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Errors on the vertical: Santification, infra-humanization, and religious prejudice

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ERRORS ON THE VERTICAL: SANCTIFICATION, INFRA-

HUMANIZATION, AND RELIGIOUS PREJUDICE

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Requirements for the Degree of

Masters of Arts

BY

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June, 2010

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Religious fundamentalists of all stripes have contributed to, and been accused of, the perpetuation of terrorism, violence, prejudice, closed-mindedness, and a rejection of the things the modern world has to offer (Dawkins, 2006; Harris, 2004; Hitchens, 2007; Hunsberger & Jackson, 2005; Schuefele, Corley, Shih, Dalrymple, & Ho, 2009; Wellman, 2007). While many theorists have worked to uncover the psychological mechanisms of these relationships, they tend to approach this endeavor from the position that fundamentalism is dysfunctional if not downright anti-social. Fundamentalism, however, has also been linked to a variety of more benevolent outcomes, like physical and mental well-being (Genia, 1996; George, Ellison, & Larson, 2002; Pargament, 2002; Sethi & Seligman, 1993). The current paper attempts to integrate both "outcomes" of fundamentalism into a single theoretical account.

The Psychology of Fundamentalism

From a psychological perspective religious fundamentalism represents an adherence to a set of religious teachings that are believed to contain the inerrant truth about both existential and ethereal existence (Altemeyer & Hunsberger, 1992). More specifically, fundamentalism consists of two primary components. The first component is closed-mindedness, especially in regards to religious issues (Hood, Hill, & Williamson, 2005; Hunsberger, Pratt, & Pancer, 1994; Pancer, Jackson, Hunsberger, Pratt, & Lea, 1995). For example, fundamentalists compared to non-fundamentalists, think less complexly about religious issues

such as abortion (Hunsberger et al., 1994; Pancer et al., 1995) and are less likely

to acknowledge contradictions in religious texts (Altemeyer, 2002). The second

component of fundamentalism is belief in an infallible authority (Hood, Hill, &

Williamson, 2005; Woodberry & Smith, 1998), the focus of most measures and

definitions of fundamentalism (Altemeyer & Hunsberger, 1992, 2004; Hood, Hill,

& Williamson, 2005; McFarland, 1989; Woodberry & Smith, 1998).

The two components of fundamentalism might be a result of the theology

of religious fundamentalist groups; however, these two components may also be

especially adept at providing a sense of certainty and cognitive closure. Religious

fundamentalists are found to have higher levels of the need for closure (Brandt &

Reyna, in press; Saroglou, 2002), as well as other similar constructs such as the

intolerance of ambiguity (Budner, 1962) and inconsistency (Feather, 1964),

suggesting that fundamentalists may desire clear cut answers about and

perspectives on the world. Closure can be facilitated by an epistemic authority

(Kruglanski, Raviv, Bar-Tal, Raviv, Sharvit, Ellis et al., 2005), that is, an expert

on the knowledge important for a situation or domain. While an epistemic

authority is often regulated to their domain of expertise—a history teacher to

historical facts, a legal scholar to Supreme Court decisions (Bar-Tal, Raviv,

Raviv, & Brosh, 1991; Raviv, Bar-Tal, Raviv, Biran, & Sela, 2002)—

fundamentalists subscribe to an epistemic authority that not only supersedes

traditional epistemic boundaries, but is also often considered sacred or infallible,

providing absolute truth (Hood, Hill, & Williamson, 2005; Woodberry & Smith,

1998). Thus, fundamentalists can maintain closure by adhering to, studying, and

internalizing the teachings from religious sources. These teachings provide an epistemic authority for most, if not all, of life's many facets. The clear cut answers provided by fundamentalism may also contribute to fundamentalisms positive and negative outcomes.

Fundamentalism and Prejudice

Religious fundamentalism has been related to prejudice towards a variety of groups including gays and lesbians (Brandt & Reyna, in press; Fulton, Gorsuch, & Maynard, 1999; Jackson & Esses, 1997; Laythe, Finkel, Bringle, & Kirkpatrick, 2002; Mavor & Gallois, 2008; Rowatt, Tsang, Kelly, LaMartina, McCullers, & McKinley, 2006), radicals (Altemeyer & Hunsberger, 1992), single mothers (Jackson & Esses, 1997), religious outgroups (Rowatt, Franklin, & Cotton, 2005), and people who do not believe in God (Jackson & Hunsberger, 1999). In sum, fundamentalists reject those who are perceived to violate their values and beliefs (e.g. Brandt & Reyna, in press; Hunsberger & Jackson, 2005; Jackson & Esses, 1997; Mavor & Gallois, 2008). The root of prejudice by fundamentalists can be attributed, in part, to authoritarianism (Altemeyer & Hunsberger, 1992; Hall, Matz, & Wood, 2010), the perception of non-believers as an outgroup (Jackson & Hunsberger, 1999), and teachings that accept prejudice within a religious tradition (Jackson & Esses, 1997; Laythe, Finkel, Bringle, & Kirkpatrick, 2002). It is proposed here that one function of religious-based prejudice may be the protection and maintenance of the cognitive closure provided by fundamentalism (see also Brandt & Reyna, in press). By rejecting various groups, fundamentalists are able to discount and reject questions about,

and attacks on, their worldview, as well as demean the validity of opposing worldviews.

Fundamentalism may also be related to more psychologically beneficial outcomes. For example, in one study fundamentalism was related to spiritual and religious well-being (Genia, 1996). Similarly, members of fundamentalist religious denominations were more optimistic, more hopeful, and less hopeless than their counterparts in moderate or liberal denominations (Sethi & Seligman, 1993, 1994). Even the religious materials congregation members were exposed to in fundamentalist denominations were more optimistic (e.g. sermons, hymns, scripture readings). These studies also found that fundamentalists attended worship services more often (Genia, 1996) and were more involved in their religion (Sethi & Seligman, 1993). These results suggest that there may be something more to fundamentalism than intolerance, prejudice, and discrimination. Fundamentalism may be beneficial to both the group and the individual.

The purpose of the present paper is to integrate past research on the positive and negative outcomes of religious fundamentalism by linking these outcomes to the perception of both ingroup and outgroup members along a continuum of humanness that ranges from the perception of others as less than human to more than human. This continuum in social cognition is called the "chain of being" in reference to the philosophical idea of the Great Chain of Being (Lovejoy, 1936/1964). Specifically, due to the components of fundamentalism and the concurrent desire to see the world in clear cut terms,

fundamentalists are suggested to use the perception of others as more or less than human in order to organize and make sense of their moral universe. In this model, perception of others along a dimension of humanness is driven by perceived value similarities and differences of ingroups and outgroups (respectively). For religious fundamentalists, perceiving the ingroup as upholding and embodying important values results in seeing the ingroup as more than human (e.g. sanctified), which inspires group and individual promoting behavior. Conversely, perceiving other groups as violating religious values threatens the religious ingroup, causing the ingroup to protect themselves (e.g. discrimination, dehumanization). Figure 1 illustrates the overarching model that guides the current research.

<div align="center">The Chain of Being in Social Cognition</div>

Jonathan Haidt (2003; Haidt & Algoe, 2004) proposed a vertical dimension to humans' social cognition. Philosophically rooted in the Great Chain of Being, this vertical dimension can be anchored in a number of ways depending on the culture; but in the end, the top of the chain is the ultimate good and the bottom is the ultimate bad. Using the terms of the environment this could be conceived as purity (at the top) and pollution (at the bottom), while Christians could conceptualize it with God (at the top) and Satan (at the bottom). Put simply, it is a hierarchy of morality anchored by divinity and animality, with humanity falling somewhere in the middle. Objects, animals, people, saints and deities are all located someplace on this chain of being, with gradual differences between each link. Haidt's conceptualization of a chain of being in social cognition was based upon his work on the moral emotions (Haidt & Algoe, 2004). Specifically,

Figure 1

Theoretical model of religious fundamentalism and the chain of being.
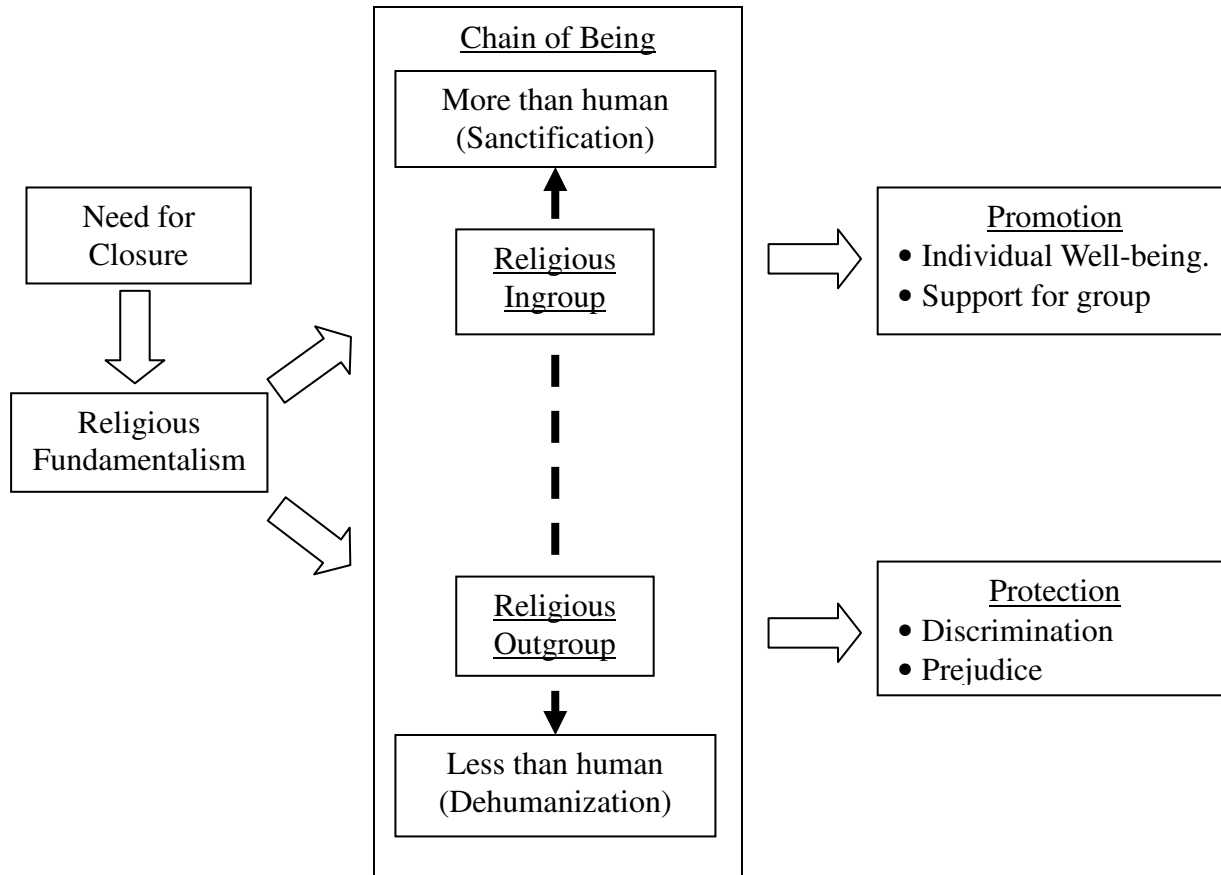
disgust, a moral emotion experienced in response to moral violations of divinity and purity (Rozin, Haidt, & McCauley, 2000; Rozin, Lowery, Imada, & Haidt 1999), and elevation, a positive moral emotion experienced in response to perceived saintly acts (Haidt & Algoe, 2004), were suggested to be experienced and felt when perceiving others as lower or higher on the chain of being, respectively. The current research expands on these ideas by linking the chain of being to research on sanctification and dehumanization.

The idea of the chain of being, however, is not new as Arthur Lovejoy's (1936/1964; see also Bynum, 1975) quintessential work has traced the idea of the chain of being from early philosophers to theologians, scientists, and its eventual fall from favor during the industrial revolution. While this fall from favor may have been evident in the academic writings of the day, it may have *only* been academic. The continuum may still persist in the lay publics' conception and perception of the social world, allowing people to perceive others and themselves along the continuum from animal to divine – placing people among the gods, the great apes, or worse. The current paper attempts to test this possibility.

Current evidence suggests that a chain of being that encapsulates the perception of others as more or less than human does exist. For example, people perceive a variety of agents, both supernatural and otherwise (humans, animals), in terms of their humanity (Demoulin, Saroglou, & Van Pachterbeke, 2008; Gray, Gray, & Wegner, 2007; Haslam, Kashima, Loughnan, Shi, & Suitner, 2008). Research also indicates that the metaphor of Black men as apes (or primates of some sort) still persists in the implicit cognition of both whites and non-whites

(Goff, Eberhardt, Williams, & Jackson, 2008). Additionally, the concepts of good-bad and God-Devil are perceived along a vertical continuum (Meier, Hauser, Robinson, Friesen, & Schjeldahl, 2007; Meier & Robinson, 2004). Overall, this research points to the existence of a moral chain of being that includes the perception of others as more or less than human—including perceptions of the divine and the morally reprehensible. As such, the chain of being consists on the bottom half of dehumanization (Haslam, 2006), or as some have termed it, infra-humanization (Leyens, Rodriguez-Perez, Rodriguez-Torres, Gaunt, Paladino, Vaes, et al., 2001). The opposing top half of the chain of being includes the perception of humans as closer to the Gods and the Saints, even sacred, what some have called sanctification (Pargament & Mahoney, 2005).

Antecedents of the Chain of Being

Thus far the chain of being has been described as a moral hierarchy—a continuum of social cognition—which persists in the minds of modern humans. It may be the case that every person perceives others along this chain of being, but it is also likely that certain styles of thinking, beliefs, and personality traits exacerbate the perception of other humans as more or less human. Religious fundamentalism and the need for closure may be one set of beliefs and cognitive styles that may contribute to this perception.

The need for closure may be related to the perception of people as more or less human in order to reduce ambiguity as it is related to the reduction of ambiguity. Therefore people who are high on need for closure may be motivated to see people and groups they consider good as greater than human, while people

and groups they consider bad as less than human. By separating out the good and the bad on a moral hierarchy people are able to see the world in more distinct and less ambiguous terms. Religious fundamentalists are more likely to have a high need for closure (Brandt & Reyna, in press; Saroglou, 2002) and intolerance of ambiguity (Budner, 1962), so this group of people may be especially likely to use the chain of being as a guide to perceiving the world.

The beliefs encapsulated by religious fundamentalism may also be related to the perception of others along the chain of being. For example, belief in an infallible authority could increase the utilization of the Chain of Being—especially in regards to one's own group. By definition, the believer thinks that the infallible authority is always right, so to the degree that they value what the authority represents and their desire to see themselves in a positive light (cf. Diener & Diener, 1996; Heine, Lehman, Markus, & Kitayama, 1999), a person does his or her best to follow the infallible authority. By approximating the authority (e.g. via their values, beliefs, behaviors) the person may see him or herself as akin to or in the favor of the infallible authority. This reasoning likely does not take place explicitly, nor do people come to such a definitive conclusion. However believing that you and your ingroup are similar to an infallible authority may give moral validation to your ingroup (cf. Bushman, Ridge, Das, Key, & Busath, 2007). Indeed, people do reason similarly about themselves and God (Epeley, Converse, Delbosc, Monteleone, & Cacioppo, 2009), believing that God agrees with their position on a variety of social and moral issues. Belief that one's own group has an infallible source of authority indicates, by extension, that

religious outgroups do not have the same source of authority. People who do not submit to the same infallible source of moral authority and instead symbolically violate the values, morals, and worldview of the ingroup are thus, inherently less moral. This leads to a view of the outgroup as less pure, holy, or sanctified than the ingroup, which can in turn justify the exclusion or persecution of the outgroup.

<u>Dehumanization</u>

Dehumanization and the related process infra-humanization are the perception of humans as less than fully human (Leyens, Cortes, Demoulin, Fiske, Paladino, Rodriguez-Torres et al., 2003; Haslam, 2006) and consist of "the denial of full humanness to others" (Haslam, 2006, p. 252) or the attribution of "an incomplete human essence" to outgroups (Leyens et al., 2001, p. 396). Some work has attempted to document why some groups are dehumanized and others are not. Several cognitive and motivational factors contribute to the perception of humanity including psychological distance (Opotow, 1990; see also Trope & Lieberman, 2003) and a lack of empathy (Halpern & Weinstein, 2004). The most common explanation for the dehumanization of outgroups comes from the social identity perspective. This perspective suggests that the social categorization process (Tajfel & Turner, 1986) leads people to attribute less of a human essence to outgroups than to ingroups (Demoulin, Torres, Perez, Paladino, Pozo, Leyens et al 2004). Social categorization may also lead people to perceive outgroups as threatening entities (Wilder, 1986). Building on this latter suggestion and adding to the list of factors influencing the perceptions of humanity, the current studies

suggest the components of religious fundamentalism and its related cognitive styles—belief in an infallible authority and the need for closure—contribute to the perception of others as more or less human. The current study is one of the first to link ideological beliefs (like religious fundamentalism) and cognitive style to dehumanization (see also Hodson & Costello, 2007).

The current theoretical perspective posits that dehumanization can serve a function for religious fundamentalists. Specifically, it is theorized that dehumanization—and the discriminatory behaviors that follow—help to protect the validity and vitality of the beliefs of fundamentalists. This should especially be the case for groups who are perceived to violate important religious values and beliefs (Brandt & Reyna, in press; Jackson & Esses, 1997; see also Reyna, Brandt, Viki, & Hughes, 2010; Henry & Reyna, 2007), and thus threaten them (Riek, Mania, & Gaertner, 2006). This reasoning is consistent with research that suggests that prejudice and discrimination directed towards members of groups that violate norms and traditions can be used to bolster one's cultural worldview (Das, Bushman, Bezemer, Kerkhof, & Vermeulen, 2009; Greenberg, Pyszczynski, Solomon, Rosenblatt, Veeder, Kirkland et al., 1990; Solomon, Greenberg, & Pyszczynski, 2000). In a similar manner, the fundamentalist worldview may be protected through dehumanization and prejudice. Figure 2 illustrates the protective function of dehumanization and discrimination for religious fundamentalists.

To be clear, the current model suggests that religious fundamentalists will only demonstrate prejudice and discrimination towards value violating groups.

For example, research has documented a relationship between fundamentalism and implicit prejudice towards gays (Rowatt & Franklin, 2004). Gays are perceived to violate traditional family values (Henry & Reyna, 2007); religious fundamentalists find this value to be important, so therefore fundamentalists show prejudice towards gays. Conversely, fundamentalism is not related to implicit prejudice towards Blacks (Rowatt, Tsang, Kelly, LaMartina, McCullers, & McKinley, 2006) and Blacks do not necessarily violate values and beliefs of the religious. While there may be third variables that appear to connect fundamentalism and prejudice towards Blacks (e.g. political conservatism) fundamentalism itself is not predicted to be the cause of anti-Black prejudice (see also, Hall, Matz, & Wood, 2010).

