

## ABSTRACT

### The Effects of Authoritarian and Benevolent God Primes on Societal Values and Moral Concerns

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The theorized relationship between religion and morality is explained, in part, as a function of the moral values that govern religious communities. Most religious faiths posit a divine agent that is controlling and willing to punish moral transgressors, but also is compassionate and will forgive those who repent. The current study explored how different conceptualizations of God influence one's sociomoral concerns. A total of 448 participants were recruited from Amazon's Mechanical Turk (MTurk) to complete an online survey that assessed the effects of priming an authoritarian and benevolent God on the moral foundations, and the mediating effects of perceived societal values. The God concept primes did not differentially influence endorsements of the moral foundations, but did influence perceived societal support, which was moderated by belief in God. The results provide evidence that sociomoral values are influenced in different ways depending on how people view God.

The Effects of Authoritarian and Benevolent God Primes  
on Societal Values and Moral Concerns

by

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A Thesis

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## CHAPTER ONE

### Introduction

Religion is a critical aspect of life for the majority of the world population. It provides a framework to shape attitudes and values which, in turn, influence the way individuals interact with others. Moral attitudes and values may be particularly susceptible to influence by religious beliefs (Norenzayan & Shariff, 2008). In addition, the belief in a divine being functions to bind members of a religious group together through mutual trust and cooperation (Shariff & Norenzayan, 2007), both critical to group survival (Brewer, 1999). The binding of individuals to a religious group is facilitated by the presence of a divine being that punishes disobedience (Shariff & Norenzayan, 2011), but religious also frequently portray God as forgiving and loving (Spilka, Armatas, & Nussbaum, 1964). The perception of God as being either punishing or forgiving could differentially influence the sociomoral values that individuals and their societies support beyond what a simple belief in God could predict.

Previous research has established a relationship between God concepts and morality, but a causal relationship between the two has not been examined. The current study will extend the literature on God concepts by testing whether different God concepts directly influence individual- and group-based moral concerns, and whether perceived societal values mediate this relationship. This would shed light on the causal relationship between beliefs in certain God concepts and sociomoral concerns. Given that a general belief in God shapes societal values, it remains to be seen whether specific

ways of perceiving God differentially influence perceived public values and personal moral concerns.

To better explain the purpose of the current study, I will first discuss the role of God concepts in shaping the moral concerns of religious individuals. While doing so, I will review past research on the effect of God primes. Next, I will expand upon the topic of morality through the framework of the Moral Foundation Theory and relate it to religious beliefs, particularly the belief in God. Then, I will examine how the influence of God concepts on moral concerns could be the result of differences in perceived social values.

### *God Concepts*

Does the belief in God influence the way religious people think and behave? Religious people are more likely to engage in prosocial behaviors (e.g., volunteering for community work, donating organs upon death, and having greater intentions to help charity) when reminded of God (Lin, Tong, Lee, Low, & Gomes, 2016; Norenzayan & Shariff, 2008; Pichon, Boccato, Saroglou, 2007). Believing in the existence of God also influences existential and ethical beliefs, specifically by providing people with a greater sense of purpose in life compared to those who do not believe, and leading individuals toward a belief in morality as an objective truth rather than a subjective one (Cranney, 2013; Yilmaz & Bahçekapili, 2015).

Other research has studied how certain views of God could influence behavior. Froese and Bader (2010) identified four distinct conceptions of God among American Christians: (1) the authoritarian God, (2) the benevolent God, (3) the critical God, and (4) the distant God. For the current study, I will look at the authoritarian and benevolent



nature of God. An authoritarian God is characterized as a powerful agent that has strict expectations for how believers should behave (Johnson, Okun, & Cohen, 2015). The belief in an authoritarian God is linked to aggression, conservatism, and distrust (Bader & Froese, 2005; Johnson, Li, Cohen, & Okun, 2013; Roberts, 1989). On the other hand, a benevolent God is characterized as a nurturing caregiver that will show compassion towards transgressors (Johnson, Okun, & Cohen, 2015). Therefore, a belief in a benevolent God concept is associated with higher self-esteem, better social relationships, volunteerism, and greater willingness to forgive (Benson & Spilka, 1973; Johnson et al., 2013; Simpson, Newman, & Fuqua, 2008).

Past literature suggests that the authoritarian and benevolent God concepts have different influences on one's attitudes and behaviors. Different God concepts may play a critical role in shaping the moral concerns of individuals in religious communities. Specifically, an authoritarian God concept may serve to increase group cohesion by fostering cooperation and trust between group members whereas a benevolent God concept may place greater emphasis on establishing connections between individuals, regardless of group membership. To test this, the current study will examine if priming different God concepts will differentially influence one's endorsement of different moral foundations.

### *God Priming*

Research on different God representations have largely examined their effects on social attitudes and behaviors through correlational studies, but there has been a growing number of studies that have primed God concepts. Previous studies showed that thinking about an authoritarian God increased willingness to engage in aggression compared to

those in the control group, but resulted in less willingness to forgive compared to those thinking about a benevolent God (Johnson et al., 2013). These effects show how thinking about different concepts of God influence the way people interact with one another. The use of primes is important because it allows researchers to have greater control over the type of concepts that are made salient. This is particularly important for God concepts, since individuals may hold different views about the nature of God.

The current study will explore the influence of religion in shaping morality by first examining the causal relationship between God concepts and morality. To study this causal relationship, God concept primes will be used to activate either an authoritarian or benevolent God prime. It is expected that the priming of these two God concepts will differentially influence one's personal moral concerns. Based on the moral foundations theory (MFT; Haidt & Joseph, 2004), personal moral concerns will be measured as two factors: individual- and group-based moral concerns. This is important because I am hypothesizing that the authoritarian and benevolent God concepts are differentially associated with these two facets of morality. On one hand, a strict, punishing God that focuses on obedience to authority figures may be associated with concerns for the welfare of one's group. On the other hand, a kind, loving God that focuses on forgiveness may be associated with concerns for the welfare of individuals. More about the moral foundations theory and how it relates to the different God concepts will be discussed next.

### *Moral Foundations Theory*

Theories of morality have sought to provide a universal explanation for the existence of different moral concerns. After early theories focused on justice (e.g.,

Kohlberg, 1969, 1994) and care (e.g., Gilligan, 1982), Moral Foundations Theory was developed to identify five domains of morality that exist across cultures: *Harm/Care*, *Fairness/Reciprocity*, *Ingroup/Loyalty*, *Authority/Respect*, and *Purity/Sanctity* (Haidt & Graham, 2007; Haidt & Joseph, 2004). Taking a socio-functional approach, Haidt (2008) suggested that the earlier theories of justice and care concerns took an *individualizing* approach (*Harm/Care* and *Fairness/Equality*) towards moral values. On the other hand, the moral concerns about the welfare of groups and institutions were a part of a *binding* approach (*Ingroup/Loyalty*, *Authority/Respect*, and *Purity/Sanctity*) that had been neglected by the morality literature.

