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THE EFFECT OF MORTALITY SALIENCE ON MORAL JUDGMENT

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Abstract

The theory of moral intuitionism views moral judgment as emotion-driven, universal, and evolutionarily-derived. Expanding on that theory is the idea that all moral judgment stems from five foundations of moral intuition: harm, reciprocity, ingroup, hierarchy, and purity. Terror management theory proposes that individuals are motivated to adhere to a cultural worldview in order to prevent the anxiety that comes from the thought of death. The present study will consider the effects of exposure to death anxiety, as seen in terror management theory, on moral judgments. Participants were assessed for their political orientation, exposed to a mortality-salient manipulation, and then answered questions about moral violations. The results were analyzed using a multivariate analysis of variance. Results showed no effect for the mortality salience manipulation and some significant effects for political orientation. The implications of the lack of significance of the mortality salience manipulation were discussed, along with the implications for understanding the differences in moral judgments shown by liberals and conservatives.

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Chapter 1 – Introduction

A family's dog, otherwise healthy, is killed in a tragic accident. The family had always wanted to know what dog meat tasted like, so they cooked the dog and ate it for dinner that night (Haidt, Koller, & Dias, 1993). Is this morally wrong?

An American woman wants to clean her toilet but cannot find a clean rag. Instead, she uses an American flag she finds lying around (Haidt et al., 1993). Is this morally wrong?

At first glance, these scenarios probably evoke feelings of disgust, contempt, or even anger. They are certainly not actions that would meet with approval in our culture. But are they morally wrong? And if so, why? The dog is already dead, so it is not being harmed, and it was healthy, so the family would not be in danger of disease. Using the flag on the toilet doesn't hurt anyone either. A flag is just a piece of cloth. These actions may be unappealing, but they're not morally wrong.

On the other hand, eating the dog is a disrespectful end for a loyal pet. And eating a dog, especially one that didn't die specifically to be later consumed, is both strange and gross. Using a flag, the revered symbol of the nation to which we pledge our loyalty, to clean the place we use to dispose of our bodily waste, is extremely unpatriotic and disrespectful to our country. These reasons should be justification enough to condemn the acts as violations of morality.

Issues such as these, obviously, have no one, agreed-upon answer. Whether one finds these scenarios permissible or morally inexcusable is a matter of individual difference. There may, however, be a pattern influencing which side of the debate that persons chose.

Morality is the system by which we determine whether a person is right or wrong, good or bad (Hauser, 2006). Many modern moral theorists (e.g., Haidt, Hauser, Kohlberg) would state that morality has a universal component, one that transcends culture or generation. This component affects all moral decisions, though the ultimate outcome of the decision may still vary from culture to culture, or from time to time. How individuals form moral judgments also varies. It may be the result of personality traits (Haidt & Baron, 1994), culture (Haidt, Koller, & Dias, 1993), political orientation (Haidt & Graham, 2007), or some other process.

One possible factor that might influence an individual's perception of morality is anxiety over the prospect of his or her death. Mortality salience, as described by Terror Management Theory (TMT) (Greenberg et al., 1990) has been shown to increase anxiety and to subsequently affect responses to a range of subjects, including views on religion (Jonas & Fischer, 2006), sexuality (Goldenberg, Pyszczynski, McCoy, Greenberg, & Solomon, 1999), and fairness (van den Bos & Miederna, 2000), as well as generalized views on cultural values (Greenberg et al., 1990).

The following study aims to examine the relationship between TMT and the theory of moral foundations. It is hypothesized that exposing participants to a stimulus that increases the salience of their mortality will increase their level of anxiety about death and will subsequently lead morally conservative participants to make more

conservative moral judgments, while leaving morally liberal participants relatively unaffected. Previous research in terror management theory and moral foundations theory indicates support for this hypothesis.

Chapter 2 – Literature Review

Human behavior is governed by complex sets of rules, often varying from culture to culture, many of which seem nonsensical from the perspective of an outsider. These rules have developed over thousands of years, evolving as the species changed into the beings we are today. How and why these specific rules developed has been the topic of research exemplified in the recent past by Lawrence Kohlberg's stages of moral development in the 1960's and leading up to Jonathan Haidt's current five foundations of moral intuition.

Theories of Cognitive Morality

Discussions of moral development inevitably bring up Lawrence Kohlberg's stages of moral development, a defining work in the field. Accepting the idea that human development progressed in stages, as proposed by scientists such as Freud and Piaget, Kohlberg expanded the stage theory to include the development of moral reasoning. He proposed six discrete stages of moral development, ranked from immature to mature (Kohlberg & Hersh, 1977). In the first stages, "pre-conventional" persons are motivated to judge morality based on principles of physical consequences, cultural rules, and the power of the enforcers. In the later "conventional" stages the person focuses on maintaining conformity to the expectations of others and following tradition. In the "post-

conventional” stages, a person deals with the far-reaching consequences of their actions, and attempts to create a morality that is not based on the will of others, but instead follows the moral principles endorsed by the individual. Kohlberg’s moral stages were notable for their lack of one “correct” answer for moral dilemmas. Instead, the stages focused on the motivations behind the choices made (Kohlberg & Hersh, 1977).

Kohlberg’s stages of moral reasoning were based on the philosophy that people arrive at moral decisions through the use of logic and judgment. Therefore, as one’s cognitive capacity increased, one would be able to consider dilemmas in a more complex way, and judge them as such. The moral reasoning theory was also notable for its emphasis on a morality based on harm. Kohlberg’s dilemmas addressed the idea of justice in the situation, and the question of the harm caused by the actions taken. Since the publication of his stage theory, it has been criticized for having too narrow a focus (Blum, 1998).

Carol Gilligan was one of the first to bring up the need for an expansion of Kohlberg’s moral development theory. While she agreed that it was an accurate measure of one aspect of morality, it was not a complete picture of moral reasoning. Instead, it focused on solely the concept of morality as a question of justice and of harm caused. Gilligan advocated the addition of a moral concept that emphasized the role of interpersonal reciprocity. This concept would cover responsibility and obligations to others, as well as general rules for functioning socially in one’s culture. In addition, her view especially extolled the virtues of caring for others, above and beyond simple fairness (Blum, 1988).

Kohlberg's moral development theory, with the additions proposed by Gilligan, forms a fairly complete picture of the development of logical moral reasoning. These theories comprise a good deal of what many in today's Western society would consider the foundations of morality. (Haidt & Graham, 2007). Yet again, though, these theories have been criticized as not providing a full picture of morality and moral development. It has been argued that moral development is not entirely reason-based, and that there are several other components besides justice and fairness that are factors in moral decision-making (Haidt, 2001; Hauser 2006).

Theories of Moral Intuition

Two competing theories of morality are currently being investigated by many researchers, both in the field of psychology, as well as in philosophy, law, and evolutionary biology (e.g., Gert, 1998; Haidt & Graham, 2007; Hauser, 2006; Mikhail, 2007; Petrinovich, O'Neill, & Jorgenson, 1993; Rozin, Lowery, Imada, & Haidt, 1999). They are the theory of moral intuitionism and the agent-intervention, or causal model, theory. The theory of moral intuitionism examines morality from a standpoint advocating emotions as the source of moral judgment (Shweder & Haidt, 1993). The theory of agent intervention, or the causal model theory, seeks to prove that moral judgment is mostly affected by the locus of intervention – who or what caused the event that created a situation of moral uncertainty (Hauser, 2006). While the agent-interventionism theory is also much investigated recently, it is the theory of moral intuitionism that is the focus of this study.

Both of the theories discussed here state that moral judgment is not the product of reasoned, effortful thinking, as proposed by Kohlberg, Gilligan, and others. Instead, it is

the product of intuition – fast, mostly subconscious processing in which the judgment is arrived at instantaneously and in which the person judging is often unable to provide an adequate reason for the decision made (Haidt, 2001; Hauser, Cushman, Young, Jin, & Mikhail, 2007). The theories diverge, however, in determining the source of the moral instinct that drives the decision-making. The moral intuitionists claim that the intuition is emotion-based, while the agent-interventionists claim that the intuition arises from the cause of the moral situation (Hauser, 2006).

