

DOES AFFECT EXPLAIN THE RELATIONSHIP BETWEEN
MORAL JUDGMENT DEVELOPMENT
AND POLITICAL CHOICES?

by

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ABSTRACT

Over the past four decades, research in the area of moral judgment development has shown a relationship between indices of moral judgment development and political choice measures, although no common factor has been proposed to explain this relationship. A more recent development in the field of moral psychology focuses on the role of affect in morality. While there is no consensus on the nature of this influence, researchers still actively pursue understanding of how emotions influence the ways in which people make moral judgments. Affect has also been an important component of research in cognition, as many believe that the two constructs are related.

The particular aims of the study were to attempt to replicate previous findings on the relationship between moral judgment development and political choices, to determine whether negative affective arousal influenced this relationship, and to assess the ability of moral judgment development to predict dogmatism and negative affective arousal within the context of the 2008 U.S. Presidential elections. Political choices were measured using candidate feeling thermometers, questions about stances on five primary campaign issues, and voting intentions. In the political choice section, there were three experimental manipulation conditions that used photographs to elicit affective arousal in participants.

The data showed that previously established curvilinear patterns in the relationship between moral judgment development and political choices remain consistent. Affective arousal did not serve as a moderator variable in the relationship between moral judgment development and political choices, but moral judgment development was found to be a statistically significant predictor of negative affective arousal and dogmatism. The dissertation concludes with a discussion of the implications of these findings with regard to Haidt's Social Intuitionist Model and influencing voter behaviors.

LIST OF ABBREVIATIONS AND SYMBOLS

CJW	Competitive Jungle Worldview
DIT	Defining Issues Test
DIT-2	Defining Issues Test-2
DOG	Dogmatism Scale
fMRI	Functional Magnetic Resonance Imaging
N2	Developmental Index of DIT-2
P	Postconventional score for DIT and DIT-2
PANAS	Positive and Negative Affect Schedule
RWA	Right-Wing Authoritarianism
SDO	Social Dominance Orientation

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CHAPTER 1

INTRODUCTION

Morality is the way in which people make sense of right and wrong at all levels of social interaction. It encompasses an array of social structures and interactions, which means that it can influence decision making in a variety of domains. One such domain is political reasoning, which is thought to be similar to moral decision making because both phenomena reflect a type of macromoral thinking that reflects an individual's beliefs about interpersonal cooperation and societal structure (Narvaez, Getz, Rest, & Thoma, 1999).

Upon the introduction of Kohlberg's theory of moral judgment development, researchers suspected that moral reasoning and political decision making might be related and attempted to ascertain whether any empirical relationship between the two constructs existed. Haan, Smith, and Block (1968) administered Kohlberg's Moral Judgment Interview to students at a university in the throes of anti-Vietnam War protests and found that those students who protested represented the highest and lowest levels of moral development, while those who refrained from participating in the protests aligned with the middle stages of moral development.

Subsequent research supported the finding that although moral development was often a predictor of political ideology, the relationship was not as straightforward as some had claimed. In particular, Emler and his colleagues believed that the Defining Issues Test (DIT; Rest, 1979), an objective measure of moral judgment in the Kohlbergian tradition, was simply a measure of

political ideology and not a developmental measure. By extension, Emler also argued that moral judgment development as described by Kohlberg's theory was really just a distinction between liberal and conservative ideology, rather than a reflection of cognitive development. In order to test this hypothesis, they instructed participants to take the DIT once as themselves and then once either as a radical or as a conservative. The results supported their hypothesis, but some pointed out that the methodology used in their study was flawed and prevented the researchers from drawing any reliable conclusions from their findings (Emler, Renwick, & Malone, 1983; Barnett, Evens, & Rest, 1995). Later studies showed that while a relationship between moral judgment and political ideology existed, there were a number of variables that influenced this relationship (Narvaez et al., 1999; Thoma, Barnett, Rest, & Narvaez, 1999; Crowson & DeBacker, 2008).

While earlier research focused on the liberal-conservative political dichotomy in relation to moral judgment, later studies have examined more complex aspects of political ideology. The role of sociopolitical attitudes such as Right Wing Authoritarianism (RWA; Altemeyer, 1981) in the link between political ideology and moral judgment has been of interest. In recent studies, researchers found that when the effects of RWA were accounted for, the negative and statistically insignificant relationship between postconventional morality and political conservatism became significant and slightly positive. These recent findings suggest that RWA plays an important role in the link between political ideology and moral judgment, particularly for political conservatives (Crowson & DeBacker, 2008; Crowson, Thoma, & Hestevold, 2005).

Theoretically, moral judgment and political ideology relate to one another, and this position has been supported empirically. However, in contrast to Emler's claims, moral judgment and political ideology do not reduce to one another. It is also not sufficient to simply claim that all conservatives use a Maintaining Norms schema or that all liberals rely primarily on

a Postconventional schema of morality. When examining political beliefs in any context, it is necessary to consider not only the expression of political ideology, but also its underlying thought processes.

Right Wing Authoritarianism

Right wing authoritarianism consists of three core components: authoritarian submission, authoritarian aggression, and conventionalism. Authoritarian submission is the belief that people should submit to authority unquestioningly. Authoritarian aggression is anger or violence expressed toward individuals or groups who defy traditional social conventions or established authorities. Conventionalism is the unconditional adherence to social conventions, rules, and traditions. In order to be considered a right wing authoritarian, an individual must exhibit all three traits simultaneously. The most commonly used measure of right wing authoritarianism is Altemeyer's RWA scale, which measures the covariation of the three core components of right wing authoritarianism (Altemeyer, 1981).

Social Dominance Orientation

Social dominance orientation (SDO) is the belief that the inherent hierarchy in society must be maintained and that one must work at all costs to be at the top of this hierarchy. The set of attitudes that work to perpetuate this emphasis on hierarchy and inequality are known as legitimizing myths. Legitimizing myths in social dominance orientation are attitudes such as ethnic prejudice, nationalism, cultural elitism, and sexism that seek to disparage and oppress out-groups. Additionally, individuals who hold a social dominance orientation favor punitive

policies such as the death penalty, militarism, and meritocracy that serve to perpetuate societal inequality (Pratto, Sidanius, Stallworth, & Malle, 1994). This notion that the world is competitive and amoral (referred to as Competitive Jungle Worldview) has been theorized as the underlying belief system that contributes to social dominance orientation (Duckitt, 2001).

Dogmatism

Altemeyer defined dogmatism as an individual's unwarranted, relatively enduring certainty in what he or she believes. Dogmatism is not hypothesized of as a trait but rather a set of attitudes that generally guide one's perspective on the world. Further, it reflects a person's overall level of cognitive inflexibility, and it is not intended to predict dogmatism in particular situations. Measures of dogmatism such as Altemeyer's Dogmatism (DOG) scale have been shown to correlate with measures of right wing authoritarianism (Altemeyer, 1996; 2002).

Political Psychology

Although it has been shown that measures of moral judgment like the DIT provide unique information about a person's moral reasoning aside from verbal intelligence or political ideology, the way one reasons about things such as morality may also correspond with reasoning in other domains. To better understand the relationship between moral judgment and political choices, it would be helpful to assess the thinking that constitutes political ideology alongside the assessment of moral cognition using the Defining Issues Test-2 (DIT-2), an updated version of the DIT (Rest, Narvaez, Thoma, & Bebeau, 1999b).

Studies of sociopolitical ideology have shown significant relationships among measures of right wing authoritarianism, social dominance orientation, competitive jungle worldview (CJW), dogmatism, and political conservatism. Political conservatism is often specified as a two-factor construct consisting of economic conservatism and social conservatism. Measures of economic conservatism generally focus on individual beliefs regarding government's role in the regulation of economic affairs and businesses, taxation, and wealth distribution, while measures of social conservatism center on beliefs concerning social issues such as gender roles, employment, parenting, and personal autonomy (DeWitte, 1990). Some have speculated that measures of RWA would correlate more strongly with social conservatism measures, while measures of SDO would correlate more strongly with economic conservatism measures. A core component of right wing authoritarian belief is the need to maintain social order and tradition, hence a strong disposition toward social conservatism. The "dog-eat-dog" mentality of SDO advocates the belief that success should be obtained through any means necessary, which corresponds with the values underlying economic conservatism (Jost & Thompson, 2000).

Cognition and Political Ideology

Over the past thirty years, researchers have been interested in the relationship between cognitive factors and political ideology, particularly in the case of political fanaticism (Sidanius, 1985; Tetlock, 1983). The extremist theory of sociopolitical ideology states that political extremists utilize less cognitive complexity in their political reasoning than people who identify as political moderates because their extreme beliefs are an attempt to oversimplify complex issues. In contrast, context theory suggests that extremists actually possess more cognitive

complexity than moderates because extremists require stronger cognitive skills in order to adopt these uncommon beliefs and to defend more radical positions. According to context theory, moderates have less cognitive complexity because they gravitate toward safe, commonly held stances on contentious political issues (Sidanius, 1985). A number of studies have shown that strong partisans reason about various political issues such as abortion with significantly less cognitive complexity than moderates, and that left-leaning moderates reason with more cognitive complexity than right-leaning moderates (Tetlock, 1983; Tetlock, 1984). However, other studies revealed that extremists on the left tended to be more cognitively complex than moderates and right-wing extremists (Sidanius, 1985).

Moral Judgment and Emotions

Emotions have long been thought to play a role in moral functioning, although Kohlberg's theory did not directly address how emotions influence morality; rather, it focused on the cognitive-developmental aspects of moral judgment (Blasi, 1990; Haidt, Koller, & Dias, 1993). More current theories have proposed not only that emotions play a significant role in morality as a whole, but also that they differ in their motivational powers (Haidt et al., 1993; Haidt, 2001; Haidt, 2003).

Haidt proposed a theory concerning the role of emotions in morality that suggested that moral judgments are primarily affective, and that deliberate reasoning only occurs later in the process to justify moral judgments. He referred to this phenomenon as the Social Intuitionist Model, because he believed moral judgments occurred based on moral intuitions rather than on conscious reasoning, based on research with functional magnetic resonance imaging (fMRI) that

showed activation of emotional centers of the brain in the presence of certain moral dilemmas (Haidt, 2001). However, others have criticized this model for its neglect of both developmental progression and conscious reasoning (Pizarro & Bloom, 2003; Saltzstein & Kaschakoff, 2004)

Affect, Mood, and Emotion

Although thinking is often discussed in terms of cognition, there is also a substantial body of research concerning the role of affect in reasoning, including its influence on moral judgment. Over the past 25 years, there has been an increase in the amount of research about the influence of emotion on phenomena that were previously considered purely cognitive, as many psychologists realized that emotion and cognition influenced each other and that each had primacy in different situations (Frijda, 1988).

In the literature concerning affect, there is no standard definition of the term; in fact, some do not define the term at all (Russell, 2003). At times, the term affect has been used to mean emotions (Russell & Feldman Barrett, 1999), while others have defined affect as the experience of emotions (Watson & Tellegen, 1985). The terms affect and emotion will be used interchangeably from this point forward, and both terms will be used to refer to the experience of an emotion.

Russell's (1980) circumplex model of affect divided affect into two bipolar dimensions that placed emotions in a circle that surrounded the x- and y-axes, labeled as the valence and arousal dimensions, respectively. Emotions varied according to these two dimensions so that every emotion was to an extent either positive or negative and also either activated or not activated. Subsequently, Watson and Tellegen (1985) developed a model of affect based on

Russell's model that included only activated emotions. Watson, Clark, and Tellegen (1988) developed a scale called the Positive and Negative Affect Schedule (PANAS) that was designed to assess affect on this activated model. Initially, "PA" and "NA" in this theory referred to positive affect and negative affect, but they later revised the theory so that these abbreviations referred to positive activation and negative activation. Although this revision still referred to the differences in valence, it more clearly articulated the activation aspect of these two types of affective states. Overall, positive and negative affect, as defined by Watson and Tellegen (1985), has been shown to account for 50 to 75% of the common variance in self-rated mood reports (Watson et al., 1988).

Emotional Development

In order to understand emotions and their role in social comprehension, it is necessary to know how people develop the expression of emotions and emotional understanding. The study of infant emotional development has shown that in early infancy children exhibit a bias toward positive emotions. However, in the second half of the first year, infants begin to attend more to negative emotions, perhaps because of an evolutionary need to recognize and respond to threat stimuli. By twelve months, infants have a fully developed response to negative facial expressions (Vaish, Grossmann, & Woodward, 2008).

Parent and primary caregivers serve as the primary source of emotional learning for infants and young children. The emotional socialization of children involves both direct and indirect methods through explicit teaching about emotions and observation of caregivers' emotional responses, respectively. A parent's ability to regulate his or her own emotions,

particularly in distress situations, has been found to correlate with children's ability to recognize one's own and others' emotional states. Further, children were more knowledgeable of their own emotional state tended to have parents who encouraged emotional expression (Perlman, Camras, & Pelphrey, 2008).

Summary

Theories of moral judgment development have typically described moral judgment as a cognitive phenomenon, but some have proposed that moral judgment is instead primarily affective (Haidt et al., 1993; Haidt, 2001). While cognitive-developmental theories of moral judgment allow for an affective component, this component has not been explored in depth within these theories. Similarly, political decisions are thought to rely on an interaction between affective and cognitive components. The study of political ideology, once confined to the liberal-conservative dimension, now involves more complex sets of beliefs. Assessment of the underlying cognitive and affective components of both moral judgment and of political choices will more clearly define how the two constructs are related.

Research Questions

Prior studies of the relationship between moral judgment and political choices have yielded a curvilinear pattern in which conservatives generally show a preference for the Maintaining Norms schema, while liberals reside at both the very top and the very bottom of the developmental spectrum (Thoma, 1993). Other research has shown that constructs such as civil liberties beliefs and RWA moderate the relationship between conservatism and moral judgment

(Crowson et al., 2005; Crowson & DeBacker, 2008). One of the purposes of this study is to determine whether these findings can be replicated with a similar sample.

Political decision making has been shown to be influenced by affective content, such as pictures, sounds, and video images of candidates; and even the perception of the candidates themselves. Prior research has shown that emotions do influence the choices that voters make regarding candidates, as well as decisions in other domains (Edwards, 1990; Edwards & von Hippel, 1995; Rosenberg, Bohan, McCafferty, & Harris, 1986). Given that moral judgment also involves decision making, examining the role of affect in the relationship between moral judgment and political choices seems to be a worthwhile path of inquiry. This study will attempt to discern whether affective arousal influences the relationship between moral judgment development and political choices. In addition, the study will explore whether affective arousal, elicited by photographs of presidential candidates, influence responses to questions about political issues and candidate preferences.

In order to better understand Haidt's work that has suggested a strong relationship between emotions and moral thinking (Haidt et al., 1993; Haidt, 2001; Haidt, 2003), it is important to explore how emotions shape both moral reasoning and decision making. Specifically, this study will explore whether participants at different levels of moral development will respond to affective content differently and how affective arousal and cognitive closure influence the relationship between moral judgment and political choices. This knowledge will help to clarify the role of affect in moral judgment and to potentially explain the well-established relationship between level of moral judgment development and political choices.

Organization of the Study

This study is organized as a dissertation in five chapters. Chapter 1 presents a broad overview of the problem and the research questions for the study. Chapter 2 consists of a review of literature concerning moral judgment development, political choices, and emotional arousal, as both separate and related constructs. Chapter 3 describes the research methods of the study and descriptions of all of the instruments used in the study. Chapter 4 presents the results of the study, particularly as they pertain to the research questions presented in the first chapter. The final chapter, Chapter 5, provides a broad overview of the findings, their implications, connection to current theories, and directions for future research.

CHAPTER 2

LITERATURE REVIEW

This chapter will cover literature from a variety of areas, including moral judgment development, political choices, and affect. Discussion of moral judgment development will focus on the history of theories of moral judgment development, the development of the Defining Issues Test, and the relationship between moral judgment and political choices. Following this will be exploration of the political psychology literature focusing on the roles of affect and cognitive style in political decision making. In order to elucidate how affect influences both political choices and moral judgment, the chapter will conclude with a discussion of affect and emotions that includes a definition of affect, the measurement of affect, and the relationship between cognition and affect. These three areas of inquiry taken together will help to explain how affect, moral judgment development, and political choices influence one another.

Kohlberg's Theory

Kohlberg's stage theory of moral development built upon Jean Piaget's studies of the moral development of children in the 1920s. Like Piaget, Kohlberg was interested in the stages through which children progress in their moral development toward adulthood. However, unlike Piaget, Kohlberg did not believe that moral stages necessarily corresponded with age, although he believed that a stage theory of moral development should adhere to the cognitive developmental stage criteria specified by Piaget. These criteria stated that stages should denote distinct differences in the way children resolve the same problem at different ages, follow an invariant sequence, represent the underlying cognitive mechanism of observable tasks, and displace lower stages of development.

To develop his stage theory, Kohlberg interviewed a number of adolescent males using a set of 10 hypothetical moral dilemmas, and then coded the responses to generate a series of stages and levels that represented the status of the respondents' moral judgment development. Each stage contained a different basis upon which moral decisions were made (needs of the self versus others' needs versus universal principles), a different orientation to the intents and consequences of moral actions, and a different locus of motivation. Kohlberg delineated three levels of moral judgment that were further divided into two stages. The stages were as follows, from lowest to highest: obedience and punishment, naïve egoism, good-boy, authority and social-order maintenance, contractual legalistic, and conscience or principle. Individuals at the lowest stages considered their own needs or interests above those of any others when making moral decisions, whereas individuals at the highest stages relied on universal moral principles (Kohlberg, 1969).