Sanctification

Sanctification is "a process through which aspects of life are perceived as having divine character and significance" (Pargament & Mahoney, 2005, p. 183). In terms of the chain of being, sanctification refers to the perception of people or groups as more than human, if not divine. Perceiving people as good and right, even sacred, can be a very positive thing. Haidt (2003) described people who experienced the emotion of elevation as having a desire to help other people and to make the world a better place. Sanctification is related to the promotion of sanctified values and behaviors. For example, people who sanctify the environment are more likely to make donations to environmental causes (Tarakeshwar et al., 2001); people who sanctify their marriages are more likely to have stable marriages (Mahoney et al., 2003); and people who sanctify their

Figure 2

Theoretical model of the protective function of religious fundamentalism.
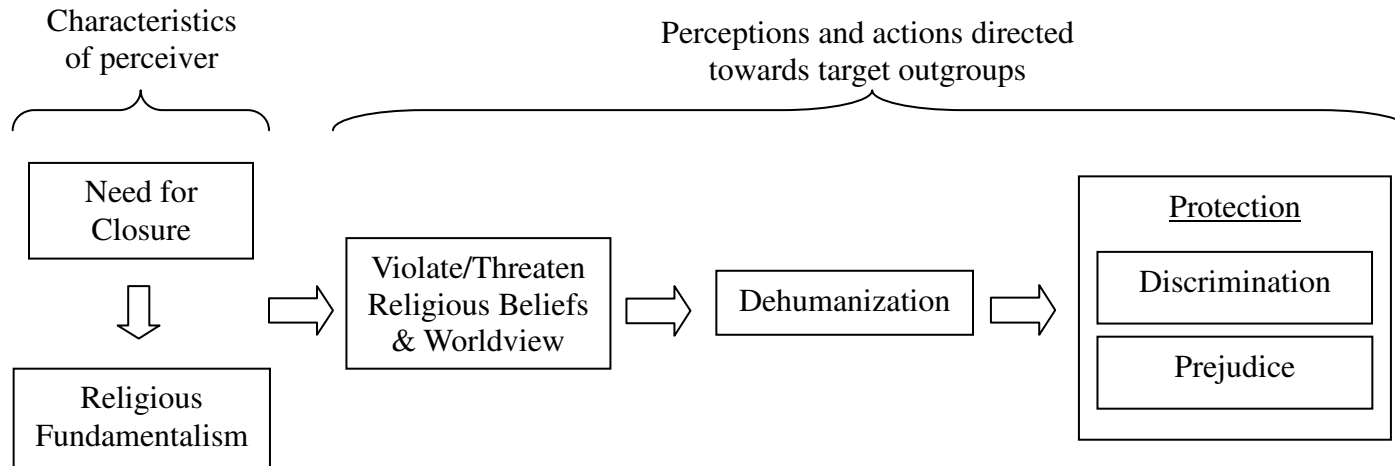
strivings are more likely to spend time on those goals (Mahoney, Pargament et al., 2005). In general, the sanctification of values and relationships promotes these values and relationships. Similarly, it would be expected that groups who uphold one's values would be sanctified; thus, the sanctified group would be more likely to receive support for its values and relationships.

The perception of one's group as sacred may have beneficial psychological outcomes that serve to promote the individual well-being of group members, but also the group's goals. Identification with a relevant group is beneficial to an individual's psychological well-being, including self-esteem (Aberson, Healy, & Romero, 2000; Bizumic, Reynolds, Turner, Bromhead, & Subasic, 2009; Outten, Schmitt, Garcia, & Branscombe, 2009; Verkuyten & Hagendoorn, 2002), life-satisfaction (Outten et al., 2009), positive affect (Bizumic et al, 2009), and other health related behaviors (Haslam, Jessten, Postmes, & Haslam, 2009), suggesting that perceptions of one's group is integral to the perception of the self. Research has also suggested that identification with a group leads one to act on their group's behalf, whether that is collective action for low-status groups (Derks, van Laar, & Ellemers, 2009) or support for the current status hierarchy for high-status groups (Sidanius & Pratto, 1999). Other relevant group memberships, such as those in the workplace, can also lead to more work involvement (Bizumic et al., 2009). For religious fundamentalists it would be expected that sanctification would predict individual well-being, as well as support for the group in terms of worship service attendance, donations, volunteer service, and other group serving behaviors. In this sense, sanctification may be a

special case of ingroup favoritism (Tajfel & Turner, 1979) and identification. This theorizing suggests the theoretical model in Figure 3 for the promotion function of religious fundamentalism. It is important to consider sanctification as past research on dehumanization and infra-humanization has primarily assumed that the perception of a person or group as human was the top of a continuum between animality and humanity (Haslam, 2006; Leyens et al, 2001, 2003; but see Demoulin et al., 2008; Haslam et al., 2008). This one sided focus may be detrimental to understanding the full capacity and complexity of humans' psychologies. For example, measures of humanness may not successfully capture the perception of a person or group as more than human. Indeed, infra-humanization seems to be related more to outgroup derogation than ingroup favoritism (Viki & Calitri, 2008); however this may be because the measure used was not sufficient to detect sanctification.

Importantly, the effects of sanctification are theorized to go above and beyond mere positive feelings and include a moral aspect that connects the sanctified target with the divine. Thus, while sanctification and positivity are likely correlated it is important to demonstrate that perceptions of sanctification are predictive above positive affect and similar constructs. One study has examined the independent impact of sanctification and positivity. In a sample of heterosexual undergraduate college students imbuing sex with sacred qualities (e.g. holy, spiritual, blessed) was related to increased levels of sexual behavior (including intercourse), and more positive reactions to sexual intercourse after controlling for general positive attitudes towards sex (N. Murray-Swank,

Figure 3

Theoretical model of the promotion function of religious fundamentalism.

Characteristics
of perceiver

Perceptions and actions directed
towards target ingroups

Need for
Closure

Religious
Fundamentalism

Uphold
Religious
Beliefs &
Worldview

Sanctification
of Ingroup

Promotion

Spiritual
Well-being

Worship
attendance,
volunteering
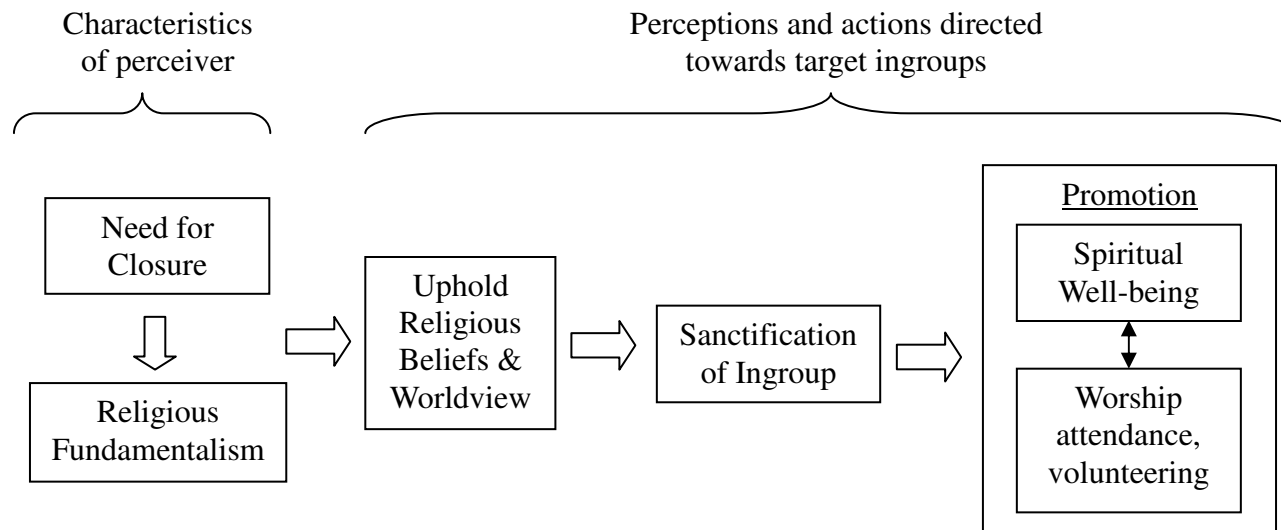
Pargament, & Mahoney, 2005). Other evidence suggests that vertical perceptions

of the divine are independent of likability (Meier et al., 2007). Overall this

research suggests that sanctification is more than general positive regard and

includes connections with the divine.

The protection and promotion functions associated with the

dehumanization and sanctification aspects of the chain of being have been

presented here as easily separable consequences of fundamentalists' perception of

humans along the chain of being. However, these consequences cannot always be

so easily disentangled, as these two functions can work in tandem. For example,

in terms of the environment, donating money to an environmental protection

agency promotes the environment by investment, but that investment also serves

to indirectly protect the environment. Similarly, protection and promotion may

not be easy to disentangle for religious fundamentalists. Opposition to gay

marriage not only protects religious fundamentalists' conception of family values,

it can also provide media attention that may serve to recruit members and bolster

a sense of legitimacy (i.e. promotion).

Divinity Differential

The difference between ingroups and outgroups on the chain of being

leads to one of the more unique predictions utilizing the chain of being. The

difference between an ingroup and an outgroup on the chain of being is called

here the "divinity differential" and is proposed to be the result of perceived

differences and threats to an ingroup's values. Furthermore, the divinity

differential is expected to mediate the relationship between value violations and

efforts to protect the ingroup. This proposition is consistent with recent research demonstrating that greater perceptions of human-animal similarity is related to less extreme actions taken against the outgroup (Costello & Hodson, 2010). The divinity differential is also consistent with research suggesting that perceived differences in attitudes predict less cooperative, and greater competitive, behavior in an effort to solve differences (Kennedy & Pronin, 2008). The logic of the chain of being expands past dehumanization research and suggests that the differences in perceptions of ingroups and outgroups represented by the divinity differential can take place anywhere along the continuum of the chain of being. Rather than a focus on humanity as a starting point, such that only groups falling below "human" face discrimination, the divinity differential and the chain of being suggest that greater ingroup-outgroup differences, whether those differences are above or below the conceptual midpoint of "human," result in greater protection.

<u>Rationale (Study 1)</u>

The purpose of the present studies was to test the hypotheses related to the chain of being (Study 1), especially in regards to religious fundamentalism (Study 2). The primary goal of Study 1 was to assess whether people perceived other groups (Blacks/African-Americans, Christians, Gays), animals, and supernatural beings (God and Satan) along a chain of being—from less than to more than human. Participants rated a variety of target groups and entities on measures of sanctification (Mahoney, Pargament, Murray-Swank, & N. Murray-Swank, 2003) and humanness (Haslam & Bain, 2007; Haslam, Bain, Douge, Less, & Bastian, 2005). While other studies have used a variety of target entities, including

supernatural agents, animals, and humans (Demoulin et al., 2008; Gray, Gray, & Wegner, 2007; Haslam et al., 2008) these studies have primarily focused on how these entities can be described in terms of human characteristics. The current study extends this type of inquiry by including a measure of sanctification, which goes beyond past research that has assumed that the perception of a person or group as human was the top of a continuum between animality and humanity (e.g. Haslam, 2006; Leyens et al, 2001, 2003). The use of measures to assess the sanctification of an ingroup can help determine if people are capable of sanctifying the ingroup.

Study 1 also assessed the emotions associated with perceptions of humanness and sanctification. Haidt and his colleagues (2003; Haidt & Algoe, 2004) have suggested that disgust is related to the perception of people as below human on a chain of being and that more positive moral emotions (e.g. elevation, admiration) are related to the perception of people as more than human. Three negative (i.e. disgust, anger, contempt) and three positive (i.e. awe, admiration, and gratitude) moral emotions were measured and compared to the measures of humanness and sanctification. Based on the work by Haidt and colleagues, it was predicted that the more a person or group is perceived as sanctified and human the less anger, disgust, and contempt will be directed towards them. The more a person is perceived as sanctified the more admiration, gratitude, and awe will be directed towards them. The potential relationship between humanness and positive moral emotions is unclear because humanness may not represent the perception of others as more than human. It is important to note that while many

scholars have used measures of emotions as proxies of dehumanization (Esses, Veenviet, Hodson, & Mihic, 2008; Maoz & McCauley, 2008; Taylor, 2007), there has not been any research examining how felt emotions relate to measures of humanness. Thus the current research will be able to assess the appropriateness of the comparison of different measures of humanness and dehumanization to emotions.

Finally, the last portion of Study 1 contained a preliminary examination of a measure intended to assess perceptions along the chain of being more directly. Similar to the classic feeling thermometer or the ladder of subjective social status (Adler, Epel, Castellazzo, Ickovics, 2000), this measure of the chain of being asked participants to rate their perception of a variety of target groups on a scale of zero to 100 with zero labeled as the ultimate evil and 100 labeled as the ultimate good. Importantly, this measure was displayed as a vertical continuum to highlight the proposed vertical nature of perceptions of groups along the chain of being (see Figure 4).

Figure 4

Moral thermometer used in Studies 1 and 2.
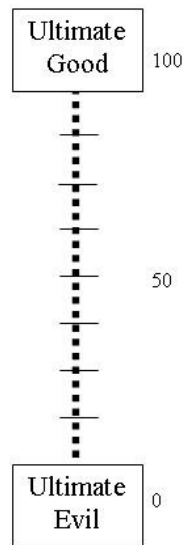
Statement of Hypotheses (Study 1)

As illustrated throughout the previous section several hypotheses can be

derived from the proposed model of the chain of being. The hypotheses that will

be tested in Study 1 will be formally restated.

Hypothesis I

Hypothesis Ia. Independent of general positive regard, target groups will

be perceived along a dimension of sacredness according to their position on a

chain of being, such that God will be perceived as the most sacred, the Devil as

the least sacred, the human groups someplace in the middle, and animals slightly

lower than the human groups. The self was predicted to fall someplace between

the human groups and God, because humans, especially from Western cultures,

tend to self-enhance (Diener & Diener, 1996; Heine, Lehman, Markus, &

Kitayama, 1999).

Hypothesis Ib. Independent of general positive regard, target groups will be perceived along a dimension of humanness according to their position in a chain of being, such that the Devil will be perceived as the least human, the human groups will be perceived someplace in the middle, and animals will be perceived someplace between the Devil and the human groups. Again, the self will be perceived as slightly more human than the human target groups. Importantly, no specific prediction is made about God. While God is theorized to be perceived as more than human along a chain of being, past research suggests that measures of humanness do not capture the perception of targets as more than human. That is, the items used to measure humanness might not apply to God.

Hypothesis II

Despite the general tendency for human groups to be perceived near the middle of the chain of being it is expected that an ingroup will be perceived as more human and more sacred than outgroups.

Hypothesis III

Hypothesis IIIa. The perception of a target group as sacred will be related to greater feelings of awe, gratitude, and admiration and less feelings of disgust, anger, and contempt towards that target group.

Hypothesis IIIb. The perception of a target group as human will be related to less feelings of disgust, anger, and contempt directed towards that target group. There are no specific predictions regarding humanness and the positive moral emotions.

Exploratory Research Questions

If the moral thermometer is used in place of the measures of humanness and sacredness, how do the results using the moral thermometer compare to the humanness and sacredness results? How do differences between ingroups and outgroups on the moral thermometers predict perceived humanness, sacredness, and the expression of moral emotions?

CHAPTER II

METHODS (STUDY 1)

In the first study, participants completed an online survey that included measures of humanness, sanctification, and six moral emotions (i.e. anger, disgust, contempt, awe, gratitude, and admiration) as experienced in relation to eight target groups.

Participants

A total of 339 participants were recruited from an urban Midwestern university for partial course credit in an introductory psychology course. After removing participants who did not respond to a substantial portion of the survey (i.e. more than 50% of the survey was incomplete), there were a total of 333 participants (98 men, 233 women, 2 other/no report) who ranged in age from 16 to 50 years old (M=20, SD=3.17). There were 232 participants who identified as White/Caucasian, 42 as Latino/a, 16 as African-American/Black, 43 as other ethnicities or multiracial. Two hundred and eleven participants identified as Christian, 71 as not religious, and 51 as other religious identifications (e.g. Sikh, Agnostic).

Procedures

Subjects were directed to a website with a consent form. If participants consented to participate in the study they were taken to the survey's website, where they completed ten sets of measures as well as demographic information. The questionnaire was designed to include eight primary target entities as eight within-subject variables. The primary target entities included God, Devil, Self,

Animals, Whites/Caucasians, Blacks/African-Americans, Christians, and Gays.
After completing the survey the participants were taken to a debriefing webpage.

<p style="text-align:center">Measures</p>

Complete measures can be found in Appendix A.

After completing demographic information participants were asked to
complete a thermometer styled rating scale in regards to ten target entities
including the entities of primary interest to this study. For every entity listed the
participants rated the entity from zero to 100, where 100 indicated very favorable
feelings and zero indicated very unfavorable feelings. This measure served as a
control variable to help rule out the alternative explanation of positive affect. The
additional entities were Terrorists and Saints. These two groups were included for
the extra information they could provide about the chain of being in relation to
the new chain of being measure—the moral thermometer (see below).

Following the feeling thermometer participants completed measures of
humanness, sanctification and moral emotions for the eight primary target
entities. For each entity participants completed five sanctification items, six
humanness items, and six moral emotion items. All items were completed on a
seven point scale ranging from 1=Not at all to 7=Very much. The sanctification
and humanness items were presented in the same sequence. Participants were
asked "To what extent do you characterize Yourself with the following traits?"
where "Yourself" was subsequently replaced with each of the target entities. The
five sanctification items were derived from Mahoney and colleagues (Mahoney,
Pargament, A. Murray-Swank, & N. Murray-Swank, 2003) measure of

sanctification and included Awesome, Inspiring, Heavenly, Sacred, and Blessed. The six humanness items were taken from Haslam and colleagues work on perceptions of humanness (Haslam & Bain, 2007; Haslam et al., 2005). Three positive and three negative characteristics were chosen that were rated in previous studies as being uniquely human, but not human nature. This was done to select words that most clearly represented characteristics that separate humans from animals. The six items were Broadminded, Conscientious, Humble, Disorganized, Rude, and Stingy. Reliabilities of the sanctification and humanness measures for each target entity are presented in Table 1.

Table 1

Cronbach's Alpha (α) for measures of humanness and sanctification.

Humanness			
Target Entity	α	Target Entity	α
You	.46	Whites/Caucasians	.80
God	.62	Blacks/African-Americans	.70
Devil	.63	Gays	.70
Animals	.76	Christians	.63
Sanctification			
	α		α
You	.83	Whites/Caucasians	.91
God	.97	Blacks/African-Americans	.92
Devil	.86	Gays	.91
Animals	.91	Christians	.95

After completing measures of sanctification and humanness participants responded to six items regarding moral emotions experienced in regards to the target entities. The six moral emotions examined were contempt, anger, disgust, gratitude, awe, and admiration. Participants were asked "To what extent do you

feel contempt for Yourself?" where "contempt" and "Yourself" were subsequently

replaced with the five remaining moral emotions and seven remaining target

entities, respectively.

Finally participants completed the new measure of the chain of being.

Similar to the feeling thermometer completed earlier in the survey, participants

were asked to rate ten target groups on a scale from zero to 100 where zero

indicated the ultimate evil and 100 indicated the ultimate good. An integral part of

this measure is a picture of a vertical line connecting the Ultimate Good on the

top and the Ultimate Evil on the bottom (see Figure 4, p. 19). This vertical

illustration aims to capture the vertical metaphor, if not perceptual reality (cf.

Meier et al., 2007) of the chain of being. Two additional groups, saints and

terrorists, were added in order to examine additional "links" on the chain of being.

CHAPTER III

RESULTS (STUDY 1)

The first and second hypotheses suggest that there will be evidence of a chain of being in social cognition with both the measure of sacredness (Hypothesis Ia) and humanness (Hypothesis Ib) while holding constant general positive regard towards the target entities. Furthermore it was predicted that this evidence would vary by participants' ingroups (Hypothesis II). To test this latter hypothesis participants' ingroup was defined by their religious (Christian or non-Christian) or ethnic/racial (White or Non-White) self-categorization. To test the predictions of the chain of being an 8 (Target Entities) X 2 (Religion: Christian or Non-Christian) X 2 (Ethnicity: White or Non-White) linear mixed-model with the first factor as a within-subjects factor was analyzed for each of the dependent measures while controlling for general affect directed towards each of the eight target groups. In this analysis, main effects of Target Entity indicated tests of Hypothesis I and interactions of Target Entity and the identification (religious and ethnic) factors indicated tests of Hypothesis II. Ninety-five percent confidence intervals were used to compare target groups.