Another aspect of morality to which both theories are in agreement is the universality of moral judgment. Some theorists believe that any difference in morals is a superficial attribute of varying cultures, and that the true roots of morality are the same regardless of the society (Hauser, 2006). Others, like Kohlberg, placed moral differences into stages, ranking them as more or less mature. He argued that if there is an identifiable stage sequence of moral reasoning, which he attempted to document empirically, then reasoning which emerges later in the developmental sequence should be more mature, complex, and effective (Kohlberg & Hersh, 1977). Third, Gilligan and others argued that morality is somewhat relative, and that there can be more than one mature type of morality (Blum, 1988). The theories of moral intuitionism, however, claim that while specific moral judgments might vary from culture to culture, the underlying foundations that are used to arrive at moral judgments are constant (Shweder & Haidt, 1993). Research has been done which supports the universality of moral intuitions (Haidt, Koller, & Dias, 1993; Rozin, et al., 1999). Agent-intervention theory also posits that there is a universality of underlying moral judgments: the locus of intervention, or the causality

of the action, is used to determine the moral value of the action. The final moral judgment is seen to always be affected by the causal nature of the event (Hauser, 2006).

The theory of moral intuitionism states that contrary to reaching moral decisions by reason, moral choices are made emotionally – that is, moral judgments are reached instantaneously, through gut-instinct processes, and then later backed up with post-hoc reasoning, should justification for the moral decision become necessary (Haidt, 2001). One of the first proponents of this view is the philosopher David Hume, who said that, “Reason is and ought only to be the slave of the passions, and can never pretend to any other office but to serve and obey them” (Hauser, 2006). Thus, our emotions serve as instincts that guide us to the moral decision. Further, theorists have taken this to mean that our sense of morality has been honed through evolutionary processes into intuitions that guide our culturally variable moral judgments (Haidt & Joseph, 2004).

Moral intuitionism theory additionally hypothesizes that morality is evolutionarily derived. The emotions of moral intuitionism arose from foundations that reflect the decisions necessary to survival among early humans, such as the need to prevent harm, the need for reciprocity, for status and group behavior, and for cleanliness, which have in turn given rise to automatic emotions generated by specific events that influence moral decision-making (Haidt & Graham, 2007).

Moral intuitionists first attempted to split morality into two divisions. Shweder referred to the two as the ethics of autonomy and the ethics of community (Shweder & Haidt, 1993). The ethics of autonomy are concerned with individual welfare; they deal with the concepts brought up by Kohlberg and Gilligan: fairness, justice, intent of harm, and reciprocity. These ethics are violated when they infringe on the freedom of another

person. They are closely related to the principles that uphold the laws in the United States. The ethics of community, on the other hand, address the relationships of people living in groups. They regulate acceptable behavior beyond individual rights violations, to make it possible for people to live together without conflict. This involves dealing appropriately with the social structure of the community: respecting authority, behaving with honor and upholding the honor of the community, respecting tradition, and expressing loyalty to the community. Our society holds some of these moral values as law, but most others are implicitly recognized, and are punished through other means in the community, such as expulsion or denigration (Shweder & Haidt, 1993).

Later, a third category was added to the set of moral intuitions. Called the ethics of divinity, this category dealt with the moral aspects of keeping oneself and members of one's community pure and clean. The cleanliness espoused in this category refers both to the purely physical aspects, such as keeping oneself free of disease and keeping one's food and waste separate, as well as more metaphorical and spiritual aspects of cleanliness and purity. These latter aims dealt with many things religious believers would refer to as sins, things that would make a person impure in the eyes of their deity (Rozin, Lowery, Imada, & Haidt, 1999).

The three groups of ethics, as proposed by Shweder, were empirically matched with three different moral emotions, lending support to the theory that emotions, as opposed to logic, play a deciding role in moral judgment. The codes of community, autonomy, and divinity were shown to match, respectively, the emotions of contempt, anger, and disgust. This was known as the CAD triad hypothesis. Participants matched facial expressions showing the three emotions or the three emotion words to varying

moral violations. In addition, the facial expressions were later shown to correspond to the moral emotions with further analysis (Rozin et al., 1999).

In order to expand the scope of the study of morality, and to ensure that the theories of moral intuition did not correspond only to a Western viewpoint, several studies were done on other cultures in order to confirm the universality of the moral intuitions. One study was conducted both in Pennsylvania and in Brazil (Haidt et al., 1993). The two locations in Brazil represented a wealthy, urban population and a poor, rural population. The participants were grouped by nationality, socio-economic status, and age, to create a widely varying subject pool. The results of the study indicated that while the groups showed varying levels of moralizing responses, the degree of the moralizing versus permissive stances taken was moderated most by socio-economic status. The research supported the idea that the ethics of morality are universal, though they have varying levels and varying cultural expressions.

The CAD triad hypothesis study (Rozin et al., 1999) looked at Japanese and American participants to determine the effects of different cultures on the relationships between moral codes and moral emotions. Again, though the levels of moral emotions varied between cultures, the results from both the Japanese and the Americans supported the theory of universal moral codes and moral emotions (Rozin et al., 1999).

Another study, also in Japan and the U.S., examined the role of fairness between the two cultures (Finkel, Crystal, & Watanabe, 2001). While this study was not based on the moral intuition theory previously discussed, it did take an in-depth look at the term “fairness” and all its connotations. The concept, as the authors of the study operationally defined it, essentially covered most of the areas mentioned in moral intuitionism as the

ethics of autonomy. This study again found that while there were cultural variations in the extent to which the different aspects of fairness were emphasized or deemphasized, the concepts overall were important in both cultures. While this sample of studies is by no means a comprehensive cross-cultural evaluation, it does serve to show support for a basic universality of the moral intuitions. Further research in this area would be very useful.

Jonathan Haidt continued the theory of moral intuitions, but expanded the categories yet again, to further specify the different moral intuitions, allowing him to elaborate on the evolutionary background of the (now five) different moral intuitions. Haidt's most current theory holds that there are five mental foundations of moral intuition that form the roots from which all aspects of morality spring. These foundations are both discrete and overlapping: each is capable of forming an aspect of morality by itself, yet can also overlap with one or more of the others to lead to a moral decision that synthesizes the multiple foundations. The five mental models have each derived from separate evolutionary adaptations, and serve separate functions to enable humans to adapt in some way to their world. These mental foundations are not true models, but are more akin to innate predispositions that nudge the person in the direction of the side of a moral choice that best agrees with the underlying foundation. In addition, these mental foundations are predicted to be universal across cultures, though the actions that result from them may and do vary widely. They are affected by such things as cultural tradition, environment, economic and political systems and a wide range of other societal variables. The five foundations are derived from Shweder's ethics of autonomy, community, and divinity (Haidt & Graham, 2007).

Moral Foundations

The first of the five foundations is labeled *harm*, and it includes issues of harm and justice. This first foundation is derived from Shweder's ethics of autonomy and most closely resembles the type of morality proposed by Kohlberg. People are sensitive to harm, and therefore respect those who refrain from causing harm, and who alleviate harm caused by others. We as humans benefit from avoiding harm, so it does seem likely that we would choose to associate with those who prevent and alleviate harm. In addition, this could also be an outgrowth of kin bonds, especially parent-child bonds, where we are highly motivated to prevent harming our relatives, and to prevent them from being harmed by others. Lack of harm within the group would increase our survival chances, both in ourselves and in our close relatives. Violations of the harm guideline would include actions that cause harm, and/or that are perceived as unjust and as violating a person's rights and freedoms (Haidt & Graham, 2007).