Criticism of Kohlberg's Theory

Many have criticized Kohlberg's theory based on a number of perceived faults in its theoretical foundations, structure, and assessment. For the purposes of this study, the most relevant critiques come from the domain theory and cultural perspectives because of their implications for development and for sociopolitical engagement. Turiel and others criticized Kohlberg's theory for what they perceived to be a conflation of morality and social convention at the conventional level of moral judgment development. According to Nucci and Turiel (1978), the development of the understanding of social norms takes an entirely separate path from the development of moral understanding. Their studies of preschoolers showed that even young

children understood the difference between moral precepts and arbitrary social rules, and they concluded that the social and moral domains were actually two separate aspects of development.

Later research showed that older children also differentiated between social convention and moral principles, and that they rated the violations of moral injunctions as more serious than violations of social rules (Nucci, 1981). However, Rest and his colleagues pointed out that Turiel's definition of conventional differed from Kohlberg's, and that separating the two (as Turiel did) concealed their connections at different levels of development, particularly at the conventional level of moral reasoning. Turiel defined conventionality as a form of social organization that had no moral importance and was subject to change, while Kohlberg's conventional level of morality assumed that social conventions and morality were intertwined, not separate domains as proposed by Turiel (Rest, Narvaez, Bebeau, & Thoma, 1999a).

Another critique of Kohlberg's theory was that the postconventional level appeared to be the exclusive domain of Western, middle class populations. His research with populations around the world failed to find people at Stage 5 in populations such as villagers in the Yucatán Peninsula in Mexico and people from rural areas of Turkey. In his meta-analysis of cross-cultural studies of moral judgment, Snarey (1985) noted that not all Western populations yielded Stage 5 participants, and that not all samples with postconventional thinkers were within Western or Westernized cultures. One explanation for the lack of Stage 5 reasoning in more traditional cultures, Snarey hypothesized, was that values emphasized in these cultures such as collective solidarity were not included in the Stage 5 scoring criteria in Kohlberg's scoring manual for the Moral Judgment Interview. Snarey also cautioned against labeling entire cultures based on the data from a small sample of the population. A culture that operates on Stage 3 or 4 reasoning would likely contain people who reason at higher levels. In some cultures, the expression of

higher levels of moral reasoning may be maladaptive, if not dangerous, such as within incarcerated populations; therefore, individuals may express a lower level of moral reasoning than they actually utilize. Snarey also noted that while the preconventional and conventional levels of moral reasoning were based on empirical evidence, the postconventional level was based on the writings of Western philosophers. He suggested that a theory of postconventional moral thinking should accommodate the ways in which various cultures reason about issues in ways that are considered postconventional within their particular society but that may not correspond to commonly-held notions of what constitutes Stage 5 reasoning (Snarey, 1985).

Development of the Defining Issues Test

Critiques of Kohlberg's stage model centered on its inability to account for developmental fluctuation and transition in a meaningful way. While an individual might have been a Stage 3 when measured by the Moral Judgment Interview, he or she might occasionally employ reasoning from Stages 1 or 2. The assessment process itself was also not without its perils, in that the interview method made large-scale studies nearly impossible because of the personnel demands. Further complicating the process, researchers often struggled to interpret interview responses unless the respondent was remarkably articulate. The subjective method of scoring the interviews also proved to be cumbersome and imprecise.

These issues prompted the creation of the Defining Issues Test, which was a pencil-and-paper measure of moral judgment based on Kohlberg's theory that assessed moral schema preferences rather than hard developmental stages. The DIT presented six moral dilemmas that were based on the stories from Kohlberg's Moral Judgment Interview. After each story, participants were asked what action the protagonist should take to resolve the dilemma, and then

received a series of 12 statements to be rated according to importance and then ranked according to their comparative importance. In order to assure accurate data, reliability checks (in the form of lofty-sounding but meaningless items) were included to certify that the respondent understood the instructions. Response sets that demonstrated inconsistencies between the rate and rank given to items were discarded (Rest, 1979).

Participants receive a number of scores on the DIT that represent various aspects of their moral reasoning and developmental status. The most commonly reported scores are the P, N2, U, and Type scores. The P score is the developmental index that represents the percentage of an individual's reasoning that is at the postconventional level. The P score was the most commonly reported index in the original DIT (Rest, 1979). The N2 index was developed over 20 years after the introduction of the DIT to more precisely describe moral development. The N2 index not only describes the amount of an individual's reasoning that is at the postconventional level, but also to what extent that individual rejects lower-level reasoning (Rest, Thoma, Narvaez, & Bebeau, 1997). The U score illustrates the degree to which a person's action choice is consistent with their judgment (Thoma, Rest, & Davison, 1991). Finally, the Type score indicates the participant's modal schema of moral judgment and consolidation within a schema type or transition between types (Rest, 1979; Rest & Thoma, 1999).

A more recent revision of the DIT, the Defining Issues Test-2, was created to measure moral judgment development in a more efficient way. The original DIT had six dilemma stories and contained references to Vietnam War protests, while the updated DIT-2 contains five dilemma stories and uses more updated language and stories. The DIT-2 has shown high levels of validity and reliability that equal or exceed the original DIT (Rest et al., 1999b).

DIT Validity Criteria

Based on studies of existing DIT data, Rest and his colleagues developed a set of six validity criteria for the DIT and any other of measure of moral judgment development (Rest, Thoma, and Edwards, 1997). The first criterion, differentiation of experts from non-experts, is based on the assumption that P scores will be higher in individuals for whom moral and social dilemmas are more salient, such as political scientists and moral philosophers. Because their lives revolve around the consideration of ethical problems and the resolution of these problems for the benefit of the greater good, they are more strongly versed in postconventional arguments than the average person. Even after accounting for factors such as age or socioeconomic status, level of education is the strongest predictor of P scores. The second criterion, upward movement in longitudinal study, is crucial for a measure based on a developmental theory that claims to represent an invariant sequence of development. Longitudinal studies of the DIT have demonstrated that P scores increase from early adolescence through adulthood. Third, Rest and his colleagues also believed that a measure of moral judgment development should be sensitive to moral education interventions. DIT P scores have been shown to increase for people who have participated in various types of moral education programs such as dilemma discussion. It has been shown that a program must last longer than 3 weeks in order to yield any sort of significant effect on P scores. The fourth validity criterion, developmental hierarchy, concerns the links between P score and level of moral comprehension, other developmental measures, prosocial behaviors, and cognitive capacity. Rest and his colleagues have tested the fifth validity criterion, correlations with measures of prosocial behaviors, by examining links between various types of behavior such as delinquency, cheating behavior, or whistle-blowing and the DIT. The sixth criterion states that a measure of moral judgment, such as the DIT, should significantly

predict political attitudes or choices. Studies of the DIT alongside measures of political tolerance and endorsement of civil liberties have shown significant correlations between these measures of political attitudes and moral judgment development.

In addition to the six validity criteria, Rest and his colleagues contended that a valid measure of moral judgment must also show adequate reliability. The DIT P and N2 indices showed Cronbach alphas around $\alpha = .80$ over the course of nearly 25 years, and test-retest reliability has been in the .70-.80 range. The DIT also contains a number of reliability checks to confirm that participants are attending to the questions and not randomly marking their responses (Rest et al., 1999a).

The Four Component Model

In order to develop Kohlberg's theory beyond moral judgment, Rest and his colleagues devised the Four Component Model of morality (also referred to as the Minnesota Approach). This model better accounted for the cognitive processes that constitute moral functioning than Kohlberg's model could by virtue of the fact that it outlined the various components of morality: moral sensitivity, moral judgment, moral motivation, and moral character and did not focus merely on internal processes. For the purposes of this study, the focus will be only on moral judgment because prior research concerning morality and political choices emphasized the judgment component.

Rest and his colleagues defined moral judgment as deciding which action would be most justifiable according to one's moral sense. The construct of moral judgment was divided into levels of abstraction, which included moral schemas, intermediate concepts, and professional ethics codes. The three moral schemas within this theory roughly correspond to Kohlberg's three

levels of moral judgment development: the Personal Interest, Maintaining Norms, and Postconventional schemas. Rather than reflecting hard developmental stages, these schemas reflect the underlying cognitive structures that give meaning to notions of morality. Each successive schema is developmentally and functionally more adaptive than the prior one and reflects increasingly more sophisticated conceptions of what it means to be moral (Rest et al., 1999a).

Triune Ethics Theory

An emerging theory of moral orientation known as Triune Ethics Theory posits that morality is driven by three ethics: Security, Engagement, and Imagination (Narvaez, 2008a). The Security ethic relies on values of self-preservation, which mimics the Personal Interest schema. The ethic of Engagement bases moral decisions on emotional bonds with others, as in Maintaining Norms morality or empathy. The Imagination ethic is the source of deliberate reasoning and regulation of the other two ethics, and Narvaez believes this ethic corresponds to the postconventional schema (Narvaez, 2008a; Narvaez & Vaydich, 2008). While these ethics are all present throughout the lifespan, the ways in which a person uses these three ethics will change with development and situational priming.

This theory relies on the findings from neuroscience research concerning moral behaviors, judgments, and emotions that show differences in the ways in which the brain responds to various moral primes. In addition, certain parts of the brain have been shown to specialize in certain types of cognitive processes that have implications for moral judgment and behaviors. One example cited by Narvaez and Vaydich (2008) was the inability of individuals with prefrontal cortex damage to learn social conventions and moral rules, even when other

abilities (such as logic and reasoning) remained intact. They also note research that emphasizes the role of early caretakers in regulating and promoting growth in infants' brain structures, and how these structures influence moral functioning throughout the lifespan.

Triune Ethics Theory also accounts for developmental conditions and situational priming. According to the theory, a child's early environment can cultivate prosocial behaviors and empathetic abilities, provided that the child's needs are met within a secure environment with adequate parental attachment. Hostile or stressful environments influence brain development and may inhibit an individual's ability to engage with others or to show empathy. In turn, he or she may more heavily rely on the ethic of Security later in life, which emphasizes self-preservation over all other values. This ethic expresses itself through Social Dominance Orientation, Right-Wing Authoritarianism, and aggressive behavior. Additionally, a situation may prime for a particular ethic, although if the individual is predisposed to another ethic, then the situation may not elicit the expected ethic (Narvaez, 2008a; Narvaez, 2008b).

Moral Emotions

More recently, researchers have been exploring the role of emotions in morality, and the moral aspects of certain emotions. Haidt and his colleagues provided stories that depicted events considered disgusting or disrespectful (such as sexual activity between siblings or using a national flag to clean the bathroom) to participants from various cultural backgrounds in the U.S. and Brazil. After reading the stories, participants were asked whether they thought the acts described in the stories were morally wrong. Although some participants claimed that the acts depicted in the stories were wrong, they could not generate coherent arguments as to why this was the case. In particular, the rural Brazilian sample tended to take a stronger moralizing stance

on these issues than did either the more urban Brazilian sample or the U.S. samples. Based on these findings, Haidt and his colleagues recommended that a cross-cultural theory of morality should account for emotions because of their motivational power to influence thoughts and decisions (Haidt et al., 1993).

Haidt believed that a purely rational, cognitivist approach to moral judgment did not account for the unconscious processes and intuitions that he and others felt were also important aspects of the moral reasoning process. He proposed a six-link social intuitionist model of moral judgment that consisted of four core processes and two processes based on private reasoning. The core processes were intuitive judgment, post hoc reasoning, reasoned persuasion, and social persuasion. In this model, an individual makes a snap decision as to whether something is morally wrong, develops arguments to support this judgment, verbally expresses this judgment to others, and thereby exerts influence on others by virtue of having made a moral judgment. In instances where the initial judgment may not have been very strong, the protagonist may engage in private reasoning and reach a different conclusion through logical means, in the reasoned judgment process. Private reflection, the second private reasoning process, may generate new intuitions that contradict or replace one's earlier intuition (Haidt, 2001). This social intuitionist model was based on the work of Greene and his colleagues (2001), in which they used fMRI to examine the influence of emotions on moral judgments from a neurological perspective. Participants in the study were presented with dilemmas known as the footbridge and trolley problems, and asked to respond how they would act in the situations. The footbridge problem involves a hypothetical dilemma in which one must choose whether to push another person onto a train track below in order to save the lives of five innocent people, and the trolley problem involves pulling a switch so that a trolley diverts to kill only one person instead of five people.

Greene and his colleagues found that the footbridge-type problems triggered greater levels of activation in the emotional centers of the brain than trolley-type problems in which the emotional aspects of a situation are less salient.

Critiques of Haidt's Theory

Critics of the social intuition model have pointed to evidence that prior deliberation is necessary in order to develop an intuition and to the necessity of deliberate reasoning when intuitions conflict. The very definition of a moral dilemma, whether hypothetical or personal, is where one moral value (or intuition) conflicts with another, as in the case of the Heinz dilemma, in which the value of life conflicts with the value of property and ownership. When the intuitions within a situation are incompatible with one another, the individual turns to reasoning to come to a decision about the ideal course of action (Pizarro & Bloom, 2003).

Saltzstein and Kasachkoff (2004) criticized Haidt on three aspects of the social intuition model: 1) restricting social influence merely to compliance without considering more rational and deliberate means of influencing others; 2) conflating the failure to deploy moral values with the failure to develop these values; and 3) confusing cause and justification of moral judgments. In the first critique, Saltzstein and Kasachkoff claimed that Haidt's model did not account for the role of others' reasoned arguments in shifting moral positions and only considered psychological coercion and undeliberated compliance as avenues for change in moral judgment. Second, they claimed that Haidt's model did not address the possibility of previous deliberation in forming automatic moral responses to situations, similar to other social behaviors such as saying "thank you" or obeying traffic signals. Initially, these behaviors require deliberate rational thought, but over time they become automatic. Finally, the authors claimed that Haidt did not appreciate the

distinction between cause and reason in justifying moral judgments. To illustrate, they cited an example of two answers to the question “Why did you enjoy the party?” and compared the causal response, “because my blood sugar was now normal” to the response that provided a reason for the enjoyment, “because I wanted to meet a nice girl/guy.” Their assertion was that an individual does not necessarily need access to his or her internal moral processes in order to provide reasoned justification for a moral judgment, because ultimately the question is not what caused the judgment, but rather whether it is developmentally optimal and situationally appropriate.

In evaluating the literature on moral judgment, there appear to be two types of moral encounters: moral dilemmas (in the tradition of Kohlberg, Rest, and others) and moral reactions (as in Haidt’s research). While studies of moral dilemmas traditionally focus on the role of cognition in decision making and the study of moral reactions concerns itself primarily with emotions, Monin, Pizarro, and Beer (2007) believe that dilemma-based studies have the potential to explain the role of emotions in moral judgment by exploring the emotions that correspond with certain moral decision-making patterns when confronted with hypothetical moral dilemmas.

Moral Judgment and Political Ideology

The social environment of the late 1960s and early 1970s was ripe for various types of research concerning the links between political ideology and moral reasoning. Activists at that time passionately asserted that they were fighting on the side of justice, and they protested against what they saw as moral transgressions, such as the Vietnam War. Early research of the links between morality and political attitudes yielded consistent relationships between conventional morality and conservative political beliefs. Research at that time found that people who reasoned at Kohlberg’s postconventional level engaged in protest and social activism in

order to rectify what they believed were injustices in society, while protestors with pre-conventional notions of morality engaged in the same behaviors for the purpose of personal gain (Haan et al., 1968; Fishkin, Keniston, & MacKinnon, 1973).

Subsequently, some brought forth accusations that Kohlberg's theory contained a liberal bias at the post-conventional level. Emler and his colleagues have been persistent in their claims over the past quarter century that the DIT is actually a measure of political ideology rather than a developmental measure as it claims to be. Emler's first test of this hypothesis in the early 1980s involved asking participants to take the DIT twice, once as themselves and once either as a radical or as a conservative. The data showed that people who identified as politically left-wing received higher DIT scores than people who identified as moderate or right-wing when taking the DIT from their own perspectives. However, when asked to take the DIT from the viewpoint of a radical, right-wing and moderate participants attained significantly higher scores than they did when taking the DIT from their own perspective. Emler and his colleagues claimed that this meant the DIT was measuring something other than moral judgment, and proposed that the DIT was actually a measure of political ideology. In particular, they felt that the distinction between Stage 4 and Stage 5 reasoning was actually due to a difference in political orientation and not in a developmental shift (Emler et al., 1983).

Critics of this study have made the claim that the methodology was flawed and that the DIT provides unique developmental information on moral judgment. A study by Barnett, Evens, and Rest (1995) asked participants to take the DIT once as themselves and once as either a conservative or as radicals. They also added 16 items to the DIT that assessed anti-establishment beliefs, based on the belief that participants in Emler's study who increased their DIT scores did so by preferring items that sounded anti-authoritarian, hence radical. By adding these "A" items,

Barnett and his colleagues hypothesized that participants who were asked to fake radical would increase their “A score” (preference for anti-establishment items) but not show any significant gains in DIT P scores, and the data supported their hypothesis (Barnett et al., 1995).

In response, Emler and his colleagues conducted a series of four studies that assessed various relationships between moral development and political choices and attitudes. They concluded that while their data did not adequately support the original Emler et al. hypothesis, it did suggest that political ideology was connected to Stage 4 (but not Stage 5) moral reasoning. They criticized the DIT for its use of ipsative measures because they felt that it artificially linked the P Score to Stage 4 reasoning. They further hypothesized that Stages 4 and 5 were neither developmental stages nor representations of mutually exclusive categories of moral reasoning (Emler, Palmer-Cannon, & St. James, 1998).