The categorization of the five moral foundations into two moral systems helps to explain the widely studied liberal-conservative differences in endorsement of the moral foundations. Specifically, the literature looking at the relationship between political orientation and the moral foundations has consistently found that liberals show a preference towards the *Harm/Care* and *Fairness/Equality* foundation, whereas conservatives tend to endorse all five foundations equally (Graham et al., 2011; Graham, Haidt, & Nosek, 2009; Haidt & Graham, 2007). This liberal-conservative difference cannot be fully explained as a function of left- and right-wing differences, but rather is mediated by both right-wing authoritarianism (RWA) and social dominance orientation (SDO). The endorsement of the individualizing foundations is attributable to lower levels of SDO, whereas greater endorsement of the binding foundations is attributable to higher levels of RWA, particularly the *Authoritarian* sub-factor (Kugler, Jost, & Noorbaloochi, 2014).

### *MFT and Religion*

The emergence of religion, with its emphasis on promoting community through obedience, cleanliness, and synchrony, may be partly explained by group-level moral concerns (Graham & Haidt, 2010; Wilson, 2010). The growth of religious cultures could be traced back to the development of religious communities whose standards of morality were practiced through rituals and other religious behaviors that emphasized the belief in supernatural agents (Graham & Haidt, 2010). This, in turn, helped foster mutual trust and cooperation in religious communities by providing a divine authority figure that would guide the establishment of laws and norms that shaped the moral convictions of the members in the community (Haidt & Joseph, 2008; Shariff & Norenzayan, 2007). The development of moral standards is not uniquely driven by religion. Rather, religion appears to act as a cultural framework in which to convey and develop one's sense of morality (Killen & Smetana, 2015). The relationship between religion and morality can be seen in studies investigating Moral Foundations Theory. For example, Franks and Scherr (2015) observed a positive correlation between individual differences in religiosity and the binding foundations of *Authority/Respect* and *Purity/Sanctity*. In addition, the endorsement of the binding foundation was positively related to the perception of the world as being dangerous (van Leeuwen & Park, 2009), which religion serves to buffer (Altemeyer, 1988).

The relationship between religion and morality is not limited to group-based moral concerns. The individualizing foundations, characterized by the concept of justice and care, are also related to religion. Whether it is through the commands of a divine being or by an emphasis on the connectedness of humanity, compassion for others is a

core feature of religion (Graham & Haidt, 2010; Saroglou & Dupuis, 2006). While the binding foundations have shown a consistent link with religion, results of previous studies conflict regarding the link between individualizing foundation and religion. On one hand, the individualizing foundations (notably the care/harm foundation) are shown to be positively correlated with religiosity (Franks & Scherr, 2015). On the other hand, general religiousness has been found to predict a style of ethical thinking that prioritizes adherence to a strict moral code over potential positive consequences for individual welfare.

Both individual- and group-level sociomoral concerns are represented in moral foundations theory. This is important because there may be a socio-functional difference between the authoritarian and benevolent God concepts. I hypothesize that God concepts differentially influence the moral foundations depending on the specific concept of God that is being made salient. To establish a causal link between religion and morality, the current study will prime the different concepts of God and examine their effect on endorsement of moral values.

The priming of an authoritarian God is expected to increase one's endorsement of the binding foundations, while priming a benevolent God will increase endorsement of the individualizing foundations. An authoritarian God is associated with expectations of obedience and aggression toward transgressors which could facilitate group cohesion and increase group identity (Bader & Froese, 2005). Greater group cohesion and identity would increase one's concern for their group's welfare. In contrast, a benevolent God is associated with expectations of acceptance and forgiveness which could increase values

of compassion. This would lead to an increase in one's concerns for individual rights and welfare.

I hypothesize that these effects could be explained by the values that are perceived to be supported by one's society. It is important to look at individual perceptions of societal values because morality is often connected to behavioral conformity towards public standards (Syed, 2008). Thus, determination of what is morally right or wrong is likely associated with current societal values and norms. In the current study, I will be looking at whether the direct effects of God concepts on one's moral concerns can be mediated through perceived societal standards.

### *Perceived Societal Values*

Societal values might play an important role in explaining how different God concepts influence endorsements of the moral foundations. Social values are established through laws that are put in place by authority figures (Posner, 1997). In the case of religious communities that view God as an authority figure, divine command would play a role in establishing social values and norms which would influence what one perceives as being moral. This is consistent with the supernatural monitoring hypothesis, which posits that thoughts about God activate psychological responses similar to social surveillance (Gervais & Norenzayan, 2011). In social surveillance, the perception of being watched by others is believed to facilitate cooperation among individuals (Bateson, Nettle, & Roberts, 2006), which requires an understanding of the group's values and norms. This means that activations of self-awareness through perceived social surveillance makes public, not personal, standards salient (Froming et al., 1982). Similarly, activating an awareness of God is expected to increase one's reputational

concerns in relation to their community, which leads to greater adherence to societal values and expectations (Gervais & Norenzayan, 2012; Norenzayan & Shariff, 2008). If different types of God concepts are associated with emphasis on different societal values, then endorsements of different moral concerns should be observed. Putting it together, it is possible that the effects of God concept priming on endorsement of the moral foundations is mediated by the endorsement of certain societal values.

The current study focused on Schwartz's (1994) operational definition of *security* and *universal* values. *Security* was defined as an emphasis on the preservation of current social arrangements, protection of order in society, and the control of resources in order to overcome uncertainty threats. In contrast, *universalism* emphasizes comfort with diversity, unselfishness, and the promotion of closeness in relationships. These two values were originally viewed as opposites on a spectrum that lined up with the political spectrum. The *security* values were shown to be associated with conservative views whereas *universal* values were associated with liberal views (Braithwaite, 1994; Schwartz, 1994). The contrast between the two values is seen in the prejudice literature as well. *Security* values were positively related to prejudice and right-wing authoritarianism, but *universal* values were negatively related to prejudice, right-wing authoritarianism, and social dominance orientation (Feather & McKee, 2008).

The salience of different God concepts is expected to differentially activate the *security* and *universal* values. The belief in God as the ultimate authority figure means that divine commands should influence the values supported by the religious community. Rather than a shift in one's *personal* values, thinking about a certain God should make one's perceptions of certain *societal* values salient. An authoritarian God functions well

to bind individuals together into a group. By punishing transgressors, expectations of obedience and adherence to authority figures is established. Thus, it is hypothesized that thinking about an authoritarian God may activate perceived societal support for *security* values (e.g., aggression, strict adherence to authority, and conformity to traditional values). These values are designed to help strengthen group cohesion which aligns with concerns for the welfare of one's group (Kugler, Jost, & Noorbaloochi, 2014). The increased concern for one's own group would explain the greater endorsement of the binding foundations which emphasizes the welfare of one's group. In contrast, a benevolent God emphasizes unity among all individuals. Through love and forgiveness, expectations of compassion and care for others is established. Therefore, thinking about a benevolent God may activate perceived societal support for *universal* values (e.g., concerns of individual welfare and forgiveness). These values encourage individuals to focus on concerns over the well-being of individuals and their rights. The increased salience of compassionate values would help to explain the greater endorsement of the individualizing foundations which focuses on the welfare of individuals.