<u>Hypothesis I</u>

<u>Hypothesis Ia</u>

Hypothesis Ia suggests that target groups will be perceived along a dimension of sacredness according to their position on a chain of being, such that God would be perceived as the most sacred, the Devil as the least sacred, the human groups someplace in the middle, and animals slightly lower than the

human groups. The self was predicted to fall someplace between the human groups and God. There was a significant main effect for target entity on perceived sacredness, $F(7, 327.22)=484.17$, $p <.001$ (Top Panel, Figure 5)[1]. In support of the chain of being participants perceived God ($M = 5.63$, $SE = .07$) as significantly more sacred than all of the other target entities. The Devil ($M = 1.28$, $SE = .05$) was perceived as the least sacred compared to all of the other target entities. The self ($M = 4.42$, $SE = .07$) was perceived as significantly more sacred than all of the target entities except for God, where the self was perceived as significantly less sacred. The human target entities were perceived towards the middle of the chain of being. There were, however, differences between the four human targets. Specifically, Whites ($M = 3.75$, $SE = .08$) and Gays ($M = 3.80$, $SE = .08$) were perceived as significantly less sacred than Blacks ($M = 3.98$, $SE = .09$) and Christians ($M = 4.07$, $SE = .08$). Finally, contrary to the predictions of the chain of being, Animals ($M = 4.33$, $SE = .10$) were perceived as significantly more sacred than any of the human groups (but not the self).

Hypothesis Ib

Hypothesis Ib suggests that target groups would be perceived along a dimension of humanness according to their position along a chain of being, such that the Devil would be perceived as the least human, the human groups would be perceived someplace in the middle, and animals would be perceived someplace between the Devil and human groups. The self was predicted to be perceived as slightly more human than the human groups. There were not specific predictions made about God. There was a significant main effect for target entity on

Figure 5

Estimated sacredness (top panel) and humanness (bottom panel) means for the eight target entities.
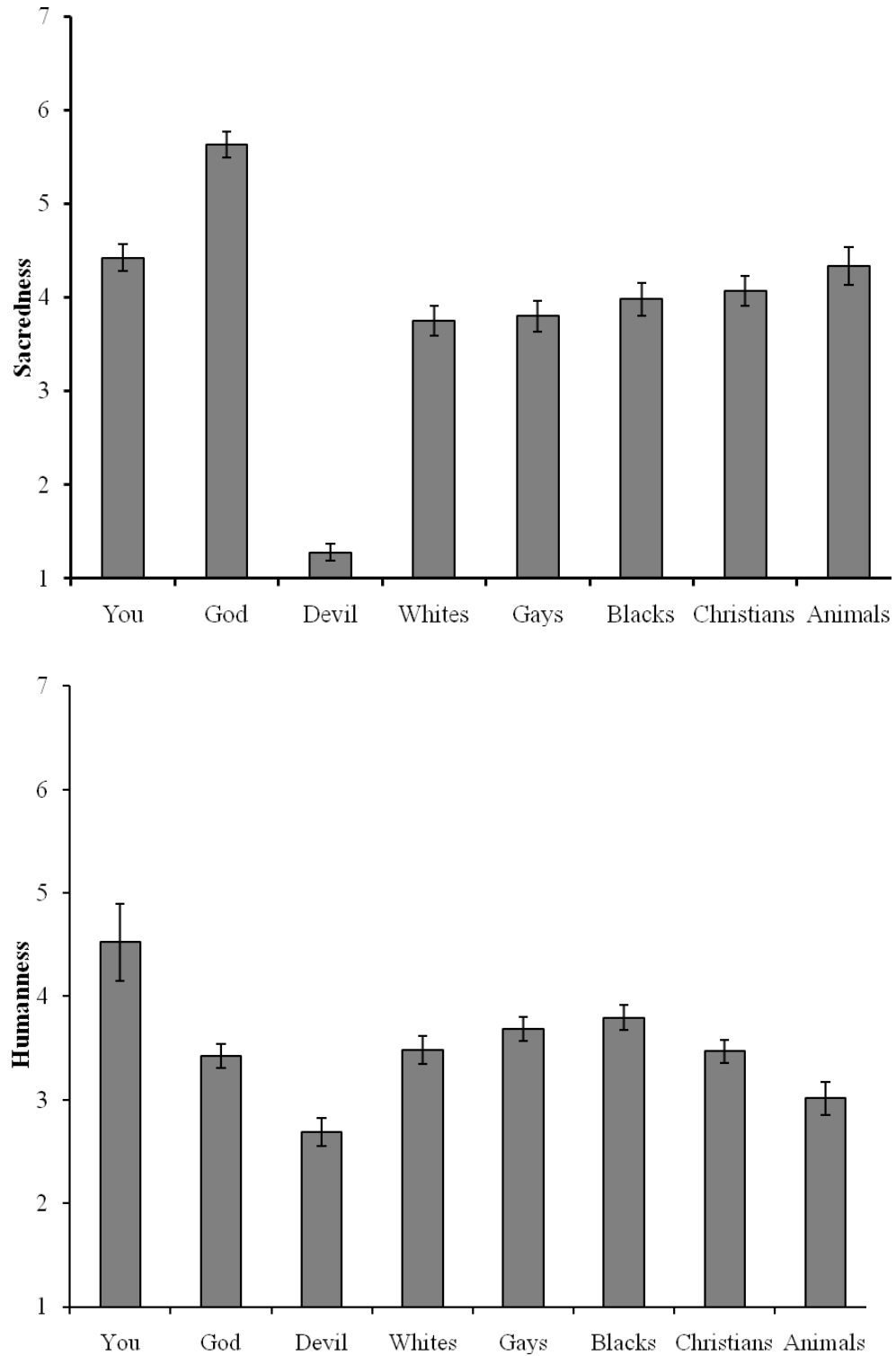
Note: Error bars represent 95% confidence intervals.

perceived humanness, $F(7, 321.82) = 62.55$, $p < .001$ (Bottom Panel, Figure 5). In support of the hypotheses of the chain of being, the Devil ($M = 2.68$, $SE = .07$) was perceived as the least human. Animals ($M = 3.02$, $SE = .08$) were perceived as significantly more human than the Devil, but less human than the human target entities. The self ($M = 4.24$, $SE = .05$) was perceived as the most human. God and the human groups were perceived in between the self and the animals. Blacks ($M = 3.79$, $SE = .06$) and Gays ($M = 3.69$, $SE = .06$) were perceived as more human than God ($M = 3.43$, $SE = .06$), Christians ($M = 3.47$, $SE = .06$), and Whites ($M = 3.48$, $SE = .07$), who were all perceived as equally human.

Hypothesis I Summary

When examining both the measure of humanness and the measure of sacredness one can find evidence for a chain of being in the perception of social groups, animals, and supernatural beings. In general, the results suggest that humans are attributed a moderate amount of humanness and sacredness, which places them at the middle of the proposed chain of being. As expected the Devil was attributed the lowest levels of humanness and sacredness suggesting that the Devil falls at the bottom of the chain of being. On the other end of the chain of being, God was perceived with the most sacredness, though only a moderate amount of humanness.

The results that indicate that God was perceived as merely human suggest that the measure of humanness may not effectively capture the perception of groups and Gods as more than human.

The primary unexpected finding comes from the ratings of animals. For the humanness measure animals conformed to expectations falling somewhere between the Devil and the human groups. However, contrary to the hypothesis animals were attributed more sacredness than the human groups.

<div align="center">Hypothesis II</div>

Hypothesis II suggested that perceptions of the target groups on measures of sanctification and humanness would be moderated by participants' religious and ethnic identification, such that participants would perceive their ingroups as more human and more sacred than outgroups.

Sacredness

Christians ($M = 4.04$, $SE = .06$) tended to perceive the other target entities as more sacred than non-Christians ($M = 3.77$, $SE = .08$), as indicated by a main effect for the religious identification factor, $F(1, 340.76) = 7.04$, $p = .008$. This main effect was qualified by the significant interaction between the target entities and religious affiliation, $F(7, 348.78) = 5.33$, $p < .001$ (Top Panel, Figure 6). An examination of the parameter estimates reveals that this interaction was driven by a significant interaction between religious affiliation and the Christian target ($B = .25$, $SE = .11$, $p = .03$). This interaction indicates that the perception of sacredness of the target entities depends on one's religious affiliation. Consistent with predictions, Christians perceived Christians ($M = 4.46$, $SE = .10$) as significantly more sacred than non-Christians perceived Christians ($M = 3.68$, $SE = .14$). Indeed, Christians perceived Christians as more sacred than any of the other human groups, providing some evidence that ingroups are perceived as more

Figure 6

Estimated sacredness means for the eight target entities as a function of religious(top panel) and ethnic (bottom panel) identification.
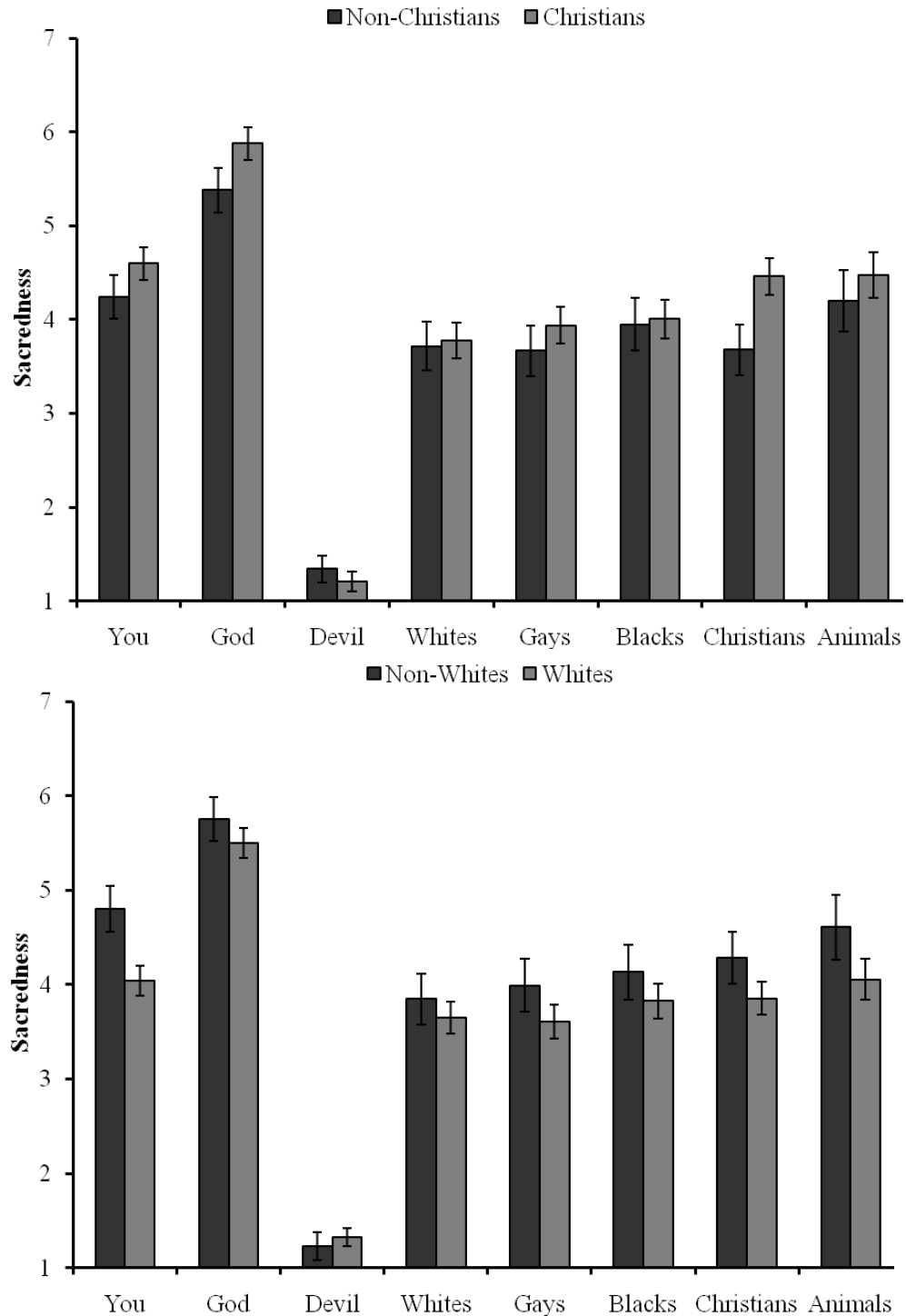
Note: Error bars represent 95% confidence intervals.

sacred than outgroups. There was also a marginally significant interaction between religious affiliation and the Devil target (B = -.20, SE = .11, p = .07), such that non-Christians (M = 1.34, SE = .07) perceived the Devil as more sacred than Christians (M = 1.21, SE = .05).

There was also a significant main effect for the ethnicity factor, $F(1, 332.76)$ = 11.78, p = .001, such that non-Whites (M = 4.08, SE = .09) perceived the target entities with more sacredness overall than Whites (M = 3.73, SE = .06). This main effect was qualified by an interaction between the target entities and participant ethnicity, $F(7, 331.87)$ = 4.54, p < .001 (Bottom Panel, Figure 6). This was primarily driven by the Devil target (B = .32, SE = .11, p = .004). There was no difference between non-Whites (M = 1.23, SE = .08) and Whites (M = 1.33, SE = .05) when the Devil was the target entity. However, for all other target entities non-Whites perceived more sacredness than Whites for all groups. This pattern of results provides ambiguous evidence for the impact of an ingroup on the perception of sacredness. While Whites (M = 3.83, SE = .10) perceived Blacks as less sacred than did non-Whites (M = 4.13, SE = .15), Whites (M = 3.65, SE = .09) perceived other Whites as less sacred than did non-Whites (M = 3.85, SE = .14). The perception of Blacks and Whites did not differ for Whites, but non-Whites perceived Blacks as more sacred than Whites. Thus it appears that non-Whites perceive other non-Whites (i.e. Blacks) as more sacred than the White outgroup. This pattern of results, however, is not significant in White participants.

For the sacred measure there were no other significant interactions. The interaction between religion and ethnicity was marginally significant, $F(1,$

331.48) = 3.70, p = .06. This interaction suggests that for Whites, non-Christians (M = 3.50, SE = .09, 95% CI 3.33, 3.67) attributed less sacredness overall compared to Christians (M = 3.97, SE = .07, 95% CI 3.83, 4.10). However for non-Whites, non-Christians (M = 4.04, SE = .14, 95% CI 3.77, 4.32) attributed the same degree of sacredness as Christians (M = 4.12, SE = .10, 95% CI 3.92, 4.32).

Humanness

 There was no significant main effect for participants' religion, $F(1,$ 339.09) = 1.89, p = .17, however there was a significant interaction effect, $F(7,$ 342.99) = 5.41, p < .001 (Figure 7). This was primarily driven by the interaction with the Devil target (B = .30, SE = .10, p = .003). Christians attributed more humanness to the Devil (M = 3.04, SE = .08) than did non-Christians (M = 2.33, SE = .11). Unlike the measure of sacredness, the measure of humanness did not appear to capture ingroup-outgroup differences for Christians and non-Christians.

 There was a main effect of ethnicity on the attribution of humanness, $F(1,$ 331) = 12.22, p = .001, such that non-Whites (M = 3.61, SE = .06) attributed more humanness to the target entities than did Whites (M = 3.34, SE = .04). There were no other significant main or interaction effects.

Hypothesis II Summary

 Overall, the tests for Hypothesis II suggest that one's group membership can impact their perception of other people, animals, and supernatural entities in terms of humanness and sacredness. The specific hypotheses of the chain of being, however, received only limited support. Ingroup and outgroup differences

Figure 7

Estimated humanness means for the eight target entities as a function of religious identification.
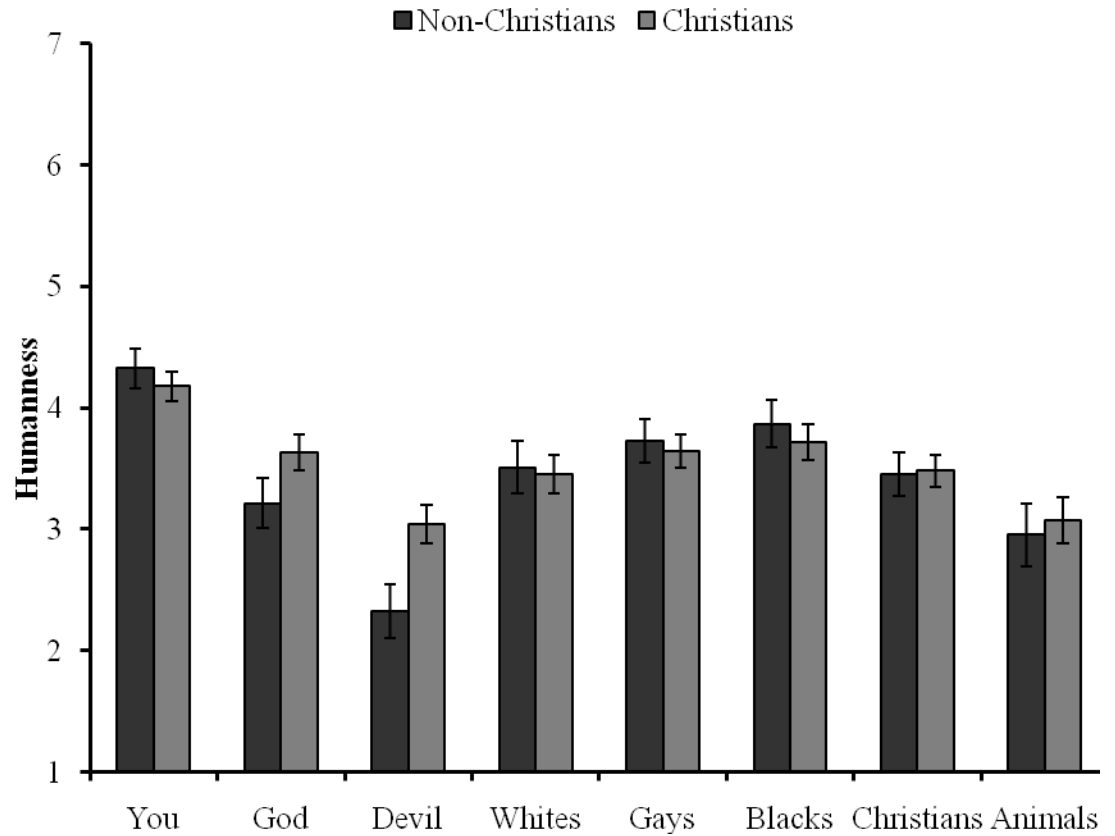
Note: Error bars represent 95% confidence intervals.

were only manifest on the measure of sacredness when examining attributions of sacredness as a function of religious identificaiton. It may be that perceiving people along the chain of being is especially tied to religious reasoning, an idea consistent with the theorizing in this paper on religious fundamentalism. Non-whites did percieve Blacks as more sacred than Whites; however, it is difficult to tell if this effect reflects ingroup favoritism as the sample only consisted of 16 African-American/Black participants. The lack of clear ingroup-outgroup differences as a function of ethnicity was unexpected.

The humanness measure also provided little support of Hypothesis II. There were no differences in perceptions of humanness as a function of ethnicity; however, there was one interaction with the Devil target. This interaction suggested that Christians were more likely to attribute humanness to the Devil than were non-Christians. While this interaction does not provide support for the a priori hypothesis, it does suggest that people may differentially utilize the chain of being. Specifically, Christians, who are more likely to believe that the Devil is an active force in the universe, may be more likely to attribute human characteristics to the Devil than are non-Christians, who are less likely to believe the Devil plays a role in the world, if they even believe the Devil exists. This suggests that perceptions of agency may play a role in a entities placement along the chain of being (cf. Gray, Gray, & Wegener, 2007).