Subsequently, Thoma and his colleagues addressed these claims. First, they questioned Emler's contentions that the P score was artificially linked to Stage 4 and that political ideology was linked to moral reasoning at Stage 4 but not at Stage 5. They noted that the P score was derived from the number of Stage 5 items a participant selected, which meant Emler and his colleagues could not account for Stage 5 in their critiques. Second, they noted that manipulating the instructions, as Emler and his colleagues had done, invalidated the data they obtained by asking participants to fake as a radical or as a conservative. In accordance with classical test theory, the instructions are an integral part of the measure, and tampering with the instructions would have altered the psychometric integrity of the scale, and hence the validity of the data generated from the altered scale.

Emler and his colleagues had criticized the DIT for the use of ipsative data that they believed made Stage 4 and Stage 5 mutually exclusive constructs. Thoma and his colleagues

pointed out that the developmental model upon which the DIT is based follows a gradual upward progression, so that there is often some overlap within an individual in Stage 4 and Stage 5 reasoning. That is to say, an individual may move in the direction of a stronger preference for Stage 5 arguments but may still retain some Stage 4 reasoning. They also observed that the non-ipsative rating data showed the same trends as the ipsative ranking data, and suggested that if Emler had focused the rating data, that he might not have concluded that Stages 4 and 5 were mutually exclusive (Thoma et al., 1999).

More recently, Emler's hypothesis was retested using the DIT-2 and more nuanced measures of political ideology. These measures of political ideology assessed identification on the left-right spectrum, political party affiliation, and beliefs on civil liberties and human rights. The data showed that political affiliation and moral judgment both contributed unique information toward predicting attitudes regarding human rights and civil liberties (Crowson & DeBacker, 2008; Crowson et al., 2007).

In a study of political choices and moral judgment, the relationship between moral judgment and both candidate preference and political attitudes was shown to be curvilinear, where the Democratic candidate and issues appealed to people with both the lowest and the highest DIT scores, and the Republican candidate and issues appealed to the middle of the range. One possible explanation of this provided by the author was that various issues differed in their level of concreteness, which would then require varying amounts of cognitive complexity in order to reason through these issues. Participants with higher DIT scores gave more importance to complex issues such as defense spending and the national deficit, while those with lower DIT scores emphasized more concrete issues such as capital punishment and taxes (Thoma, 1993).

Moral Foundations

Similar to the ways in which cultures prioritize different moral foundations, Graham and his colleagues found that liberals and conservatives differed according to five dimensions of morality: justice/fairness, harm/care, in-group loyalty, purity/sanctity, and authority/respect (Graham, Haidt, & Nosek, 2009; Haidt & Graham, 2007). This moral foundations hypothesis grew out of the work of earlier research that claimed the morality of most cultures focused on one (or more) of the ethics of Autonomy, Divinity, and Community.

Conservatives, particularly social conservatives, are thought to assign mostly equal values to all five foundations due to their belief in traditions, social institutions, and religious mandates. On the other hand, economic conservatives may place less emphasis on authority, sanctity, or loyalty given their belief in market-driven systems above other structures (Haidt & Graham, 2007). In one study, Graham and his colleagues (2009) asked participants to select a monetary amount for which they would engage in behaviors that violated one of the five moral foundations. Both liberals and conservatives were equally against violating the justice foundation for payment, although liberals were slightly less inclined to violate the Harm foundation than conservatives. Conservatives were generally unwilling to violate either the individualizing (harm/care and justice) or the binding (purity, loyalty, and authority) foundations for money, while liberals were more willing to violate binding foundations in exchange for monetary gain. The authors noted that this did not mean that liberals cared more about harm and justice than conservatives. Rather, most of their moral beliefs concerned those two foundations, whereas conservatives based their morality on all five foundations. They suggested that assessing an individual's moral foundation priorities would yield more information about their

personal and moral convictions than the liberal-conservative continuum currently allows (Graham et al., 2009).

Measuring Political Beliefs

As with any other set of beliefs, political ideology is a complex amalgam of rational thought and emotional responses. Assessment of political attitudes should account for both of these components to provide a more complete picture of not only what a person believes about sociopolitical issues, but also how they think about these issues. This is similar to the way in which the DIT-2 examines an individual's underlying reasoning about moral issues by asking about resolutions to moral dilemmas and the justifications for these choices. Merely examining whether a person has a particular belief about an issue reveals little about the reasoning behind this belief. Measures of sociopolitical belief such as the RWA scale and the Competitive Jungle Worldview (CJW) scale assess a style of thinking associated with certain types of political extremism, while the DOG scale assesses the flexibility with which a person thinks about issues in general. All three scales assess the emotional component of these modes of thinking in that individuals who score high on these measures tend to be less rational and deliberate in their thinking about social matters, which may also be predictive of their style of moral reasoning.

Right Wing Authoritarianism

In the aftermath of World War Two and the Holocaust, attention turned towards how people adopt fascist, prejudiced, and authoritarian beliefs. From these studies, a team of researchers at the University of California at Berkeley developed a theory of authoritarianism

that in turn yielded a number of measures of various theorized dimensions of authoritarianism, such as fascism, ethnocentrism, dogmatism, and conservatism. The California F scale was developed in 1950 and based on this nine-factor theory of authoritarianism. This scale was the most commonly used measure of authoritarianism until the introduction of the RWA scale in the 1970s, which was based on Altemeyer's theory of authoritarianism (Altemeyer, 1981).

Altemeyer's theory of right wing authoritarianism posited that authoritarianism was the covariation of three distinct attitudes: authoritarian submission, authoritarian aggression, and conventionalism. Authoritarian submission is the willingness to submit to the established authorities under almost every circumstance. Authoritarian aggression involves an inclination to harm individuals or groups who defy the authorities or to harm people for the sake of preserving the established order of society. Conventionalism is defined as an individual's ardent compliance with traditional societal norms, and a resistance to inevitable changes in these norms (Altemeyer, 1981).

The RWA scale developed by Altemeyer assessed the covariation of the three attitude components of right-wing authoritarianism outlined by his theory. This measure did not yield subscale scores for each factor, but rather a single score that represented the extent to which a person held all three components of right-wing authoritarian beliefs. He emphasized that the RWA scale was not intended as a trait measure, but rather as a measure of attitudes that influenced individuals' perception of certain situations (Altemeyer, 1981; 1996). Subsequent research with the RWA scale has shown that variables such as religious affiliation and educational attainment are predictive of levels of right-wing authoritarianism (Altemeyer, 1988).

Since the development of the original theory of authoritarianism in the 1950s, some have tried to prove that authoritarianism is not the exclusive domain of the political right (Stone,

1980). Altemeyer developed a theory of left-wing authoritarianism (LWA) that was loosely based on his RWA theory, but that involved slightly different components. According to this theory, left-wing authoritarians: 1) show authoritarian submission to authority figures who intend on overthrowing established powers; 2) display aggression against the established authorities and their supporters; and 3) strongly adhere to the norms established by the revolutionary authorities. Altemeyer developed a scale that assessed the covariation of these three traits and tested it with a variety of populations, but was unable to find any evidence that the construct of LWA actually existed. He suggested that if they had ever existed, the rise of conservative political leadership in the last quarter century in the U.S. and Canada had eradicated them (Altemeyer, 1996).

Dogmatism

Dogmatism is defined as a relatively unchangeable and unjustified certainty in one's beliefs. A person who is dogmatic will cling to his or her beliefs in spite of contradictory evidence more often than people who are not dogmatic, although dogmatic people are capable of changing their minds or admitting error. Altemeyer developed this definition to improve upon Rokeach's definition of the construct. When Rokeach first began his study of what he called general authoritarianism, he set out to understand ideas and belief systems independent of their content. However, his model was not grounded in theory or research, but rather it was based upon his own conclusions on how beliefs were structured. Rokeach's D scale fell out of favor as its reliability and validity were proven to be inadequate (Rokeach, 1960; Altemeyer, 1996).

Altemeyer developed the DOG scale in order to provide a more psychometrically reliable and valid measure of dogmatism, and to measure dogmatism according to his own definition. He claimed that his scale was superior to earlier measures of dogmatism because it was a pure

measure of unjustified, certain beliefs and did not contain political or authoritarian content. He developed and tested the scale using items that assessed how certain a person was in his or her beliefs, or in the case of contrait items, how much a person was willing to modify a belief.

In order to test the construct validity of the measure, Altemeyer presented a few hundred students who had previously taken the DOG scale with a pre-intervention measure of attitudes towards homosexuals, delivered a lecture on the genetic and biochemical components of homosexuality, and then later re-administered the Attitudes Towards Homosexuals (ATH) scale. He found that people with high scores on the DOG scale were far less likely to change their mind about homosexuality after the lecture than people who scored lower on the DOG scale. He conducted a similar test using two stories that were randomly distributed to participants that argued for or against the divinity of Jesus, and then assessed whether these stories could change their beliefs. As before, students who with high DOG scores were more likely to stick to their beliefs than others with lower scores (Altemeyer, 1996).

Social Dominance Orientation

Social dominance orientation is a construct developed by Pratto and her colleagues to describe a set of attitudes that motivates people to view one's own in-group as superior and to desire suppression of inferior out-groups (Pratto et al., 1994). Jost and Thompson (2000) theorized two dimensions of SDO: group-based dominance and opposition to equality. According to their model, group based dominance was the belief that one's in-group should dominate and control other groups. Opposition to equality entailed the belief that society should be based on a hierarchical framework in which some groups would be subordinated to the

dominant group. Tests of this two-factor theory of social dominance orientation revealed that it was a better descriptor than the one-factor theory used in prior research.

Competitive Jungle Worldview

Duckitt's dual-process model of ideology and prejudice centered on the motivational and cognitive aspects of sociopolitical beliefs and sociocultural values in prejudiced belief. This model consisted of two dimensions: right-wing authoritarianism and social dominance orientation, which he conceived of as motivational goal schemas. The right-wing authoritarianism schema is activated by the belief that world is a dangerous, threatening place (the Dangerous World belief), and the goal is to obtain security. The schema for social dominance orientation is activated by the belief that the world is ruthless and competitive (Competitive Jungle Worldview), and the goals are power and dominance.

To assess Competitive Jungle Worldview, Duckitt devised a scale derived from two existing measures of meanness and manipulateness. Items from these scales were statements about the amoral ways of the world and the need to be ruthless and fierce in interpersonal exchanges. One of the scales upon which Duckitt based the Competitive Jungle Worldview scale is Altemeyer's Personal Power Meanness and Dominance (PP-MAD) scale, and the other is the Exploitative Manipulative Amoral Dishonest (E-MAD) scale, also by Altemeyer. The PP-MAD scale correlated strongly with the SDO scale, and consisted of items that assessed a need for dominance and a Machiavellian belief that others exist solely for self-aggrandizement. The E-MAD scale also showed strong correlations with the SDO scale and contained more Machiavellian items rather than dominance-oriented items (Altemeyer, 1998). Duckitt selected items from both scales that best determined belief in the ruthless and competitive world to form

the 14-item Competitive Jungle Worldview scale. Scale items consisted of statements such as, “It's a dog-eat-dog world out there where you have to be ruthless at times.” Contrast items advocated for social equality or interpersonal cooperation. The CJW scale measures the worldview that contributes to social dominance orientation, and also assesses the moral features of this perspective in more depth than the SDO scale (Duckitt, 2001).

Conservatism

Political conservatism has been the focus of a great deal of research for more than 50 years that generally focuses on associated sociopolitical beliefs such as RWA and DOG. Most definitions of conservatism state that conservatism is a resistance to change and a preference for tradition and social norms. However, some further divide conservatism into two dimensions, cultural conservatism and economic conservatism. Cultural conservatives adhere to traditional values and practices, such as authoritarian parenting, patriarchal gender norms, and orthodox religiosity. Economic conservatives generally favor market-driven solutions and reduced government oversight of commerce (Jost, Glaser, Kruglanski, & Sulloway, 2003; van Hiel & Kossowska, 2007).

Some have proposed that conservative beliefs are motivated by the needs of fear reduction and certainty, citing that conservatives are generally more fearful of the unknown, intolerant of difference and ambiguity, and resistant to change (Jost et al., 2003). However, some have criticized this assertion by noting that these motivations could contribute to ideological rigidity on either end of the left—right continuum, and that the effects of authoritarianism were not accounted for in the relationship between cognitive rigidity and conservatism (Greenberg & Jonas, 2003; Crowson et al., 2005).

Political Ideology and Cognition

Cognitive style has long been thought to influence how people make political decisions and how they reason through political issues. Research in this area has yielded three theories that attempt to explain the relationship between cognition and sociopolitical ideology. Within these theories, cognition is thought of in terms of flexibility (how willing a person is to change) and complexity (to what extent an individual uses cognitive resources to think about an issue) (Sidanius, 1985).

The first theory, authoritarian personality theory, assumes that conservatives are more likely to be dogmatic, resistant to change, and intolerant of ambiguity than moderates or liberals, and will therefore display less cognitive complexity in their arguments. The second, extremism theory, holds that extremists on either end of the political spectrum utilize less complexity in their political reasoning than moderates because they adopt extreme positions as a means of simplifying complex issues. The third is context theory, which proposes that extremists of either affiliation will be more sophisticated in their reasoning than moderates due to the need to mobilize complex arguments on behalf of controversial or dangerous positions. Context theory holds that an extreme position on an issue may not necessarily be considered extreme in another location or historical context, so therefore extremism is linked to the particular time and location in which it is being examined (Sidanius, 1985).

Tetlock (1983) explored the relationship between cognitive complexity and political affiliation by analyzing the arguments made in the speeches of forty-five U.S. senators in 1975. Senators were rated as liberal, moderate, or conservative based on their voting records for the same years, and Tetlock's sample included equal numbers of senators from each category. He found that even when controlling for age and length of service that conservatives were

significantly less complex in their arguments than either moderates or liberals, as they tended to rely on simple evaluative judgments of issues, which provided support for the authoritarian personality theory (Tetlock, 1983). However, later research with members of the British House of Commons showed a curvilinear relationship between cognitive complexity and sociopolitical ideology, which lent support to the extremist theory. On average, the extremists from both sides had equally low levels of cognitive complexity, although moderate socialists showed a higher level of cognitive complexity than moderate conservatives. One explanation for this phenomenon provided by Tetlock was that moderate socialists tended to favor positions that equally valued both freedom and equality, which required them to balance the two competing priorities (Tetlock, 1984).

In a study of Swedish high school students, Sidanius (1985) found no significant differences in cognitive complexity between liberals, moderates, and conservatives, but the conservative group showed significantly less cognitive flexibility than the other two groups. In the study, he defined cognitive flexibility as the degree to which a participant would maintain a theory despite evidence that suggested that the theory may be inaccurate, similar to Altemeyer's definition of dogmatism (Altemeyer, 1996). The data suggested a U-shaped curvilinear relationship between general conservatism and cognitive functioning, and that prejudice, sexual repression, and punitiveness all contributed to the association between cognition and political ideology (Sidanius, 1985).

Emotion and Political Choices

While cognition has been an area of interest for research in political psychology, emotions have also been considered as a source of motivation for political choices. Marcus and

MacKuen (1993) theorized that voting decisions were primarily driven by two emotions, anxiety and enthusiasm. According to their hypothesis, the quest for political knowledge was driven by anxiety, while campaign involvement was driven by enthusiasm. In the absence of anxiety, voters tend to vote in a manner consistent with their previously established partisan affiliations. Enthusiasm has a direct role in affecting voter behavior in that it serves as a positive feedback mechanism that reinforces voter preferences and decisions. Conversely, anxiety does not play a role in voter decisions but does prompt information gathering. Difficult societal conditions (such as economic hardship or wartime) and negative campaigns spark anxiety in the voting populace, whereas ideal societal conditions and positive campaigns spur enthusiasm.

Using the latent variables of threat (defined by the emotions of anger, fear, unease, and disgust) and mastery (defined by hope, pride, and sympathy), Marcus (1988) showed that positive feelings for a candidate are twice as powerful as negative feelings in predicting voter decisions. He hypothesized that candidate traits that suggest control and principled leadership would motivate feelings of mastery, whereas focusing on policy issues inspired feelings of threat.

A study that presented still-frame images of Ronald Reagan with either a reassuring, fearful, or angry facial expression elicited different responses from participants that varied according to their reported level of support for Reagan. The data were collected via self-report of feelings within 8 emotional categories and measures of physiological arousal, such as facial muscle tension, heart rate, and skin conductance. Participants who reported strong negative feelings about Reagan showed no significant differences in response between the three picture conditions, whereas strong supporters of Reagan responded empathetically to the images (McHugo, Lanzetta, Sullivan, Masters, & Englis, 1985).

Responses to the display of politicians' images, particularly their faces, are contingent on a number of situational variables: the characteristics of the person on display, nonverbal behavior of the person, the verbal message accompanying the image, the setting of the image; and the characteristics of the observer, such as party affiliation, attitudes about the person on display, and political opinions. Pictures of candidates that depict them as happy will influence supporters of that candidate, but not people who do not support the candidate. In some cases, it is possible for emotional responses evoked by candidate displays to mediate the effect of prior exposures on post-exposure attitudes. Even without the added benefit of vocal inflection or verbal information, images of candidates have shown power in influencing voters' political thinking and choices (Sullivan & Masters, 1988). Candidates' personal appearances heavily shape the way in which the voting populace perceives them. Even when controlling for positions on issues and party affiliation, candidates that were rated as more attractive received on average 60% of the vote in a mock election. This speaks directly to the important role of nonverbal communication and person perception in the political decision-making process (Rosenberg et al., 1986).