### *Present Study*

Although there is evidence to support a relationship between religion and morality, there are still many questions regarding how different aspects of religion may influence morality (e.g., authoritarian vs. benevolent God concepts). While the relationships between God concepts and various constructs relating to socio-moral attitudes and behaviors have been established, the direction of these relationships is unclear. Graham and Haidt (2010) theorized that the belief in God was important in binding people together by establishing moral standards through divine command. Belief



in God may help to explain the relationship between religion and morality, but it does not help explain some inconsistencies observed with regards to moral behaviors. For example, religion could motivate an individual to engage in either prosocial or aggressive behaviors (Shariff et al., 2016). Whether or not a religious individual engages in behaviors that help or harm another person is influenced by the identification of that person as an ingroup or outgroup member. The study of God concepts may help shed light on this by showing that different God concepts directly influence one's individual- and group-based moral concerns. In particular, individuals that view God as a punitive being may be more likely to engage in aggression toward outgroup members, but act prosocially toward ingroup members. Those who view God as a compassionate being may be more likely help and assist people regardless of their group membership.

The process by which these two God concepts could influence sociomoral attitudes could be explained as a function of extrinsic motivations (Johnson et al., 2013). Within self-determination theory, there is a sub-theory called organismic integration theory (OIT; Ryan & Deci, 2000) which identifies extrinsic motivation as having either a perceived external or internal locus of causality. Within this theoretical framework, an authoritarian God concept might be associated with an external motivation characterized by the avoidance of punishments as a means of regulating attitudes and behaviors. This would further encourage group trust by reducing cheating behaviors, which would increase group cohesion (Shariff & Norenzayan, 2011). The increased group cohesion would lead to aggression toward sociomoral transgressors and outgroup members as a means to protect the group.

In contrast, a benevolent God concept may be associated with internal motivations

related to the drive to be consistent with one's moral sense of identity, which would reflect compassion and a willingness reach out to outgroups (Johnson et al., 2013; Reed & Aquino, 2003). Groups and individuals that emphasize the benevolent concept of God may be more forgiving of sociomoral transgressors in order to preserve and maintain a positive self-identity. The motivation to maintain a positive self-identity is not unique to those who view God as a benevolent being. Between an authoritarian and benevolent God concept, there may be different expectations regarding the values that contribute toward one's positive self-identity. Whereas a benevolent God concept may focus on values of compassion as being important to one's self-identity, an authoritarian God concept may place greater emphasis on values of obedience and conformity.

My primary goal was to examine how the two different concepts of God could influence endorsements of the individualizing and binding foundations in different ways. The secondary goal was to examine whether perceived societal support for certain values would mediate those effects. To study this, I primed participants with either the authoritarian or benevolent God concept and measured their endorsements of the moral foundations. The mediation effect of perceived societal support for *security* and *universal* values were tested by having participants rate the extent to which they perceived that society supported those values.

A model was constructed that looked at the mediation effects of perceived societal values as a latent variable. Two latent variables representing *security* and *universal* concerns were created. I took a structural equation modeling approach and analyzed the *security* values as a mediator between the positive effects of an authoritarian God prime on the binding foundations and analyzed the *universal* values as a mediator between the

positive effects of a benevolent God prime on the individualizing foundations. I hypothesized that priming an authoritarian God would activate public standards that focused on the preservation of one's own group (*security* values) and priming a benevolent God would activate values of compassion for others (*universal* values). The hypotheses for the current study are summarized below:

- Authoritarian God primes would increase endorsement of the binding foundations compared to benevolent God primes.
  - This effect would be positively mediated by *security* values.
- Benevolent God primes would increase endorsement of the individualizing foundations compared to authoritarian God primes.
  - This effect would be positively mediated by *universal* values.

## CHAPTER TWO

### Methods

#### *Participants*

In exchange for \$0.50, 486 adult participants were recruited from Amazon's Mechanical Turk (MTurk) to complete the online study. Individuals outside of the US were excluded from participation because the Moral Foundations Questionnaire was created in the context of the US political culture (Haste, 2013). All analyses were conducted using the open source programming language, R. A power analysis was done to determine the number of participants needed to find an effect of the God primes on the support for the moral foundations. Specifically, a structural equation modeling (SEM) analysis was done and the factor loadings that were used in the theoretical model were taken from Graham et al. (2011). For the a priori power analysis, 10,000 simulated datasets were generated and tested with the hypothesized model predicting the effect of the God concept primes on support for the moral foundations. Through these simulations, it was determined that a sample size of 442 participants corresponded to an 80% chance of finding an effect of the God concept primes on the moral foundations. Based off prior experience, roughly 10% of the participants become suspicious about the hypotheses of the study or do not pay attention during the study and are removed from the analyses. As a result, an additional 44 participants were collected, which brought the total number of required participants to 486.

Of the 486 participants, one participant failed to input the correct MTurk code and was removed from the dataset. In addition, I filtered out 4 participants because they had correctly guessed the purpose of the study and another 33 participants due to failure on the manipulation/attention check items. Lastly, one participant was removed from analysis through listwise deletion due to missing data. The total number of participants included in the final analyses was 448 (279 females; mean age = 39.01,  $SD = 12.71$ ). See Table A.1 for descriptive statistics. The removal of these participants appeared to decrease the observed  $p$ -values for a majority of the effects, but this is likely a reflection of decreased power due to smaller sample size. Overall, the observed effects appear to not be influenced by the removal of these participants.

### *Procedures and Measures*

#### *Overview*

Participants were presented with an online consent form. Participants were then presented with the priming task. Next, they completed measurements of moral concerns, perceived societal standards, and God concept. Then, participants completed questions asking about their political beliefs and religiosity. Afterwards, suspicion probe items were presented to the participant. Lastly, participants were debriefed about the purposes and hypotheses of the study and given a payment code. In addition, various manipulation and attention check items were scattered within the survey to make sure that participants were engaged throughout the study.

To estimate reliabilities for the latent variables, I used R to compute omega coefficients (Bentler, 1972, 2008; Raykov, 2001). Omega was used instead of alpha

because of the following advantages: (1) omega has less assumptions that are more realistic and (2) omega is less likely to reflect an inflated internal consistency estimation (Dunn, Baguley, & Brunsden, 2014). This is important because the assumptions of alpha are rarely met, whereas omega adheres to congeneric models which are less restrictive on their assumptions (Sočan, 2000). The order of the measured variables is outlined, with details, below, along with their reliability estimates.