<u>Hypothesis III</u>

The third hypothesis suggests that the perception of groups as sacred will be related to higher levels of positive moral emotions such as awe, gratitude, and

admiration and lower levels of negative moral emotions such as contempt, disgust, and anger. Similarly the measure of humanness was predicted to be negatively related to contempt, disgust, and anger. No specific hypotheses were made about the relationship between humanness and the positive moral emotions. The third hypothesis was tested by examining the relationships between the chain of being measures (sacredness and humanness) and the six moral emotions while partialing out positive affect. The results of these analyses are presented in Figure 8. Each bar in Figure 8 represents the partial correlation between the humanness or sacredness measure and the listed moral emotion. Each bar within each moral emotion represents a different target group.

The top panel of Figure 8 illustrates the partial correlations of perceived sacredness and the six moral emotions while controlling for general affect. The measure of sacredness was consistently and significantly related to the three positive moral emotions (*M r* = .43). The results for the negative moral emotions were more mixed (*M r* = -.01). While several correlations were in the predicted negative direction, many were non-significant and several others were significant in the positive direction. All of the significant positive correlations resulted from the measure of contempt, which suggests that there may be something particular to contempt contributing to this pattern of results. Anger, in general, was not significantly related to perceptions of sacredness. However, for Christians, it was significantly negatively related to sacredness, with the exception of God (albiet non-significantly). Finally, the disgust measure was the most reliable negative emotion predictor of sacredness, with significant results for both Animals and

Figure 8

Partial correlations between perceptions of sacredness (top panel) and humanness (bottom panel) and the six moral emotions for each of the eight target entities.
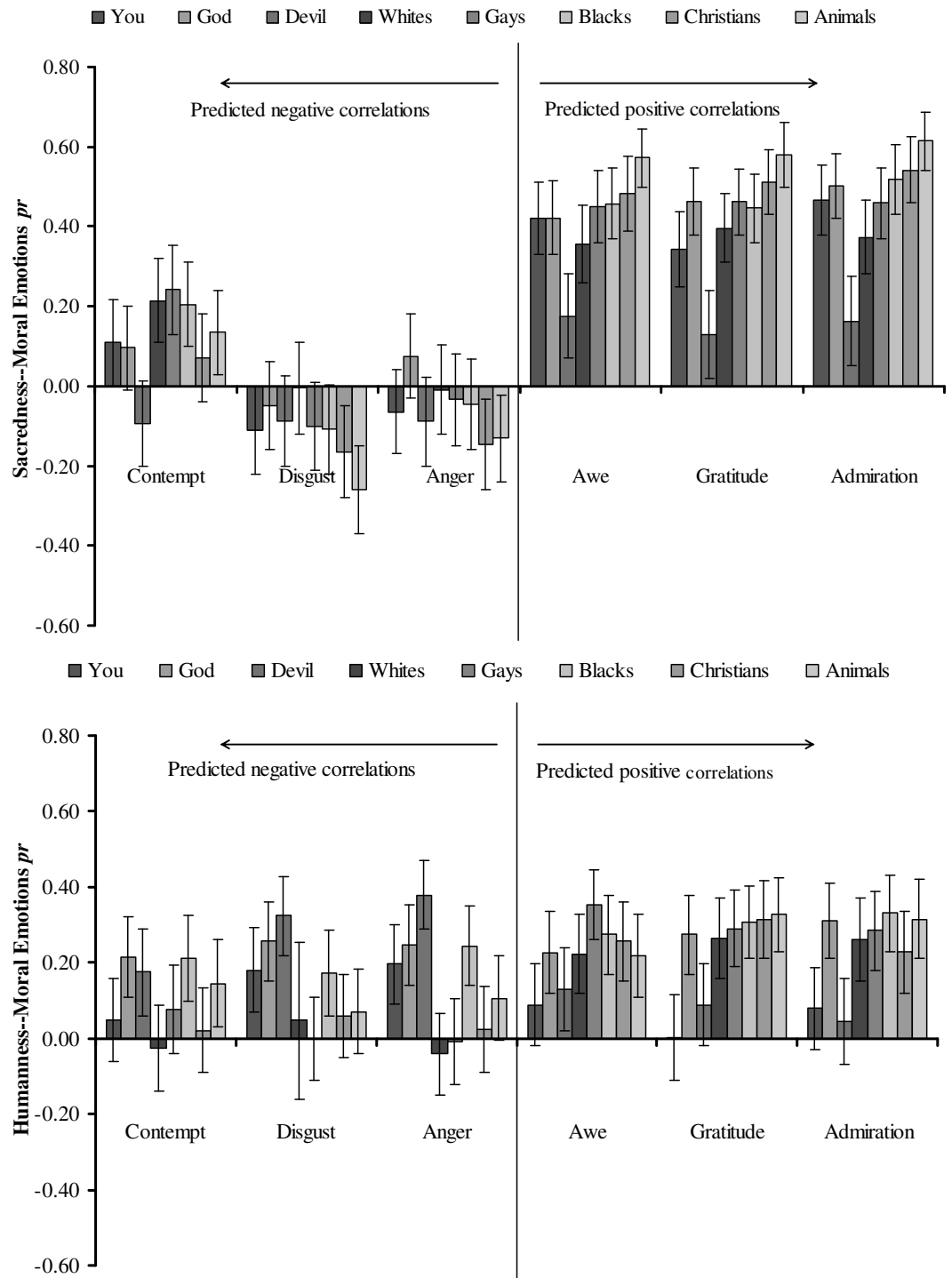
Note: Each bar represents the partial correlation between the humanness or sacredness measure and one of the moral emotions while controlling for positive affect. Error bars represent 95% confidence intervals.

Christians and non-significant results that trended in the predicted direction for all

other target entities. The bottom panel of Figure 8 illustrates the partial

correlations of perceived humanness and the six moral emotions while controlling

for general affect. The results for the humanness measure were varied.

Humanness was positively related to the positive moral emotions except for the

self and (for admiration) the Devil ($M \ r = .23$). The negative moral emotions were

all either non-significantly or significantly positively related to humanness, which

is contrary to Hypothesis IIIb ($M \ r = .13$).

Hypothesis III Summary

With the exception of contempt, the measure of sanctification was, in

general, related to the moral emotions in the predicted manner. This is important,

because these emotions are often considered proxies for the perception of others

as less than, and more than, human (Haidt & Algoe, 2004; Maoz & McCauley,

2008; Taylor, 2007).Thus, it may be the case that the measure of sanctification

more clearly captured the chain of being dimension compared to the measure of

humanness.

While not predicted, the measure of humanness was consistently related to

the three positive moral emotions. Unexpectedly, and contrary to predictions, for

several target entities it was also positively related to the three negative moral

emotions. The cause of this unexpected pattern of results is unclear. It is possible

that for a group to be the recipient of moral emotions it first must be considered at

least partially human (e.g. have agency and intention) and thus worthy of moral

consideration (cf. Gray, Gray, & Wegner, 2007; Haslam, 2006); however this is

contrary to fMRI research that suggests than dehumanized groups elicit feelings

of disgust (Harris & Fiske, 2006).

<div align="center">Exploratory Questions</div>

The secondary purpose of Study 1 was to examine the use of a moral

thermometer as an alternate measure of the chain of being. The moral

thermometer could potentially provide a method to capture the perceptions of

people as above and below human using a single measure---something current

measures of humanness do not accomplish. Moreover, the measure is very brief

and thus a potential easy to use method of capturing dehumanization and

sanctification. First, the relationship between the moral thermometer and the

measures of sacredness and humanness for each of the target groups was

assessed. Following these analyses the hypotheses analyzed with the humanness

and sacredness measures will be tested, along with a preliminary examination of

the divinity differential.

Figure 9 contains the Pearson correlations for each of the target groups for

both the measure of humanness and sacredness when predicting ratings on the

moral thermometer. The moral thermometer was a consistent predictor of the

measure of sacredness ($M r = .43$). Judging by the absolute value of the

correlations it can be seen that on average the moral thermometer is a better

predictor of the sacredness measure than the humanness measure. However on

average the moral thermometer is a significant positive predictor of the

humanness measure ($M r = .17$), suggesting that the moral thermometer captures

at least some aspects of humanity of most of the target groups.

Figure 9

Correlations between perceptions of sacredness, humanness and the moral thermometer for each of the eight target entities.
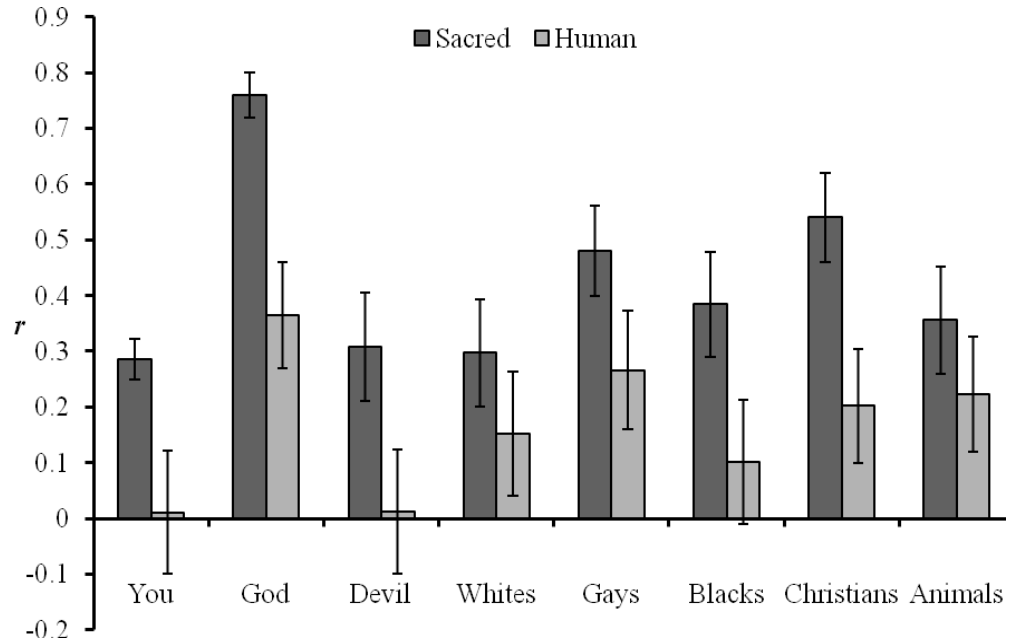
Note: Error bars represent 95% confidence intervals.

Hypotheses I and II. In order to re-explore Hypotheses I and II, the same analytic strategy was used as above. Specifically, a 10 (Target Entities) X 2 (Religion: Christian or Non-Christian) X 2 (Ethnicity: White or Non-White) linear mixed-model with the first factor as a within-subjects factor was analyzed with the moral thermometer as the dependent measure, while controlling for general affect directed towards each of the eight target groups. As before, a main effect of target group was a test of Hypothesis I and interactions between religious or ethnic identity and target groups were tests of Hypothesis II. There was a main effect of target entity on perceived level of morality, $F(9.327.81) = 501.47$, $p < .001$ (Figure 10). Results from this analysis largely support the predictions of the chain of being. God was perceived as the most moral ($M = 85.40$, $SE = 1.08$) and the Devil as the least moral ($M = 5.83$, $SE = .95$). Terrorists ($M = 10.23$, $SE = .93$) were perceived as more moral than the Devil, but less moral than all other target entities. Gays ($M = 64.58$, $SE = 1.13$) and Christians ($M = 65.90$, $SE = 1.13$) were the least moral of the human target groups. Blacks ($M = 67.37$, $SE = 1.06$) were significantly more moral than gays, but not significantly different than Christians. Whites ($M = 69.52$, $SE = 1.06$) were perceived as the most moral human group. The Self ($M = 75.15$, $SE = 1.07$), Saints ($M = 77.07$, $SE = 1.31$), and Animals ($M = 77.85$, $SE = 1.10$) were all similarly moral. However, Animals were significantly more moral than the self, and saints did not differ from the self or animals. There were no other main effects.

There was a significant interaction between the target groups and religion

Figure 10

Estimated moral thermometer means for the ten target entities.
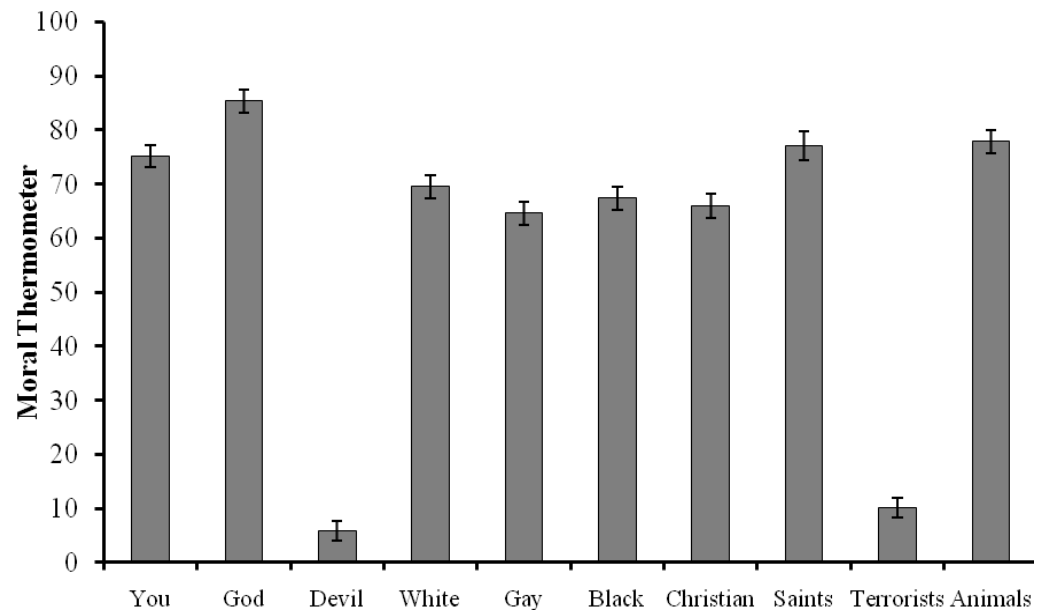
Note: Error bars represent 95% confidence intervals.

factor, $F(9, 347.53) = 2.49$, $p = .009$ (Figure 11). Christian participants ($M = 68.79$, $SE = 1.38$) perceived Christians as more moral than did non-Christians ($M = 63.00$, $SE = 1.86$), however this was only marginally significant ($B = 2.17$, $SE = 1.26$, $p = .09$). There was a significant interaction between religious identification and the Devil target ($B = -3.31$, $SE = 1.47$, $p = .03$). Non-Christians ($M = 8.41$, $SE = 1.53$) perceived the Devil as more moral than did Christians ($M = 3.24$, $SE = 1.14$).

Finally, there was a significant 3-way interaction between target group, religion, and ethnicity, $F(9, 328.06) = 2.14$, $p = .03$ (Figure 12). The 3-way interaction suggests that non-Whites who are Christian ($M = 75.28$, $SE = 2.64$) and non-Whites who are non-Christians ($M = 78.64$, $SE = 3.62$) perceive Saints similarly. However for Whites, non-Christians ($M = 71.72$, $SE = 2.38$) perceive saints as significantly less moral than Christians ($M = 82.65$, $SE = 1.77$).

Hypothesis III. The same analysis of partial correlations as with the sacredness and humanness measures was conducted with the moral thermometer (Figure 13). The results primarily resemble the results from the measure of sacredness such that for a majority of the target groups the positive moral emotions were positively related to the moral thermometer ($M\ pr = .17$). Again, there was no relationship between the moral emotions and the moral thermometer for the Devil, perhaps due to floor effects. Results were less conclusive for the negative moral emotions ($M\ pr = -.05$). None of the correlations were significantly in the opposite direction, but many (especially for contempt) were

Figure 11

Estimated moral thermometer means for the ten target entities as a function of religious identification.
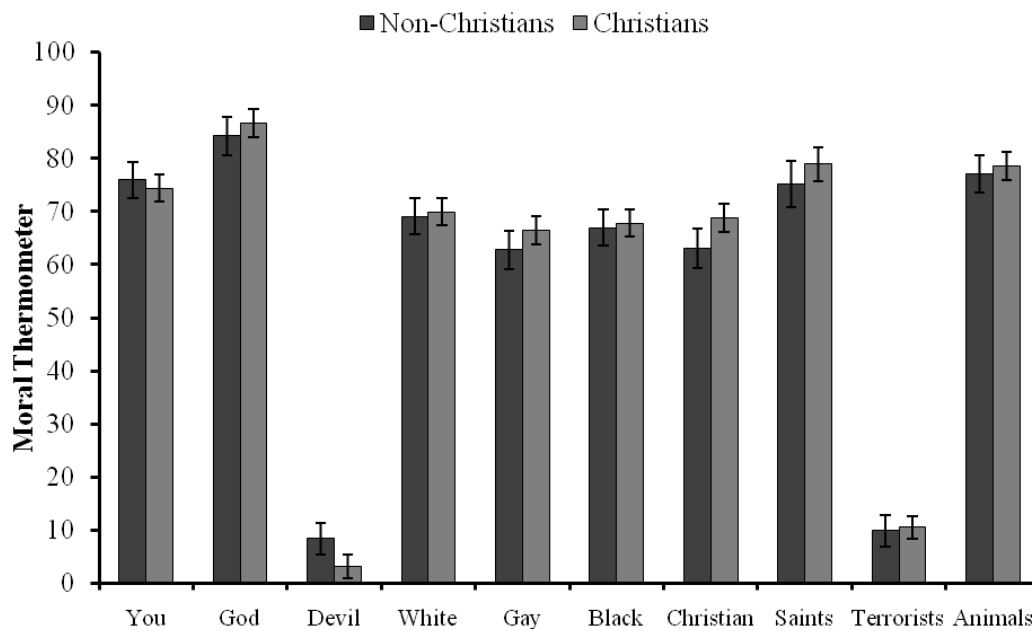
Note: Error bars represent 95% confidence intervals.