The second foundation deals with *reciprocity*. Like harm, this moral foundation comes from the ethics of autonomy. It also comes the closest to the theory of morality as proposed by Gilligan (though the care-based aspect of her theory of morality would lie under the harm division) (Blum, 1988). Reciprocity covers the need for individuals to deal fairly with each other in order to mutually benefit from exchanges and agreements (Haidt & Graham, 2007). The value of reciprocity stems from the evolutionary adaptations for cooperation that have been extensively studied in the realm of evolutionary biology by researchers such as Axelrod and Hamilton, Dawkins, and Trivers (Dawkins, 1976). Humans and other animals benefit from systems of cooperation that allow them to receive aid when they are low on resources, with the expectation the same

will occur when the situation is reversed. Fairness has been shown to occur developmentally before it can be instilled through culture, which argues for an evolutionary impact on the construct (Finkel et al., 2001). In their cross-cultural study on fairness, Finkel et al. (2001) found that both Americans and Japanese subjects reacted strongly to situations of perceived unfairness. Violations of the reciprocity foundation would involve not honoring one's obligations and promises, or behaving in an unfair manner (i.e., stealing, cheating, or otherwise taking advantage of others). These would be actions or inactions that violate the rights of others to fair treatment.

The third foundation is called *ingroup*. It is a subset of Shweder's ethics of community, and is thus concerned with group interaction. The ingroup model covers such constructs as loyalty, patriotism, and group honor, as well as such concepts as treason and mutiny (Haidt & Graham, 2007). According to evolutionary theorists, the idea of favoring one's own group is an outgrowth of kin altruism, the desire to help those who share one's genes succeed in order to improve the chances that one's genes will be passed on the next generation. In the early history of humanity, people lived in small bands, where the odds were high that any given person in one's band was a relation. Therefore, it made sense to protect the members of one's band against other bands, which were not likely to have any close relatives. Because the evolution of human behavior has not kept pace with the evolution of human society, we still prize loyalty to our ingroup, even though very few of our co-members are related in a meaningful way (Dawkins, 1976). Violations of the ingroup model would include acting against, dishonoring, or failing to follow the rules of one's group (Haidt & Graham, 2007).

The fourth foundation is known as *hierarchy*. It too is a subset of the ethics of community. The hierarchy foundation leads to concerns of tradition, respect, and obeying those of higher status than oneself. The concept of hierarchy predates humanity in evolutionary history, where many species of animal have clear status rankings within their groups. Groups have leaders who exert dominance, through power or prestige, as well as other respected members (Haidt & Graham, 2007). Often, there is a clear hierarchical system, such as a caste system, where rank is well defined and possibly immutable. Haidt and Baron (1994) examined the effects of social roles on moral judgment, and found that responsibility for omissions that cause harm (as opposed to acts that cause harm) were judged more relevant for those in high social roles, suggesting that they have a greater responsibility towards others than do people with low social roles. Violations of the hierarchy foundation include acting disrespectfully toward a person of higher status or disobeying a person of higher status.

The fifth and final foundation of moral intuition proposed by Haidt and Graham is *purity*. This foundation corresponds entirely to the ethics of divinity. Purity consists of the desire to be clean, both physically and metaphorically. It is also concerned with prevention of sin, protection from disease, and the regulation of bodily function. Actions that are prescribed by the morality of purity are often accompanied by the feeling of disgust, an emotion that may be unique to humans (Rozin et al., 1999). This presumably arose from a combination of our transition to eating meat (possibly through scavenging the bodies of dead animals) and the enlargement of our frontal cortex. Through the notion of sin, purity has become tied to most religions, which often have extensive rules concerning the proscriptions necessary to remain pure, as well as advice for regaining lost

purity. Violations of the purity foundation are varied and numerous, presumably because it represents the whole of the ethics of divinity, instead of being split into two groups, as were the ethics of autonomy and community, according to Haidt and Graham. The violations include eating food (especially meat) that is either diseased, unclean, or otherwise proscribed, behaving in a manner that goes against the (often extensive) regulations of sexual behavior, and improper use and disposal of waste (Haidt & Graham, 2007).

Studies using the moral foundations theory have found that liberals and conservatives show two different reactions to the moral foundations. Conservatives routinely value all five foundations equally, whereas liberals are shown to find the first two foundations, harm and reciprocity, more relevant to moral judgments than the other three (Haidt & Hersch, 2001). Thus, political orientation has an important relationship with moral foundations. Perhaps morality is a determinant in choosing one's political orientation. There has not been much research yet into relationships between moral foundations theory and other concepts, including that of Terror Management Theory.

Terror Management Theory

Terror Management Theory (TMT) arose from the works of Ernest Becker, a theologian who postulated that the development of human intelligence would inevitably lead to the potential for a high degree of terror, as people came to understand their own vulnerability in the larger world (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). To combat that terror, cultural worldviews evolved as a way to protect the individual from the terror and anxiety of the world by reducing awareness of one's vulnerability and mortality. Despite variety in cultural worldviews, all worldviews share

a certain component: they provide the universe with meaning and value, and offer some form of continuation after death to those who follow the cultural worldview. Such cultural worldviews reduce anxiety by claiming, in accordance with the Just World Theory (Rosenblatt et al., 1989), that bad things do not happen to good people, and vice versa. In addition, cultures, especially those with a religious component, often promise the existence of a life after death, thus negating some of the terror arising from a fear of dying (Rosenblatt et al., 1989).

Becker thought that much of psychology since Freud had come into being to deal with the idea of the human urge for heroism, as well as the human tendency to narcissism and issues of self-worth. The concept of heroism is defined by our struggles for self-worth and self-importance in the world; it is the view that we are an object of value in the world. He suggested that society itself is a “codified hero system” that encourages individuals to believe in the concept of heroism, to believe that it applies to him or her (Becker, 1973, p.7). The idea of heroism is itself a way of reducing the terror of death by increasing self-esteem. The heroism concept is not perfect, however. Achieving the heroic ideal is not possible for all people, nor is it necessarily realistic. It also promotes individuation, which can isolate individuals, thus creating a different type of anxiety. By increasing one’s self-esteem and self-worth in the eyes of one’s society, the heroism ideal serves to reduce terror of death (Becker, 1973) .

Greenberg and his associates (1990) elaborated on this theory, reframed as Terror Management Theory (TMT), stating that the cultural worldviews we create serve to reduce the anxiety that stems from our awareness of our mortality. They found evidence that when the idea of mortality was made salient, individuals showed increased anxiety

and increased adherence to their cultural worldview. This adherence resulted in greater emphasis on the importance of morality, and caused individuals to more severely punish people who violated the tenets of the cultural worldview.

According to TMT, protection from anxiety about death can be found in self-esteem or self-value in a given cultural context. Those who follow the precepts of a given culture are rewarded by the culture with promises of security and of life after death, both of which can reduce anxiety. Therefore, one must not only believe in the concepts of the cultural worldview in order to be free of anxiety over death, but one must also meet the standards of the culture in order to be worthy of the anxiety reducing rewards promised. The individual then can think of himself or herself as a valuable member of society operating in a just world. In this just world, worthy individuals will be rewarded and do not need to feel anxiety about death because they are of value (Rosenblatt et al., 1989).

As mentioned earlier, the cultural worldviews that prevent terror of death are not perfect; they come with stringent requirements that cannot always be fulfilled and have some gaps in their coverage. Therefore, the prevention of death-terror is fragile, and can easily fail to protect the individual from anxiety. For this reason, the cultural worldview must be continually bolstered to ensure that its protection will continue to function for the individual. Additionally, events and thoughts that provoke death-anxiety are common in everyday life, and can cause death-anxiety despite the intervention of the cultural worldview. Also, a given individual comes into contact with many different worldviews in the course of his or her life, each of which can cast doubt about the validity of his or her worldview. Because of all these factors, people in need of death-anxiety protection

must turn even more to their cultural worldview for support and reassurance (Greenberg et al., 1990).

Cultural worldviews are able to reduce death-anxiety through the consensual validation of a worldview by the members of the shared culture. This can be achieved through shared rituals and other, more informal types of interactions with members of the culture. The shared culture increases confidence in the validity of the cultural worldview and thus maintains protection from fear of death. In the same way, interactions with those who disagree with a cultural worldview can decrease an individual's confidence in the worldview and erode protection from death anxiety. Anything that reduces consensus regarding worldview will reduce its ability to manage adherents (Greenberg et al., 1990, cf. Kelley, 1967).