#### *Independent Variable: God Concept*

Participants were randomly assigned to one of two priming conditions: authoritarian or benevolent God concept. A list of nine adjectives were presented and participants rated on a 7-point scale the extent to which they agreed or disagreed with the adjectives as descriptions of God. Participants were instructed that if they did not believe in God, they should rate the extent to which they believed their society agreed or disagreed with the adjectives. In the authoritarian God condition, participants were presented with adjectives that represented God as all-powerful with expectations regarding the behavioral conduct of mortals (*controlling, restricting, stern, commanding, strict, angry, judging, punishing, and wrathful*;  $\omega = 0.94$ ). In the benevolent God condition, participants were presented with adjectives that represented God as a nurturing caregiver who aids those in need (*helping, generous, compassionate, gracious, tolerant, caring, accepting, merciful, and forgiving*;  $\omega = 0.96$ ). These adjectives were taken from the Authoritarian/Benevolent-God scale (Johnson, Okun, & Cohen, 2015). Although the method of priming religion via manipulation of presentation order is rare, it had been used successfully in previous studies (e.g., Ginges, Hansen, & Norenzayan, 2009).

*Dependent Variable: Moral Foundations*

The moral foundations were measured using the Moral Foundations Questionnaire (MFQ; Graham et al., 2011). The MFQ measures five different dimensions of moral concerns: *Harm/Care*, *Fairness/Equality*, *Ingroup/Loyalty*, *Authority/Respect*, and *Purity/Sanctity* (Haidt & Graham, 2007). The questionnaire was divided into two sections that were measured on a 6-point scale. The first section measured the extent to which certain beliefs, actions, and values were relevant to one's moral concerns (e.g., "whether or not someone's action showed love for his or her country"), ranging from 1 (*Not at all Relevant*) to 6 (*Extremely Relevant*). The second section measured one's level of agreement with certain beliefs and values (e.g., I am proud of my country's history), ranging from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). For the subscales of each foundation, Graham et al. (2011) observed Cronbach alphas of .69 (*Harm/Care*), .65 (*Fairness/Equality*), .71 (*Ingroup/Loyalty*), .74 (*Authority/Respect*), and .84 (*Purity/Sanctity*).

For the current study, I made the decision, a priori, to analyze the moral foundations as a two-factor latent variable: *Individualizing* (*Harm/Care* and *Fairness/Equality*;  $\omega = 0.85$ ) and *Binding* (*Ingroup/Loyalty*, *Authority/Respect*, and *Purity/Sanctity*;  $\omega = 0.90$ ). Previous research in our lab that analyzed the moral foundations as five latent variables resulted in the occurrence of a Heywood case due to the high correlations between the two individualizing foundations as well as between the three binding foundations. See Table A.2 for the correlations between the five moral foundations.

### *Mediating Variable: Societal Values*

Perceived societal support for values pertaining to *security* and *universality* were measured by a modified Schwartz's Values Survey (SVS; Schwartz, 1992). According to Schwartz (1992), the *security* value represents the motivational goals of safety, harmony, and stability of either the individual or group whereas the *universal* value represents the concern for the welfare of all humankind. Spini (2003) modified the SVS by testing the reliability of all the items for each value and keeping the most reliable ones across all cultures. Thus, the *security* value contained four items which emphasized the welfare of ones' group (national security, family security, clean, and social order;  $\omega = 0.73$ ) and the *universal* value contained three items (equality, social justice, and a world at peace;  $\omega = 0.85$ ). The SVS originally utilized numerical ratings which were assumed to conform to an interval scale, but Lee and Soutar (2010) revealed that the SVS did not exhibit characteristics of an interval scale. As a result, I used a modified 7-point scale, ranging from 1 (*Extremely Against*) to 4 (*Indifferent*) to 7 (*Extremely Supportive*) for the current study. The SVS traditionally measures the relative importance that individuals place on various values, but for the purposes of the study, the directions asked participants to rate how they perceive their society to be in support of or against each of the values as guiding principles in life. The current study focuses on one's perceptions regarding societal support for certain values because activations of self-awareness through perceived social surveillance makes public, not personal, standards salient (Froming et al., 1982).



*Exploratory Variable: Individual Differences in God Concepts*

Based on their assigned condition, participants were next provided with the God concept subscale that was not presented to them at the start of the study. This meant that participants assigned to the authoritarian condition were now presented with the Benevolent subscale and those assigned to the benevolent condition were now presented with the Authoritarian subscale. This was done to control for personal conceptualizations of God in the analyses. In addition, exploratory analyses were conducted including the God concept measure as an additional variable.

In a series of studies, Johnson et al. (2015) tested the reliability and validity of the two God concept subscales. Both the Authoritarian and Benevolent God subscales exhibited adequate internal consistency ( $\alpha = .87$  and  $.90$  respectively) and showed high test-retest reliability ( $r = .78$  and  $.81$  respectively). The two subscales were not correlated with each other and differentially correlated with other God concept constructs. Specifically, Johnson et al. (2015) compared their scale with two other measures of God concepts: Loving/Controlling God (Benson & Spilka, 1973) and Positive/Negative Attitudes toward God (Wood et al., 2010). They found that the Authoritarian God subscale correlated positively with the Controlling and Negative God subscales ( $r_s = .62$  and  $.31$  respectively) and the Benevolent God subscale correlated positively with the Loving and Positive God subscales ( $r = .69$  and  $.78$  respectively).

*Moderator: Belief in God*

I did not include belief in God in my a priori hypotheses, but Lin et al.'s (2016) research suggests that belief in God moderates the priming effect of God on prosociality. The belief in God item that is commonly included in studies measuring religiosity

typically measures belief in terms of a trichotomous outcome of either yes, no, or uncertainty. However, there are some serious theoretical and psychometric issues with using this trichotomous choice item. Theoretically, there is evidence that supports the idea of heterogeneity among believers, atheists, and even religious “nones”. It may seem like those identifying with a religion would have to hold absolute certainty in their religious beliefs, but that is not always the case. Other psychology of religious constructs support the idea that religious individuals can vary in their religious certainty. For example, Batson’s (1976) Quest orientation construct covers the degree to which religious individuals embrace skepticism over their religious beliefs and value tentativeness. Likewise, among those who self-declare as atheists, there is evidence supporting the presence of internal variation in their self-identity and source of meaning (Schnell, 2015; Schnell & Keenan, 2011; Silver, Coleman, Hood, & Holcombe, 2014). For individuals that self-declare as having no religious affiliation, there are a good number of religious “nones” that have reported believing in God and having had religious experiences (Vernon, 1968).

In this study, I included a scale based on Dawkins’ (2006) “spectrum of theistic probability” which measured the degree to which individuals are certain in their belief of the existence of God. I included this item instead of the standard belief in God item to reflect differences in the extent to which individuals hold belief or disbelief. I wanted to measure these differences because the extent to which one holds belief or disbelief could account for how much God concepts influence one’s attitudes and behaviors. The item, which contains a brief statement that summarizes one’s place along a spectrum, was presented to the participants as follows:

“The following statements represent the "spectrum of theistic probability" summarizing one's place between two extremes of opposite certainty regarding the existence of God (or other religious deity). Please select the statement that most accurately represents your belief.”