However, political party affiliation still plays a role in political person perception. Correlations between positive and negative affective ratings of candidates are most strongly negative in strong partisans, and significantly weaker among independents. Furthermore, affective ratings of candidates have been shown to be more powerful than trait judgments of candidates in predicting political preference, although trait information and party affiliation still significantly contributed to candidate preference (Abelson, Peters, Kinder, & Fiske, 1982).

Emotion and Affect

Although psychology focused on behavior and cognition for most of the twentieth century, the 1980s marked a shift toward the role of affect and emotion in understanding human thinking (Frijda, 1988). Russell (1980) proposed a model of affect represented as a circle in a two-dimensional bipolar arrangement that reflected the extent to which an emotion was aroused (arousal-sleepiness) and whether it was positively or negatively valenced. He visualized these two dimensions as being independent of one another, and every emotion was a varying integration of these two dimensions. The experience of emotions was the end result of a cognitive process that gave meaning to the emotion (Russell, 1980).

Watson and Tellegen (1985) developed a two-factor theory of Positive and Negative Affect that reflected activated emotions in the positive-negative dimensions of emotions, somewhat similar to Russell's circumplex model. However, unlike Russell's model, this theory did not include disengaged moods because of their lack of affective involvement. Negative Affect was described as the degree to which a person reported feelings of unpleasant arousal or discontent, and Positive Affect represented enthusiastic, happy feelings. Meta-analyses of self-reported moods have shown that the dimensions of PA and NA accounted for between one half and three quarters of all common mood variance (Watson & Tellegen, 1985). Tests of the two-factor theory of mood have shown that PA and NA represent two orthogonal dimensions of emotion (Diener & Emmons, 1985; Diener & Iran-Nejad, 1986), and that PA and NA relate independently to various types of psychopathology and personality traits (Watson & Tellegen, 1985; Watson, Wiese, Vaidya, & Tellegen, 1999).

Russell and his colleagues have reconciled the circumplex model of affect with Watson and Tellegen's Positive and Negative affect model by matching them with the valence and

activation dimensions of the circumplex model. They also suggested renaming the PA and NA dimensions to reflect their activated status and to avoid confusion with others' definitions of positive and negative affect, which may include disengaged emotions that are not part of Watson and Tellegen's model (Feldman, 1995; Feldman Barrett & Russell, 1998). In response, Tellegen and his colleagues renamed these two dimensions Positive Activation and Negative Activation in order to eliminate this ambiguity (Tellegen, Watson, & Clark, 1999).

Defining Affect

Two points of contention in the study of affect and emotion are how to define the terms “affect” and “emotion,” and whether these two terms represent distinct constructs. Most agree that emotions are subjective experiences as varied as the people and the situations in which they are experienced, but the number of definitions of this construct called emotion is seemingly infinite. Some debate that emotions are biologically constructed, while others argue for a social construction view of emotion. Some distinguish between the terms affect and emotion, while others see them as the same or similar constructs (Frijda, 1988).

Russell (2003) defined core affect as a consciously accessible state that exists as various levels of hedonic and arousal values or as a free-floating condition. This definition, according to Russell, most closely approximates Watson and Tellegen's definition of affect in their theory of Positive and Negative Affect/Activation. Core affect consists not only of a feeling, but also of one's assessment of the feeling, although core affect can exist apart from any interpretation. The continuous evaluation of one's feelings in core affect impacts other psychological processes, such as attention, motivation, and judgment.

Emotional Development

The development of emotions in infants and children is a multi-faceted undertaking that involves factors both within and external to the self. Emotional socialization involves the teaching of emotions through others' expressions of emotion and external responses to the child's actions and emotional cues. Some have suggested different models of emotional socialization that involve acquiring emotional knowledge through self-reflection, observation of others' emotional reactions, or receipt of verbal information from others about emotion (Perlman et al., 2008; Pollak & Thoits, 1989).

Pre-verbal humans use emotions as the means by which they come to understand their surroundings and communicate with others. Infants rely heavily on cues from caregivers in learning about their surroundings and making behavioral decisions, which is referred to as social referencing. When a caregiver provided negative emotional responses to a novel object in a research setting, infants were less likely to approach or interact with the object in question than the infants who were provided with positive or neutral emotional cues. By 12 months of age, infants use maternal social referencing to determine whether they will approach a strange object or person, and infants who do not receive emotional cues from their mothers will often inhibit exploratory behavior (Klennert, 1984; Sorce & Emde, 1981; Vaish et al., 2008).

Caregivers also have the ability to cultivate or inhibit the development of certain types of emotions, including moral emotions such as sympathy. Parents who respond to their children's emotional expressions in a punitive manner can inhibit future expressions of that emotion, which may prevent the child from interacting with others who express distress emotions. Parents who exhibit positive emotionality with their children have been shown to have daughters with higher sympathy, and parental encouragement is associated with higher levels of sympathy in both boys

and girls. Parental affect has also been shown to influence cheating behaviors in children, particularly boys (Spinrad et al., 1999).

In many cases, parental restriction of children's emotional expression and autonomy creates emotional problems that linger into adulthood. Children who grow up in harsh, punitive environments with authoritarian parents often struggle with the expression of anger and other emotions because of their parents' restrictions on emotional expression and behavior (Milburn, Conrad, Sala, & Carberry, 1995). Parents who espouse right-wing authoritarian views tend to be more punitive, which in turn fosters aggression and authoritarian political beliefs in their children. In one study of right-wing authoritarian beliefs of parents and their college-aged children, the correlation between the two groups was $r = .48$, $p < .01$ (Peterson, Smirles, & Wentworth, 1997). A number of studies of parenting styles and later emotional outcomes have shown that harsh disciplinary tactics contribute to right-wing authoritarian beliefs, aggression, cognitive rigidity, and negative affect in adulthood. Further, many of the political beliefs espoused by right-wing authoritarians concern power, revenge, and violence, which some claim is an expression of long-held anger and frustration (Danso, Hunsberger, and Pratt, 1997; Milburn et al., 1995).

Early Emotional Functioning

Newborns have been shown to more easily recognize positive emotions compared to negative emotions and to stare at pictures of smiling faces longer than unhappy or neutral faces. However, by the middle of the first year, infants begin to attend more to negative facial expressions such as fear, and by 12 months can react in an adult-like fashion to an angry face, presumably because they have learned the emotional meaning of the facial expression. One

possible reason for the negativity bias in development may be due to the power of negative emotions to disrupt humans' expectations of generally happy outcomes, referred to as range-frequency theory. Another explanation is that negative emotions are considered to be more intense than positive emotions. This bias toward negative information persists into adulthood for processing social cues and situations, as evidenced by studies in which adults paid significantly more attention to negative personality trait adjectives (Pratto & John, 1991; Vaish, et al., 2008; Young-Brown, Rosenfeld, & Horowitz, 1977).

Cognition and Emotion

In his 1980 article, Zajonc argued that affective judgment was the first step in appraising situations, places, and others, and that cognitive appraisal came later, upon further deliberation. Affect, he believed, was a constant presence and always accompanied thought, but cognition was not an essential component of affect. Emotions were the catalyst of appraisal that attached meaning or feeling to a stimulus, and cognition provided the information needed to make more informed and deliberate judgments. Zajonc claimed that emotion and cognition arose from two parallel, separate, and somewhat independent systems within the brain that process and encode information in distinct ways (Zajonc, 1980). In response, Lazarus (1982) contended that cognitive evaluation was always a necessary (and indeed the primary) component of affect. He pointed to evidence that emotional fluency increases with developmental gains in cognitive capacity, and that cultural learning affects the experience and expression of certain emotions (Lazarus, 1982).

Zajonc subsequently leveled the accusation that Lazarus's argument for the primacy of cognition was based entirely on definitional terms and not on any empirical evidence. He argued

for the independence of affect and cognition, as evidenced by the separate locations of specialized emotional and cognitive centers of the brain, and the fact that emotions could be elicited merely by sensory input in some circumstances (Zajonc, 1984).

Lazarus responded by claiming that cognition was necessarily a precursor to feeling because a person had to be able to consider how the way in which a stimulus influences his or her welfare in order to generate an emotional response to the elicitor. He postulated that the changes over the lifespan in personal goals and values shape the cognitive appraisal process, which in turn shapes the experience of emotions. Lazarus also countered claims that the brain compartmentalized cognitive and emotional functions by citing evidence that emotions came from interconnected systems all over the (Lazarus, 1984).

Emotion and Cognition in Attitudes

Attitude formation consists of both affective and cognitive components, and all attitudes vary in the degrees to which they rely on affect or cognition. For some, mere exposure to an idea or object without conscious thought is a sufficient condition for attitudes to emerge, although most attitudes involve conscious deliberation in conjunction with affective elements. Attitudes based on affective components have been shown to be more strongly influenced by affectively based persuasion methods than by cognitive appeals. In contrast, cognitively based attitudes were just as easily swayed by affective persuasion as by cognitive appeals in the same study. This was interpreted as evidence that attitude formation depended on both affective and cognitive processing. However, if a person actively reflected on his or her affective state while in the process of developing an opinion or feeling about something, the influence of affect on behavior and attitude diminished (Edwards, 1990; Edwards & von Hippel, 1995).

Response to Visual and Other Stimuli

In their 1991 study, Pratto and John presented participants with a series of trait words that consisted of both positive and negative traits. On average, participants remembered twice as many negative words as positive, a phenomenon referred to as automatic vigilance, in which individuals pay more attention to negative stimuli. The authors theorized that this might be an evolutionary adaptation for the instantaneous evaluation of dangerous situations, but that it also could contribute to stereotyping and prejudice in social interactions. Later studies demonstrated that priming for positive affect before presenting both negative and positive information could reduce the amount of attention given to negative prompts (Smith et al., 2006).

Humans have been shown to respond differently to visual stimuli compared to non-visual stimuli, and discriminate between different types of visual content by responding with various physiological and affective changes (Weitz, 1950; Lang, Greenwald, Bradley, & Hamm, 1993). The role of memory in affective responses to visual stimuli has also been of interest to some researchers. Objects about which people hold opinions are more likely to be noticed than objects that do not possess any sort of significance in the observer's memory. This effect is often automatic and can serve to distract an observer from other tasks by orienting his or her attentions toward the attitude-evoking object (Roskos-Ewoldsen & Fazio, 1992). Affect can be triggered from memory by the recall of relevant memory representations upon presentation of a familiar affect-laden stimulus. When the object is brought forth, both the objective features and the feelings about the object from earlier presentations emerge from the memory (Hermans, De Houwer, & Eelen, 1994).

Purpose

Each of the aforementioned areas of literature shows promise in explaining how moral judgment development and political ideology are related. Affect has been shown to influence voter preferences, and some researchers in the field of morality believe that emotions influence moral thinking and moral action and may even be a crucial aspect of moral judgment (Haidt, 2001; Rosenberg et al., 1986). Despite earlier debates on the primacy of affect or cognition, research now focuses on the interplay of these two elements to give a more complete picture of psychological processes. Attitudes have been shown to develop with varying levels of cognitive and affective elements, and the degree to which an attitude favors one element over another can influence how the attitude can be modified (Edwards & von Hippel, 1995). Similarly, political choice outcomes have been shown to differ between people whose opinions are based on emotions and people whose opinions are based on information seeking and rational processing of political information (Marcus and MacKuen, 1993). However, studies concerning moral judgment and its links to political ideology have not considered the influence of affective arousal or dogmatism in this relationship.

Cognitive style has also been an important area of inquiry in political psychology, and there is also potential in this area to understand the relationship between political ideology and moral judgment. Because measures of moral judgment assess the latent thought processes of moral decision making, measures of political ideology should assess the underlying thought processes of sociopolitical attitudes, and not the mere presence of a particular set of beliefs.

The present study will bring together measures of affect and of cognitive style as tools to understand how affect influences the relationship between moral judgment and political choices, and how people at various levels of moral judgment development use affective and cognitive

information. It is of particular interest in the 2008 election year, with the presence of an African-American candidate and the first female candidate for Vice President in 25 years; and reports of very strong positive and negative emotions among voters. In addition, there have been a series of election year studies over the preceding 30 years that have examined the relationship between moral judgment development and political choices, and this study seeks to verify whether previous findings are replicable within the context of an extraordinary election cycle. The information gained from this research will provide a more nuanced understanding of how people make political choices at various levels of moral judgment development.

CHAPTER 3

METHODOLOGY

Setting and Participants

Data were collected at a large public research university in the Southeastern United States. As of fall 2008, current enrollment was approximately 27,052 students, of which 71.7% were in-state students. The average ACT score of incoming freshmen was 24.3, and the mean grade point average of all students was 2.94. Fifty-two percent of the students were female, and 11.2% of students were African-American. The colleges within the university with the most students were arts and sciences (7132), business (5493), communications (2134). Undergraduates constituted 82.6% of the student population.

Procedure

In order to develop a sample of students who likely had different perspectives on political and moral issues, recruitment efforts were made in classes within six different academic departments: Human Development, Education, Political Science, Honors College, Modern Languages, and Law. Prior research has shown some variation between academic majors in DIT-2 scores and other sociomoral indices (Livingstone, Derryberry, King, & Vendetti, 2006). With the exception of Law, all courses were at the undergraduate level. Students were invited to take an online survey of social and political attitudes, so as to avoid priming for the moral

elements of the study. Course instructors were granted discretion as to what sort of credit, if any, they would award to students who completed the survey. The survey had four experimental conditions, but the online host of the survey did not have a mechanism by which students could receive random assignment to a condition. Therefore, students interested in participating were instructed to send an e-mail stating that they needed a link to the survey. Conditions were assigned in the order in which e-mails were received (the first person to e-mail was assigned to Condition 1, the second person to e-mail received Condition 2, and so forth). E-mails to the interested parties consisted of a link to the appropriate version of the questionnaire on SurveyMonkey.com, and a reminder that the deadline was 12 a.m. on November 5, 2008.

Data collection began at 12:00 a.m. Central Standard Time on Monday, October 20, 2008, when the first round of e-mails went out to students who had earlier expressed interested in participating. This date was chosen because of its proximity to the date of the final televised Presidential debate, which occurred on Thursday, October 16, 2008. By this point in the campaign, it was assumed that most participants had decided whether to vote, and if so, for whom to vote, which would therefore yield the most accurate projection of actual voting behaviors. Participants were allowed to send request e-mails after this date, and up until 10:00 p.m. CST on November 4, 2008, and the survey was shut down at 12:00 a.m. CST on November 5, 2008. Two hundred seventy four participants completed the survey in full.

Questionnaire

The first section of the questionnaire consisted of a candidate “feeling thermometer,” in which participants indicated their relative warmth or coldness regarding a particular candidate or electoral ticket. This type of measure is common in research involving opinions of political

candidates and other political figures (Gottmoller, 2007). The thermometer ratings ranged from 0 to 100, where 0 indicated coldness or strong negative feelings, and 100 indicated warmth or strong positive feelings toward a candidate or electoral ticket. A rating of 50 indicated a neutral feeling for a candidate or ticket. Participants were asked to rate their feelings of warmth for (in order): Barack Obama, John McCain, Joe Biden, Sarah Palin, the McCain-Palin ticket, and the Obama-Biden ticket. (See Appendix A for questionnaire items.) For analysis purposes, the temperature ratings were converted to values on an 11-point scale where 1 corresponded with a rating of 0, 6 indicated a rating of 50, and 11 corresponded with a rating of 100.

Opinions of Candidates' Issue Positions

The second section consisted of both presidential candidates' stances on five issues that were most frequently discussed during the 2008 presidential election: Taxation, Healthcare, Abortion, The War in Iraq, and Energy/Environmental Policy. These issues were selected by reviewing lists of candidates' positions on various issues that came from mass media sources (television, web, and print) and then choosing the five most commonly discussed issues in which the candidates adopted significantly different positions. These lists came from CNN.com, U.S. News and World Report, Fox News, The New York Times, and Newsweek. All statements from these sources were checked against the candidates' respective campaign websites to ensure consistency and accuracy. In order to prevent any appearance of bias, the order in which the candidate position statements appeared alternated throughout this section.

Both candidates' perspectives were summed up in a two- or three- sentence statement that described the main points of his beliefs on an issue. Participants were then asked to indicate if they strongly favored, favored, or slightly favored Obama or McCain. Then participants were

asked how important they considered the issue to be in deciding whom to support for President, and they rated these issues according to whether they were of great, much, some, little, or no importance.

Experimental Manipulation of Affect

Four experimental conditions were set up within the candidate thermometer and the issue stances sections in order to test the effects of affective arousal on political decision making. The control condition involved only text, with no other information concerning the candidates or their positions on issues. The first experimental condition (referred to as the neutral condition) included official portraits of the presidential and vice-presidential candidates that were obtained from their official U.S. senate or state government websites. At each mention of the candidates, the picture accompanied the text.

The third and fourth experimental conditions consisted of pictures of the presidential candidates that were affectively loaded. In the third condition, the picture of Barack Obama that accompanied the mention of his name in the feeling thermometer section exhibited the candidate with an angry facial expression while giving a speech. The pictures of Obama in the issues section were the same as in the neutral condition. The pictures of John McCain in both sections showed him smiling and looking calm and pleasant while addressing a crowd. The pictures of Joe Biden and Sarah Palin were the same as in the neutral condition.