Cultural worldviews have specific standards and values to which one must adhere in order to receive protection from anxiety over death. These values often come in the guise of moral precepts. A person who wishes to adhere to a cultural worldview must follow societal values in order to be considered a "good" person. Because the cultural worldview is shared and consensually validated, people are invested not only in adhering to the values and morals of the culture themselves, but also must make sure that the other members of the culture do the same. Studies have shown that people react negatively to those who violate cultural values and norms. These violations threaten the validity of the cultural worldview as well as its values and morals. Participants in studies who were primed with fear of death recommended harsher punishments for people who violated the values and norms of their cultural worldview than did participants who were not primed with a mortality-salience manipulation (Greenberg et al., 1990; Rosenblatt et al., 1989).

Other studies showed that mortality salience affects many factors, both positive and negative, that relates to cultural worldviews. Mortality salience also leads to increases in judgments of equity between participants and hypothetical others, and to increases in prosocial behavior, both positive behaviors by individuals. Mortality salience is hypothesized to lead to increased procedural fairness in judgment, because individuals will be motivated to reward those who do not transgress against the cultural norms and will be motivated to judge unfair procedures as being in violation of the cultural values. Perceived procedural fairness positively affects people's subsequent reactions and satisfaction with the process. Research has found that participants are more likely to adhere to perceived standards of fairness when mortality is made salient (van den Bos & Miederna, 2000). Prosocial behavior is seen as a way to reduce mortality salience by engaging in these behaviors, which are culturally-approved and lead to an increased likelihood that one will fulfill the standards of the cultural worldview. In order to be consistent with one's worldview, individuals may increase prosocial behaviors such as kindness and generosity, and they may increase their belief in a giving and fair system (Niesta, Fritsche, & Jonas, 2008).

On the other hand, mortality salience may lead to an increase in stereotypic thinking, and to decreased liking for members of the out-group. This phenomenon may occur as the result of decreasing the value of the out-group and thus increasing one's own value and the value of one's group. Stereotypes serve to maintain self-esteem, a vital component, as mentioned above, in preventing death-anxiety (Schimel et al., 1999). Mortality salience also leads to increased attributions of blame to innocent victims. This is due to the ambivalent reaction towards victims held by many and attributions of blame

made by observers. These attributions are affected by mortality salience because individuals are motivated to believe in a just world in order to prevent death-anxiety. Therefore, they are motivated to attribute some blame to the victim to protect themselves from mortality fears (Hirschberger, 2006).

Other factors related to cultural worldviews that are affected by mortality salience include concepts associated with sin: disgust, sex, and religion. Disgust is considered a response to offenses to the self, and is associated with the ethics of divinity (Rozin et al., 1999). We wish distance ourselves from our animal background in order to reduce death-anxiety, because association with animals leads to mortality salience. Thus we experience disgust over violations of the practices that distinguish us from animals, such as proper hygiene (Goldenberg et al., 2001). Sexual practice is another aspect that can increase death-anxiety due to increased association with animal nature. It has been found that mortality salience leads to decreases in the physical appeal of sexual behavior, though this is mitigated when sex is paired with the less animal-like concept of love (Goldenberg et al., 1999). Additionally, religion is also associated with not only the cultural worldview, but also with values, morality, and moral judgments (Jonas & Fischer, 2006).

Religion seems to play a part in both TMT and moral foundations theory. Religion is often the vehicle by which morality enters the cultural worldview. Some religions are also paramount to the terror-reducing idea of eternal life for the righteous. Intrinsic religion, using Allport's religious orientation theory, was found to reduce the need to adhere to the cultural worldview in the face of mortality salience (Jonas & Fischer, 2006). The moral foundation of purity, in particular, derives from ideas of

sacredness and sin (Haidt & Graham, 2007). Thus, religion could play a significant part in the relationship between TMT and moral foundations theory.

Hypotheses

As stated previously, the purpose of this study is to examine the effect of mortality-salience (as described in terror management theory) and political orientation on moral judgments based on the five foundations of moral intuition. To do so, participants were divided into groups of conservatives and liberals, and were presented with an anxiety manipulation that was intended to either induce mortality salience, general anxiety, or no anxiety at all. Following the manipulation, moral judgment was assessed through a questionnaire. The first hypothesis is that the anxiety manipulation will affect moral judgments, making judgments of the moral violations more severe. Second, there will be an effect of political orientation on moral judgments, such that conservative participants will judge violations of the foundations of ingroup, hierarchy, and purity more harshly than will liberal participants, as evidenced by previous research (Haidt & Graham, 2007). The third hypothesis is that there will be an interaction between anxiety manipulation and political orientation. In mortality-salient conditions, conservatives will judge all moral violations even more harshly than when mortality is not salient, whereas liberals will not be as affected. In non-mortality-salient conditions, this effect will not occur.

Chapter 3 – Method

Participants

Participants for this study consisted of 60 Ball State University undergraduates, recruited through the Department of Counseling Psychology student pool. They consisted entirely of women, because insufficient men were available. Previous research has shown no gender effects for moral intuitionism or mortality-salience. Conservatives and liberals were distributed equally between the anxiety manipulation dimensions.

Procedure

Participants were assigned to either an experimental manipulation group, or one of two control groups. They were randomly assigned, except for assigning equal numbers of each political orientation to experimental conditions, making it a stratified random assignment. Participants first signed an informed consent form, stating that they were aware of the nature of the study and were willing to participate in it. They were also informed that their answers would be confidential, and that they were free to discontinue the study at any point, if they felt uncomfortable and not wish to continue. This did affect their participation credit. They then provided identifying data, which included age, gender, ethnicity, and political orientation (liberal or conservative). Due to a lack of available participants, the moderate political orientation was not included.

Next, participants were exposed to the intended manipulation. In the experimental condition, participants viewed a mortality-salient video clip depicting a sudden and violent traffic accident in which two people in a car were hit by a semi truck. In the first control condition, the participants viewed an anxiety-provoking but non-mortality-salient video concerning a minor accident, where the person in the car did not have insurance. In the second control condition, participants viewed a video of driving a car around a track that was neither anxiety-provoking nor mortality-salient. These two control conditions ensured that the effect produced by the experimental condition was a result specifically of mortality-salient anxiety, not generalized anxiety.

Following the manipulation, participants made judgments about a series of moral violations presented in two questionnaires. Also, they completed a questionnaire that determined the success of the manipulation, and were debriefed. The administration of this study took approximately half an hour.

Instruments

Two instruments were used in this study: the Moral Foundations Questionnaire (MFQ), and the Positive and Negative Affect Scale (PANAS) (see Appendices for copies of these instruments). The Moral Foundations Questionnaire was developed by Graham, Haidt, and Nosek (Haidt et al., 2007). It produces scores for the three groups of Shweder's ethics (autonomy, community, and purity), which can then be subdivided into the five foundations foundations of moral intuitions (see Data Analysis for further information on the dependent variables). Due to the relative newness of the MFQ, empirical support of its reliability and validity has yet to be published.

The PANAS was developed by Watson, Clark, and Tellegen (1988). It consists of a 20-item mood measure with two subscales of positive and negative affect. The negative affect subscale was used to assess the possible alternate explanation that negative affect mediates the effects of the manipulation on the dependent measure. This scale has been empirically tested and found to have high levels of stability and internal consistency, as well as evidence of convergent and discriminant validity (Watson, Clark, & Tellegen, 1988).

Data Analyses

The hypotheses of this study are as follows: (1) that the anxiety manipulation will affect moral judgments, making the judgments of the moral violations more severe, (2) that there will be an effect of political orientation on moral judgments, such that conservatives will judge the violations of the foundations of ingroup, hierarchy, and purity more harshly than will liberals, and (3) that there will be an interaction between the anxiety manipulation and political orientation such that while each will judge autonomy violations more harshly, conservatives in the mortality salient conditions will judge ingroup, hierarchy, and purity violations more harshly and liberals will judge them less harshly.

