any personal details will not be distinguishable directly or indirectly.

After gathering data, any and all identifiable information will be deidentified by the end of the semester (May 12). All data without identifiers will be stored indefinitely. Any information stripped of identifiers may be used in future research within the field.

**Who can I contact if I have questions?**

The people conducting this study will be available to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at (828) 262-2272 Ext. 440. If you have questions about your rights as someone taking part in research, contact the Appalachian Institutional Review Board Administrator at 828-262-2692 (days), through email at [irb@appstate.edu](mailto:irb@appstate.edu) or at Appalachian State University, Office of Research and Sponsored Programs, IRB Administrator, Boone, NC 28608.

**Do I have to participate? What else should I know?**

Your participation in this research is completely voluntary. If you choose not to volunteer, there will be no penalty and you will not lose any benefits or rights you would normally have. If you decide to take part in the study you still have the right to decide at any time that you no longer want to continue. There will be no penalty and no loss of benefits or rights if you decide at any time to stop participating in the study. If you decide to participate in this study, let the research personnel know. A copy of this consent form is yours to keep.

Appalachian State University's Institutional Review Board has determined this study to be exempt from IRB oversight.

By continuing to the research procedures, I acknowledge that I am at least 18 years old, have read the above information, and agree to participate

**If you want course credit, you MUST enter your name at the end of the survey.**

## Appendix F

**Demographic Questionnaire**

The final portion of the survey consists of demographic questions to better gauge the characteristics of our participant pool.

What is your age?

- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old
- 75+ years old

What is your gender?

- Male
- Female
- Non-binary/third gender
- Prefer to self-describe:
- Prefer not to answer

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Please specify your ethnicity.

- White
- Black or African American
- Native American, American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Hispanic or Latino
- Other

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What is your marital status?

- Single, never married
- Married or domestic partnership
- Widowed
- Divorced
- Separated