In Condition Four, the affective bias was reversed. The picture of Barack Obama that accompanied each mention of his name in the first two sections showed the candidate with a smile on his face, and the picture of John McCain in the feeling thermometer section showed him

with an angry facial expression during a speech. The pictures that accompanied McCain's name in the issues section were the same pictures of the candidate used in the neutral condition.

In order to confirm that the pictures substantially differed according to positive or negative bias, the official portraits and candid unflattering pictures were shown to two different groups of graduate students for a total of 21 participants. The candid flattering pictures were not included because they were not believed to be substantially different from the official portraits in terms of their flattering qualities, but it was necessary to establish that the unflattering pictures were perceived as significantly less complementary to the candidates. Additionally, the official portraits were obtained from the candidates' websites, and therefore the pictures were likely intended to portray the candidates in a positive light. The participants were shown pictures in the following order: official picture of McCain, official picture of Obama, unflattering picture of McCain, and unflattering picture of Obama; and were asked to rate each picture on a scale of 1-10 where 1 indicated that the picture was very unflattering and 10 indicated that the picture was very flattering. Participants were cautioned to only consider the aesthetic appeal of the picture and to disregard political opinions about a particular candidate while rating the pictures. Means obtained for the pictures were, in order of presentation: Official McCain, 6.71 (s.d.=2.53); Official Obama, 8.86 (s.d.=1.15); Unflattering McCain, 2.29 (s.d.=1.52); and Unflattering Obama, 3.76 (s.d.=2.59). Post hoc comparisons further identified a significant difference between the ratings of the positive pictures and the negative pictures, $F(3,20) = 38.58$; $p < .01$. (See Appendix B for pictures.)

Political Ideology and Voting Intentions

The third section contained questions about participants' voting intentions and how they identified politically. In addition, participants answered questions on their parents' political inclinations. The questions concerning voting intentions asked participants if they were registered to vote, if they intended to vote in the upcoming election, for whom they intended to vote, and how sure they were about their decision (Very sure, Sure, Fairly sure, or I could change my mind). Participants were also asked to indicate any political party affiliations.

The political ideology section asked subjects to rate the self, mother, father, John McCain, Barack Obama, Sarah Palin, and Joe Biden on a 7-point Likert-type scale, where 1 indicated strongly liberal political beliefs, 4 indicated an inclination for moderate political beliefs, and 7 indicated strongly conservative political beliefs. The next set of questions asked participants to rate people on a 7-point Likert-type scale where 1 indicated a strongly Democratic leaning and 7 indicated a strongly Republican leaning, and participants rated themselves, their mothers, and their fathers according to this scale.

Positive and Negative Affect Schedule (PANAS)

The PANAS was included in order to directly assess individuals' affective states immediately following the experimental section to serve as a manipulation check. Significant differences between the experimental conditions both in political choices and the PANAS would suggest that the choice differences were due to a difference in affective arousal between conditions. The PANAS consists of two subscales, one measuring Positive Activation and the other measuring Negative Activation (Watson et al., 1988; Tellegen, Watson, & Clark, 1999). Positive and negative affect words appear in random order, with 10 words per subscale. Positive

affect words include *interested, alert, excited, inspired, strong, determined, attentive, enthusiastic, active, and proud*. Negative affect words include *irritable, distressed, ashamed, upset, nervous, guilty, scared, hostile, jittery, and afraid*.

Each subscale can range from 10 to 50 points, and each item has a potential value of between 1 and 5 points. Because positive and negative affect have been shown to be largely independent of each other, the scores for each scale should have very low correlation. The alpha reliability ranges for the PA and NA subscales in studies of the PANAS have ranged from .86-.90 and .84-.87 respectively. Test-retest reliability in the PA and NA subscales has ranged from .54 - .81 and .45 - .79, respectively (Watson & Clark, 1997).

Defining Issues Test-2

The DIT-2 is the revised version of the Defining Issues Test, a measure of moral judgment development that assesses development using five stories that contain moral dilemmas. The first story involves Mustaq Singh, a man whose family is starving due to a famine. The first question asks if Mr. Singh should steal food from a local wealthy man in order to feed his family, and the response options are: should steal the food, can't decide, or should not steal the food. Following this question, the participant reads a series of 12 statements that justify the selected action choice, and then rates these statements according to how important they seem to be in the process of making the action decision. These ratings are made on a 5-point scale that ranges from No Importance to Great importance. Following the ratings, participants then rank the four most important issues out of the 12, in order of importance. For each story, there is a distracter item, in order to flag participants who may not be fully attending to the task or who maybe trying

to “fake good.” These items tend to be worded in such a way that they sound lofty, but are nonsensical or irrelevant to the issue at hand.

Four commonly used indices of the DIT-2 are the P, N2, Stage 4P, and Stage 2/3 scores. The P score can range from 0 to 95, and it reflects the percentage of the participant's reasoning that is at the postconventional level. A higher P score corresponds to a greater preference for postconventional moral reasoning over other levels of reasoning. The N2 score is a developmental index that accounts for both a preference for postconventional items and a rejection of lower level reasoning (Rest et al., 1997). The Stage 4P score is an index of Maintaining Norms moral reasoning that can range from 0 to 95, and the Stage 2/3 indicates the level of Personal Interest moral reasoning on a scale of 0 to 95 (Rest, 1979).

Like the DIT, the DIT-2 has shown high levels of reliability and validity. The DIT-2 N2 index has a Cronbach's alpha of $\alpha = .81$, which exceeds that of the DIT P-score ($\alpha = .76$). Test-retest reliability of the DIT-2 has also measured in the .70-.80 range. Both measures are sensitive to development and education and have reliably correlated with measures of opinion on public policy issues (Rest et al., 1999b).

Cognitive Closure measures

The next three scales assess different attitudinal tendencies that when taken together suggest that an individual has a level of cognitive inflexibility and close-mindedness, particularly concerning sociopolitical matters. The Right Wing Authoritarianism (RWA) scale, the Competitive Jungle Worldview scale, and the Dogmatism (DOG) scale reveal how a person thinks about issues that concern an individual's place in society, inter-group relations, and the nature of personal beliefs, respectively. Altemeyer cautioned against interpreting his measures

of right wing authoritarianism and dogmatism as trait measures, saying that his RWA and DOG scales were merely measures of attitudes, not of personality (Altemeyer, 1988; Altemeyer, 1996).

Right Wing Authoritarianism scale

Altemeyer's Right Wing Authoritarianism (RWA) scale was originally intended to assess the covariation of the three elements of right wing authoritarianism: authoritarian aggression, authoritarian submission, and conventionalism (Altemeyer, 1981). It is impossible to separate the items according to subscales because the intent of the scale is to measure the covariation of attitudes, not the individual sets of attitudes. Some items on the scale measure only one or two of the three components of right wing authoritarianism, while others measure assess all three simultaneously. Shorter versions of the RWA scale have been developed that have mostly maintained the level of validity and reliability found in the original measure. The original 30 - item version of the scale attained alpha levels between .85 and .90. Shortened 14- and 20-item versions of Altemeyer's RWA scale obtain alphas ranging from .77 to .90, respectively (Feldman, 2003; Rattazzi, Bobbio, & Canova, 2007). The version used in this study is a 20-item version developed by Altemeyer that has yielded alpha levels of .90 (Altemeyer & Hunsberger, 2005).

Competitive Jungle Worldview scale

Duckitt's (2001) Competitive Jungle Worldview scale assesses the extent to which a person believes that the world is a competitive jungle, where some people succeed and others fail, a belief sometimes referred to as Social Darwinism. These types of beliefs in turn contribute to social dominance orientation, which is the belief in the superiority of one's in-group and the

necessity of oppressing inferior out-groups. Duckitt's scale selected items from two scales already in existence: the Personal Power, Meanness, and Dominance Scale (PP-MAD; Altemeyer, 1998) and the Exploitative Manipulative Amoral Dishonesty scale (E-MAD; Altemeyer, 1998). These scales assessed the degree to which individuals believed that one must succeed and dominate at all costs. In these scales, the moral element of this set of beliefs is more salient than in the Social Dominance Orientation scale.

Many items from the Competitive Jungle Worldview scale assess the Machiavellian tendency that is stronger in people who are social dominators than those who are not (Altemeyer, 1998). The Competitive Jungle scale consists of 14 items, with balanced protrait and contrait items. Protrait items are statements such as “Winning is not the first thing, it's the only thing,” and contrait items assess the degree to which a person values kindness and cooperation over ruthless and amoral domination of others. Studies of the Competitive Jungle Worldview scale have demonstrated its adequate reliability ($\alpha = .85$) (Duckitt, 2001).

Dogmatism Scale

Altemeyer developed the Dogmatism (DOG) scale in order to improve upon Rokeach's D scale, a commonly used measure of dogmatism developed in the late 1950s. Altemeyer's DOG scale appraises the extent to which an individual has unjustified certainty in his or her beliefs, even in the face of conclusive evidence that contradicts his or her beliefs. Unlike Rokeach's scale, there is no political element in the questions, which makes the DOG scale a purer and more valid measure of dogmatism as a psychological construct. The DOG scale does not claim to be a personality measure, but rather a general measure of how firmly one holds to personal beliefs, even if they prove to be unjustifiable to most reasonable people. The DOG scale consists

of 22 items, with 10 protrait items, 10 contrait items, and two unscored introductory items. Scores range from 20 to 140, and higher scores indicate the tendency to hold relatively unchangeable, unjustified beliefs in everyday situations.

Studies of the DOG scale with a variety of populations have yielded alpha coefficients ranging from $\alpha = .79$ to $.90$. It has also shown reliable correlations with measures of right-wing authoritarianism, religious fundamentalism, and zealotry. Mean interitem correlations have been between $.25$ and $.35$. (Altemeyer, 1996).

Middendorp Conservatism scale

The Middendorp Conservatism scale aims to measure levels of conservatism on both the economic and social dimensions. The cultural subscale consists of 12 questions that assess the extent to which a person favors prototypically conservative beliefs about social matters such as gender roles (“A woman is more suited to raise small children than a man”), personal autonomy (“Abortion should be illegal under all circumstances”), and authority (“Smart parents teach their children 'who's the boss' from an early age”). The last three items of the scale are contrait items designed to assess beliefs on personal freedom and autonomy. All others are positively worded, and answer choices are on a 7-point Likert-type scale where 1 corresponds to strong disagreement and 7 corresponds to strong agreement with the statement.

The economic subscale contains eight questions that assess the strength of agreement with typical conservative beliefs on economic matters such as the role of government in regulating business (“Our country can only get ahead if the government gives the industry free reign to control its own affairs”) and class stratification. The response structure is identical to the social conservatism subscale (De Witte, 1990; Middendorp; 1978).

In studies of subjects from various countries, the economic conservatism subscale obtained Cronbach alphas ranging from .73 -.88, and the cultural conservatism subscale ranged from .79 -.84 (van Hiel & Kossowska, 2007). The Middendorp conservatism scale has been shown to be consistent with other measures of conservatism (Kossowska & van Hiel, 2003).

Demographics

Basic demographic data was taken for analytical purposes. Participants were asked about age, gender, cumulative GPA, ACT or SAT verbal score, number of semesters in college, class standing, ethnicity, nationality, type of environment in which they grew up, political affiliation, religious denomination, and whether they had ever participated in a 12-step group or therapy. Data on measures of academic achievement were taken in order to determine whether the DIT-2 related to academic ability (Crowson, DeBacker, & Thoma, 2007). The question regarding 12-step groups and therapy was to corroborate data suggesting that after experiences with therapy, conservatives generally show lower levels of cognitive closure than before the therapy experience (Boshier, 1969).

Research Questions and Statistical Analyses

The first research question seeks to determine whether previous findings on the relationship between moral judgment and political variables can be replicated in the context of the 2008 election. To answer this question, zero-order and partial correlations between moral judgment developmental measures, political choices, and RWA scores will be conducted to determine any unique relationships among the three variables. This analysis will be

supplemented with regression analysis to determine whether the curvilinear relationship between moral judgment development and political choices still exists.

Question Two focuses on whether levels of affective arousal relates to political choices. This type of analysis requires analysis of variance (ANOVA) to evaluate the influence of condition on affective arousal, supplemented by regression to discern whether differences in condition influence the relationship between negative affective arousal and political choices.

Question Three seeks to determine whether affective arousal influences the relationship between moral judgment development and political choices. This question will utilize zero-order and partial correlations and regression to examine whether negative affective arousal has any influence on the existing relationship between moral judgment development and political choices, and if so, to what extent.

The fourth and final question concerns the influence of moral judgment development on dogmatism and affective arousal. This question will require regression analysis to determine if levels of dogmatism or negative affective arousal differ according to moral judgment development measures. In addition, ANOVA will be used to examine the role of moral transition and consolidation in affective arousal.

CHAPTER 4

RESULTS

This chapter will describe the data analysis of 241 response sets that included measures of political preference, affective arousal, moral judgment development, and sociopolitical beliefs. Research questions that drove this inquiry focused on the replication of prior research in the area of moral judgment development and political choices; the influence of affective arousal on political decision-making; and the influence of moral judgment development on affective arousal and dogmatism. Analysis of the data included zero-order and partial correlations, ANOVA, and regression.

Demographic Characteristics

Out of the original 274 respondents, 241 passed DIT-2 reliability checks mentioned in the previous chapter. The average age of the final sample was 20.47 years (s.d.= 2.50), and 184 of the participants were female. The majority of respondents identified themselves as Human Development students (124), followed by Education (53), Honors College (12), Political Science (9), and Law (9). Two hundred two of the participants identified as Caucasian, 32 as African American, and 7 of other ethnic groups (including Latino, Native American, Asian American, or multiethnic).

Politically, the majority of respondents identified themselves as conservative (158). One hundred fifty five of the participants indicated that they intended to vote for McCain, and 79

intended to vote for Obama. Seven participants disclosed that they did not intend to vote for a major party candidate or were not going to vote in the upcoming election.

Political Thermometer

Because the majority of the sample identified as conservative McCain supporters, it is not surprising that the overall mean thermometer ratings for John McCain, Sarah Palin, and the McCain-Palin ticket were significantly higher than the ratings for Barack Obama, Joe Biden, and the Obama-Biden ticket. After converting the 0-100 scale to an 11-point scale, the mean rating for McCain was 7.19, while Obama's mean rating was 5.69 indicating that the sample perceived the McCain as very warm whereas the Obama rating was close to neutral. A paired samples t-test revealed this difference to be statistically significant, $t(240) = -3.85, p < .01$. The mean differences for the ticket ratings resembled those of the respective candidates' and were also statistically significant, $t(240) = 4.60, p < .01$.

Candidates on the Issues

For the overall sample, there were no significant differences between the stances for all five issues (Taxation, Health care, Abortion, the War in Iraq, and Energy). However, an independent samples t-test revealed that there were significant differences between conservatives and liberals on all of these issues, although the Levene's test for equality of variances showed that the variances were not equal between groups for their positions on energy. On a scale of 1 to 6, where 1 indicated a strong preference for Obama and 6 indicated a strong preference for McCain, liberals preferred Obama's stances on the issues ($m = 2.28, s.d. = 1.04$) and conservatives preferred McCain's stances ($m = 4.73, s.d. = 1.06$).

Importance of each issue was measured on a 5-point scale where 1 indicated no importance and 5 indicated great importance. For the entire sample, the mean importance ratings for all issues ranged from 1.68 (the War in Iraq) to 2.31 (Abortion), and the difference between the lowest- and highest-rated issues was significant, $F(240) = 1814.40, p < .01$. Liberals placed significantly more importance (2.33) on the issue of Taxation than conservatives (2.07), $t(239) = -2.01, p < .05$; while conservatives prioritized the issue of Health Care (2.22) significantly more than liberals (1.90), $t(239) = 2.60, p < .02$. There were no statistically significant differences in the importance placed on the issues of Abortion, the War in Iraq, and Energy.

Political Identity

The overall sample showed very strong, significant correlations between a self-reported political affiliation and parental political affiliations (as reported by the participants). Participants' ratings of themselves on a 7-point scale of overall political identity (liberal to conservative) correlated with their ratings of both their mothers' political identity, $r(241) = .70, p < .01$; and their fathers', $r(241) = .62, p < .01$.

Positive and Negative Affect Schedule

The sample as a whole showed fairly low levels of negative affective arousal ($M = 17.09, s.d. = 7.19$) and moderate levels of positive affective arousal ($M = 30.25, s.d. = 7.96$). When split along conservative-liberal identification, the difference in positive affective arousal was statistically nonsignificant, con = 30.45, s.d. = 7.53; lib = 29.88, s.d. = 8.77; and the difference in negative affective arousal, con = 17.64, s.d. = 7.57; lib = 16.04, s.d. = 6.31, approached significance, $F(1, 241) = 2.73, p = .10$. Correlational analysis revealed a very weak and

statistically nonsignificant relationship between the positive and negative subscales, $r(239) = .00$, $p = .96$. This finding suggests that they represent largely independent dimensions of affective arousal, consistent with earlier research (Watson & Tellegen, 1985).

DIT-2

The original sample consisted of 278 participants, but DIT-2 reliability checks eliminated 37 people due to response patterns that yielded inconclusive or inconsistent data concerning moral judgment development. The remaining 241 participants had an overall DIT-2 N2 score of 28.72 (s.d. = 14.44, range = 0.31—65.50), which is lower than expected for a collegiate sample. However, DIT-2 P and N2 scores have traditionally been lower in the Southeast than in other regions of the United States (Derryberry et al., 2006). The sample's mean Stage 4 score (Maintaining Norms reasoning) was the highest of the three schema scores ($M = 34.92$, s.d. = 14.29). A frequency distribution of DIT-2 Type scores revealed that 40.20% of the sample could be classified within types 3, 4, or 5, indicating the group's orientation to norms-based morality.