The independent variables in these hypotheses are the two levels of political orientation (liberal and conservative) and the three levels of the video manipulation: mortality-salient, anxiety-provoking but not mortality-salient, and non-anxiety-provoking. The dependent measures will be the scores on the moral scenarios questionnaire and the moral foundations questionnaire, which will consist of three total scores based on Shweder's ethics of autonomy, community, and purity (Shweder, 1993). (which can then be

subdivided into the five foundations of harm and reciprocity [autonomy], ingroup and hierarchy [community] and purity) (Haidt & Graham, 2007). The variables will be tested using a 2x3 multivariate analysis of variance.

Chapter 4 – Results

The hypotheses of this study are as follows: (1) that the mortality salience manipulation will affect moral judgments, making the judgments of the moral violations more severe, (2) that there will be an effect of political orientation on moral judgments, in that conservatives will judge the violations of the foundations of community (ingroup and hierarchy), and the foundation of purity more harshly than will liberals, and (3) that there will be an interaction between the anxiety manipulation and political orientation, such that while each will judge autonomy violations more harshly, conservatives in the mortality salient conditions will judge community and purity violations more harshly and liberals will judge them less harshly.

The independent variables in these hypotheses are the two levels of political orientation (liberal and conservative) and the three levels of the video manipulation: mortality-salient, anxiety-provoking but not mortality-salient, and non-anxiety-provoking. The dependent measures are the scores on the moral scenarios questionnaire and the moral foundations questionnaire, which consist of three total scores: autonomy scores, community scores and purity scores, which will serve as the three dependent variables. In order to reflect the five foundations of the moral foundations theory, the autonomy scores can be further split into the foundations of justice and reciprocity, the community scores can be further split into the ingroup and hierarchy foundations, and the

purity scores do correspond with the purity foundation.

Manipulation Check

To determine whether the mortality salience manipulation was effective, the Positive and Negative Affect Scale (PANAS) (Watson, Clark, & Tellegen, 1988) was administered to participants. The negative affect portion of the scale was then examined to determine if there was a significant difference in reported negative affect across the three groups. The analysis was conducted using an Analysis of Variance (ANOVA).

The experimental hypothesis was that there would be a significant difference between the reported negative affect of the control group and that of the anxiety and mortality-salient groups, with the latter two experiencing a higher degree of negative affect. The data were analyzed and the hypothesis was not supported. The results indicated that there was a significant difference between the groups, $F(2, 57) = 3.21, p < .05$ (Table 2). Post hoc analyses indicated a significant difference between control ($M = 2.27, SD = .78$) and anxiety ($M = 1.73, SD = .64$), and no other significant differences. Because the mean negative affect of the control group was higher than that of the anxiety group and also that of the mortality salient group ($M = 2.09, SD = .60$) (Table 1), this measure clearly showed no evidence that the experimental manipulation was successful.

Table 1: Descriptive Statistics (PANAS)

	N	Mean	SD
Mortality Salience	20	2.09	.60
Anxiety	20	1.73	.65
Control	20	2.27	.78

Table 2: ANOVA (PANAS)

	Sum of Squares	df	Mean Square	F	Significance
Between Groups	2.98	2	1.49	3.21	.048
Within Groups	26.43	57	.46		
Total	29.40	59			

Hypothesis Testing

The hypotheses listed above were tested even though the mortality salience manipulations appeared to fail. Participants were first split into six groups (a mortality salient group, anxiety group, and control group for both conservative participants and liberal participants). The responses to moral judgment scenarios were obtained using the combined scores moral scenarios questionnaire and the Moral Foundations Questionnaire (Haidt et al., 2007). This resulted in three sets of scores for the dependent variables of autonomy, community, and purity. It was hypothesized that there would be a main effect for political orientation such that liberal participants would score lower on community and purity, and that there would be a main effect for mortality salience such that those in the mortality salient condition would have significantly different scores from those in the other two experimental groups. It was also hypothesized that there would be an interaction effect between the two conditions, such that conservatives in the mortality salient condition would score higher on all three dependent measures than conservatives in the other conditions, and that liberals in the mortality salient condition would score higher on the autonomy variable, but lower on the community and purity variables than liberals in the other conditions.

The data were analyzed using a 2 X 3 (political orientation x mortality salience) multivariate analysis of variance (MANOVA). Assumptions of normality and linearity were met; the assumption of homogeneity of the variance-covariance matrices was also met. Box's test of equality of covariance matrices was not significant, $F(30, 6590) = 1.18$, $p > .05$. Using Pillai's Trace criteria, no interaction effect between political orientation and mortality salience was found, $F(15, 162) = 1.21$, $p > .05$. Therefore, a discriminant function analysis was not performed.

Table 3: Descriptive Statistics

Grouping	Mean	SD	N
<i>Autonomy</i>			
Liberal Mortality Salience	9.93	.77	10
Liberal Anxiety	10.01	.92	10
Liberal Control	9.99	.63	10
Conservative Mortality Salience	9.69	1.29	10
Conservative Anxiety	10.14	.72	10
Conservative Control	10.17	.82	10
<i>Community</i>			
Liberal Mortality Salience	7.86	1.09	10
Liberal Anxiety	7.93	1.67	10
Liberal Control	8.25	1.32	10
Conservative Mortality Salience	8.91	1.32	10
Conservative Anxiety	9.13	.96	10
Conservative Control	9.35	1.22	10
<i>Purity</i>			
Liberal Mortality Salience	9.13	1.47	10
Liberal Anxiety	8.23	1.95	10
Liberal Control	9.45	2.38	10
Conservative Mortality Salience	9.60	2.00	10
Conservative Anxiety	9.35	1.61	10
Conservative Control	9.92	1.50	10

A main effect was found for political orientation. The test for between subjects effects showed a significant effect for the community dependent variable, $F(5, 54) = 4.13$, $p < .05$, with a small effect size of .19 (Table 4). There was no significant effect for either of the other two dependent variables.

Table 4: Tests of Between-Subjects Effects

DV	Sum of Sq.	Df	Mean Sq.	F	Sig	Partial E ²
<i>Corrected Model</i>						
Autonomy	1.47	5	.29	.37	.86	.03
Community	20.65	5	4.13	2.50	.04*	.19
Purity	16.59	5	3.32	.97	.44	.08
<i>Intercept</i>						
Autonomy	5986.67	1	5986.67	7632.04	.00	.99
Community	4407.55	1	4407.55	2670.93	.00	.98
Purity	5167.72	1	5167.72	1517.10	.00	.97
<i>Grouping</i>						
Autonomy	1.47	5	.29	.37	.86	.03
Community	20.65	5	4.13	2.50	.04*	.19
Purity	16.59	5	3.31	.97	.44	.08

* $p < .05$

Post hoc tests of the MANOVA using Tukey's HSD showed no significant differences between the six conditions. Post hoc tests using the LSD (Table 5) showed significant differences ($p < .05$) for the community variable between the liberal mortality salient group ($M = 7.85$, $SD = 1.09$) and the conservative anxiety group ($M = 9.13$, $SD = .96$), between the liberal mortality salient group and the conservative control group ($M = 9.35$, $SD = 1.22$), between the liberal anxiety group ($M = 7.93$, $SD = 1.67$) and the conservative anxiety group, and between the liberal anxiety group and the conservative

control group. There was also a significant difference for the purity variable between the liberal anxiety group ($M = 8.23$, $SD = 1.94$) and the conservative control group ($M = 9.91$, $SD = 1.50$).