Figure 12

Estimated moral thermometer means for the ten target entities as a function of religious and ethnic identification.
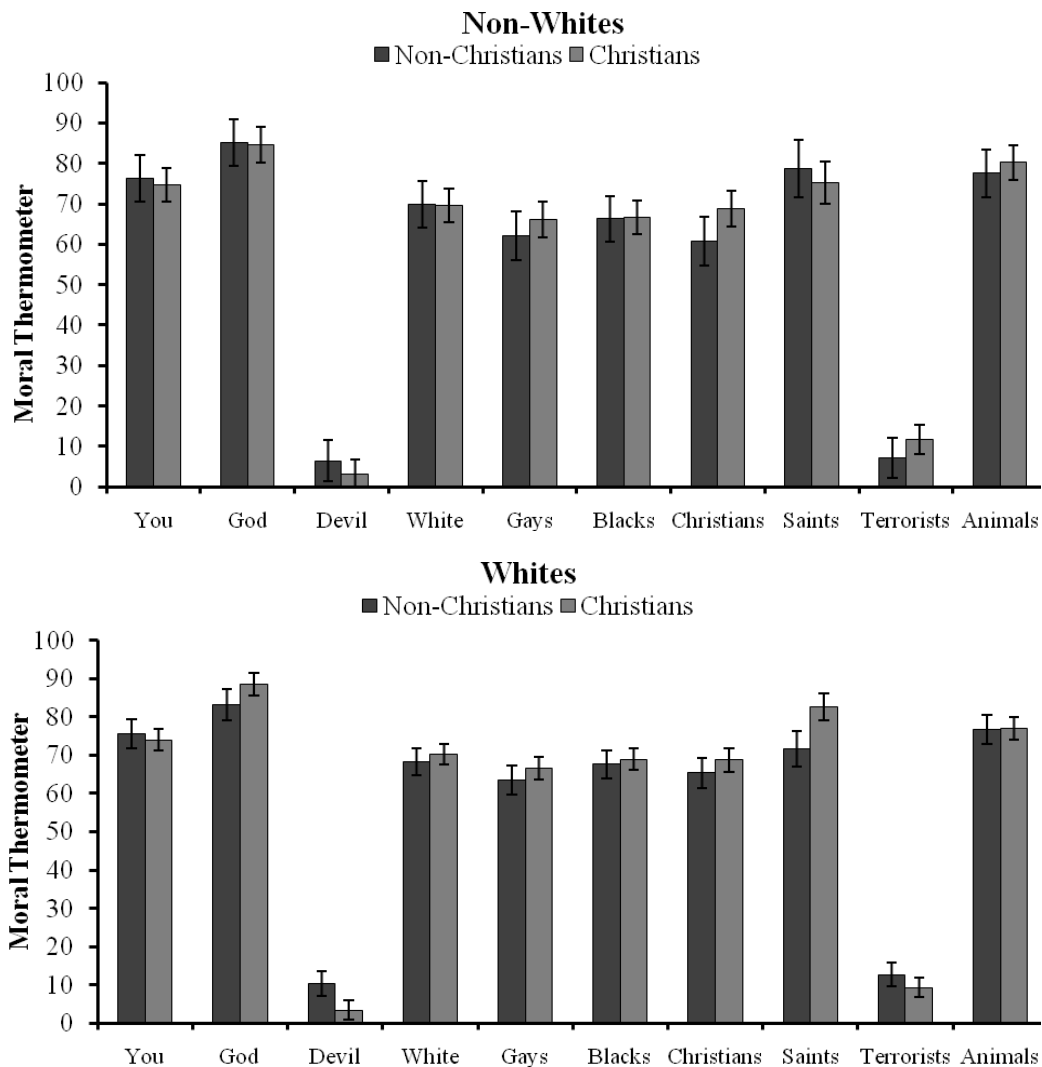
Note: Error bars represent 95% confidence intervals.

Figure 13

Partial correlations between the moral thermometer and the six moral emotions for each of the eight target entities.
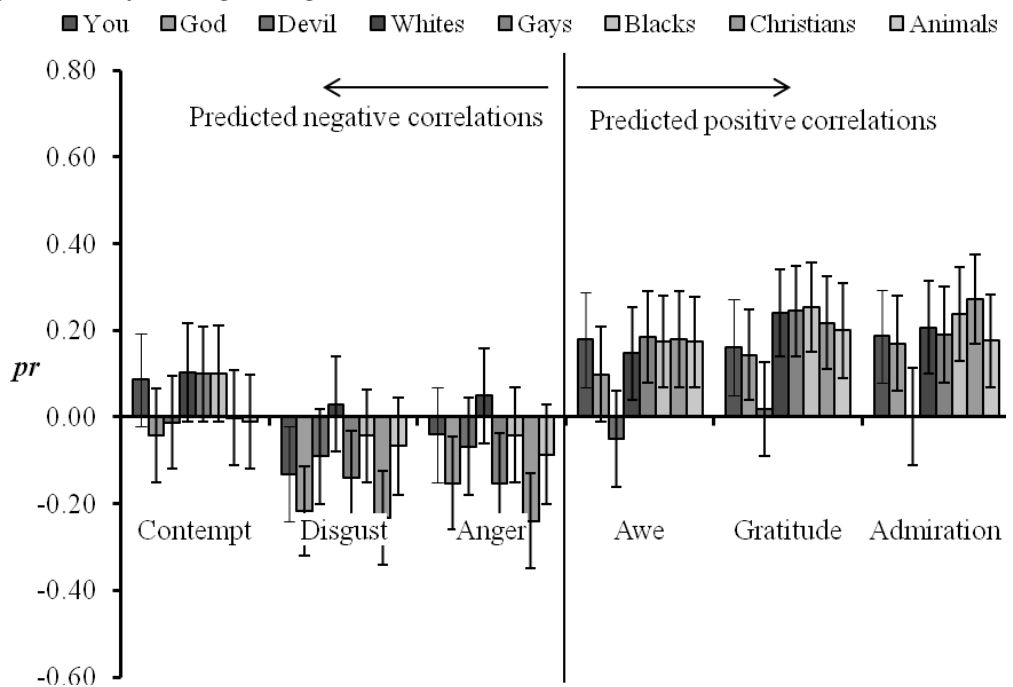
Note: Error bars represent 95% confidence intervals.

trending in that direction. For several groups (i.e. God, Gays, and Christians),

especially with the disgust and anger measures, there were significant negative

correlations, as predicted. Thus, the moral thermometer and the sanctification

measure displayed similar relationships among the moral emotions. While the

sanctification measure resulted in larger effect sizes than the moral thermometer

for the positive moral emotions (see Figure 9), the moral thermometer was a more

consistent predictor of negative moral emotions than the sacredness measure.

This analysis suggests that the moral thermometer may capture a part of the chain

of being as measured by positive moral emotions; however, for the negative

moral emotions, the moral thermometer may not be as complete of a measure.

Exploring the Divinity Differential

Finally, preliminary analyses examining the divinity differential were

conducted. The divinity differential was examined with two ingroups, Whites and

Christians. For each analysis participants from the ingroup in question were the

only participants selected. Each target groups' score on the moral thermometer

was subtracted from the ingroup's score. Then, for each ingroup, the correlations

between the difference score and the measures of humanity and sacredness were

computed. If the difference score was an effective predictor of humanity and/or

sacredness then a negative correlation would be expected.

As can be seen in the top panel of Figure 14, for Christians there was a

relatively consistent negative correlation between sacredness and the difference

score for many of the target groups (M $r = -.19$). Results were less consistent for

the measure of humanity with only one negative significant correlation (M $r = -$

.05). The bottom panel of Figure 14 represents the results for the White participants. There was a consistent negative relationship between perceived sacredness and the difference score (*M r* = -.33). Again the humanity measure was less consistent (*M r* = -.13). Importantly, however, there were three negative significant correlations and the non-significant correlations trended in the predicted direction.

<u>Summary of Exploratory Questions</u>

Overall, it appears that the moral thermometer captures some aspects of both humanness and sacredness. Specifically, the moral thermometer was related to both the measure of sacredness and humanness for most of the target entities. As a result, the moral thermometer produced similar results as the sacred measure when comparing the target entities, and examining the moral emotions. Furthermore, differences between an ingroup and the target entities on the moral thermometer were predictive of sacredness, and at times humanness, suggesting that the moral thermometer may be an appropriate measure of the divinity differential. Nonetheless, the moral thermometer was an inconsistent predictor of the negative moral emotions, albeit a more consistent predictor than the sacredness measure and a more theoretically consistent predictor than the humanness measure. Overall, these results suggest that the moral thermometer captures some aspects of the chain of being, in a similar manner as the measure of sanctification.

Figure 14

Correlations between the moral thermometer difference scores and the measures of humanness and sacredness using Christians (top panel) and Whites (bottom panel) as the ingroup.
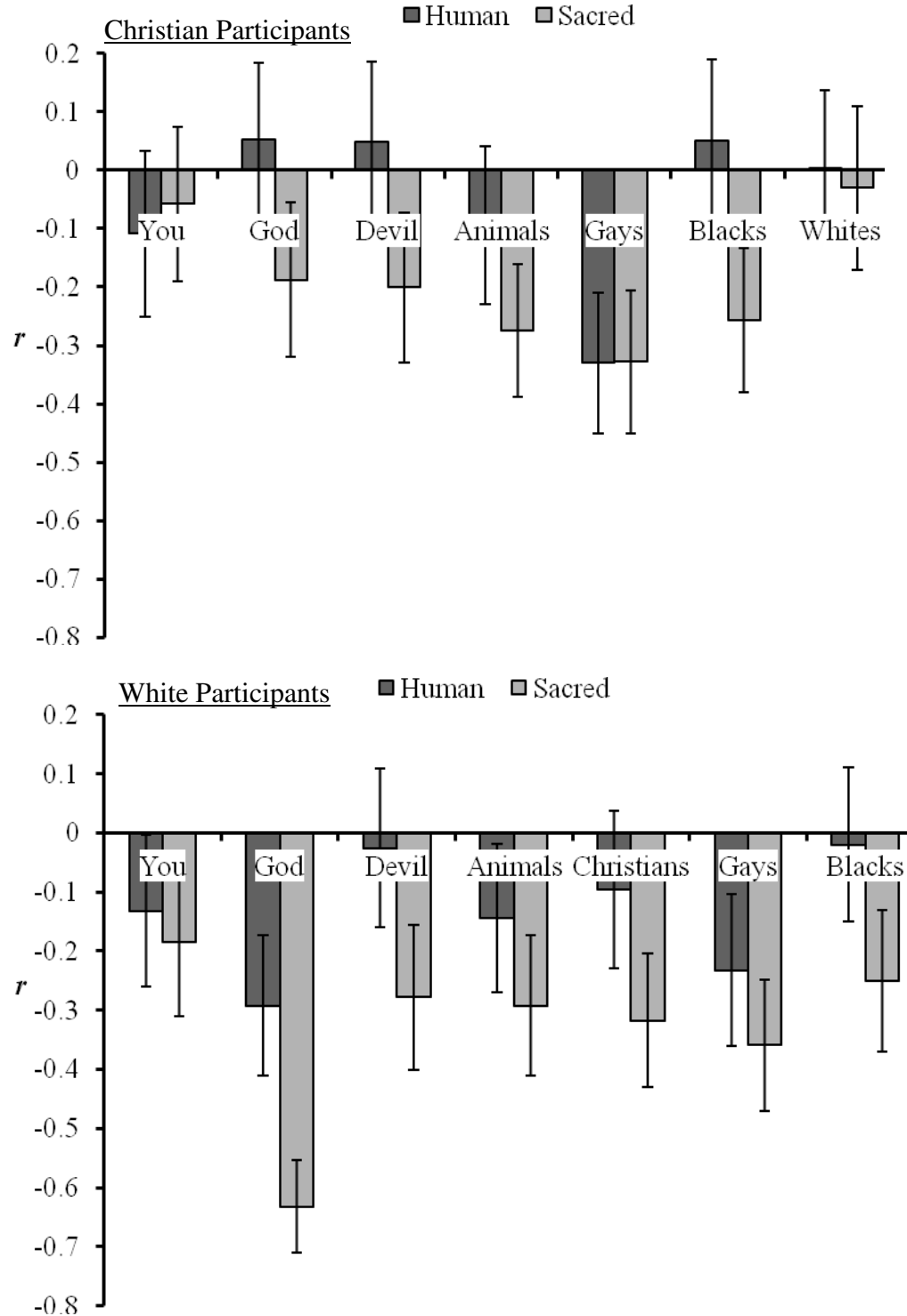
Note: Error bars represent 95% confidence intervals.

CHAPTER IV

DISCUSSION (STUDY 1)

People can perceive other humans as less than human, even animal-like (Goff et al., 2008; Haslam, 2006; Leyens et al., 2003). Study 1 represented the first attempt to examine the possibility of humans perceiving others humans as more than human, even God-like. If people perceive others as both more and less than human it would suggest that these two dimensions may be indicative of an overarching chain of being that organizes people's social cognitions. Overall, the hypotheses of the chain of being received mixed support.

Study 1 investigated participant's perceptions of god, the devil, human groups, the self, and animals on dimensions of humanness or more than humanness (sanctification). The results from Study 1 demonstrated that people do perceive a variety of social targets along a dimension of humanity that appears to include the perception of some entities as more than human and some entities as less than human. While the evidence was not incontrovertible, taken as a whole the data from Study 1 suggested that a study of humanness that does not allow for the possibility of the perception of others as more than human, may be an incomplete view of human's social perception. Specifically, participants viewed God and the Devil at opposing ends of the sanctification measure. Human groups and the self were perceived between the God and the Devil, as predicted by the chain of being. Furthermore, perceptions of sanctification were positively related to positive moral emotions (an indication of being greater than human, see e.g., Haidt & Algoe, 2004) and negatively related to two out of three negative moral

emotions (an indication of dehumanization, see e.g., Maoz & McCauley, 2008;

Taylor, 2007).

Perceptions of humanness revealed similar results. The devil was

perceived as the least human with animals slightly more human, and the human

groups coming next. God was perceived to be as human as many of the human

groups. At first blush this may be contrary to the hypothesis, but as discussed in

the introduction, past measures of humanness may not effectively capture the

perception of people as more than human (cf. Viki & Calitri, 2008).

Despite the overall encouraging results of Study 1, the data did present

some ambiguity. First, with both the sanctification and humanness measures only

one of the ingroup-outgroup analyses attained statistical significance. Second, for

the sanctification measure, animals were one of the most sanctified entities

examined. Third, the measure of humanness was often positively related to the

negative moral emotions, opposite of the predicted effect. There could be several

explanations for these findings. The ingroup-outgroup results may be due to

social desirability concerns present in a university sample (e.g. Henry, 2008). The

sanctified nature of the animal targets may be due to the particular animals

participants had in mind when completing the measures, as in some

circumstances people attribute humanness to animals (Epley, Waytz, & Cacioppo,

2007). People have very friendly relations with many of their pets, even bringing

them into restaurants and cafes. Thus, if participants were thinking about their

pets, instead of some sort of wild animal, they may have been more likely to

perceive the animals as more sacred. It should be noted that this only explains the

results for the measure of sanctification, but not of humanness. Analyses with the measure of humanness suggested that animals were perceived as less human than the human groups and more human than the devil—consistent with the predictions of the chain of being.

Finally, the measures of humanness may have been positively related to the negative moral emotions because in order for humans to feel an emotion for a particular group or person, especially a moral emotion, that social target usually must have some sort of agency (cf. Gray et al., 2007). Humanity, almost by definition, contains a sense of agency (Gray et al., 2007; Haslam, 2006). Thus, a social target must be at least partially human to be the target of moral emotions, negative or positive. This latter point is interesting, because it throws doubt onto the measure of humanness or onto the use of emotions to connote humanness. Likely, there are many different conceptions of humanity (e.g. Bandura, 2002; Gray, Gray, & Wegner, 2007; Haslam, 2006; Leyens et al., 2003; Maoz & McCauley, 2008). The negative moral emotions capture part of this, while the measure of humanness used in the current study captured another part. Given these findings, the measure of sanctification may best capture the sense of humanness conveyed by the emotions used in Study 1. More research is necessary to understand precisely what aspects of humanness are measured by the variety of measures of humanness. Such work would be beneficial for not only providing further insight into the results from the present study, but also for the integration of past work on dehumanization.

Study 1 also provided valuable information about a potential new measure

of perceived morality. The moral thermometer was predictably related to both perceptions of sanctification and humanness. The results of this measure, for both the perceptions of the target groups as well as expressed emotions, were theoretically consistent (with the exception of the rating of animals). The moral thermometer also allows for the perception of targets as above and below human along the same scale, rather than independent humanness and sanctification scales. Overall, these results suggest that when the moral component of humanity is of interest, a simple measure like the moral thermometer may be an efficient and effective choice, however more work is needed to fully validate this measure.

Study 1 provided mixed evidence in support of the *specific* chain of being proposed here; however there was strong support for *a* chain of being. Results suggested that participants hierarchically arranged the target groups from less than human (the Devil) to more than human (God), with many of the human groups falling between these two endpoints. Study 2 aimed to extend research on the chain of being by testing the hypotheses regarding the chain of being and religious fundamentalism. By combining research on the chain of being, values, religion, and cognitive style, Study 2 is able to test a model of fundamentalism that includes both prejudicial and psychologically beneficial fundamentalism outcomes.

CHAPTER V

RATIONALE AND HYPOTHESES (STUDY 2)

The purpose of Study 2 was to assess the entire model of religious

fundamentalism and how it relates to the chain of being, promotion, and

protection (Figure 1, p. 12) with path analysis. More specifically, Study 2 tested a

model of religious fundamentalism that included the theoretical models of

promotion and protection developed previously (see Figures 2 & 3, pp. 11 & 13).

A traditional measure of fundamentalism that focuses on the belief in an infallible

authority and closed-mindedness towards religious issues (Altemeyer &

Husberger, 2004) and the need for closure scale (Webster & Kruglanski, 1994)

were utilized to measure fundamentalism and one of the contributing factors (i.e.

need for closure) to both fundamentalism and the chain of being. The promotion

portion of the model was examined with religious well-being, time spent

volunteering, amount of money donated to religious organizations, and worship

service attendance (see Figure 2).

The protection portion of the model included measures that utilized gay

men and lesbians as the target group because research suggests that this group is

consistently perceived to violate fundamentalist values (Jackson & Esses, 1997;

see also Brandt & Reyna, in press; Fulton, Gorsuch, & Maynard, 1999; Laythe,

Finkel, Bringle, & Kirkpatrick, 2002; Mavor & Gallois, 2008; Rowatt, LaBouff,

Johnson, Froese, & Tsang, 2009; Rowatt, Tsang, Kelly, LaMartina, McCullers, &

McKinley, 2006). Additionally, measures of value violations and threats, the

humanness measure from Study 1, and opposition to public policies that deny

civil rights to Gays were used to measure the protection portion of the model (see Figure 3). Importantly, perceptions of African-Americans were also assessed in order to demonstrate that the effects discussed here are specific to value violating and threatening groups (e.g. Gays).

Study 2 also tested the divinity differential hypothesis using measures of value violations/threats as the predictor variable, a computation of the divinity differential as the mediator variable, and opposition to public policies as the outcome variable. It is important to note that the divinity differential may be computed in a variety of ways. For example, it could be possible to subtract an ougroup's level of humanness from an ingroup's level of sanctification; however, because it is the difference between humanness (or if reverse scored dehumanization) and sanctification—the two directions on the chain of being—it is conceptually and computationally suspect. The two measures likely contain different sorts of responses from participants and thus scores on the two scales will not necessarily be equivalent. It could also be possible to compute the divinity differential by taking the outgroup's level of sanctification or humanness and subtracting it from the ingroup's levels of sanctification or humanness, respectively. These two methods, however, suffer from the same pitfalls as previous dehumanization research in that the perception of a group as more than human is lost with the latter method and with the former method the same problem arises only in reverse. Thus, the moral thermometer used in Study 1 was used to compute the divinity differential in Study 2.

Statement of Hypotheses

The primary hypothesis tested in Study 2 was the complete model (Figure 15). The need for closure was expected to contribute to religious fundamentalism. Fundamentalism, in turn, was predicted to be related to the perception of gays as violating and threatening values as well as perceptions of the ingroup as upholding values. Value-related perceptions were, in turn, expected to predict perceptions of the ingroup and outgroup along the chain of being as represented by the measures of sanctification and humanness, respectively. Finally, ingroup sanctification was predicted to relate to individual and group promotion related behavior, while the dehumanization of the outgroup was predicted to relate to public policy. This hypothesized model was also tested using the sanctification measure or the moral thermometer for both the ingroup and the ougroup.

The secondary hypothesis tested the divinity differential. This hypothesis suggests that the difference between participants' ingroup and an outgroup on the moral thermometer will mediate the relationship between the perception of value violations and opposition to public policy designed to help benefit the outgroup.