When examining the influence of educational attainment on moral judgment development, ANOVA revealed a statistically significant difference for P scores, $F(4, 237) = 3.19$, $p < .05$; Stage 2/3 scores, $F(4, 237) = 2.64$, $p < .05$; and N2 scores, $F(4, 237) = 4.69$, $p < .01$. The difference in Stage 4 scores approached significance, $F(4, 237) = 2.34$, $p < .07$. Comparison of self-identified conservatives and liberals yielded a significant difference only in N2 scores (con = 26.01, s.d. = 13.60; lib = 30.28, s.d. = 14.93), $F(1, 241) = 6.40$, $p < .02$; although the difference in P scores approached significance (con = 25.93, s.d. = 14.52; lib = 29.21, s.d. = 16.38), $F(1, 241) = 3.37$, $p < .07$.

Prior studies of moral judgment development in higher education populations showed a significant difference in DIT P scores between freshmen and seniors. One of the validity criteria for the DIT and DIT-2 set by Rest and his colleagues (Rest et al., 1999a) was that moral judgment development should increase with education, evidenced by an increase in P and N2 indices and a decline in Stage 4 and Stage 2/3 scores over the course of collegiate study and between freshmen and seniors (Rest, 1988). However, the findings of this study are consistent with recent research that shows an overall decline in P and N2 scores and little developmental change in college populations over the past decade (Chung, Bebeau, You, & Thoma, 2009).

Dogmatism

Overall, the sample exhibited a moderate level of dogmatism ($M = 72.13$, $s.d. = 19.52$), but yielded scores from the full range of possible scores. When split according to political identification, conservatives ($M = 77.91$) showed higher levels of dogmatism than liberals ($M = 61.13$), and this difference was statistically significant, $F(1, 241) = 48.12$, $p < .01$.

Right-Wing Authoritarianism

The mean RWA score for the entire sample was 99.17 ($s.d. = 29.31$), which is somewhat higher than college populations nationwide, but consistent with data collected from the southeastern United States (Altemeyer, 1981). Conservatives ($m = 111.18$) were found to be significantly more authoritarian than liberals ($m = 76.31$), $F(1, 241) = 112.88$, $p < .01$.

Competitive Jungle Worldview

As a whole, the sample showed low levels of Competitive Jungle Worldview, the underlying beliefs of social dominance orientation. The sample mean was $M = 49.68$ (s.d. = 14.07) with a somewhat limited range of scores (16 to 90 out of a possible range of 14 to 126). Conservatives and liberals did not differ significantly on CJW, although males ($m = 56.18$, s.d. = 14.50) were statistically significantly higher than females ($m = 47.66$, s.d. = 13.34), $F(1,241) = 16.99$, $p < .01$.

Conservatism

The construct of conservatism correlated significantly and positively with RWA, DOG, CJW, the negative subscale of the PANAS, and DIT-2 Stage 4. Consistent with earlier research, conservatism showed strong negative relationships with DIT-2 P and N2 scores. (Table 1)

When split according to social and economic conservatism, many of the same relationships remained, although not all of the aforementioned constructs related with both components of conservatism. Both social and economic conservatism had negative, statistically significant relationships with DIT-2 P and N2 scores, and positive, statistically significant relationships with DOG and RWA. Social conservatism correlated with DIT-2 Stage 4, while economic conservatism correlated with Competitive Jungle Worldview and the PANAS negative subscale. The two components of conservatism were also significantly correlated, $r(239) = .34$, $p < .01$.

Table 1

Correlations Between Political Measures, Negative Affect, and Moral Developmental Indices

Measure	1	2	3	4	5	6	7	8
1. Negative affect		1.00						
2. RWA	.10	1.00						
3. CJW	.29**	-.01	1.00					
4. Conservatism	.17**	.66**	.21**	1.00				
5. DOG	.07	.63**	-.03	.49**	1.00			
6. DIT-2 P	-.07	-.27**	-.18**	-.29**	-.21**	1.00		
7. DIT-2 Stage 4	-.09	.15*	-.03	.24**	.14*	-.39**	1.00	
8. DIT-2 N2	-.15*	-.25**	-.23**	.32**	-.17**	.88**	.21**	1.00

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

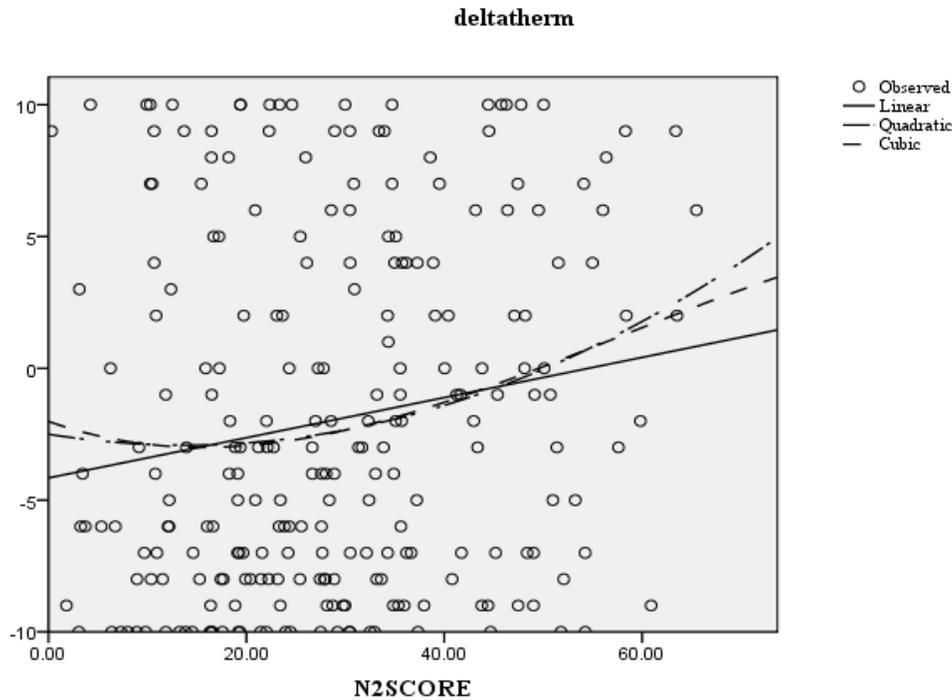
Research Questions

Question 1

Can previous conclusions regarding the relationship between moral judgment and political choices be replicated?

A regression analysis to determine the extent to which moral judgment development (as indicated by the N2 score) predicted political choices was conducted using the difference between participants' ratings of Obama and McCain as the dependent variable (deltatherm). As found in earlier research (Thoma, 1993), the analysis yielded a curvilinear pattern, shown below in Figure 1, and it was statistically significant, $b = .165$, $R^2 = .03$, $F(1, 239) = 6.71$, $p < .05$.

Figure 1. Relationship between Moral Judgment Development and Political Preference



Earlier studies of political ideology and moral judgment development found a significant and negative relationship between DIT P scores and conservative political ideology, but this relationship was reduced to a statistical nonsignificance when the effects of RWA were partialled out of the correlation (Crowson et al., 2005). In this study, the relationship between conservatism and both DIT-2 P and N2 scores were statistically significant and negative, $r(239) = -.29, p < .01$ and $r(239) = -.32, p < .01$, respectively. When accounting for RWA, the relationship between them weakened, but remained negative and significant. Accounting for both RWA and CJW rendered the relationship between conservatism and P insignificant.

It is interesting to note that when conservatism was split into its two components, social and economic conservatism, the correlations between social conservatism and both P and N2 were no longer statistically significant when accounting for the effects of RWA, and social and

economic conservatism were no longer significantly correlated with each other. However, when accounting for CJW, the relationships between the components of conservatism and the moral indices did not change by strength or significance. Partialing out both CJW and RWA yielded statistically non-significant relationships between both social and economic conservatism with both P and N2, and weak, statistically non-significant correlations between social and economic conservatism.

From these analyses, one may conclude that the curvilinear relationship between political choices and moral judgment development persists. However, the nature of the relationship between DIT-2 P scores and conservatism for this particular sample differed from prior findings. When the primary ideological components of conservatism were analyzed independently, it appeared that RWA had an effect on the relationship between social conservatism and moral judgment, and that RWA and CJW jointly influenced the relationship between economic conservatism and moral judgment.

Question 2

Does affective arousal influence political choices?

Initial analyses showed that the difference in reported negative affect on the PANAS between the four experimental conditions was statistically nonsignificant, $F(3, 240) = 1.72, p = .16$. However, the differences between the affectively loaded picture conditions and the conditions in which there were only official pictures or only text were statistically significant or approached significance. For the purpose of further analysis, the text-only and official portrait conditions were collapsed into one condition labeled “Neutral.” The conditions containing unflattering pictures of Obama and McCain were collapsed into a single condition labeled

“Loaded.” When considering the four conditions separately, there were no significant differences between Conditions One and Two or between Conditions Three and Four on any of the political or affective measures in the survey, hence the consolidation into two experimental conditions.

One-way ANOVA revealed that negative affective arousal differed significantly between the loaded ($m = 18.14$, $s.d. = 7.73$) and neutral conditions ($m = 16.11$, $s.d. = 6.53$), $F(1, 241) = 4.86$, $p < .05$; and positive affective arousal showed no significant differences between conditions (loaded = 29.79 , $s.d. = 7.53$; neutral = 30.68 , $s.d. = 8.35$, $F(1, 241) = .75$, $p > .05$). Two-by-two ANOVA (condition by vote) revealed that differences in negative affective arousal between conditions remained significant and the difference between voter groups (Obama versus McCain voters) approached statistical significance, $F(3,234) = 3.00$, $p < .10$. (Table 2)

Table 2

Levels of Negative Affective Arousal between Voter Groups and Conditions

Condition	Obama		McCain	
	n	M (SD)	n	M (SD)
Loaded	41	16.90 (6.95)	73	18.89 (8.18)
Neutral	38	15.18 (5.59)	82	16.63 (6.98)

To determine whether affective arousal influenced the strength of political choices, a variable was created to reflect the overall strength of participants’ choices, irrespective of ideological affiliation. In the “Candidates on the Issues” section, each participant rated their stances on five different campaign issues on a six point scale in which 1 indicated strong

agreement with Obama, 3 indicated slight agreement with Obama, 4 indicated slight agreement with McCain, and 6 indicated strong agreement with McCain. These responses were then recoded as follows: 1 = 3, 2 = 2, 3 = 1, 4 = 1, 5 = 2, and 6 = 3 to reflect the level of agreement with the respective candidates (low, middle, or high partisanship) without distinguishing between individuals who strongly agreed with Obama and individuals who strongly agreed with McCain. The sum of the recoded responses from all five issues (ranging from 5-15, where 5 indicated consistently low levels of partisanship and 15 indicated consistently high levels of partisanship) was then multiplied by the sum of the importance ratings for each of the five issues (ranging from 5-25, where 5 indicated no importance for all five issues and 25 indicated great importance for all five issues) to create a variable labeled *polarization*. This variable was intended to express strength in a participant's political convictions, and had a possible range of scores from 25 to 375, where 25 reflected very little strength of political convictions and 375 reflected very strong, polarized political convictions. The sample's polarization scores ranged from 42 to 238, $M = 107.37$ (S.D. = 30.44).

The data were split by condition and a regression analysis was conducted to determine if negative affective arousal was a significant predictor of polarization. In the loaded condition, negative affect significantly predicted the strength of participants' political responses, yielding a curvilinear pattern, $b = -.23$, $R^2 = .05$, $F(1, 115) = 6.09$, $p < .05$. However, within the neutral condition, the relationship was not significant, $b = -.10$, $R^2 = .01$, $F(1, 124) = 1.32$, $p = .25$.

While the individual conditions did not significantly differ in the levels of affective arousal that they elicited, when collapsed into more general categories of neutral and loaded, there were significant differences in the participants' reported mood state measured immediately after the experimental section. Participants in the loaded condition reported significantly higher

levels of negative affective arousal than participants in the neutral condition. This suggests that the pictures in the loaded conditions indeed had an influence on participants' mood states. Further, when examining the influence of affective arousal on the strength of political choices, negative affect was a significant predictor of stronger political convictions in the loaded condition but not in the neutral condition. From these findings, one may reasonably conclude that affective arousal had an influence on political decision making.

Question 3

Does affective arousal influence the relationship between moral judgment development and political choices?

There was a significant correlation between DIT-2 N2 scores and the political choice variable ΔT_{therm} , $r(239) = .17, p < .05$, and this correlation remained significant when accounting for negative affect $r(238) = .15, p < .05$. Multiple regression analysis revealed that N2 and negative affect each contributed significantly to political choices, but there was no statistically significant interaction between the two constructs. (Table 3)

Table 3. Multiple Regression Analysis Predicting Overall Preference for Obama from Moral Judgment Development and Negative Affective Arousal

	b	SE b	β
Step 1 (Constant)	-4.16	0.95	
DIT-2 N2	0.08	0.03	.17**
Step 2 (Constant)	-2.65	1.79	
DIT-2 N2	0.09	0.05	.21*
Neg. affect	-0.12	0.06	-.13*
Interaction (N2x neg. affect)	-0.00	0.00	-.08

Note: $R^2 = .03$, $p < .05$ for Step 1: $\Delta R^2 = .02$ for Step 2. * $p < .05$, ** $p < .01$.

Question 4

Does moral judgment development predict dogmatism and affective arousal? If yes, for whom?

Linear regression analyses were conducted to determine whether moral judgment development related to dogmatism and affective arousal individually, using N2 scores as the index for moral judgment development, DOG scores for dogmatism, and PANAS negative subscale scores for affective arousal. DIT-2 N2 scores were found to be a significant predictor of both dogmatism and negative affective arousal. When split according to political identification (conservative or liberal), regression analysis of dogmatism on DIT-2 N2 scores revealed that N2 was a significant predictor of dogmatism only for liberals, $b = -.34$, $t(115) = -3.22$, $p < .01$. A similar regression of negative affect on N2, split by political identification showed that N2 was a significant predictor of negative affect only for conservatives, $b = -.19$, $t(126) = -2.39$, $p < .05$.

ANOVA with moral stage consolidation and negative affective arousal showed no significant difference in negative affect between people who were developmentally consolidated and those who were in developmental transition. However, when split according to reported political identification (conservative or liberal), there was a significant interaction between consolidation or transition and political affiliation, $F(1, 240) = 5.22, p < .05$. ANOVA with moral stage consolidation/transition and dogmatism revealed no significant differences between consolidation and transition for either conservatives or liberals $F(1, 241) = .01, p = .94$, and there was no interaction between the two independent variables, $F(1, 241) = .00, p = .99$.

On the whole, moral judgment development reliably predicts both negative affective arousal and dogmatism, but influences these constructs differently according to political inclination. For conservatives, dogmatism does not vary with development, but development does strongly influence their negative affective responses. In contrast, liberals do not vary in their negative affective responses across the developmental spectrum, but do become less dogmatic. Additionally, developmental status interacts with political affiliation in predicting negative affective arousal, with transitional conservatives reporting much higher negative affect than transitional liberals or consolidated individuals of either affiliation.

CHAPTER 5

CONCLUSION

This chapter will discuss the findings presented in Chapter Four and the implications that these findings have for future research in the areas of moral judgment development, affect, cognition, and political decision making. The purpose of this study was fourfold: to confirm earlier findings about the relationship between political ideology and moral judgment development; to examine the influence of affective arousal on political decision making; to determine whether affect influenced the relationship between moral judgment development and political choices; and to assess whether moral judgment development influences affective arousal and dogmatism.

Significance

For over 40 years, a frequent line of research in the field of moral psychology has involved the connection between political ideology and moral judgment. In the early days of this research, some claimed that the relationship between political choices and moral judgment development signaled that moral judgment was just political ideology masquerading as a supposedly developmental construct (Emler et al., 1983). However, a large body of subsequent research demonstrated that moral judgment was a developmental construct that involved much more than sociopolitical beliefs, but did not explore the underlying decision-making mechanism for both political and moral decisions.

More recently, the role of affect has become a significant line of research in the study of moral judgment and, more broadly, moral functioning. The Kohlbergian cognitive-developmental perspective on moral judgment did not specifically address the role of affect, and therefore researchers avoided affect as a component of moral judgment development. In the 1980s, the field of psychology underwent what some called an “affect revolution” and began to move beyond the strictly cognitive model that had dominated psychological research for decades (Frijda, 1988). In subsequent years, this affect revolution also swept through the study of morality, and resulted in theories that discussed the influence of affect on moral judgment. The most commonly cited theory of this type is the Social Intuitionist Model developed by Haidt (2001), in which he claimed that moral judgment was primarily affective. However, many found fault with the ways in which Haidt neglected to consider the role of intentional deliberation in moral decision making. Some claimed that the very nature of moral dilemmas necessitated a conflict of intuitions, which then required conscious deliberation in order to arrive at a decision (Pizzaro & Bloom, 2003). Others pointed out that the Social Intuitionist Model did not address developmental progression or the mechanism by which people acquired moral beliefs and behaviors (Saltzstein & Kaschakoff, 2004). Although this debate has yet to be resolved, it is clear that affect plays a role in moral judgment.