Table 5: Multiple Comparisons (LSD)

Grouping (I)	Grouping (J)	Mean Diff	St. Error	Sig
<i>Autonomy</i>				
Liberal Mortality Salience	Liberal Anxiety	-.08	.40	.85
	Liberal Control	-.06	.40	.88
	Conservative Mortality Salience	.24	.40	.54
Liberal Anxiety	Conservative Anxiety	-.21	.40	.60
	Conservative Control	-.23	.40	.56
	Liberal Control	.02	.40	.97
Liberal Control	Conservative Mortality Salience	.32	.40	.43
	Conservative Anxiety	-.13	.40	.74
	Conservative Control	-.16	.40	.69
Conservative Mortality Salience	Conservative Mortality Salience	.30	.40	.45
	Conservative Anxiety	-.15	.40	.71
	Conservative Control	-.18	.40	.66
Conservative Anxiety	Conservative Anxiety	-.45	.40	.26
	Conservative Control	-.48	.40	.24
Conservative Control	Conservative Control	-.02	.40	.95
<i>Community</i>				
Liberal Mortality Salience	Liberal Anxiety	-.06	.57	.91
	Liberal Control	-.39	.57	.50
	Conservative Mortality Salience	-1.05	.57	.07
Liberal Anxiety	Conservative Anxiety	-1.28	.57	.03*
	Conservative Control	-1.49	.57	.01*
	Liberal Control	-.33	.57	.57
Liberal Control	Conservative Mortality Salience	-.98	.57	.09
	Conservative Anxiety	-1.21	.57	.04*

Liberal Control	Conservative Control	-1.42	.57	.02*
	Conservative Mortality Saliene	-.66	.57	.25
	Conservative Anxiety	-.88	.57	.13
Conservative Mortality Saliene	Conservative Control	-1.10	.57	.06
	Conservative Anxiety	-.23	.57	.70
	Conservative Control	-.44	.57	.44
Conservative Anxiety <i>Purity</i>	Conservative Control	-.22	.57	.71
	Liberal Mortality Saliene	.90	.83	.28
Liberal Mortality Saliene	Liberal Control	-.32	.83	.70
	Conservative Mortality Saliene	-.47	.83	.57
	Conservative Anxiety	-.22	.83	.79
	Conservative Control	-.78	.83	.35
	Liberal Anxiety	-1.22	.83	.15
Liberal Anxiety	Conservative Mortality Saliene	-1.37	.83	.10
	Conservative Anxiety	-1.12	.83	.18
	Conservative Control	-1.68	.83	.05*
	Conservative Mortality Saliene	-.15	.83	.86
	Conservative Anxiety	.10	.83	.90
Liberal Control	Conservative Control	-.47	.83	.57
	Conservative Mortality Saliene	.25	.83	.76
	Conservative Anxiety	-.32	.83	.70
Conservative Mortality Saliene	Conservative Control	-.57	.83	.50

* $p < .05$

Effect of Mortality Saliene

The results of the analysis indicated that there was no main effect for mortality salience, which confirmed the findings from the PANAS manipulation check. Because there was no significant main effect for mortality salience, there was also no interaction

effect between the two conditions. Therefore, the third hypothesis, which proposed an interaction between the two variables, was also not supported by the data.

Effect of Political Orientation

The results of the MANOVA indicated a main effect for political orientation for the community dependent variable, $F(5, 54) = 4.13, p < .05$. This partially supported the hypothesis, which stated that liberal participants would score significantly lower on the community and purity variables than would conservative participants. There was also one significant difference in the post hoc tests between two of the conditions (liberal anxiety group and conservative control group) for the purity variable. Because there was a significant main effect found for the community variable, it was further expanded into its component parts (ingroup and hierarchy foundations) and examined further (Table 6).

The results of this examination showed a significant main effect for the ingroup foundation, $F(5, 54) = 3.24, p < .05$, but a nonsignificant effect for the hierarchy foundation, $F(5, 54) = 1.22, p > .05$.

Table 6: Tests of Between-Subjects Effects (Political Orientation)

DV	Sum of Sq.	df	Mean Sq.	F	Sig	Partial E ²
<i>Corrected Model</i>						
Justice	3.84	5	.77	.64	.67	.06
Reciprocity	3.53	5	.71	.72	.61	.06
Ingroup	35.27	5	7.06	3.24	.01*	.23
Hierarchy	12.33	5	2.47	1.22	.31	.10
Purity	16.59	5	3.31	.97	.44	.08
<i>Intercept</i>						
Justice	6050.10	1	6050.10	4994.86	.00	.99
Reciprocity	5923.58	1	5923.58	6031.86	.00	.99
Ingroup	4366.22	1	4366.22	2006.08	.00	.98
Hierarchy	4449.07	1	4449.07	2194.39	.00	.98
Purity	5167.72	1	5167.72	1517.09	.00	.97
<i>Grouping</i>						
Justice	3.85	5	.77	.63	.67	.06
Reciprocity	3.53	5	.71	.72	.61	.06
Ingroup	35.28	5	7.06	3.24	.01*	.23
Hierarchy	12.33	5	2.47	1.22	.31	.10
Purity	16.59	5	3.31	.97	.44	.08

* p<.05

Chapter 5 – Discussion

The predictions of this study were as follows: (1) that the mortality salience manipulation would affect moral judgments, making the judgments of the moral violations more severe, (2) that there would be an effect of political orientation on moral judgments, in that conservatives would judge the violations of the foundations of community (ingroup and hierarchy), and the foundation of purity more harshly than would the liberals, and (3) that there would be an interaction between the anxiety manipulation and political orientation such that while each will judge autonomy violations more harshly, conservatives in the mortality salient conditions will judge community and purity violations more harshly and liberals will judge them less harshly.

The first prediction, that the mortality salience manipulation would affect moral judgments, was not supported by this study. Both the results of the manipulation check using the PANAS and the results of the hypothesis testing using the MANOVA found no evidence of any change in attitude by the participants in the mortality salient condition. The PANAS showed that there was no significant difference in negative affect between the participants in the mortality salient conditions and those in the control conditions. (There was a difference between those in the anxiety condition and those in the control condition. Because the participants in the anxiety condition reported less negative affect,

this was not indicative of the success of the anxiety manipulation.) The results of the hypothesis testing also showed that there was no significant difference in moral judgments between the three levels of the mortality salience manipulation. Therefore, the evidence would suggest that the mortality salience manipulation was not effective in manipulating mortality salience to a degree that would cause change in either affect or in attitudes towards moral issues.

The second prediction, that liberals and conservatives would make different moral judgments in the areas of community (ingroup and hierarchy) and purity, was partially supported. As expected, there were no significant differences between liberal and conservative participants on the autonomy foundations. This supports previous research, which indicates that liberals and conservatives do make similar moral judgments in these areas. There was a significant difference between liberal participants and conservative participants in their attitudes towards the violations of the community foundations, especially that of the ingroup foundation. This suggests that there was in fact a difference in moral judgments by conservative and liberal participants on the community foundations.

There was no systematic difference between liberal participants and conservative participants towards violations of the purity foundation, though there was a significant difference in attitudes between one of the conservative conditions and one of the liberal conditions. The result of the purity variable suggests that there was not much of a difference between liberal and conservative participants in their responses to the purity-related moral judgments. This finding does not support the hypothesis, nor does it conform to previous research about the purity foundation, which had shown evidence that

a significant difference between liberal and conservative moral judgments of the purity foundation did exist. Potential reasons for the lack of significance of the differences in purity-related moral judgments among liberal and conservative participants in this study will be discussed further in the limitations section.

The third prediction, that there would be an interaction between the mortality salience condition and political orientation, was not supported by the data. Because the mortality salience manipulation was not significant, there could be no interaction between it and the effect of political orientation. Yet because the interaction could not be observed, due to the lack of an effect for the manipulation, the lack of support for the interaction of mortality salience and moral judgment does not provide evidence against the interaction either. Instead, no conclusions can be drawn from this aspect of the study.