Figure 15

Hypothesized path model (Study 2).
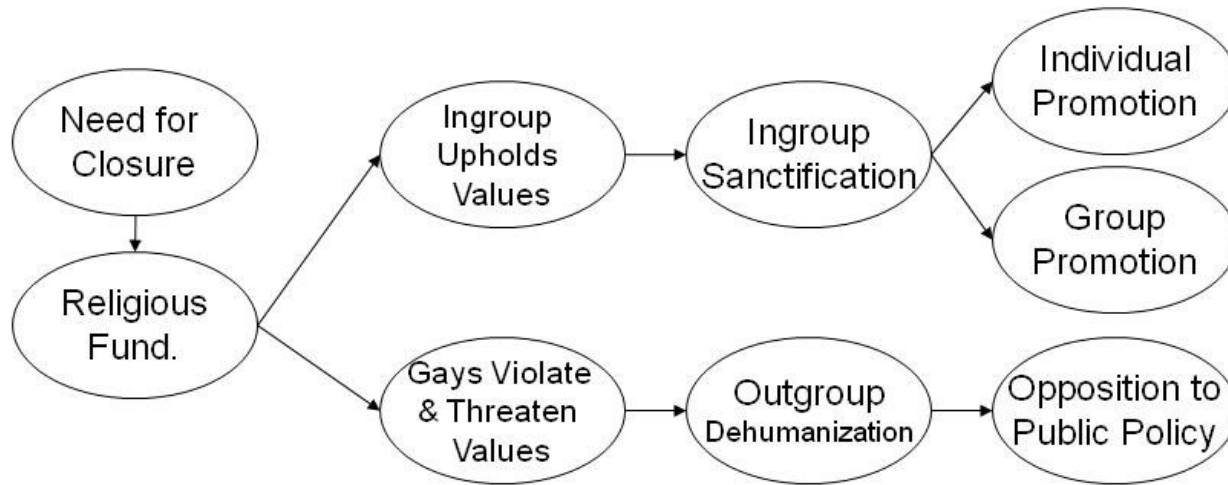
CHAPTER VI

METHODS (STUDY 2)

The purpose of the second study was to test the chain of being within the model of religious fundamentalism using an online survey methodology. Participants completed measures assessing their belief in an infallible authority, dispositional need for closure, perceived sanctification, humanness, and morality of the ingroup and outgroup, the protection of the ingroup from the outgroup, and the promotion of the ingroup. The target groups in this study were Blacks/African-Americans and gay people. These two groups are some of the most often examined within research on the religion-prejudice relationship, so it will be important to test the predictions of the model with these two groups.

<u>Participants</u>

Participants were recruited from a Midwestern university, where they received partial course credit. Overall 348 participants participated in the survey, including participants from a variety of religious groups. Because the current study was interested in the sanctification of participant's religious ingroups and the institution where the study was completed is primarily Christian, only the responses of Christians were analyzed, leaving a total of 223 participants (59 men, 164 women). Participants were primarily White (58.3%), Hispanic (19.3%), or Black (9.0%). In an effort to maintain a sufficient number of participants, missing values were replaced with series means for all measures.

<u>Procedures</u>

Participants were directed to a website, where they saw a consent form.

After consenting to participate in the study, participants were taken to the survey's website, where they were asked to fill out a variety of measures assessing all the portions of the model. After completing the survey the participants were taken to a debriefing webpage.

<div align="center">Measures</div>

The questionnaire can be found in Appendix B. The items and scales used in this study are described next. The Cronbach's Alphas, means, and standard deviations for the final scales are reported on the diagonals of the correlation matrix found in Table 2 (p. 61).

All variables were measured on a seven-point scale from 1=strongly disagree to 7=strongly agree unless otherwise noted. After completing demographic information, participants completed a measure regarding their belief in an infallible authority—Altemeyer and Hunsberger's (2004) short form religious fundamentalism scale. The religious fundamentalism scale contains 12 items such as "God has given humanity a complete, unfailing guide to happiness and salvation, which must be totally followed" and "Scriptures may contain general truths, but they should NOT be considered completely, literally true from beginning to end" (reverse scored). Higher scores indicate greater religious fundamentalism.

In order to maintain topical consistency within the questionnaire, items assessing promotion of the religious ingroup were presented next. To assess promotion of the religious ingroup, five items were used to assess participants' religious behaviors. The first three items were free response and included: (1)

"Approximately how much money (in dollars) did you donate to a religious cause in the last year (congregation, missions, temple, etc.)?" (2) "On average, how many hours a week do you spend volunteering or working for your religious group?" and (3) "In the past year, approximately how many hours have you spent talking to others about your faith?" The fourth item assessed how often participants attend religious services. It asked "On average, how often do you attend religious services." Participants were given several response choices (1=More than once a week, 2=Once a week, 3=Once a month, 4=Only on special holy days, 5=Once a year, 6=Less than once a year, 7=Never, practically never). The fifth item assessed a more personal religious expression: prayer. This item asked "How often do you pray or commune with God outside of religious services?" Participants responded on a scale similar to the previous item (1=Every day, 2=More than once a week, 3=Once a week, 4=At least once a month, 5=Several times a year, 6=Less than several times a year, 7=Never, practically never). The three open ended items were significantly skewed. The values were log transformed to create more normally distributed measures. Throughout the rest of this paper references to these variables represent their logged form. When combined into a scale they were standardized.

The Religious Well-Being (RWB) sub-scale of the Spiritual Well-Being scale could be seen as a form of promotion (Ellison, 1983). This 10-item scale assesses a satisfying relationship with God. Participants were asked about their experiences with God. Items such as "I believe that God loves me and cares about

me" and "I don't have a personally satisfying relationship with God" (reverse scored) make up the religious well-being sub-scale.

Webster and Kruglanski's (1994) 42-item need for closure scale was used to measure dispositional need for cognitive closure. This scale consists of five subscales including *Preference for Order* (10-items; "I find that a well ordered life with regular hours suits my temperament."), *Preference for Predictability* (8-items; "I don't like going into a situation without knowing what to expect from it."), *Decisiveness* (7-items; "When faced with a problem I usually see the one best solution very quickly."), *Discomfort with Ambiguity* (9-items; "When I am confused about an important issue, I feel very upset."), and *Closed Mindedness* (8-items; "I feel irritated when one person disagrees with what everyone else in a group believes.").

Next, participants completed a measure of sanctification and humanness in reference to Gays, Blacks/African-Americans, and Christians. These were the same measures as Study 1. Following these measures, participants completed the new chain of being measure used in Study 1 for the target groups.

Participants then completed a series of items to assess the perception of gays, Blacks/African-Americans, and Christians as (a) violating religious values and beliefs and (b) threatening religious values and beliefs. Items were reversed scored for Christians to represent the perception of Christians as upholding values. Four items measured religious value violations and included "Typically, gays do not uphold the values of my religion," "Typically, gays disagree with the teachings of my religion," "Typically, gays do not uphold the traditions of my

religion" and "There are very few differences between the values of gays and members of my religion" where "gays" was subsequently replaced with "Blacks/African-Americans" and "Christians." Two items measured threats to religious values and beliefs and included "Typically, gays threaten the vision of my religion" and "Gays threaten the expression of my religion" where "gays" was subsequently replaced with "Blacks/African-Americans" and "Christians."

Finally, participants completed items assessing protection in the form of discrimination via political policy preferences. All items were assessed on a scale ranging from 1=strongly oppose to 7=strongly support. Two items were used for both gays and Blacks/African-Americans. These items were "Do you strongly support or strongly oppose: A ballot measure to substantially increase federal spending in support of the civil rights of gays" and "Do you strongly support or strongly oppose: A ballot measure to substantially decrease federal spending in support of the civil rights of gays" where "gays" was subsequently replaced with "Blacks/African-Americans." Four additional items were also used to tap into a broader range of policy preferences towards gays. The items included "Do you strongly support or strongly oppose: A ballot measure that would legalize gay marriage and would allow same-sex married couples all the same benefits of heterosexual married couples, including tax and insurance benefits;" "Do you strongly support or strongly oppose: A constitutional amendment that will define marriage as something that can exist only between a man and a woman;" Do you strongly support or strongly oppose: Laws designed to protect gay people from

discrimination in the work place;" and "Do you strongly support or strongly

oppose: Laws designed to restrict gay people from adopting children."

CHAPTER VII

RESULTS (STUDY 2)

The primary hypothesis tested in Study 2 included the entire proposed

model, tested using structural equation modeling (see Figure 15, p. 53). The

hypothesized model was tested using the structural model presented in Figure 16.

After testing the model, mediation analyses were used to test the hypotheses

regarding the divinity differential.

Preliminary Analyses

Only the need for order, preference for predictability, and closed-

mindedness need for closure subscales were used because of their importance in

past research on fundamentalism (Brandt & Reyna, in press). Specifically,

decisiveness and the aversion of ambiguity, as measured by the need for closure

scale, do not seem to play a role in fundamentalism. This is also the case with the

current sample (all r's < .08, $p = ns$). Need for order and preference for

predictability were used to create a latent variable for the current study. Closed-

mindedness did not load highly onto the latent variable (<.40) and was thus

treated as an independent indicator. Additionally, value threat and value violations

were used to create a single latent variable. For the ingroup these variables were

reverse coded so that higher numbers indicate that the ingroup is less threatening

and upholds values.

Preliminary analyses suggested that prayer loaded more effectively on the

religious well-being variable, creating what will be called private promotion. The

remaining promotion dependent variable will be called public promotion as it

contains more publicly visible behaviors (e.g. attending worship services, volunteering). These items were standardized and averaged together. A correlation matrix including means, standard deviations, and scale reliabilities (Cronbach's Alphas) can be found in Table 2.

Figure 16

Specification of the hypothesized path model.
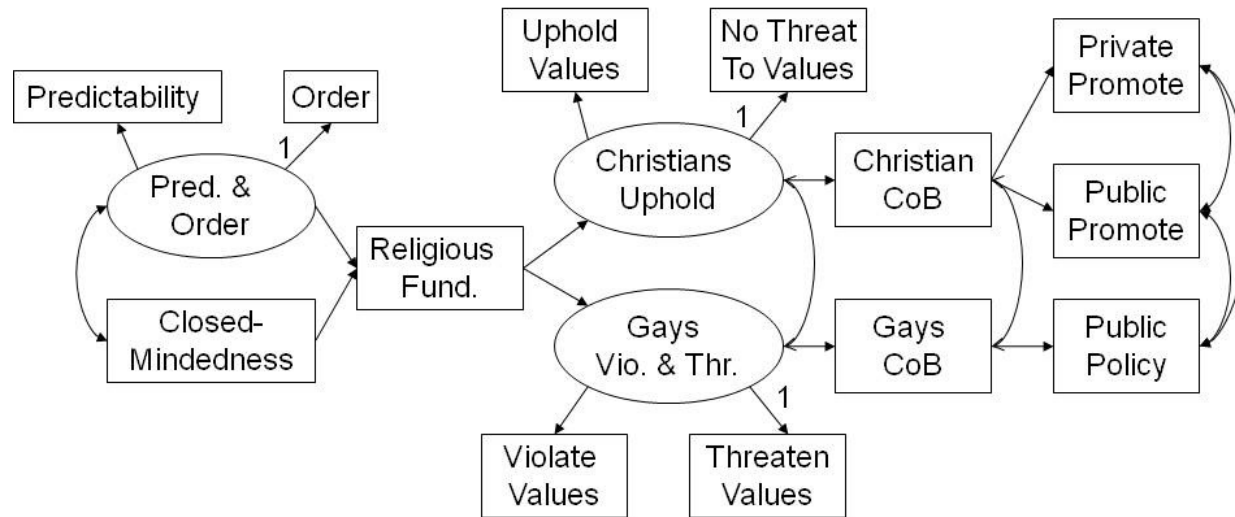
Note: CoB = the measure of the chain of being used in the model. Three versions of the hypothesized model were estimated using different measures of the chain of being for Christians and Gays (see Table 3). Double-headed arrows connecting endogenous variables represent the correlations between errors for the endogenous variables.

Table 2

Correlations, means, standard deviations, and scale reliabilities for all indicators included in path analyses.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Order	**(.80)**														
2. Predictability	.59**	**(.77)**													
3. Closed-Mindedness	.03	.21**	**(.61)**												
4. Religious Fund.	.18**	.20**	.15*	**(.90)**											
5. Private Prom.	.25**	.10	-.07	.59**	**(.94)**										
6. Public Prom.	.15*	.02	-.03	.46**	.50**	**(.73)**									
7. Chr. Uphold	-.19**	-.13*	.07	-.09	-.22**	-.24**	**(.85)**								
8. Chr. Do Not Threaten	-.19**	-.07	.07	-.05	-.24**	-.28**	.58**	**(.69)**							
9. Chr. Sanct.	.19**	-.01	-.10	.31**	.26**	.24**	-.30**	-.27**	**(.95)**						
10. Chr. Moral Therm.	.22**	.11	-.01	.37**	.29**	.32**	-.31**	-.31**	.48**	--					
11. Gays Value Violation	.16*	.16*	-.01	.17**	.10	.03	.01	.06	.02	.002	**(.84)**				
12. Gay Threat	.12	.19**	.13*	.35**	.15*	.05	.15*	.26**	.10	.05	.48**	**(.64)**			
13. Gay Humanness	-.04	-.06	-.03	-.04	-.09	-.11	-.001	-.01	.36**	.05	-.19**	-.15*	**(.60)**		
14. Gay Sanct.	-.10	-.12	-.12	-.20**	-.06	-.09	-.04	-.08	.44**	.15	-.33**	-.39**	.55**	**(.92)**	
15. Gay Moral Therm.	-.05	-.05	-.04	-.08	.01	.06	-.18**	-.20**	.24**	.51**	-.32**	-.41**	.21**	.52**	--
16. Gay Policy	-.13	-.08	-.03	-.30**	-.08	-.19**	-.02	.03	-.01	.23**	-.19**	-.39**	.05	-.46**	-.26**
M	4.47	4.11	3.42	3.55	5.10	.00	5.90	6.09	4.73	75.26	3.91	2.52	3.82	3.78	66.13
SD	.96	.93	.74	1.26	1.41	.74	1.21	1.20	1.59	20.58	1.66	1.57	1.04	1.67	22.77

Note: Numbers on diagonal and in bold-face type indicate Cronbach's α, with the exception of the two threat measures and. The reliability of these two-item measures are quantified using Pearson correlations. The two moral thermometer items are single item measures and thus have no internal reliability to report. *p<.05, **p<.01.

Importantly, religious fundamentalism was not related to the perception of

Blacks as violating ($r(221)$=-.03, p = .64) or threatening religious values

($r(221)$=-.09, p = .20). Fundamentalism was also related to the perception of

Blacks as *more* human ($r(221)$=.16, p = .02). Contrary to predictions,

fundamentalism was related to more opposition to public policy designed to help

Blacks ($r(221)$=.15, p = .05). Despite this finding, these results are consistent with

the hypothesis that Blacks did not constitute a value violating group for religious

fundamentalists and thus, would not be dehumanized.

This pattern of results remains the same if Black participants are not

included in the sample. For non-Black Christians, religious fundamentalism was

still unrelated to perceptions of Blacks as violating ($r(200)$=-.003, p = .97) or

threatening ($r(200)$=.07, p = .32) religious values. Contrary to the previous results

with all participants included, but consistent with the hypotheses, the relationship

between fundamentalism and opposition to public policy designed to help Blacks

was not significant ($r(200)$=.04, p = .56). Additionally, fundamentalists still

perceived Blacks as more human ($r(200)$=.14, p = .05). Given these results and in

order to present a more simplified model, the variables referring to Blacks were

not included in the final analyses.

<div align="center">Structural Equation Modeling</div>

A series of structural models were fit to the data using measures of

sanctification, humanness, and the moral thermometer. Table 3 contains the final

fit statistics for the three hypothesized and final models. Hypothesized models

indicate models specified according to Figure 16. The first model used the

measure of sanctification for Christians, but the measure of humanness for Gays. The second model used the measure of sanctification for both Christians and Gays. The third model used the moral thermometer for both Christians and Gays. As can be seen in Table 3, the hypothesized model did not adequately fit the data for any of the three basic models. In order to ascertain a more accurate impression of the data all direct effects that were not included in the hypothesized model (e.g. paths between closed-mindedness and public promotion, closed-mindedness and public policy, Christians uphold and public promotion etc.) were added to each of the three models. The final model represents a model where all nonsignificant direct paths (with the exception of originally hypothesized direct effects) are removed, leaving only significant direct paths.

The fit for each of the final models can be found in Table 3. All final models had adequate fit. While the Chi-square tests were significant they were greatly reduced compared to the hypothesized model. Moreover, alternative measures of fit produced either good (CFI, RMSEA) or adequate fit (AGFI), suggesting each of the final models adequately fit the data. The final models are presented in Figures 17, 18, and 19. Bold paths in the figures represent paths predicted by the hypothesized model. The factor loadings for the latent variables and the correlations between variables for these final models can be found in Table 4.

Consistent with the hypothesized model, need for closure, as represented by closed-mindedness and the desire for predictability and order, predicted religious fundamentalism (all Models). The need for closure variables also

predicted three variables not originally specified in the hypothesized models (all Models). Predictability and order and closed-mindedness predicted perceptions of Christians as upholding values. Closed-mindedness also negatively predicted private promotion and the perceptions of Christians as sacred (Models 1 and 2) and moral (Model 3), such that participants who were less closed-minded were more likely to privately promote their religious beliefs and perceive their religious ingroup (Christians) as more sacred and moral.

The protection portion of the model also found support, especially in Models 1 and 2. In all three models religious fundamentalism predicted the perception of gays as violating and threatening religious values. In turn, perceptions of gays as violating and threatening religious values were related to the perception of gays as less human (Model1), sanctified (Model 2), or moral (Model 3). In turn, perceptions of gays as less human (Model 1) or less sacred (Model 2) predicted opposition to civil rights policy for gays. However, when the chain of being was measured with the moral thermometer, this relationship was not significantly different from zero. In addition to the predicted paths, there were several added paths in the final model. Religious fundamentalism directly predicted perception of gays along the moral thermometer (Model 3) and opposition to civil rights for gays (all Models). Finally, perceptions that gays violate and threaten religious values directly predicted opposition to civil rights (all Models).

Table 3

Overall model fit for hypothesized and final estimated models.

Model Name	χ^2 (*df*)	CFI	AGFI	RMSEA
Model 1: Sanct-Hum				
Hyp. Model	308.88 (57)***	.66	.76	.141 (.126, .157)
Final Model	69.53 (47)*	.97	.91	.046 (.020, .068)
Model 2: Just Sanct.				
Hyp. Model	290.07 (57)***	.72	.76	.136 (.120, .151)
Final Model	74.85 (48)**	.97	.91	.050 (.026, .071)
Model 3: Moral Therm.				
Hyp. Model	298.77 (57)	.71	.76	.138 (.123, .154)
Final Model	66.43 (47)*	.98	.91	.043 (.013, .066)

Note: The names of the models indicate what measures of the chain of being were used. In Model 1 the sanctification measure was used for Christians and the Humanness measure was used for Gays. In Model 2 the sanctification measure was used for both Christians and Gays. In Model 3 the moral thermometer measure was used for both Christians and Gays. Hyp. Model = model specified according to Figure 16. Final Model = models summarized in Figures 17 – 19.*p<.05, **p<.01, ***p<.001.

Table 4

Factor loadings, path coefficients, and correlations for the three final estimated models.

			Final Model 1	Final Model 2	Final Model 3
Factor Loadings					
Gays Threat	<---	Gays Violate	1.02[a]	.90[a]	.86[a]
Gays Violate Values	<---	Gays Violate	.47***	.53***	.54***
Chr. Not Threat	<---	Chr. Uphold	.82[a]	.81[a]	.83[a]
Chr. Uphold Values	<---	Chr. Uphold	.71***	.72***	.69***
Order	<---	Pred. & Order	.88[a]	.94[a]	.95[a]
Predictability	<---	Pred. & Order	.70***	.65***	.65***
Correlations					
Pred. & Order	<--->	Closed-Mindedness	.08	.05	.05
Gays Violate Er.	<--->	Chr. Uphold Er.	-.35***	-.36***	-.40***
Gays Hum. Er.	<--->	Chr. Sanct. Er.	.45***	---	--
Gays Sanct. Er.	<--->	Chr. Sanct. Er.	---	.65***	--
Gays Moral Therm. Er.	<--->	Chr. Moral Therm. Er.	--	--	.65***
Priv. Prom Er.	<--->	Pub. Prom. Er.	.22***	.23**	.23***
Pub. Prom. Er.	<--->	Gay Policy Er.	.13*	.15*	.16*
Priv. Prom Er.	<--->	Gay Policy Er.	-.17*	-.15*	-.16*

Note: *p<.05, **p<.01, ***p<.001, [a]indicates reference indicator and thus no significant tests were performed on this path. Er. = error.