1. Strong theist: 100 percent probability of God.
  - “I do not believe, I know.”
2. De facto theist: Very high probability but short of 100 percent.
  - “I don’t know for certain, but I strongly believe in God and live my life on the assumption that He is there.”
3. Leaning towards theism: Higher than 50 percent, but not very high.
  - “I am very uncertain, but I am inclined to believe in God.”
4. Completely impartial: Exactly 50 percent.
  - “God’s existence and non-existence are exactly equally probable.”
5. Leaning towards atheism: Lower than 50 percent, but not very low.
  - “I do not know whether God exists, but I’m inclined to be skeptical.”
6. De facto atheist: Very low probability, but short of zero.
  - “I don’t know for certain, but I think God is very improbable, and I live my life on the assumption that he is not there.”
7. Strong atheist: 0 percent probability of God.
  - “I know there is no God.”

If we assume that there is heterogeneity in the extent to which individuals are certain in the existence of God, then a simple trichotomous choice item would not be sufficient to capture the full variation. Statistically, the extension of the belief in God item from a 3-point scale to a 7-point scale would increase the power of the study since the variance between individuals is being reflected to a greater degree. Although the current study did not include both items, I have four different sets of data that contain the standard belief in God item, the spectrum of theistic probability, and other religiousness

constructs. Based off the results of the four datasets, I can conclude that the spectrum of theistic probability is a valid item for measuring belief in God. The average correlation between the standard belief in God item and the spectrum of theistic probability item in other data sets was  $r = 0.83$ . Compared to the standard belief in God item, the spectrum of theistic probability item was also observed to have greater average correlations with the other items measuring religiousness such as the extent to which they believe in their religion ( $rs = 0.61, 0.72$ ), the extent to which they consider themselves to be “religious” ( $rs = 0.66, 0.75$ ), the extent to which they consider themselves “spiritual” ( $rs = 0.62, 0.68$ ), frequency of prayer ( $rs = 0.66, 0.76$ ), frequency of attendance to religious services ( $rs = 0.48, 0.60$ ) and religious interest ( $rs = 0.57, 0.69$ ), where the first correlation is for the standard belief in God item and the second correlation is for the spectrum of theistic probability item.

### *Other Variables*

The variables discussed above were all variables of significant interest to my hypotheses. Other ancillary variables included state affect, measured with the Anger and Happiness subscales from the Discrete Emotions Questionnaire (DEQ; Harmon-Jones, Bastian, Harmon-Jones, 2016), used to control for any affective responses that could have been activated as a result of the different concepts of God. In addition, I measured intergroup attitudes using the Overlap of Self, Ingroup, and Outgroup scale (OSIO; Schubert & Otten, 2002) as a possible variable that could be influenced by the God concept primes and the moral foundations. Lastly, participants were asked to report a variety of demographic information, specifically sex, age, ethnicity, socio-economic status, education, political views and orientation, and religiosity items (affiliation, belief

in God, frequency of prayer, religious attendance, and religious interests). The final analyses only included the belief in God measure, which was discussed earlier in detail.

For the experiment conducted in the current study, I have reported all measures, conditions, data exclusions, and the power analysis conducted for determination of the required sample size above. Following the recommendation of Simmons, Nelson, and Simonsohn (2011), I will present results that do not include the covariates in the model to show that the results of the study are not reliant on the inclusion of covariates.

## CHAPTER THREE

### Results

Two models were analyzed looking at the effects of the God concept primes on perceived societal support for certain values, and endorsement of the moral foundations. I hypothesized that the effects of the authoritarian God prime on the endorsement of the binding foundations would be mediated by greater perceived societal support for *security* values, whereas the effects of the benevolent God prime on the endorsement of the individualizing foundations would be mediated by greater perceived societal support for *universal* values.

The first model tested the hypotheses without the inclusion of the covariates (individual differences in the conceptualization of an authoritarian/benevolent God and state levels of happiness and anger) and the moderator (belief in God). This model yielded poor fit results when considering both the root mean square error of approximation (RMSEA = 0.084, CI = [0.081, 0.087]; MacCallum, Browne, & Sugawara, 1996) and the standardized root mean square residual (SRMR = 0.109; Hu & Bentler, 1999). The second model tested the hypotheses with the inclusion of the covariates and the spectrum of theistic probability item to represent the belief in God moderator. This model yielded mixed results with a smaller RMSEA and SRMR value compared to the first model (RMSEA = 0.067, CI = [0.065, 0.069]; SRMR = 0.095). While the RMSEA value would indicate adequate fit, the SRMR value does not. A look at the conflicting values of the fit indices for the two models suggest that the results

should be interpreted with caution. Rather than focusing on the model as a whole, individual paths pertaining to the a priori hypotheses will be discussed.

### *Descriptive Statistics*

The means, standard deviations, omega reliability coefficients, and correlations between all variables that were examined in this model are presented in Table A.3. As noted above, omega coefficients (Bentler, 1972, 2009; Raykov, 2001) were reported in place of Cronbach's (1951) alpha as the measure of reliability.

The decision to test the model with the moral foundations as a two-factor construct was supported by two points. The correlations between the two individualizing foundations as well as the correlations between the three binding foundation were extremely high (see Table A.2 for the model implied correlation matrix of the latent variables) and the individualizing and binding constructs had greater reliability than the five individual factors of which they are composed (as shown by their omega values in Table A.3).

I will only report the results of the model that contained the covariates and the spectrum of theistic probability as a moderator because their inclusion did not significantly alter or influence the observed results from the basic model containing neither of the two. In addition, the exclusion of participants due to failed manipulation checks did not affect the results.

### *God Concept Priming Effects*

In interpreting the results, it is important to note that there was no control prime group. I dummy coded the God concept prime variable so that the authoritarian God

priming group served as the reference group. Therefore, the results regarding the effects of the God concept primes must be interpreted as comparisons between the authoritarian and benevolent God priming groups. I hypothesized that the authoritarian God prime would increase endorsement of the binding foundation, compared to the benevolent God prime. There was no significant effect of priming condition on endorsement of the binding foundations ( $\beta = -0.12, t = -1.59, p = 0.113$ ). I also hypothesized that the benevolent God prime would increase endorsement of the individualizing foundations. There was no significant effect of God concept prime on endorsements of the individualizing foundation ( $\beta = -0.003, t = -0.02, p = 0.982$ ).

Before I analyzed the model, I re-coded the spectrum of theistic probability item so that it was scaled from 0 (0 percent probability of God) to 6 (100 percent probability of God) for ease of interpretation. The inclusion of the spectrum of theistic probability item resulted in significant moderation effects and revealed a pattern between the effects of the God concept primes and the perceived societal support for values that was dependent upon belief in God. An interaction effect of belief in God and the God concept primes on the perceived societal support for the *security* and *universal* values was observed ( $\beta = 0.09, t = 2.98, p = 0.003$ ;  $\beta = 0.08, t = 2.03, p = 0.04$ ; respectively). These interaction effects indicate that the God concept primes had opposite effects on the perceived societal support for the two values depending on the degree of certainty one has about the existence of God.