Findings

This study uniquely contributed to the literature on moral judgment development and political ideology by examining the role of affect in the well-established relationship between moral judgment development and political choices. While affect did not influence the relationship, affect did relate to both political choices and to moral judgment development.

Specifically, negative affective arousal influenced the strength of political convictions, in that higher levels of arousal predicted more polarized political choices. Affective arousal was found to relate to moral judgment in that as person increased in the sophistication of his or her moral reasoning, reported affective arousal decreased.

The data also showed that conservatives and liberals differ in the ways in which moral judgment development, affective arousal, and dogmatism relate. For conservatives, higher levels of moral judgment development predicted lower levels of negative affect, but did not influence the level of dogmatism. Liberals decreased in their levels of dogmatism as they increased in their moral judgment development, but did not vary in their levels of negative affective arousal. Conservatives were higher on both dogmatism and negative affective arousal than liberals, with conservatives in developmental transition showing the highest levels of affective arousal in the sample. These findings lend a modicum of support to Haidt's Social Intuition Model, although not in the broad-based way in which Haidt conceptualized the theory, given that his Social Intuitionist Model does not specifically address developmental differences (Haidt, 2001). For people with less developed moral judgment, situational factors such as emotionally-loaded stimuli and the subsequent emotional responses to these stimuli may indeed play a greater role in reasoning and decision making than for people who are more developed in their moral reasoning. The former group is more apt to prioritize emotional information, specifically negative emotional information, and so their moral judgments will be more affective in nature, consistent with Haidt's theory. The latter group may still respond to emotionally loaded stimuli, but in a less intense manner, and ultimately they prioritize moral information to arrive at a moral judgment, which does not support Haidt's theory.

This particular finding supports the hypothesis of Kohlberg, Levine, & Hwer (1983) that, with development, people are better able to prioritize moral information and make optimal moral decisions. At the postconventional level of moral reasoning, Kohlberg proposed that the moral reasoner adopted a Rawlsian *veil of ignorance* in which all perspectives carry equal weight in the decision-making process and situational factors do not strongly influence the reasoning process. Within Kohlberg's theory, a person at a higher level of moral judgment development was better able to adopt the moral point of view in a situation than a person in a lower developmental stage, making their moral judgments more adaptive (Lapsley, 1996).

Additionally, a more thorough exploration of conservatism and moral judgment development showed that the relationship between conservative beliefs and moral judgment development differs when the two primary components of conservatism are analyzed separately. While N2 remains negatively correlated with both social and economic conservatism, the factors that significantly contribute to these relationships differ. The relationship of moral judgment development with social conservatism was rendered insignificant when accounting for the effects of right-wing authoritarianism, while the relationship between moral judgment development and economic conservatism became insignificant when right-wing authoritarianism and competitive jungle worldview were partialled out of the correlation. This suggests that economic conservatism could be a more significant factor than social conservatism in explaining the inverse relationship between moral judgment development and overall conservatism, although both factors contributed to the relationship in this study.

With respect to the three theories of political ideology and cognitive style described by Sidanius (1985), the data seem to best support the authoritarian personality theory, which suggested that extremists on the political right would be more cognitively rigid than moderates or

liberals. However, it is interesting to note that liberals with lower DIT-2 N2 scores had higher DOG scale scores than liberals whose DIT-2 N2 scores reflected Postconventional moral thinking. This suggests that the data might also support the extremist theory, which states that extremists on either end of the political spectrum oversimplify complex issues and are more rigid in their thinking. The data showed no support for context theory because political moderates were not significantly more dogmatic than strong conservatives or strong liberals.

Consistent with Jost et al.'s (2003) assertion that conservatism is a means of fulfilling needs for stability or security, the results from the current study show that types of thinking that correspond to aspects of political conservatism (namely RWA and CJW) may help individuals grapple with negative affect (as in the case of the loaded picture conditions) or instability (developmental transition). Participants with high scores on the Competitive Jungle Worldview scale generally reported higher levels of negative affect, whereas right-wing authoritarians adhered more strongly to a Maintaining Norms moral schema and were more dogmatic. Higher levels of both CJW and RWA corresponded significantly to developmental transition rather than developmental consolidation. All of this implies that an individual who lacks a consolidated schema upon which to base her moral reasoning would be more likely to rely on other values or situational information in order to arrive at a moral judgment. Conversely, an individual who has consolidated upon a particular schema would more strongly rely upon that schema and not allow situational factors to drive his moral decision making. It is plausible that this tendency to attend to or ignore situational information would influence decision making in other domains, such as in political candidate assessments. For conservatives, higher levels of negative affective arousal corresponded to lower DIT-2 N2 scores, although affective arousal did not predict any variation in N2 for liberals. When considering that conservatives also reported higher negative

arousal in the loaded conditions, greater polarization, higher levels of both RWA and CJW, and lower DIT-2 N2 scores than liberals, one might conclude that conservatives may be more driven by situational or emotional factors than liberals. Dogmatism significantly predicted N2 in liberals but not conservatives, which implies that liberals who fall at the low end of the moral development spectrum do so because they are unreflective and rigid in their thinking.

Connection to Current Theories

The moral foundations hypothesis proposed by Graham and his colleagues (Graham et al., 2009; Haidt & Graham, 2007) states that morality relies on five foundations: care, justice, purity, loyalty, and authority; and that conflicts between liberals and conservatives (or any other two socially-constructed groups) arise differences in foundational priorities. In the case of liberals and conservatives, both groups emphasize the values care and justice, but where they differ is in their emphases on the values of purity, loyalty, and authority. Liberals recognize the importance of these values for the most part, but do not believe that they are the basis for making moral decisions, because they do not concern the rights and welfare of others. In contrast, conservatives believe that these three values also constitute important factors in moral behavior because mandates of this type often stem from a higher power, whether the rule of law or a deity; and thus prioritize these values as strongly (if not more so) than the values of care and justice. As they relate to the current study's examination of cognitive and affect factors in moral judgment, the values of care and justice could be thought of as driven mostly by reasoned cognition. Neither liberals nor conservatives would express distaste for fairness, nor would they advocate mistreating others. They may differ, however, on what constitutes fairness or how best to promote the wellbeing of other people, but they will both emphasize the importance of these

values and logically articulate their moral arguments using these values as a guide. The deontological values of purity, loyalty, and authority are less open to debate for those who adhere to them, and could therefore be categorized as affectively driven values. Applying this modified moral foundations hypothesis to the current study, one could say that the conservatives in the study who reported more negative affective arousal in the loaded conditions were likely responding to perceived violations of the affectively driven values. Presumably, a violation of one of the reasoned values would not have created significant differences between liberals and conservatives, if both groups emphasize these values.

The findings from the current study also resonate with Narvaez' Triune Ethics Theory (Narvaez, 2008a; Narvaez & Vaydich, 2008) in that each of the three ethics could reflect the various intersections between moral judgment and political choices of the participants. The ethic of Security for liberals would reflect a Personal Interest moral schema (to protect one's one interests and safety), whereas for conservatives this ethic best matches a Maintaining Norms (to promote in-group security) moral schema. The ethic of Engagement corresponds to the Maintaining Norms schema for either political ideology. The ethic of Imagination corresponds to the Postconventional schema, and implies low levels of RWA, CJW, dogmatism, and negative affect because this ethic requires an individual to look beyond herself and to engage in deliberate reasoning.

Limitations of the Current Study

The nature of the sample likely limits the generalizability of the results to the population of the United States as a whole, given that the participants were college students in select departments on the campus of a university in the Southeastern United States. The state in which

the data were collected has traditionally voted for conservative presidential candidates, and most of its representatives in the United States House of Representatives and Senate are conservative Republicans. In the 2008 U.S. Presidential election, 61% of the electorate in the state voted for John McCain (CNN.com), and in the three prior presidential elections, the Republican candidate received at least 50% of the state's vote (Leip, 2009). The limited age range of the participants did not allow for an adequate sample for further exploration of developmental differences, and the large percentage of females did not allow for in-depth exploration of potential gender effects.

The PANAS assessed only current affective state and did not measure overall trait patterns of mood and emotional activation, which may limit the conclusions drawn from the information provided by the PANAS scale. Additionally, both PANAS and DIT-2 scores showed a limited range, which may have weakened any findings from this sample. The positive and negative subscales of the PANAS have a potential range of 10-50, and the negative subscale did not show a full range of scores (10-40), whereas the positive subscale scores fell within the entire range of possible scores (10-49). DIT-2 N2 scores can range from 0-95 (Rest et al., 1999a), but no individual scored higher than a 65.50 and the average N2 score for the sample ($M = 28.72$) was low for a collegiate sample.

Directions for Future Research

Future studies of the relationship between moral judgment development and affect should attempt to elicit affective arousal in various ways to eliminate the possibility that affective arousal within a political framework could be priming for moral thinking. Given the limited range of PANAS scores, it may be worthwhile to use stronger affective primes in a similar study to potentially elicit a wider range of PANAS scores, which would yield a more thorough

understanding of the role of affective arousal in the relationship between moral judgment development and political choices. fMRI investigations of brain activity during moral reasoning tasks with the induction of affective arousal would illuminate the ways in which the brain processes moral and affective information simultaneously. The work of Greene and his colleagues (2001) could be enhanced by collecting DIT-2 data alongside neuroimaging measures to determine whether there are brain-based differences in the ways in which people process moral and situational information at different levels of development. To determine whether the current findings have broader implications, this line of research should broaden to include a greater range of developmental statuses beyond the range of a typical collegiate environment to better understand how people use affective information at different levels of development.

The strong conservative inclination of the sample and the limited range of political diversity suggest that it would be useful to expand this line of research to other geographic areas and perhaps other countries to determine more broadly whether affective arousal and dogmatism differ with moral judgment development. The sample also did not reflect the ethnic and political diversity of the United States as a whole, given that the majority of the participants were White conservatives and the sample did not include sufficient numbers of political and ethnic minority groups.

Graham's Moral Foundations Hypothesis and Narvaez' Triune Ethics Theory each correspond in various ways to the findings of the current study as concerns moral judgment, affect, and sociopolitical measures. The strong relationships between DIT-2 indices and measures of right-wing authoritarianism and competitive jungle worldview suggest that people at different moral developmental levels have different perspectives on their roles in society and within groups. Future research should empirically test whether (and how) DIT-2 moral schemas

relate to both the five moral foundations (Justice, Harm/Care, Purity, Loyalty, Respect) and the three ethics (Security, Engagement, Imagination). This research would enhance the existing literature on moral judgment development and political ideologies by transcending the usual liberal/conservative binary and distinguishing political groups by their moral priorities.

Competitive Jungle Worldview, Dogmatism, and Right Wing Authoritarianism each uniquely influenced moral and political thinking, which suggests underlying traits and dispositions that influence the ways in which people relate to their environments, particularly in sociopolitical matters. Assessment of Big Five personality traits (particularly Openness and Conscientiousness) and cognitive styles in conjunction with measures of political choices and moral judgment development would develop further understanding of the role of underlying dispositions in moral and political thinking.

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APPENDICES

APPENDIX A

Questionnaire Items

OVERALL CANDIDATE EVALUATIONS

Please use this scale to rate your feeling toward the candidates.

Warm 100-Very warm or favorable feeling for candidate

90-Quite warm or favorable feeling

80-Moderately warm or favorable feeling

70-Somewhat warm or favorable feeling

60-Slightly warm or favorable feeling

50-No feeling at all

40-Slightly cold or unfavorable feeling

30-Somewhat cold or unfavorable feeling

20-Moderately cold or unfavorable feeling

10-Quite cold or unfavorable feeling

Cold 0-Very cold or unfavorable feeling

Where would you place Barack Obama on the thermometer?

Where would you place John McCain on the thermometer?

Where would you place Joseph Biden on the thermometer?

Where would you place Sarah Palin on the thermometer?

Where would you place the McCain-Palin ticket?

Where would you place the Obama-Biden ticket?

CANDIDATES ON THE ISSUES

ISSUE 1: TAXES

McCain wants to make the Bush tax cuts permanent and to cut corporate tax rates by 10%. He also proposes a cut in estate taxes for all estates worth less than 10 million dollars. McCain proposed a summer gas tax holiday that would repeal the 18.4 cents per gallon tax on motor fuel, claiming that it would save the American people 6.8 billion dollars and provide immediate economic relief.

Obama wants to repeal the Bush tax cuts for those earning more than \$250,000 annually, while eliminating income taxes for elderly workers who make less than \$50,000 annually. He believes that the estate tax should be kept at its current rate, and that capital gains taxes should be increased. Obama opposed the summer gas tax holiday because it would have provided an average savings of only \$28 and it would cut funding for necessary infrastructure improvement.

1. Which candidate's stand do you tend to favor more? (Strongly Favor Obama, Favor Obama, Slightly Favor Obama, Slightly Favor McCain, Favor McCain, Strongly Favor McCain)

2. How important do you consider this issue to be in deciding whom you will support for President? (Great importance, Much importance, Some importance, Little importance, No importance)

ISSUE 2: Health Care

Obama favors a system where health insurance is mandatory for children, but optional for adults. He has proposed creating a subsidized national health insurance program for individuals who do not have health insurance from their employer and who do not qualify for federal

programs. Ultimately, Obama wants for all Americans to have health care coverage, though would not mandate it.

McCain opposes mandatory health insurance and believes in a market-based system for health care, in which competition would work to enhance the quality of care and lower costs. He would provide \$2500 for individuals or \$5000 for families in tax credits for obtaining health insurance, which would go directly to the insurer and to health care spending accounts.

1. Which candidate's stand do you tend to favor more?
2. How important do you consider this issue to be in deciding whom you will support for President?

ISSUE 3: Abortion

McCain has been supportive of abortion rights in the past, but now believes that *Roe v. Wade* should be overturned and will nominate judges who also disagree with the decision. He believes that laws concerning abortion should be made at the state level. McCain supported the Supreme Court's decision to uphold the ban on partial-birth abortion.

Obama believes that the choice to terminate a pregnancy should be a personal choice and does not agree with the Supreme Court's decision to uphold the ban on partial-birth abortion. He believes that *Roe v. Wade* should be upheld and will nominate judges who will uphold the decision.

1. Which candidate's stand do you tend to favor more?
2. How important do you consider this issue to be in deciding whom you will support for President?

ISSUE 4: Iraq

Obama opposed the invasion of Iraq from the beginning because he felt it was undertaken without a clear rationale and strong international support. He also opposed the troop surge of 2007 and advocated for a timeline for troop withdrawal that would have all troops out of Iraq within 16 months. Obama wants to focus more on Afghanistan so that we can more effectively fight terrorism.

McCain has consistently supported the war and voted in favor of the 2007 troop surge, but disagrees with the way in which the current administration has handled the war. He is against any mandated timetable for troop withdrawal, but says that most troops should be out by 2013, with a few left behind to maintain a military presence in Iraq. McCain believes that withdrawing prematurely would only encourage attacks by insurgent groups in Iraq.

1. Which candidate's stand do you tend to favor more?
2. How important do you consider this issue to be in deciding whom you will support for President?

ISSUE 5: Energy and the environment

McCain supports lifting the ban on offshore drilling and the expansion of nuclear power in order to gain American independence from imported oil. He opposes taxing oil companies' windfall profits because he believes this would increase dependence on imported oil. McCain supports the continued use of coal plants along with the development of 'clean coal' technologies.

Obama opposes lifting the ban on offshore drilling and does not favor expansion of nuclear power. He supports taxing oil companies' windfall profits, which he says would pay for his tax cuts for the middle class and elderly. Obama proposes banning the construction of new

coal plants that do not use 'clean coal' technology.

1. Which candidate's stand do you tend to favor more?
2. How important do you consider this issue to be in deciding whom you will support for President?

VOTING INTENTIONS

The political party I support is:

Are you registered to vote?

Will you vote in November?

Who will you vote for?

How sure are you on your choice?

POLITICAL IDENTIFICATION

Please use this scale to answer the following questions.

Strongly liberal-1, Somewhat liberal-2, Slightly liberal-3, Moderate-4, Slightly conservative-5

Somewhat conservative-6, Strongly conservative-7

1. What number from the scale would you give yourself?
2. What number would you give your mother?
3. What number would you give your father?
4. What number would you give John McCain?
5. What number would you give Barack Obama?
6. What number would you give Sarah Palin?
7. What number would you give Joseph Biden?

Please use the following scale to answer the next three questions.

1-Strongly Democratic, 2-Somewhat Democratic, 3-Slightly Democratic, 4-Independent
5-Slightly Republican, 6-Somewhat Republican, 7-Strongly Republican

1. What number from the scale would you give yourself?
2. What number would you give your mother?
3. What number would you give your father?

POSTIVE AND NEGATIVE AFFECT SCHEDULE

Read each item and then use the drop-down menu choices to indicate to what extent you feel this way right now (that is, at this very moment). Use the following scale to indicate your answers: 1-Very slightly or not at all, 2-A little, 3-Moderately, 4-Quite a bit, 5-Extremely

interested, alert, excited, inspired, strong, determined, attentive, enthusiastic, active, proud,
irritable, distressed, ashamed, upset, nervous, guilty, scared, hostile, jittery, afraid

DIT-2

Story 1-Famine

A small village in northern India has experienced shortages of food before, but this year's famine is worse than ever. Some families are even trying to feed themselves by making soup from tree bark. Mustaq Singh's family is near starvation. He has heard that a rich man in his village has supplies of food stored away and is hoarding food while its price goes higher so that he can sell the food later at a huge profit. Mustaq is desperate and thinks about stealing some food from the rich man's warehouse. The small amount of food that he needs for his family probably wouldn't even be missed.