Figure 17

Final structural model for Model 1

Note: Dashed lines indicate nonsignificant paths at *p*>.05. Bolded lines indicate paths contained in the original model. Correlations between factors and factor loadings for latent variables can be found in Table 4.

Figure 18
Final structural model for Model 2
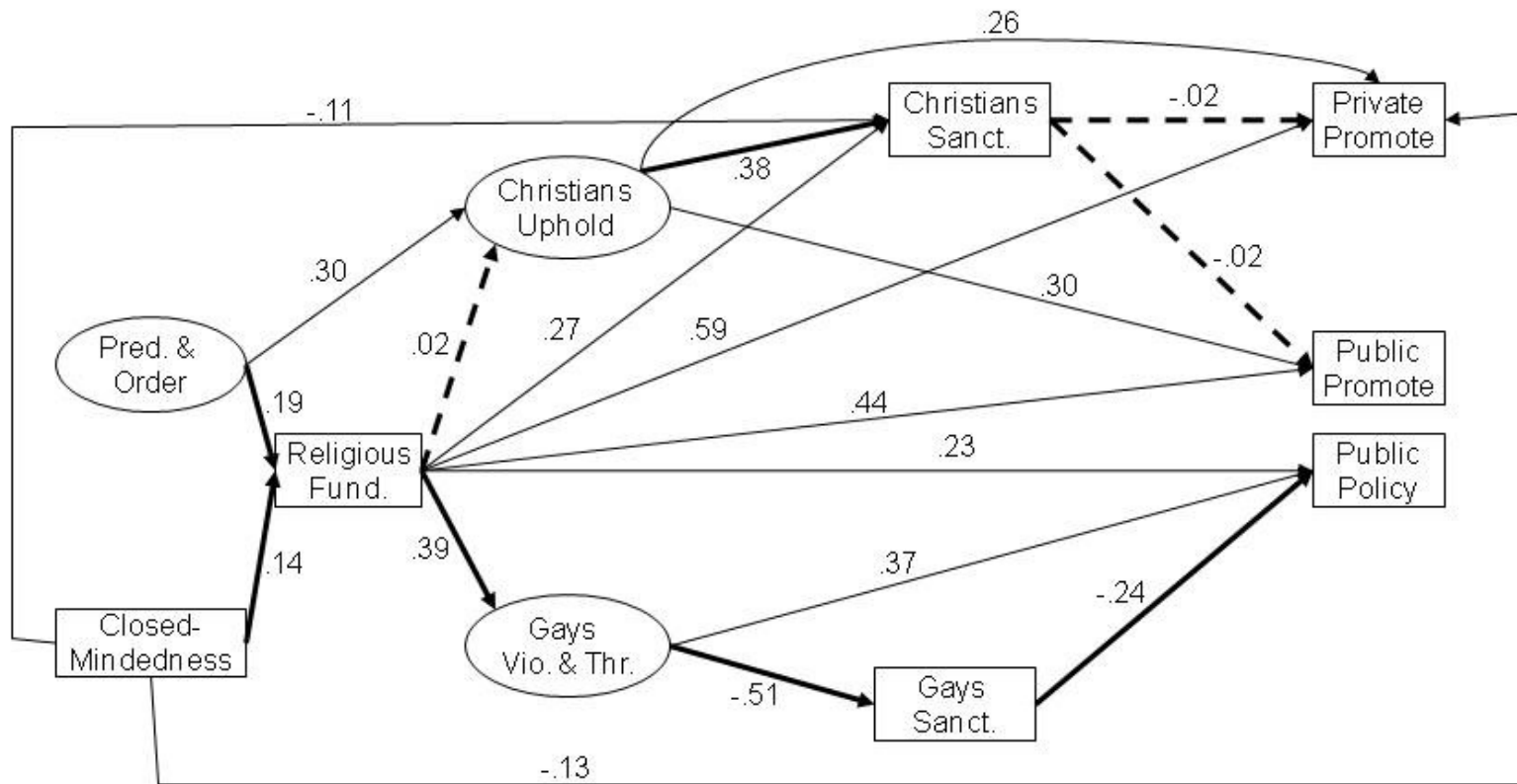
Note: Dashed lines indicate nonsignificant paths at *p*>.05. Bolded lines indicate paths contained in the original model. Correlations between factors and factor loadings for latent variables can be found in Table 4.

Figure 19
Final structural model for Model 3
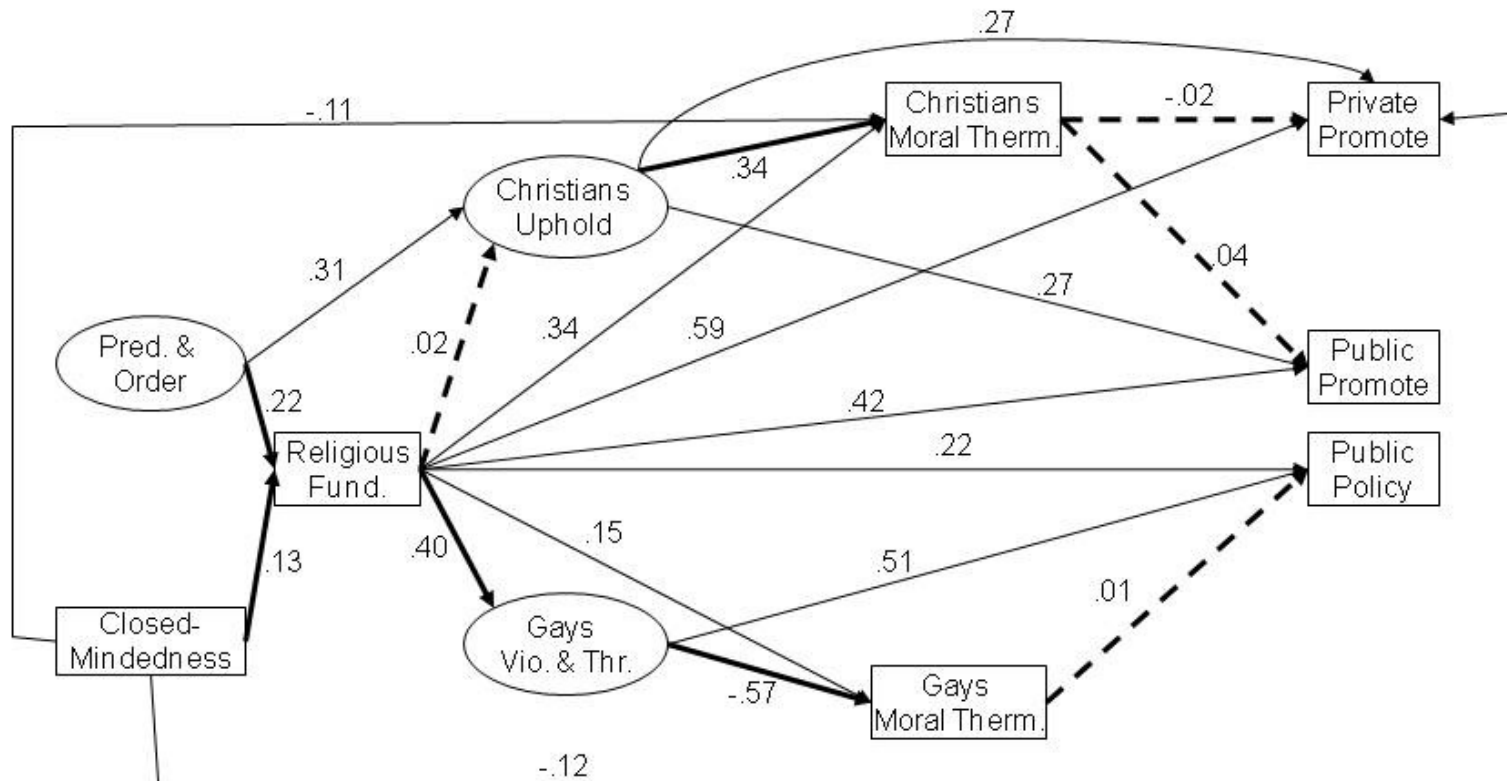
Note: Dashed lines indicate nonsignificant paths at *p*>.05. Bolded lines indicate paths contained in the original model. Correlations between factors and factor loadings for latent variables can be found in Table 4.

The promotion portion of the model received less support. Fundamentalism did not predict the perception of Christians as upholding values, likely because the Christian sample of participants all believed that Christians upheld religious values—a ceiling effect. The perception of Christians as upholding values, however, did predict perceptions of Christians as more sacred (Models 1 and 2) and moral (Model 3). Contrary to the model, perceptions of Christians as sacred (Models 1 and 2) or moral (Model 3) did not predict public or private promotion in the final model. There were several additional paths for the promotion portion of the model. While religious fundamentalism did not predict perceptions of Christians as upholding religious values, it did predict perceptions of Christians as more sacred (Models 1 and 2) and moral (Model 3). Religious fundamentalism and perceptions of Christians as upholding religious values also significantly predicted both public and private promotion (all Models).

Many of the paths that did not support the full model failed to because the direct effects of other variables overwhelmed the impact of the predicted path. For example, when examining the raw correlations, perceptions of Christians as sacred and moral predicted public and private promotion (see Table 2); however, this effect was completely accounted for with the direct paths of Christians upholding values and religious fundamentalism (see Figures 17 – 19). Similarly, when just observing the raw correlations, the perception of Gays as less moral predicted opposition to public policy (see Table 2); however, when all of the other variables were entered into the model (Model 3), perceptions that gays violate and threaten religious values and religious fundamentalism accounted for

opposition to public policy. Overall, an analysis of the additional paths that were added to the model suggests that religious fundamentalism, perceptions of value violators and upholders, and even the need for closure variables are more proximal predictors than originally theorized.

<div align="center">Divinity Differential</div>

The divinity differential hypothesis suggests that while perceptions of value violations and threats will predict opposition to public policy, this direct effect will be mediated by the difference between the ingroup (Christians) and the outgroup (Gays) on the chain of being. First, the items making up the value violation and value threat scales for gays were aggregated to create one five-item measure. This measure was reliable ($\alpha = .82$). The divinity differential was computed by subtracting the outgroups score on the moral thermometer from the ingroups score on the same measure. The mediation was tested using Preacher and Hayes (2008) SPSS mediation macro that utilizes 5,000 bootstrapped resamples to create 95% bias and corrected confidence interval. This method of testing mediations is more accurate (Shrout & Bolger, 2002) than the traditional Baron and Kenny (1986) approach.

The results of the mediation analysis and test of the divinity differential can be found in Figure 17. Consistent with predictions, value violations and threats significantly predicted the divinity differential, which in turn predicted opposition to public policy. This indirect effect of value violations through the divinity differential was significant (Mediated Effect = .17, *SE* = .04, 95% *CI* = .10, .27), suggesting that the differential perceptions of ingroups and outgroups

along the chain of being is at least partially driven by value violations and

predictive of protection.

Figure 20

The divinity differential mediates the relationship between value violations and opposition to public policy.
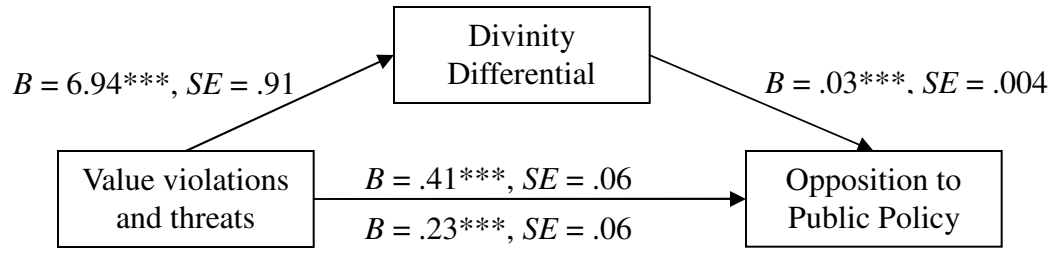
Note: Coefficients represent unstandardized beta weights. ***p<.001

CHAPTER VIII

DISCUSSION (STUDY 2)

Study 2 used the chain of being from Study 1 in an attempt to combine prejudicial and psychologically beneficial outcomes of religious fundamentalists. In this way, Study 2 expanded on the findings from Study 1 by examining the antecedents and consequences of perceiving ingroups and outgroup along the chain of being. Past research has examined both of these fundamentalism outcomes (e.g. Hunsberger & Jackson, 2005; Pargamen, 2002), but has not attempted to combine them into a single theoretical account. The current study provided a step in the direction of integration. The model suggested that because of religious fundamentalist's belief in an infallible authority combined with the concurrent closed cognitive style lead fundamentalists to view the ingroup as closer to God (sacred) and outgroups as closer to animals (dehumanized) on the chain of being. These perceptions were predicted to be driven by beliefs that the ingroup and outgroups uphold and violate values, respectively. Perceptions of ingroups as sacred were expected to predict group promoting behavior, while perceptions of outgroups as less than human were expected to predict attitudes and behaviors that could serve to protect the ingroup.

Results from Study 2 provided some support for the full model of fundamentalism. Consistent with past research (e.g. Brandt & Reyna, in press) and the current model, the need for closure (as captures by preferences for prediction and order, and closed-mindedness) predicted religious fundamentalism, suggesting that religious fundamentalism provides people with a orderly and

predictable lens through which to view the world.

<div align="center">Protection</div>

Providing support for the protection portion of the model, religious fundamentalism was related to the perception of gays as violating and threatening religious values. In turn, these value violations and threats lead to the perception of gays as less human. Fundamentalists protected their ingroup against Gays by opposing public policies designed to help Gays. These results were confirmed in all models tested, with the exception of the model utilizing the moral thermometer (Model 3), where the direct effect of value violations/threats overwhelmed the impact of the moral thermometer. There were also several additional direct paths, suggesting that the model explains only a piece of the relationships described here. Overall, these results suggest that religious fundamentalists perceive Gays as violating and threatening important religious values and are thus dehumanized and denied civil rights. Prejudice by fundamentalists is driven and rationalized with values and the denial of humanity.

<div align="center">Promotion</div>

The promotion portion of the model received less support. Contrary to predictions, fundamentalists did not perceive Christians as upholding religious values any more than their non-fundamentalist Christian counterparts. This nonsignificant relationship was likely due to a ceiling effect, whereby the all-Christian sample primarily perceived Christians as upholding their religious values. The means for the two Christians upholding values variables were near the top of the possible range of values (5.90 and 6.09 on a 7-point scale).

Consistent with predictions, this ceiling effect did not mask the impact of the perception of Christians as upholding values on the perceptions of Christians as sacred and moral; in all models the perception of Christians as upholding values predicted the perception of Christians as higher on the chain of being. Unfortunately for the model, perceptions of Christians along the chain of being (as both sacred and moral) did not predict private or public promoting behaviors. Overall, these result suggest that upholding values is an important determinant of one's placement along the chain of being; however, fundamentalism may not play a role in determining Christians' perceptions of upholding values, and the chain of being may not play a role in promoting the ingroup.

The additional paths, especially in the promotion portion of the model, suggest some support for the ideas of the chain of being. While fundamentalism was not related to the perception of Christians as upholding values, there was a significant direct path from fundamentalism to measures of the chain of being (sacred and moral), suggesting that fundamentalists do perceive their ingroup as more sacred and more moral than non-fundamentalists, but that this relationship may not be driven by perceptions of values. While there may be an unmeasured intervening variable, it may also be the case that the cognitive styles (e.g. closed-minded, preference for order) and specific beliefs (e.g. infallible authority) associated with fundamentalism directly influence perceptions of the ingroup as particularly sacred and moral. For example, perceiving one's own group as higher on the chain of being may be driven by the preference for an orderly and unambiguous view of the world, which may lead people to perceive their own

group has higher on the chain of being in an effort to view their own group as distinct and independent of other groups (cf. Brewer, 1991).

Public and private promotion were not predicted by the measures of Christian's sacredness or morality; however, several other constructs significantly predicted both public and private promoting behavior. First, and consistent with past research (Genia, 1996; Sethi & Seligman, 1993), religious fundamentalism was directly related to both public and private promotion suggesting that the current sample and measures are consonant with past work in this area.

Additionally, perceptions of Christians as upholding values predicted both kinds of promoting behavior. This latter result suggests that perceiving an ingroup as upholding important values influences behaviors that can serve to benefit the ingroup and the self. This argument is implicit in the research on symbolic racism (Sears & Henry, 2005) and value violations more generally (Henry & Reyna, 2007). This work suggests that people derogate groups who violate important cultural values (such as hard work and economic individualism)—consistent with the protection portion of the current model. Embedded in this literature, however, is the assumption that people in the ingroup (often White-Americans) believe that the ingroup upholds these values and thus promotes policies and ideologies to the benefit of the ingroup. While not designed to explicitly test this idea, the current study provides support for the notion that perception of the ingroup as upholding values is important in determining attitudes and behaviors in the same way perceptions of the outgroup as violating values is important in determining opposition to public policy.

Finally, closed-mindedness was negatively related to private promoting behavior. At first glance this result may seem surprising given that closed-mindedness is often positively related to religious attitudes and behavior (e.g. Altemeyer, 2002; Brandt & Reyna, in press). Nonetheless, when all of the variables were entered into the model the more open-minded the participants the more likely they were to endorse attitudes and behaviors that privately promote the ingroup, such as religious well-being and prayer. This result is interesting for at least two reasons. First, it suggests that there are personal benefits, including religious benefits, to being open-minded. While much of the work on closed-mindedness has emphasized its detrimental (or in the case of open-mindedness, beneficial) consequences in intergroup and interpersonal contexts (e.g. Cohen, Sherman, Bastardi, Hsu, McGoey, & Ross, 2007; Kruglanski, 2004), the attitudes and behaviors encapsulated in the private promotion variable represent largely intrapersonal attitudes. This suggests that closed-mindedness (open-mindedness) can negatively (positively) influence a person's psychological well-being. More research is necessary to understand the role of closed- and open-mindedness on psychological health.

<u>Divinity Differential</u>

Study 2 also provided support for the idea of a divinity differential. Importantly, the perception that an outgroup (Gays) violated and threatened the values of the ingroup (Christians) increased the difference between Gays and Christians on the moral thermometer. The difference, the divinity differential, mediated the relationship between the value violations and public policy

positions. These results provide a mechanism for past work examining value violations (e.g. Henry & Reyna, 2007). This past research has suggested that perceptions of groups as intentionally violating values causes people to perceive these value violating groups as less deserving of public aid (Henry & Reyna, 2007; Reyna et al., 2006, 2009). The current research suggests that in addition to deservingness, the relationship between the ingroup and outgroup on a chain of being—as measured by the moral thermometer—in part drive the value violation-public policy relationship.

The results from the divinity differential also suggests that the relative difference between the ingroup and the outgroup along the chain of being may be an important determinant of reactions to the outgroup. Most research on dehumanization has conceptualized "human" as the top of the hierarchy where groups perceived as less than human were likely to face discrimination (Haslam, 2006; Leyens et al., 2001). The current study revealed that the perception as less than human may not be the most important perception to consider. Instead, the perception of a group in reference to the ingroup on a scale than can include perceptions of groups as more than human may be more important. For example, Christians and Gays were both perceived as above the midpoint on the moral thermometer, suggesting that they were both perceived as human to some degree. Regardless of the absolute value of the perception of Gays along the moral thermometer, the *difference* between the two groups (Christians and Gays) was a significant predictor of opposition to public policy. This suggests that Gays might not be dehumanized per se, but rather because they are lower on the chain of

being than Christians they face discrimination. Research and theorizing on the perception of humanity needs to consider the perception of people as more than human and the impact this might have on intergroup perceptions of humanity.