Consistent with hypotheses, the priming of authoritarian God concept resulted in greater perceived societal support for the *security* values, but only for those who are less inclined to believe in God. In fact, the effect increased in magnitude as the individual



reported greater uncertainty in the existence of God (when STP = 2, 1, and 0;  $\beta = -0.17, t = -2.08, p = 0.038$ ;  $\beta = -0.26, t = -2.50, p = 0.012$ ;  $\beta = -0.35, t = -2.71, p = 0.007$ ; respectively). By adding in a measure that looks at the degree of certainty in one's belief in God, I was able to observe a pattern for the moderation effect. Not only are the differential effects of the God concept primes contingent on one's belief in God, the magnitude of the effects is influenced by the degree to which one is certain of God's (non)existence. See Figure A.1 for the hypothesized model that controls for the covariates and includes the spectrum of theistic probability as a moderator.

### *Societal Values and Moral Foundations*

I had originally hypothesized that the perceived societal support for the *security* values would positively mediate the effects of the authoritarian God prime on the endorsements of the binding foundation and that *universal* values would positively mediate the effects of the benevolent God prime on the endorsements of the individualizing foundations. These hypotheses suggest that an increase in perceived societal support for the *security* values would positively predict an increase in endorsement for the binding foundations and that support for *universal* values would positively predict increased endorsement for the individualizing foundations.

The perceived societal support for *security* values positively predicted endorsement for both the binding and individualizing foundation ( $\beta = 0.25, t = 4.42, p < 0.001$ ;  $\beta = 0.29, t = 2.92, p = 0.003$ ; for the binding and individualizing foundations respectively). Contrary to hypotheses, perceived societal support for the *universal* values did not significantly predict support for the individualizing foundations ( $\beta = 0.02, t = 0.32, p = 0.748$ ). Instead, the *universal* values were found to positively

predict support for the binding foundations ( $\beta = 0.06, t = 2.08, p = 0.04$ ). See Table A.4 for all the beta coefficients in the model with the covariates and the moderator.

## CHAPTER FOUR

### Discussion

Throughout different religious faiths, the nature of God has generally been represented as authoritarian or benevolent. For example, religions portray God to be controlling and punishing towards disobedience (Shariff & Norenzayan, 2011), but also forgiving and compassionate toward out-group members (Noffke & McFadden, 2001). The current study aimed to show that these two different conceptions of God (authoritarian and benevolent) function in unique ways to fulfill social needs.

I hypothesized that authoritarian and benevolent representations of God would differentially influence the extent to which individuals supported individual- and group-based moral concerns. This effect was hypothesized to be mediated by perceptions about the degree to which society supports *security* and *universal* values. The results of the current study did not support a direct effect of God concept primes on moral foundations. Instead, the results showed support for the predicted relationship between perceived societal support for the *security* values and endorsements of the binding foundations which was implied by the mediation hypothesis. Initially, I did not hypothesize a moderation effect of belief in God in the model, but included it given that those who believe in God may be influenced by God primes in different ways than those who do not (Shariff, Willard, Andersen, & Norenzayan, 2016). Contrary to previous research, which failed to observe a God priming effect in those who reported no belief in God (Lin et al., 2016), the current study showed that the priming of authoritarian and benevolent God

concepts differentially influenced individuals depending on the degree to which they were certain in the existence or nonexistence of God. A pattern emerged showing that as the discrepancy between certainty in God's existence and nonexistence increased, the magnitude of the differential effects of the God primes increased as well. In order to make interpretations easier to understand, I will be referring to those who reported certainty in God's nonexistence as "atheists" irrespective of the extent to their certainty. Likewise, I will refer those who reported certainty in God's existence as those who believed in God. These descriptions do not fully reflect the variability to which there is certainty in God's (non)existence, but it should not make too much of a difference. The valence of the priming effects are consistent along each side of the continuum, with the absolute magnitude of the effect increasing as certainty increased.

For those not believing in God, activating thoughts about an authoritarian God increased the extent to which individuals perceived that their society would support *security* values compared to activating thoughts about a benevolent God. This is expected since an authoritarian God was hypothesized to activate concerns of order and tradition which is consistent with supernatural monitoring and punishment being associated with the rejection of moral transgressions (Atkinson & Bourrat, 2011). In addition, the directions for filling out the God concept scales encouraged those who did not believe in God to answer based on how they thought their society believed in God. This would encourage participants to answer based on their stereotypes of religion and its adherents. For perceived societal support for *universal* values, the hypothesis was not supported when priming atheists with a benevolent God concept. Compared to those primed with an authoritarian God concept, atheists primed with a benevolent God concept perceived their

society to support *universal* values less. There is not a clear explanation for the observed decrease in the perceived societal support for *universal* values, but this suggests that the perception of societal support for the values of *security* and *universalism* are not inversely related to each other. The values of *security* and *universalism* were originally viewed as opposites on a spectrum (Schwartz, 1994), but a study by Braithwaite (1994) indicates that the two may actually be independent of each other given that they are positively correlated with each other.

The opposite effects were observed when individuals reported more certainty in God's existence. The hypothesis that an authoritarian God prime would result in an increase in perceived societal support for the *security* values compared to a benevolent God was not supported for those who believe in God. Instead, thinking about an authoritarian God decreased one's perception that their society supports the *security* values. On the other hand, the increase in perceived societal support for *universal* values when primed with a benevolent God compared to those primed with an authoritarian God concept was expected. Those who reported having a personal relationship with a loving God were less likely to show support for capital punishment (Unnever, Cullen, & Bartkowski, 2006), which are aspects of *universal* values.

These results indicate that activations of the authoritarian God concept increased atheists' perceptions that their society supports both *security* and *universal* values than compared to atheists that were primed with the benevolent God concept. Conversely, a similar increase in the perceived societal support for the two values was observed when individuals believing in God were primed with the benevolent God concept rather than the authoritarian God concept. The differential effects of the two God concepts on

perceived societal support for the *security* and *universal* values appears to be dependent upon the extent to which an individual is certain of God's (non)existence.

Even though the current study failed to observe any direct or moderated effects between the God concept primes and the moral foundations, there is evidence for a link between perceived societal support for the *security* and *universal* values and endorsement of the moral foundations. As expected, the more individuals believed that their society supported *security* values the greater their tendency to support the binding foundations. In contrast to the implications of the mediation hypotheses, it was perceived societal support for the *security*, not *universal*, values that predicted greater endorsement for individual rights.