What should Mustaq Singh do? Do you favor the action of taking food?

Rate the following issues in terms of importance.

1. Is Mustaq Singh courageous enough to risk getting caught for stealing?
2. Isn't it only natural for a loving father to care so much for his family that he would steal?
3. Shouldn't the community's laws be upheld?
4. Does Mustaq Singh know a good recipe for preparing soup from tree bark?
5. Does the rich man have any legal right to store food when other people are starving?
6. Is the motive of Mustaq Singh to steal for himself or to steal for his family?
7. What values are going to be the basis for social cooperation?
8. Is the epitome of eating reconcilable with the culpability of stealing?
9. Does the rich man deserve to be robbed for being so greedy?
10. Isn't private property an institution to enable the rich to exploit the poor?
11. Would stealing bring about more total good for everybody concerned or wouldn't it?
12. Are laws getting in the way of the most basic claim of any member of a society?

Story 2-Reporter

Molly Dayton has been a news reporter for the Gazette newspaper for over a decade. Almost by accident, she learned that one of the candidates for Lieutenant Governor for her state, Grover Thompson, had been arrested for shop-lifting 20 years earlier. Reporter Dayton found out that early in his life, Candidate Thompson had undergone a confused period and done things he later regretted, actions which would be very out-of-character now. His shoplifting had been a minor offense and the department store dropped the charges against him. Thompson has not

only straightened himself out since then, but built a distinguished record in helping many people and in leading constructive community projects. Now, Reporter Dayton regards Thompson as the best candidate in the field and likely to go on to important leadership positions in the state. Reporter Dayton wonders whether or not she should write the story about Thompson's earlier troubles because in the upcoming close and heated election, she fears that such a news story could wreck Thompson's chance to win.

Do you favor the action of reporting the story?

1. Doesn't the public have a right to know all the facts about all the candidates for office?
2. Would publishing the story help Reporter Dayton's reputation for investigative reporting?
3. If Dayton doesn't publish the story wouldn't another reporter get the story anyway and get the credit for investigative reporting?
4. Since voting is such a joke anyway, does it make any difference what reporter Dayton does?
5. Hasn't Thompson shown in the past 20 years that he is a better person than his earlier days as a shoplifter?
6. What would best service society?
7. If the story is true, how can it be wrong to report it?
8. How could reporter Dayton be so cruel and heartless as to report the damaging story about candidate Thompson?
9. Does the right of "habeas corpus" apply in this case?
10. Would the election process be more fair with or without reporting the story?
11. Should reporter Dayton treat all candidates for office in the same way by reporting everything she learns about them, good and bad?

12. Isn't it a reporter's duty to report all the news regardless of the circumstances?

Story 3-School Board

Mr. Grant has been elected to the School Board District 190 and was chosen to be Chairman. The district is bitterly divided over the closing of one of the high schools. One of the high schools has to be closed for financial reasons, but there is no agreement over which school to close. During his election to the School Board, Mr. Grant had proposed a series of "Open Meetings" in which members of the community could voice their opinions. He hoped that dialogue would make the community realize the necessity of closing one high school. Also he hoped that through open discussions, the difficulty of the decision would be appreciated, and that the community would ultimately support the school board decision. The first Open Meeting was a disaster. Passionate speeches dominated the microphones and threatened violence. The meeting barely closed without fist-fights. Later in the week, school board members received threatening phone calls. Mr. Grant wonders if he ought to call off the next Open Meeting.

Do you favor calling off the next Open Meeting?

1. Is Mr. Grant required by law to have Open Meetings on major school board decisions?
2. Would Mr. Grant be breaking his election campaign promises to the community by discontinuing the Open Meetings?
3. Would the community be even angrier with Mr. Grant if he stopped the Open Meetings?
4. Would the change in plans prevent scientific assessment?
5. If the school board is threatened, does the chairman have the legal authority to protect the Board by making decisions in closed meetings?

6. Would the community regard Mr. Grant as a coward if he stopped the open meetings?
7. Does Mr. Grant have another procedure in mind for ensuring that divergent views are heard?
8. Does Mr. Grant have the authority to expel troublemakers from the meetings or prevent them from making long speeches?
9. Are some people deliberately undermining the school board process by playing some sort of power game?
10. What effect would stopping the discussion have on the community's ability to handle controversial issues in the future?
11. Is the trouble coming from only a few hotheads, and is the community in general really fair-minded and democratic?
12. What is the likelihood that a good decision could be made without open discussion from the community?

Story 4-Cancer

Mrs. Bennett is 62 years old, and in the last phases of colon cancer. She is in terrible pain and asks the doctor to give her more pain-killer medicine. The doctor has given her the maximum safe dose already and is reluctant to increase the dosage because it would probably hasten her death. In a clear and rational mental state, Mrs. Bennett says that she realizes this; but she wants to end her suffering even if it means ending her life. Should the doctor give her an increased dosage?

Do you favor the action of giving more medicine?

1. Isn't the doctor obligated by the same laws as everybody else if giving an overdose would be the same as killing her?
2. Wouldn't society be better off without so many laws about what doctors can and cannot do?
3. If Mrs. Bennett dies, would the doctor be legally responsible for malpractice?
4. Does the family of Mrs. Bennett agree that she should get more painkiller medicine?
5. Is the painkiller medicine an active heliotropic drug?
6. Does the state have the right to force continued existence of those who don't want to live?
7. Is helping to end another's life ever a responsible act of cooperation?
8. Would the doctor show more sympathy for Mrs. Bennett by giving the medicine or not?
9. Wouldn't the doctor feel guilty from giving Mrs. Bennett so much drug that she died?
10. Should only God decide when a person's life should end?
11. Shouldn't society protect everyone against being killed?
12. Where should society draw the line between protecting life and allowing someone to die if the person wants to?

Story 5-Demonstration

Political and economic instability in a South American country prompted the President of the United States to send troops to "police" the area. Students at many campuses in the U.S.A. have protested that the United States is using its military might for economic advantage. There is widespread suspicion that big oil multinational companies are pressuring the President to safeguard a cheap oil supply even if it means loss of life. Students at one campus took to the streets in demonstrations, tying up traffic and stopping regular business in the town. The president of the university demanded that the students stop their illegal demonstrations. Students

then took over the college's administration building, completely paralyzing the college. Are the students right to demonstrate in these ways?

Do you favor the action of demonstrating in this way?

1. Do the students have any right to take over property that doesn't belong to them?
2. Do the students realize that they might be arrested and fined, and even expelled from school?
3. Are the students serious about their cause or are they doing it just for fun?
4. If the university president is soft on students this time, will it lead to more disorder?
5. Will the public blame all students for the actions of a few student demonstrators?
6. Are the authorities to blame by giving in to the greed of the multinational oil companies?
7. Why should a few people like Presidents and business leaders have more power than ordinary people?
8. Does this student demonstration bring about more or less good in the long run to all people?
9. Can the students justify their civil disobedience?
10. Shouldn't the authorities be respected by students?
11. Is taking over a building consistent with principles of justice?
12. Isn't it everyone's duty to obey the law, whether one likes it or not?

RIGHT-WING AUTHORITARIANISM SCALE

1. Our country desperately needs a mighty leader who will do what has to be done to destroy the radical new ways and sinfulness that are ruining us.
2. Gays and lesbians are just as healthy and moral as anybody else.

3. It is always better to trust the judgment of the proper authorities in government and religion than to listen to the noisy rabble-rousers in our society who are trying to create doubt in people's minds.
4. Atheists and others who have rebelled against the established religions are no doubt every bit as good and virtuous as those who attend church regularly.
5. The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas.
6. There is absolutely nothing wrong with nudist camps.
7. Our country needs free thinkers who will have the courage to defy traditional ways, even if this upsets many people.
8. Our country will be destroyed someday if we do not smash the perversions eating away at our moral fiber and traditional beliefs.
9. Everyone should have their own life-style, religious beliefs, and sexual preferences, even if it makes them different from everyone else.
10. The "old-fashioned ways" and "old-fashioned values" still show the best way to live.
11. You have to admire those who challenged the law and the majority's views by protesting for women's abortion rights, for animal rights, or to abolish school prayer.
12. What our country really needs is a strong, determined leader who will crush evil, and take us back to our true path.
13. Some of the best people in our country are those who are challenging our government, criticizing religion, and ignoring the "normal way things are supposed to be done."
14. God's laws about abortion, pornography, and marriage must be strictly followed before it is too late, and those who break them must be strongly punished.

15. There are many radical, immoral people in our country today, who are trying to ruin it for their own godless purposes, whom the authorities should put out of action.
16. A “woman’s place” should be wherever she wants to be. The days when women are submissive to their husbands and to social conventions belong strictly in the past.
17. Our country will be great if we honor the ways of our forefathers, do what the authorities tell us to do, and get rid of the “rotten apples” who are ruining everything.
18. There is no “ONE right way” to live life; everybody has to create their own way.
19. Homosexuals and feminists should be praised for being brave enough to defy “traditional family values.”
20. This country would work a lot better if certain groups of troublemakers would just shut up and accept their group’s traditional place in society.

COMPETITIVE JUNGLE WORLDVIEW SCALE

1. Winning is not the first thing; it’s the *only* thing.
2. The best way to lead a group under one’s supervision is to show them kindness.
3. If it’s necessary to be cold blooded and vengeful to reach one’s goals, then one should do it.
4. Life is not governed by the “survival of the fittest.” We should let compassion and moral laws be our guide.
5. Money, wealth and luxury are what really count in life.
6. It is much more important in life to have integrity in your dealings with others than to have money and power.
7. It’s a dog-eat-dog world where you have to be ruthless at times.
8. Charity (i.e., giving somebody something for nothing) is admirable *not* stupid.

9. You know that most people are out to “screw” you, so you have to get them first when you get the chance.
10. My knowledge and experience tells me that the social world we live in is basically a competitive “jungle” in which the fittest survive and succeed, in which power, wealth, and winning are everything, and might is right.
11. One should give others the benefit of the doubt. Most people are trustworthy if you have faith in them.
12. We can make a society based on unselfish cooperation, sharing and people generously helping each other, and NOT on competition and acquisitiveness.
13. If one has power in a situation, one should use it however one has to in order to get one’s way.
14. It is better to be loved than to be feared.

DOGMATISM SCALE

1. I may be wrong about some of the little things in life, but I am quite certain I am right about all the BIG issues
2. Someday I will probably think that many of my present ideas were wrong.
3. Anyone who is honestly and truly seeking the truth will end up believing what I believe.
4. There are so many things we have not discovered yet, nobody should be absolutely certain his beliefs are right.
5. The things I believe in are so completely true, I could never doubt them.
6. I have never discovered a system of beliefs that explains everything to my satisfaction
7. It is best to be open to all possibilities and ready to re-evaluate all your beliefs.

8. My opinions are right and will stand the test of time.
9. Flexibility is a real virtue in thinking, since you may well be wrong
10. My opinions and beliefs fit together perfectly to make a crystal-clear “picture” of things.
11. There are no discoveries or facts that could possibly make me change my mind about the things that matter most in life.
12. I am a long way from reaching final conclusions about the central issues in life.
13. The person who is absolutely certain she has the truth will probably never find it.
14. I am absolutely certain that my ideas about the fundamental issues in life are correct.
15. The people who disagree with me may well turn out to be right.
16. I am so sure I am right about the important things in life, there is no evidence that could convince me otherwise.
17. If you are “open-minded” about the most important things in life, you will probably reach the wrong conclusions.
18. Twenty years from now, some of my opinions about the important things in life will probably have changed.
19. “Flexibility in thinking” is another name for being “wishy-washy.”
20. No one knows all the essential truths about the central issues in life.
21. Someday I will probably realize my present ideas about the BIG issues are wrong.
22. People who disagree with me are just plain wrong and often evil as well.

DEWITTE CONSERVATISM SCALE

1. People who do not work for a living are basically “good-for-nothing.”
2. Working hard makes you a better person.

3. Only when you work for a living, are you a “somebody.”
4. A good parent will make sure his/her children are obedient at all times.
5. Smart parents teach their children "who’s the boss” from an early age.
6. It is better for parents to be strict when raising their children.
7. It would be better for society if the woman would take care of the home and the husband earns the money.
8. A woman is more suited to raise small children than a man.
9. It is always better for a woman to stay at home with her children when they are small.
10. Unmarried young people do not do anything wrong when they sleep together.
11. A doctor should be allowed to end a person’s suffering if the patient explicitly asks for it.
12. Abortion should be illegal under all circumstances.
13. The wealthy have an unfair advantage in our society.
14. Taxes on high incomes should be increased.
15. The government should never penalize big businesses for seeking ways to maximize their profits.
16. Labor unions are a huge benefit to workers.
17. Big businesses enrich themselves at the expense of the workers.
18. Class differences ought to be smaller than what they are today.
19. The government should take actions to decrease income differences.
20. Differences between high and low incomes should remain as they are.
21. Our country can only get ahead if the government gives the industry free reign to control its own affairs.

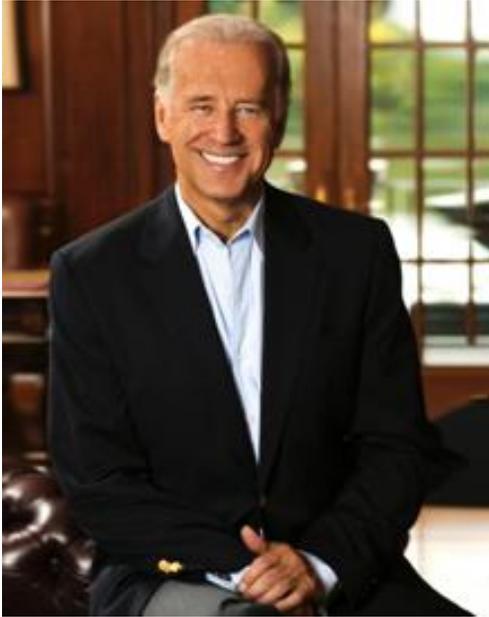
DEMOGRAPHIC INFORMATION

1. Age
2. Gender
3. Cumulative GPA
4. ACT score or SAT verbal score
5. Number of semesters in college (including junior college)
6. Educational Level
7. Ethnicity
8. What is your nationality?
9. Where have you spent most of your life?
10. I consider myself to be a (political party):
11. Do you consider yourself to be politically conservative or liberal? Conservative (go to question 11A), Liberal (go to question 11B)
- 11A. If you consider yourself politically conservative:
Compared to other conservatives, how politically conservative do you consider yourself to be?
- 11B. If you consider yourself politically liberal:
Compared to other liberals, how politically liberal do you consider yourself to be?
12. How important are your political views to how you see yourself?
13. What is your religious/spiritual orientation or affiliation?
14. Have you had any past or present experience with therapy or 12-step groups?

APPENDIX B

Photographs Used in Experimental Manipulations

Pictures of the 2008 U.S. Vice-Presidential candidates (all conditions)

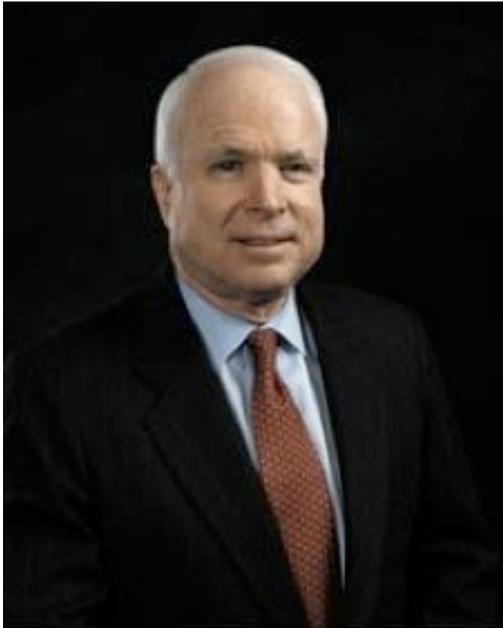


Joseph Biden



Sarah Palin

Pictures of the 2008 U.S. Presidential candidates used in the neutral condition

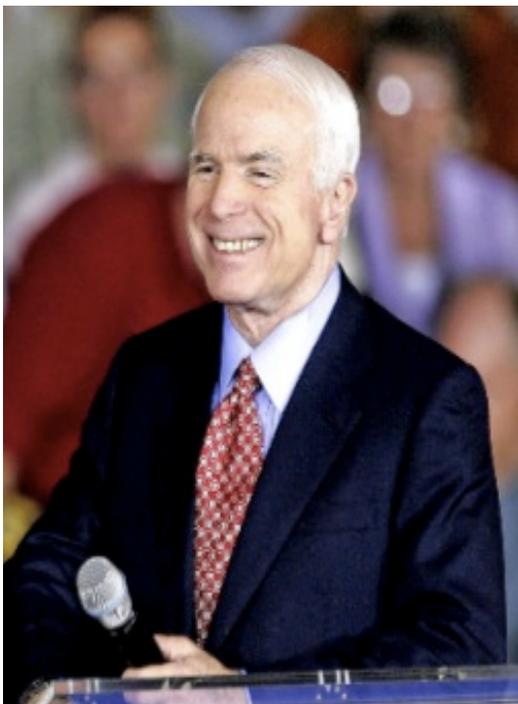


John McCain



Barack Obama

Positive pictures of the 2008 U.S. Presidential candidates used in the loaded condition



McCain-Positive



Obama-Positive

Negative pictures of the 2008 U.S. Presidential candidates used in the loaded condition



McCain-Negative



Obama-Negative