There are several reasons that could account for the lack of significance in the results and the failure to uphold the hypotheses. First, the sample size of the study could be a factor in the lack of significance. The participants were drawn from the subject pool of the Ball State University Department of Counseling and Guidance Services, which is not as large as many of the psychology departmental subject pools, so there were a limited number of people who had the option of participating in the study. From that pool, it was also difficult to get participants to sign up for the study in a timely manner. Additionally, many of the participants who signed up for the study did not show up to participate. Due to these constraints, the study had to be completed with only 60 participants, which was less than was desirable. The lack of participants reduced the power of the experiment, and made it more likely that the variance or lack thereof could

be due more to individual differences than to the conditions of the study, meaning there were fewer participants in each cell.

Further, the lack of available participants meant that they did not all fall on the extremes of political orientation, but instead consisted of some participants who were more moderate in their political orientation. This made it possible that there were participants of either political orientation who would not display a strong liberal or conservative viewpoint, which might lead them to make moral judgments that would not align with the liberal or conservative tendencies, as previously defined by the research.

Second, the impact of the manipulation was, according to the results, not significant enough to change moral judgment. This was most likely caused by the design of the study, though the study followed past research that had manipulated mortality saliency in similar fashions. It could be that the video manipulation was not sufficiently mortality-salient, or that the writing prompt did not cause the participants to reflect on their death to a degree sufficient to provoke a change in affect or attitude. Perhaps the participants focused more on the car crash itself, and did not think about their own possible death. Because the anxiety condition also did not raise the level of negative affect among the participants, it does seem likely that the manipulations were not intense enough to cause the level of anxiety necessary to make an attitude change in moral judgment.

The lack of effect of the mortality saliency manipulation might also have been due to some other factor, such as the participants not taking the study seriously, or trying to rush through the study materials as quickly as possible. Because the participants were recruited from introductory counseling classes and were required to participate in

research studies for credit, they may have been indifferent to the study. They may have not paid sufficient attention to the manipulation so that mortality was made salient for them.

Alternately, if the PANAS was not accurate as a manipulation check, it could be that there was anxiety raised about death in the participants, but that it did not cause them to change their attitudes in ways that would support previous research. The PANAS has been used in previous research on Terror Management Theory (TMT) as a manipulation check for mortality salience conditions (Goldenberg et al., 1999), so this is unlikely.

If it were the case that the mortality salience manipulation was indeed successful, then it may be that mortality salience does not affect this particular type of moral judgment. While TMT has often been examined with regard to morality, it has not been previously tested using moral judgment scenarios that derive from theories of moral intuitionism. It could be possible that this type of moral judgment is not affected by mortality salience manipulations, though research would indicate otherwise, as mentioned in previous chapters.

In addition, the results of the hypothesis testing also require further discussion. The effects of political orientation on moral judgment only showed partial support of the hypothesis. The autonomy foundations of moral judgment (harm and justice) did not show significant difference between liberal participants and conservative participants, which was expected. The community foundations of ingroup and hierarchy did show a significant difference between liberals and conservatives, which was also supported by previous research, which showed that conservatives rated moral violations of these foundation much more strongly than did liberal participants. This provides evidence for

the theory that liberals and conservatives approach the community foundations differently, and make different decisions about issues that relate to these moral foundations.

The purity foundation did not show the expected change between liberal participants and conservative participants. In fact, both groups tended to rate violations of this foundation as very morally wrong. One possible explanation for this lack of change is that there may have been a ceiling effect for the variable. Many participants rated the purity-related moral judgments as very morally wrong (the highest response available). It could be that, had the scale been altered to include a wider variety of responses, conservative participants would have rated the purity violations as even more morally objectionable. This in turn could have led to a significant difference between the two political orientations that would support the previous research. Previous research had indicated that, like with the community foundations, liberals and conservatives have different views on purity-related issues, with conservatives reacting more strongly to violations of issues that concern this moral foundation than do liberals.

Another possible explanation is that all the participants were more conservative in general with toward the purity foundation, so much so that there was a ceiling effect for that variable. This would contradict previous research, which has shown that liberals tend to react less strongly to purity-related moral violations, but could be the case in this study. The reason for this is that, as mentioned previously, the small sample size used and the necessity of using participants who were not at the extremes of political orientation could lead to the “liberal” participants’ responses being less liberal and more moderate than in other studies.

Implications

There are several implications that arise from these results. Despite the fact that the hypotheses of the study were not supported, there are still things that can be learned from this study, both in terms of Terror Management Theory and of moral judgment. This study shows how the mortality salience manipulation needs to be strengthened, so that we can better determine its effects, and how political orientation might affect the way that people make decisions and view the decisions that are made by others.

There are several implications for the findings of the study with regard to mortality salience. The mortality salience manipulation in the study was not effective in causing attitude change in the participants, either by increasing negative affect or by increasing adherence to the moral values that made up the cultural worldviews of the participants. There could be several possible reasons why this result was not significant.

One implication of the study is that it might not be as easy as assumed to manipulate mortality salience. The mortality salience manipulation used in this study, which consisted of a video clip depicting a serious car accident and a writing prompt that encouraged the participants to write about their thoughts and feelings about death, did not provoke adequate mortality salience in the participants. This in turn implies that it is important to create a strong manipulation, as a weaker one might not be enough to be effective. There is no evidence for this effect, however, due to the small sample size in this study.

Another implication of this study is that mortality salience does not have an effect on this particular type of morality testing, and might therefore not be worth examining further through the use of moral intuitionism theories. The evidence from this study is

inconclusive, however. Further research would be necessary to determine whether mortality salience does indeed show a lack of effect on responses to questions of morality based on the moral foundations theory.

There are also implications that arise from the effects that are made by political orientation on moral judgment. The implications for the effects of political orientation on the community foundations of ingroup and hierarchy are also important, particularly that of the ingroup foundation. The moral foundation of ingroup depicts the relationship of a person towards their own group, and towards groups to which they do not belong. Those who adhere highly to this foundation tend to value their own group above other groups, and take great pride in their group. They may also view other groups as inferior, and be prejudiced against and support actions taken against members of other groups.

The significant difference found for the community variable does support past research on the moral foundations theory. It adds to the evidence that those with a liberal political orientation are less concerned with valuing their group over other groups, and less concerned with appreciating the works of their group, and vice versa for conservatively oriented people. This corresponds with previous research which shows that liberals view the issues of status, authority, and tradition as of less importance than conservatives view them. The community foundations are present in many issues of patriotism and national pride that are important today, as well as issues involving respect for tradition and authority. This has been hypothesized to explain the differences in attitudes of conservatives and liberals toward policies that utilize these factors, such as disputes with foreign countries and policies regarding gender roles.

There may also be implications to be found in the small difference noted in the groups towards the purity foundation. The purity foundation deals with issues of cleanliness and sin, especially as it regards sexuality. A difference in the degree to which one values the purity foundation has impact for several of the controversial political issues that deal with social justice and social norms. Issues of sex education, gay marriage, and similar are based on the purity moral foundation.

Because of the failure of the mortality saliency manipulation and the subsequent lack of interaction between mortality saliency and moral judgment, this study provided no evidence to support a possible interaction between the two. This hypothesized interaction had not been examined in past research. Therefore, it is difficult to draw any implications from the study for this interaction.

Limitations

There were several limitations to this study. The first limitation, as mentioned previously, was the sample size of the participants. It is possible that the study would have been more effective, and that more areas of significance would have been observed, had there been a larger sample size of participants. This limitation could be corrected simply by ensuring that future studies aim for larger sample sizes.

The second potential limitation of the study is the type of manipulation used to convey mortality saliency to the participants. While the manipulation used in the study was similar to those used in past research, it was apparently not sufficient to induce mortality saliency among the participants. This manipulation obviously limited the study by its ineffectiveness and inability to induce mortality saliency. Because of this, it was unable to be determined if the lack of significant results was due to a failure of mortality

saliency to affect moral judgment, or if it was simply that there was no mortality saliency present in the study.

The third potential limitation is the self report of political views, especially in light of recent election. By self-reporting political views, it is possible that some of the participants chose to identify with a certain political orientation, but they may not identify with it to a degree such that they also identify with the cultural worldview that is espoused by that political orientation, which in turn may lead them to make moral judgments that are different from those that their fellow liberals or conservatives may make. The recent elections have brought something of an upheaval in terms of party loyalty and beliefs, and that change has yet to be examined for its impact on the way people view their political identity.