### *Limitations*

The current study's results showed that the authoritarian and benevolent representation of God differentially influence perceptions of societal support for *security* and *universal* values. While this suggested that the two God concepts have different functions, it is difficult to completely parse out their effects since there was not a control group to which I could compare the effects. The presence of a control group would have allowed us to have a better understanding of the unique effects for each of the God concept primes on the dependent variable. Specifically, the current results do not shed light on the magnitude of each prime's effect. As a result, our conclusions are limited to comparisons between the authoritarian and benevolent God concepts. The magnitude of effect of one God concept is dependent upon the effect of the other God concept. In order to address this limitation, a control group could be created by adding a third group that is not shown either of the two God concept subscales before the dependent variables.

Likewise, the results failed to support the hypothesis that God concepts would influence endorsements of the moral foundations. It is possible that the priming method used in the current study did not make God concept salient enough. Previous experimental studies within psychology of religion have used sentence unscramble tasks (Shariff & Norenzayan, 2007), scripture (Bushman, Ridge, Das, Key, & Busath, 2007; Carpenter & Marshall, 2009), lexical decision tasks (Saroglou, Corneille, & Van Cappellen, 2009), location (LaBouff, Rowatt, Johnson, & Finkle, 2012; Xygalatas, 2012), and images (Johnson et al., 2013). The presentation of items measuring religious beliefs for use as a prime has been used in other studies (Ginges et al., 2009; Schumann, McGregor, Nash, & Ross, 2014), but this is the first study that has used this method to prime God concepts specifically. Presenting authoritarian or benevolent terms to describe God before measuring the dependent variables may not have primed individuals in the way intended.

Depending on personal views of God, there might be differences in how individuals respond to seeing those descriptive terms. In addition, the directions asked those who did not believe in God to respond in a manner that reflected how they perceived their society to view God, whereas religious individuals were asked to fill out the scale based on their personal beliefs. As a result, it is possible that the responses that were recorded by atheists reflect a stereotyped belief of God that is reflected by perceptions of religion and those who are religious. Additional exploratory analyses appears to support this hypothesis. The results of the exploratory analysis show a contrast in the way atheists perceived their society to view God and the view of God that believers

have. Specifically, atheists perceived their society to view God as being more authoritarian and less benevolent than how believers personally viewed God.

The results of the study also bring up questions regarding the nature of the relationship between God concepts and perceived societal support for security and universal values. It was observed that individuals reporting no belief in God were influenced by the God concept primes differently from those who believe in God. The hypothesis that benevolent God primes would increase *universal* values compared to authoritarian God primes was observed for those who reported believing in God, but the opposite was observed for atheists. Also, the hypothesis that authoritarian God primes would increase *security* values compared to benevolent God primes was observed in atheists, but the reverse effect was observed in religious individuals. One possible explanation for this is that there is a discrepancy between how atheists and religious people view God. An atheists' view of God that is possibly influenced by stereotypic beliefs regarding religion would contrast with a religious person's view of God that is vulnerable to social desirability bias. Past research has shown that religious individuals are prone to engaging in impression management and motivated by self-presentation motives (Batson & Ventis, 1982; Leak & Fish, 1989). Therefore, religious individuals may be more prone to have more socially appropriate view of God as a compassionate and forgiving figure. Non-religious individuals may be more likely to have a more negative view of God as a punitive figure. The results of the exploratory analysis appear to support this explanation.



### *Future Directions*

Despite the questions that have been raised, the current study does show evidence that priming different God concepts functions to influence perceptions of societal values and attitudes through different mechanisms. Of particular importance is how the different God concepts function in different ways depending on one's belief in God. Previous research has shown evidence that God priming effects were absent for those who do not believe in God (Dijksterhuis, Preston, Wegner, & Aarts, 2008; Lin et al., 2016; Shariff & Norenzayan, 2007), but the current study shows evidence that atheists can be influenced by different concepts of God, and these effects are different from religious individuals. In addition, the study shows evidence for a link between societal values and one's endorsement of the moral foundations. It is likely that people's perceptions of the values their society supports could influence the extent to which individual- and group-based moral concerns are of importance to people.

Future research might address the limitations of the current study. The addition of a control group could establish a baseline group that allows us to observe the magnitude of the effects of the two God concept primes. This could easily be included in a follow-up study by including a third group of participants that are not presented with the authoritarian or benevolent God concept subscales in the beginning of the study, but instead are asked to fill it out at the end. The priming method could also be adjusted to better manipulate the specific God concept that is made salient. For example, Johnson et al. (2013) primed participants by showing an image of an authoritarian God or a benevolent God.

Another explanation as to why there was no observed effect of the prime on endorsements of the moral foundations is that individuals that are persistent in their belief regarding God's nature and might not be influenced by the God concept primes. It is possible that individuals who are dogmatic, or closeminded, in their beliefs about God's nature might not be influenced by God concept primes, especially if the concept being primed conflicts with their personal conceptualization of God. This is similar to confirmation bias, in which information and ideas that are inconsistent or conflict with one's preexisting beliefs are largely ignored (Nickerson, 1998). This issue may be resolved by either including a manipulation check item that measures the effectiveness of the God concept prime, or by including a more explicit priming task. Johnson et al. (2013) successfully primed authoritarian and benevolent God concepts by showing images that represented the two God concepts. In addition, Bushman et al. (2007) used passages containing scriptural violence in order to prime the idea of violence sanctioned by God.

Aside from the potential limitations of the priming method, it is possible that individuals could have responded to the moral foundations questionnaire differently depending on whether their worldview is focused on group- or individual-welfare. If religious individuals hold a worldview that emphasizes group welfare, then they may be supportive of the rights of members of the ingroup but not the rights of members of their outgroups. This would presumably be caused by the cultural group identity formed through religion which would lead to selective prosociality. The distinction between religious institutions and agents helps explain the selective prosociality toward religious ingroups and negative attitudes toward religious outgroups (LaBouff, Rowatt, Johnson,

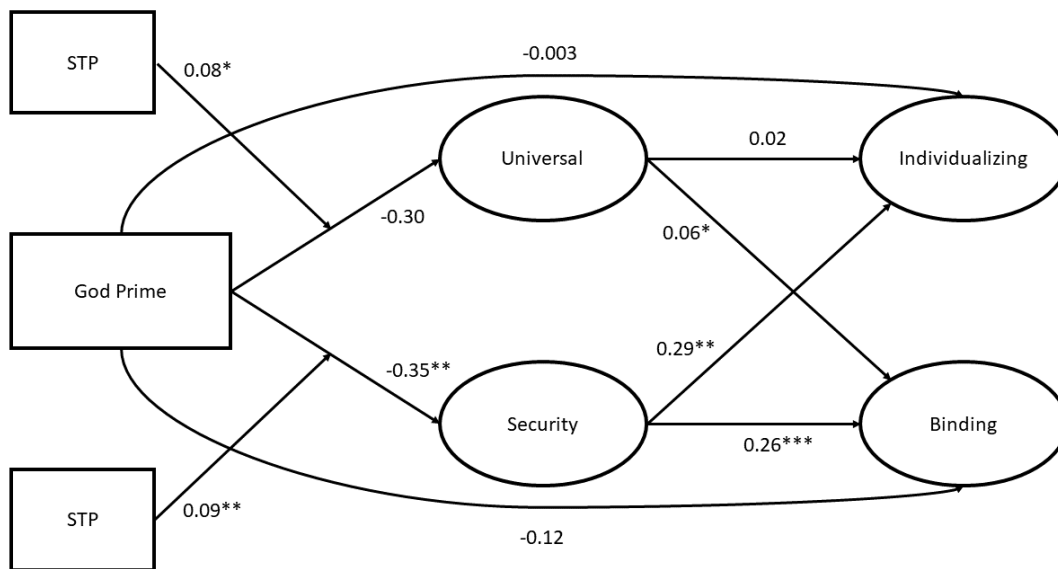
Finkle, 2012; Preston & Ritter, 2013). For some people, scoring high on the individualizing foundations may be reflective of support for the rights of individuals who are members of one's ingroup, rather than for all individuals. In this case, scoring high on the individualizing sub-scale may not be reflective of universal compassion, but could be positively related to harm toward outgroup members. This would explain how perceived societal support for *security* values, which focuses on group preservations, could positively predict endorsement of the individualizing foundations. In order to test this assumption, a future study could be conducted to test the individualizing foundation sub-scales at a group- or individual-level. This could be done by altering the items in the individualizing sub-scale to either reflect care and fairness towards ingroup and outgroup members.

The study of God concepts is useful in shedding light regarding the nature of the relationship between religion and morality. Graham et al. (2010) theorized that one of the sociofunctional roles of religion was to establish moral communities, and that belief in God was central to this. The current study showed that people's view of God influences moral attitudes and this effect differs depending on one's general belief in God. More than that, God concept plays a role in shaping the values that are perceived to be supported by society. The next steps in this line of research would be to see how these societal standards are linked to the process by which individuals endorse moral concerns while controlling for ingroup-outgroup categorizations.

## APPENDIX

## APPENDIX

### Figures and Tables



*Figure A.1. Model with covariates and moderator*

Table A.1.

*Descriptive Statistics for N = 448*

Demographics	<i>n</i> (%)
Male	168 (37.50%)
Female	279 (62.28%)
Unspecified	1 (0.22%)
Race/Ethnicity	
African-American/Black	28 (6.25%)
Asian/Pacific Islander	39 (8.71%)
Hispanic	28 (6.25%)
Native American	3 (0.67%)
Caucasian/White	342 (76.34%)
Other	7 (1.56%)
Unspecified	1 (0.22%)
Religious Affiliation	
Protestant	142 (31.70%)
Catholic	95 (21.20%)
Buddhist	9 (2.01%)
Hindu	9 (2.01%)
Jewish	9 (2.10%)
Muslim	4 (0.89%)
None	36 (8.04%)
Atheist	48 (10.71%)
Agnostic	80 (17.86%)
Other	16 (3.57%)

Table A.2.

*Omegas and Correlations Between the Five Moral Foundation Latent Variables*

Variable	$\omega$	1	2	3	4	5
1. Harm/Care	0.78	---	---	---	---	---
2. Fairness/Equality	0.73	0.858	---	---	---	---
3. Ingroup/Loyalty	0.70	0.128	0.006	---	---	---
4. Authority/Respect	0.77	0.193	0.137	0.968	---	---
5. Purity/Sanctity	0.85	0.127	0.011	0.701	0.831	---

Table A.3

*Descriptive Statistics and Correlations for MF, Authoritarian/Benevolent God Concept, and Security/Universal Values*

Variable	Mean (SD)	$\omega$	1	2	3	4	5	6	7	8	9
1. Individualizing	4.65 (0.74)	0.84	---	---	---	---	---	---	---	---	---
2. Binding	3.70 (0.93)	0.90	0.10*	---	---	---	---	---	---	---	---
3. Security	5.54 (0.90)	0.73	0.30***	0.40***	---	---	---	---	---	---	---
4. Universal	5.44 (1.26)	0.85	0.19***	0.33***	0.55***	---	---	---	---	---	---
5. Authoritarian	3.78 (1.60)	0.94	-0.05	-0.19***	-0.14***	-0.20***	---	---	---	---	---
6. Benevolent	5.75 (1.20)	0.96	0.20***	0.35***	0.34***	0.24***	-0.31***	---	---	---	---
7. Ingroup- Outgroup	3.15 (1.33)	---	-0.06	0.15***	0.06	0.08	-0.07	-0.03	---	---	---
8. Self-Outgroup	2.87 (1.42)	---	-0.12**	0.11*	0.02	0.08	-0.07	-0.03	0.70***	---	---
9. Self-Ingroup	4.57 (1.28)	---	0.10*	0.05	0.15	0.12*	0.03	0.11*	0.29***	0.31***	---

*Note.* \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Table A.4

*Betas for model with covariates and moderator*

Variable	$\beta$	Std.Err	$z$	$p$
ind~				
cond	-0.003	0.154	-0.022	0.982
mod	-0.032	0.029	-1.121	0.262
cond:mod	0.014	0.036	0.394	0.693
uni	0.018	0.055	0.321	0.748
sec	0.292	0.100	2.927	0.003
auth	0.017	0.029	0.576	0.565
ben	0.147	0.042	3.480	0.001
ang	-0.133	0.045	-2.956	0.003
hap	-0.124	0.052	-2.384	0.017
bind~				
cond	-0.124	0.078	-1.586	0.113
mod	0.060	0.016	3.878	0.000
cond:mod	0.002	0.018	0.130	0.897
uni	0.060	0.029	2.084	0.037
sec	0.255	0.058	4.420	0.000
auth	0.010	0.015	0.661	0.509
ben	0.017	0.021	0.802	0.423
ang	0.048	0.023	2.090	0.037
hap	0.134	0.029	4.647	0.000
uni~				
cond	-0.295	0.177	-1.666	0.096
mod	-0.112	0.033	-3.407	0.001
cond:mod	0.084	0.042	2.026	0.043
auth	-0.086	0.034	-2.529	0.011
ben	0.166	0.046	3.611	0.000
ang	-0.078	0.051	-1.529	0.126
hap	0.153	0.060	2.566	0.010
sec~				
cond	-0.346	0.128	-2.705	0.007

(continued)



Variable	$\beta$	Std.Err	$z$	$p$
mod	-0.076	0.024	-3.207	0.001
cond:mod	0.089	0.030	2.980	0.003
auth	-0.010	0.024	-0.420	0.674
ben	0.174	0.036	4.888	0.000
ang	-0.127	0.038	-3.359	0.001
hap	0.114	0.042	2.694	0.007

*Note.* The variables and their abbreviations are as follows: *ind* = individualizing foundation, *bind* = binding foundations, *uni* = universal values, *sec* = security values, *cond* = the God concept priming condition (Benevolent God = reference group), *mod* = the spectrum of theistic probability as a moderator, *cond:mod* = the interaction between the God concept condition and the moderator, *auth* = authoritarian God concept, *ben* = benevolent God concept, *ang* = anger, and *hap* = happy.

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