Another potential limitation to the study is the self report of the moral judgments that were used to determine attitudes towards moral issues. Due to the nature of moral judgment, would be difficult to run a study that involved actual moral decision-making in real-world situations without causing potential harm to the well-being of the participants. Therefore, we can only ask what the participants think that they might do in a given situation, or how they feel about a hypothetical moral scenario. Because of this, the report we receive about how the participants view a particular moral scenario may not be indicative of how they would actually act, if they were to find themselves in a similar position.

Conclusions and Future Directions

Results did not support the hypotheses. In the future, there are several ways that this study could be improved, which might lead to the support for similar hypotheses.

Despite the lack of significant findings for this particular study, the subjects of TMT and moral foundations theory still have important roles to play in decision-making, and should still be studied. There are several ways that research into these areas could be improved upon from this study, and future research could add to the existing knowledge in these areas.

For future research, the mortality salience manipulations should be reexamined and changed to better produce feelings of anxiety about death. This could be done by selecting videos that better demonstrate the possibility of death, or perhaps using a different medium entirely to make the participants aware of the possibility of death. Pretesting the manipulation to ensure its effectiveness would also be a good idea.

Additionally, the research could be conducted with a larger group of participants, to add greater power to the study. This would also reduce the risk of individual variation making a large impact on the results. This study would have benefited from access to a wider pool of subjects than was available through the counseling department, or a longer time period by which to run the subjects, or even a method to ensure that the people who signed up to participate in the study did in fact participate.

Also, another method to improve future research would be to only use participants that fell further along the extremes of the political spectrum. This would reduce the possibility that participants might be included who claim affiliation with one political orientation, but do not truly accept the cultural worldview that goes along with that orientation. Participants who fall towards either end of the political spectrum would be more likely to embrace all aspects of their political orientation, and not get any of their beliefs about politically-disagreed upon issues from the other side of the political divide.

While this particular study did not lead to significant findings, research in the areas of TMT and moral intuitionism is still important. TMT and mortality salience remain important concepts to study and research. TMT has many practical implications, and it is worth looking at the way that it intersects with morality. This research has the potential to lead to greater understanding of the means by which anxiety about death, and anxiety provoked by other means, can impact the way we view morality and moral decision-making. There are many opportunities for us to become aware of death in everyday life: through news of murder, war, and terrorism, or through more everyday means of witnessing the death of a friend or member of the family, being involved in a car accident, or other means.

In the same way, we are also constantly dealing with moral issues, and making decisions based on morality. The theory of moral intuitionism holds that because there are so many moral decisions to be made, and because of the time constraints under which we operate, we make many of those decisions quickly, without spending much thought on them, and in doing, so allow peripheral and implicit cues to influence those decisions. Therefore, it is possible that mortality salience might be one such factor that influences the moral decision-making process. Past research has already shown that mortality salience can influence decision-making about issues in the cultural worldview that are related to morality (Greenberg et al., 1990)

As was shown in this study and previous research, there are differences in the ways that people make moral judgments, and that difference is at least partly moderated by political orientation. This result is worth looking into further, especially in order to understand the practical applications of this difference. There are many real-world issues

that depend on moral judgment, and that are debated upon between those of differing political orientation. Any further light that could be shed on those issues, or on how political orientation affects the decision-making process for those issues, would be very useful.

In conclusion, while this study was not successful in providing evidence to support or refute the hypothesis that mortality salience might cause an interaction effect with political orientation on moral judgment; it did provide some insight into the subject. In the future, a study with a better mortality salience manipulation might be used to find evidence of such an interaction. Both mortality salience and moral judgment are important concepts that have major real-world applications. There is much benefit that could be derived from continuing to examine their interaction.

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Appendices

Moral Foundations Questionnaire

Part 1. When you decide whether something is right or wrong, to what extent are the following considerations relevant to your thinking? Please write a number from 0-5 next to each statement using this scale:

[0] = not at all relevant (This consideration has nothing to do with my judgments of right and wrong)

[1] = not very relevant

[2] = slightly relevant

[3] = somewhat relevant

[4] = very relevant

[5] = extremely relevant (This is one of the most important factors when I judge right and wrong)

- _____ Whether or not someone was harmed
- _____ Whether or not someone believed in astrology
- _____ Whether or not someone was denied his or her rights
- _____ Whether or not someone showed a lack of loyalty
- _____ Whether or not someone failed to fulfill the duties of his or her role
- _____ Whether or not someone did something disgusting
- _____ Whether or not someone suffered emotionally
- _____ Whether or not someone acted unfairly
- _____ Whether or not someone did something to betray his or her group
- _____ Whether or not someone conformed to the traditions of society
- _____ Whether or not someone violated standards of purity and decency
- _____ Whether or not someone cared for someone weak or vulnerable
- _____ Whether or not some people were treated differently than others
- _____ Whether or not the action affected your group
- _____ Whether or not someone showed a lack of respect for authority
- _____ Whether or not someone was able to control his or her desires
- _____ Whether or not someone was cruel
- _____ Whether or not someone tried to control or dominate someone else
- _____ Whether or not someone's action showed love for his or her country
- _____ Whether or not an action caused chaos or disorder
- _____ Whether or not someone acted in a way that God would approve of

Part 2. Please read the following sentences and indicate your agreement or disagreement:

[0]	[1]	[2]	[3]	[4]	[5]
Strongly	Moderately	Slightly	Slightly	Moderately	Strongly
disagree	disagree	disagree	agree	agree	agree

- _____ One of the worst things a person could do is hurt a defenseless animal.
- _____ If we are to fight crime effectively, some people's rights will have to be violated.
- _____ It is more important to be a team player than to express oneself.
- _____ Men and women each have different roles to play in society.
- _____ People should not do things that are disgusting, even if no one is harmed.
- _____ It can never be right to kill a human being.
- _____ Justice, fairness and equality are the most important requirements for a society.
- _____ I am proud of my country's history.
- _____ If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.
- _____ I would call some acts wrong on the grounds that they are unnatural.
- _____ Compassion for those who are suffering is the most crucial virtue.
- _____ When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.
- _____ People should be loyal to their family members, even when they have done something wrong.
- _____ Respect for authority is something all children need to learn.
- _____ Chastity is an important and valuable virtue.
- _____ Our laws should first and foremost aim to reduce harm to victims.
- _____ I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.
- _____ When I hear someone speak out against my country or government, I wish they would shut up.
- _____ If a book is described as "subversive," that makes me more likely to want to read it.
- _____ People should treat their bodies as temples, not defile them with impure substances.

The Moral Foundations Questionnaire (41 item version, March 2007) by Jesse Graham, Jonathan Haidt, and Brian Nosek. For more information about moral foundations theory and scoring this form, see:

<http://faculty.virginia.edu/haidt/mf.html>

PANAS

Directions

This scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the appropriate answer next to that word. Indicate to what extent you have felt this way during the past week.

Use the following scale to record your answers.

(1) = Very slightly or not at all (2) = A little (3) = Moderately (4) = Quite a bit (5) = Extremely

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
1. Interested	1	2	3	4	5
2. Distressed	1	2	3	4	5
3. Excited	1	2	3	4	5
4. Upset	1	2	3	4	5
5. Strong	1	2	3	4	5
6. Guilty	1	2	3	4	5
7. Scared	1	2	3	4	5
8. Hostile	1	2	3	4	5
9. Enthusiastic	1	2	3	4	5
10. Proud	1	2	3	4	5
11. Irritable	1	2	3	4	5
12. Alert	1	2	3	4	5
13. Ashamed	1	2	3	4	5
14. Inspired	1	2	3	4	5
15. Nervous	1	2	3	4	5
16. Determined	1	2	3	4	5
17. Attentive	1	2	3	4	5
18. Jittery	1	2	3	4	5
19. Active	1	2	3	4	5
20. Afraid	1	2	3	4	5