Overall, Study 2 provided support for the psychological underpinnings of religious fundamentalism, the protection portion of the model, and the divinity differential. Partial support was found for the promotion portion of the model. These results suggest that outgroups who violate and threaten the religious values of fundamentalists are dehumanized and face derogation in an effort, by fundamentalists, to protect their ingroup and its beliefs. While perceptions of the ingroup as closer to God do not cause group promoting behavior, religious fundamentalists do perceive their ingroup as more sacred and moral and are more likely to promote the ingroup than non-fundamentalists. Additionally, the difference between the ingroup and the outgroup on the moral thermometer was an important determinant of opposition to public policy designed to help the outgroup. Rather than the absolute value of a group as moral or unmoral, the difference between the ingroup and the outgroup proved to be a significant predictor. Furthermore, the current study revealed the value of open-mindedness to psychological health.

CHAPTER IX

CONCLUSION

Religious fundamentalism and dehumanization have both contributed to prejudice, discrimination, intergroup violence and—in some cases—terrorism (Harris & Fiske, 2006; Haslam, 2006; Hitchens, 2007; Hunsberger & Jackson, 2005; Opotow, 1990; Wellman, 2007; see also Kruglanski & Fishman, 2009). However, fundamentalism has also been linked to better than average physical and psychological well-being (George, Ellison, & Larson, 2002; Pargament, 2002), suggesting that there may be some benefit to holding extreme, fundamentalist ideologies. The current study investigated these dual outcomes by expanding the dimension of humanity to include the perception of people, animals, and supernatural entities as both greater than, or less than human—a dimension called the chain of being.

Recent theoretical advances have suggested that the perception of humans and animals fall along a similar scale, where anthropomorphism describes the perception of animals as more human and dehumanization describes the perception of people as more animal-like (Epely, Waytz, & Caccioppo, 2007; Haslam, 2006). Others have examined the perception of supernatural beings more generally, and God specifically, in terms of humanness and the characteristics of humans (Demoulin, Saroglous, & Van Pachterbeke, 2008; Gray et al., 2007). The current research, especially Study 1, extends this work by examining the perception of supernatural agents, humans, and animals along the same dimension.

Overall, the current studies suggested that research on humanity that does not take into account the perception of humans as more than human may not capture the full extent of social perception. For example, in Study 1 the measure of sanctification suggested that God was perceived as significantly more human than any of the human target groups. However, when using a more traditional measure of humanness God was considered as human as several of the human groups—a result that is contradictory with both intuition and the empirical work on the perception of God (Meier et al., 2007). By using a measure of sanctification it was possible to examine a broader range of humanity, including the perception of people (and gods) as more than human. The current study was the first study to attempt to go beyond "human" in the study and measurement of humanness.

Expanding on the idea that people may be perceived as more than human, the current research suggests that the perception of a group as less than human (dehumanization) may not be the primary concern for people studying intergroup relations. Rather, it is the difference between an ingroup and an outgroup along the chain of being—the divinity differential—that results in discrimination and the protection of ingroup values and norms. This suggests that a group does not need to be seen as less than human to face discrimination. Instead, it is the difference between the ingroup and the outgroup that is most consequential. For example, consider the situation where an ingroup and an outgroup are both perceived to be more than human, but the outgroup is still perceived as lower on the chain of being compared to the ingroup. In this situation the current model

would suggest that the outgroup would still face discrimination. However, past work on dehumanization that considers humanity as the top of the moral hierarchy would not necessarily make this prediction because the outgroup was not actually dehumanized. In support of this idea, the test of the divinity differential in Study 2 suggested that Gays were perceived on the top half of the moral thermometer, yet the difference between Gays and Christians on the measure predicted opposition to public policy that would help benefit Gays and Gay rights.

The current study also examined several antecedents to the perception of humans as above and below human. Specifically, it was proposed that the need for closure and religious fundamentalism would influence perceptions of Christians and Gays along the chain of being. This research adds to the nascent literature examining how ideological beliefs (e.g. conservatism) can influence the perception of a group as human (Hodson & Costello, 2007). Religious fundamentalism directly, and the need for closure indirectly, were related to the perception of the ingroup (Christians) as more sacred and moral. Similarly, both fundamentalism directly and the need for closure indirectly related to the perception of the outgroup (Gays) as less sacred, human, and moral. Importantly, the perception of Gays as less sacred and human was partially mediated by perceptions of Gays as violating and threatening religious values. This is important for several reasons. First, the results on the antecedents of perceptions along the chain of being provide evidence that it is not necessarily purely the ingroup-outgroup distinction that drives dehumanization (cf. Leyens et al., 2001).

While other researchers have made a similar point (Haslam, 2006; Viki &

Abrams, 2003), the current research extends this idea by including the need for

closure and religious fundamentalism as potential causes for the perception of

humans as more or less than human. Second, these results suggest that the

ingroup-outgroup distinction may be, in part, a function of the perceived value

similarity (or dissimilarity) of the outgroup, such that value violations may be

used to legitimize dehumanization and public policy positions (cf. Henry &

Reyna, 2007).

Importantly, the current study did not end with the perception of humans

as more or less than human. Rather, the model tested the idea that participants

would attempt to promote a sanctified ingroup and protect against a dehumanized

outgroup. While there was little support for the former predictions, the protection

portion of the model did attain support. That is, participants perceived value

violating outgroups as less human, sacred, and moral. In turn, participants

opposed public policies aimed at benefiting the outgroup. These results are

consistent with recent research that suggests groups may use prejudice and

discrimination as a tool to protect the validity and vitality of their opinions and

beliefs (Brandt & Reyna, in press). While the promotion portion of the model

received little direct support, the current study replicated some past work (Genia,

1996; Sethi & Seligman, 1993) suggesting that fundamentalists are more likely to

promote their ingroup. Thus, it was not that fundamentalists in the current sample

did not endorse promoting attitudes and behaviors, but rather these attitudes were

not directly driven by the perception of the ingroup as sacred and moral.

<u>Future Research</u>

The two studies presented here opened doors for future research on both the chain of being and fundamentalism.

<u>Study 1</u>

One of the potential short falls of Study 1 was the number of groups participants were asked to rate. This could have aroused social desirability concerns. For example, Blacks, a group that continues to face dehumanization (Goff et al., 2008), were perceived as the most human of the human groups. More focused comparisons (two or three groups, rather than eight) and a between-subjects design may help reduce social desirability concerns among participants.

The unexpected level of sanctification attributed to animals also deserves further study. People can anthropomorphize animals, especially pets, viewing them as if they were human (Epely et al., 2007). If participants were thinking about their pets then anthropomorphization may contribute to sanctification levels. A second explanation may involve the amount of *moral* agency granted to animals. If animals are not attributed moral agency and are already perceived in a positive light they may be attributed greater levels of sanctification. That is, animals may not have the moral agency to fall from grace. Future research that attempts to investigate these explanations may benefit by including people's pets, but also animals that live in the wild. Varying levels of threat an animal presents (a potentially dangerous wild animal vs. a relatively benign wild animal) may also contribute to perceptions of humanness and sacredness of animals.

Emotions have been used as proxy indicators of both humanness and

saintliness (Haidt & Algoe, 2004; Maoz & McCauley, 2008). The results of the current study suggest that this requires further exploration. The current measure of sanctification and the moral thermometer suggest that the use of the moral emotions as a proxy for humanness and saintliness *may* be justified; however, the measure of humanness provided mixed results. The counterintuitive results regarding the humanness measure and the negative moral emotions may provide a fruitful avenue for future research. It may be possible that the measure of humanness or the emotion measures are not accurate measures of humanity. Much of the recent work validating measures of humanness (Haslam et al., 2005) have done so by asking participants explicitly if they thought certain traits were unique to humans or a part of human nature. There is face validity to this approach, however, people may not be able to accurately make these kinds of judgments.

The use of moral emotions to measure dehumanization has been based more on theoretical arguments, rather than empirical results. For example, disgust has been used as a measure of dehumanization because it represents the reaction to people who remind us of our animal-nature (Rozin, Haidt, & McCauley, 2000). However, it is unclear whether people who are treated with disgust are actually perceived as less human. Recent neuroscientific research (Harris & Fiske, 2006, 2007) has provided some evidence for the use of moral emotions (specifically, disgust) for measuring dehumanization. When participants saw targets who are stereotyped as cold and incompetent (e.g. the homeless, drug addicts) there was significantly less activation in the medial prefrontal cortex, the part of the brain

implicated in perceiving social targets (Amodio & Frith, 2006). Additionally, when viewing these targets there was increased activation in the amygdala and insula regions of the brain, which have been implicated in feelings of disgust (Murphy, Nimmo-Smith, & Lawrence, 2003). This recent evidence does suggest that moral emotions may be a more appropriate measure of dehumanization than the measures of humanness used in the current studies.

Study 2

The results from Study 2 also suggest potential avenues for future research. The search for mechanisms for the fundamentalism-sanctification and fundamentalism-promotion relationships could provide insight into the structure and function of fundamentalism. For example, fundamentalism may predict sanctification because of the core components of fundamentalism—belief in an infallible authority and closed-mindedness about religious issues. By believing and attempting to follow an infallible authority fundamentalists may perceive themselves as closer to the authority (i.e. closer to God) than people who are not attempting to follow the authority to the same extent. Similarly, promotion could be the result of attempting to follow an infallible authority that demands regular worship and prayer. Research that attempts to independently measure the psychological components of fundamentalism may be able to shed light onto the precise mechanisms that make fundamentalism a potent predictor of sanctification and group promoting attitudes and behaviors.

Perhaps most interestingly the negative relationship between the closed-mindedness and private promotion suggests a potential fruitful line of inquiry.

While research has documented many inter- and intra-group effects of closed-mindedness (for a review see Kruglanski, 2004), the current research suggested that there may be intrapersonal effects as well. Importantly, there appears to be some benefit to remaining open-minded about issues, especially when predicting the private promotion variable in the current study. More research is needed in order to determine if this type of effect expands beyond the outcome variables in the current study. Overall, the negative relationship between closed-mindedness and private promotion is conceptually consistent with theory that suggests that authoritarianism represents the lack of efficient strategies for coping with uncertainty and anxiety (Oesterreich, 2005). That is, people who are not authoritarian would be expected to have better psychological health because they have developed better coping mechanisms.

Research that has examined the impact of value violations on support or opposition to public policy has suggested that value violations provide information about the deservingness of the policies' primary beneficiaries (Henry & Reyna, 2007; Reyna et al., 2006). The current study suggested that differences between the ingroup and the outgroup along the chain of being (as represented by the moral thermometer) at least partially mediates the relationship between value violations and opposition to public policy. These two mechanisms are not necessarily independent or competing, but rather may work in tandem to drive the value violation-public policy relationship. Additional research may attempt to integrate these two mechanisms. Perceptions of deservingness may play an intervening role between value violations and the divinity differential, suggesting

a multiple mediation hypothesis, whereby groups who are not perceived as deserving (due to value violations) "fall from grace" and are perceived lower on the chain of being (cf. Reyna et al., 2010).

The relationships and implied causality examined in Study 2 cannot be confirmed based on the results. For example, the model suggests that the need for closure underlies fundamentalism and that these two constructs drive perceptions of groups as upholding or violating values, perceptions of groups along the chain of being, opposition to public policy, and group promoting behavior. It is important for future work to manipulate the predictor variables used in this study in order to determine if there are causal relationships between the variables, or if the variables in the current study are merely co-occurring phenomena. There is, however, past research that does suggest the implied causal direction of the current work. For example, manipulations of the need for closure and existential threat have increased support for ideologies based upon traditional and other firm beliefs (e.g. conservatism, Bonanno & Jost, 2006; Jost, Kruglanski, & Simon, 1999). Additionally, it is likely that an ideological belief system, such as fundamentalism, informs our perceptions of values, support for public policy, and support for group serving behaviors because of the strong set of beliefs the ideology represents. However, there may be reciprocal causal arrangements. For example, while fundamentalism may initially cause someone to attend church and donate money to their religious organization, these actions may, in turn, cause someone to become more fundamentalist. The teachings at worship services may bolster the initial beliefs and the beliefs may also be a method of rationalizing

monetary donations. Research that attempts to carefully test the causal

relationships between religious beliefs—perhaps by priming religious concepts

(e.g. Shariff & Norenzayan, 2007)—and related outcome variables would help

move this area of research forward.

CHAPTER X

SUMMARY

Religious fundamentalism has been related to a variety of prejudicial and discriminatory attitudes and public policy preferences. However, contrary to accounts of fundamentalism as pathological, fundamentalists are physically and mentally healthier than non-fundamentalists (Genia, 1996; Pargament, 2002; Sethi & Seligman, 1993). The purpose of the current paper was to examine both of these fundamentalist outcomes within the same model.

In order to capture both positive and negative outcomes of fundamentalism the current paper proposed that people perceived others as greater than or less than human along a dimension of social cognition called the chain of being (cf. Haidt & Algoe, 2004; Lovejoy, 1964/1936). It was proposed that religious fundamentalism and the need for would lead participants to perceive one's ingroup as upholding important values. These perceptions would lead the ingroup to be seen as more than human and would lead to more group promoting behaviors as well as greater psychological well-being; however, perceived differences in values would cause some groups to be perceived as lower on this chain of being. Groups that are perceived as lower, less than human, on the chain of being would also face discrimination as a way to protect the ingroup from value violating and threatening outgroups.

In order to test these ideas two studies were conducted. In the first study participants rated a variety of target groups on measures of humanness (Haslam et al., 2005), sanctification (Mahoney et al., 2003), and moral emotions (e.g.

disgust, admiration). Results indicated that participants appeared to rate target entities along a chain of being, with some entities perceived as more than human and some perceived as less than human. Additionally, there was some evidence that participants were more likely to rate their ingroup as more than human. This latter evidence, however, was mixed. Additionally, a measure of a moral hierarchy (i.e. moral thermometer) was developed and compared to the measures of humanness and sanctification. Results suggested that this measure captured parts of both sanctification and humanness and allows one to measure the perception of a person or group as above or below human along the same scale.

The second study tested the model of fundamentalism that incorporated ideas from the chain of being. Results indicated that fundamentalists' perceptions of an outgroup as violating and threatening religious values lead participants to dehumanize and support discrimination against the outgroup. Additionally, the differences between participants ingroup and outgroup on a hierarchy of morality predicted support for discriminatory public policies. Religious fundamentalism was related to the perception of the ingroup as more than human. The perceptions of the ingroup did not relate to group promoting behavior; however, fundamentalism was a significant and direct predictor of the group promoting attitudes and behaviors.

Overall these results suggest that a psychology that does not take the perception of people as more than human into account does not capture the full range of person perception. Furthermore, some religious ideologies may promote the view that ones group is more sacred and these beliefs may inspire more

support for the religious group. While the results presented in this paper did not

fully confirm the theory, they do provide insight into new directions for research

on infra-humanization and religious fundamentalism.

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Appendix A

Study 1 Measures

Below is a summary of the measures used in Study 1.

We would like to get your feelings about different groups and entities. Your honest answer is important to us. Please rate the following groups and entities on a scale from 0 to 100. 100 indicates that you feel very favorable, while 0 indicates you feel very unfavorable. How do you feel towards:

```
0------------------------------------50------------------------------------100
Very                              Neutral                              Very
  Unfavorable                                                       Favorable
```

1. [Insert Target Group]   _____

For the following sections you will be asked about your perceptions of a variety of groups and entities, especially in regards to how you characterize them. Please use the following scale to complete all of the following items. Remember your answers are completely anonymous and cannot be linked back to you. Your honest answer is important to us.

```
      1-------------2-------------3-------------4-------------5-------------6-------------7
    Not at all
Very much
```

1. To what extent do you characterize [Insert Target Group] with the following traits?

   a. Awesome
      1   2   3   4   5   6   7
      Not at all   Very Much

   b. Inspiring
      1   2   3   4   5   6   7
      Not at all   Very Much

   c. Heavenly
      1   2   3   4   5   6   7
      Not at all   Very Much

   d. Sacred
      1   2   3   4   5   6   7
      Not at all   Very Much

   e. Blessed
      1   2   3   4   5   6   7
      Not at all   Very Much

   f. Broadminded
      1   2   3   4   5   6   7
      Not at all   Very Much

   g. Conscientious
      1   2   3   4   5   6   7
      Not at all   Very Much

h. Humble
   1   2   3   4   5   6   7
   Not at all   Very Much

i. Disorganized
   1   2   3   4   5   6   7
   Not at all   Very Much

j. Rude
   1   2   3   4   5   6   7
   Not at all   Very Much

k. Stingy
   1   2   3   4   5   6   7
   Not at all   Very Much

2. To what extent do you feel [Insert Target Emotion] towards [Insert Target Group]?

1   2   3   4   5   6   7
Not at all   Very Much

People think about others in a variety of ways. Please rate the following groups and entities on a scale from 0 to 100. 100 indicates that you perceive the group or entity as the ultimate good, while 0 indicates you perceive the group or entity as the ultimate evil. How do you perceive:

1. [Insert Target Group]   _____

Ultimate Good	100

50

Ultimate Evil	0
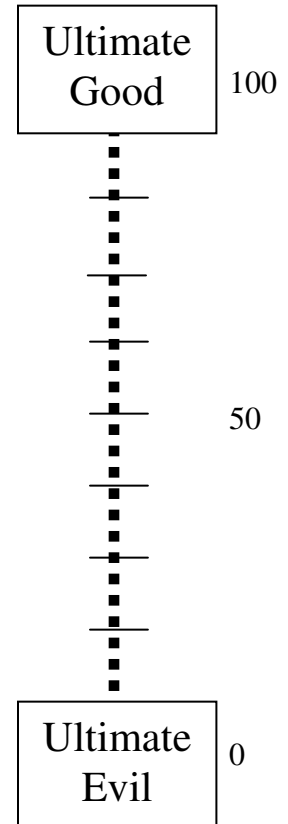
Appendix B

Study 2 Measures

Below is a summary of Study 2 measures. Previously used and validated scales are indicated by the name of the scale and its citation in brackets.

Please rate your agreement/disagreement with the following statements regarding your view of religion. Use the following scale. Remember your answers are completely anonymous and there is no way to connect your answers back to you.

1------------2------------3------------4-------------5------------6------------7
strongly disagree   strongly agree

[Religious Fundamentalism Scale—Short: Altemeyer & Hunsberger, 2004]

Please answer the following questions about your religious behaviors. Remember your answers are completely anonymous and there is no way to connect your answers back to you.

1. Approximately how much money did you donate to a religious cause in the last year (congregation, missions, temple, etc.)?
   _____ dollars

2. On average, how many hours a week do you spend volunteering or working for your religious group?
   _____ hours per week

3. In the past year, approximately how many hours have you spent talking to others about your faith?
   _____ hours

4. On average, how often do you attend religious services?
   <1> More than once a week
   <2> Once a week
   <3> Once a month
   <4> Only on special holy days
   <5> Once a year
   <6> Less than once a year
   <7> Never, practically never

5. How often do you pray or commune with God outside of religious services?
   <1> Every day
   <2> More than once a week
   <3> Once a week
   <4> At least once a month
   <5> Several times a year
   <6> Less than several times a year
   <7> Never, practically never

Please rate your agreement/disagreement with the following statements regarding your experiences with life and religion. Please use the following scale.

1-----------2-----------3-----------4-----------5-----------6-----------7
strongly disagree   strongly agree

[Religious Well-Being Scale: Ellison, 1983]

Read each of the following statements and decide how much you agree or disagree with each according to your beliefs and experiences. Use the following scale.

1-----------2-----------3-----------4-----------5-----------6-----------7
strongly disagree   strongly agree

[Need for Closure Scale: Webster & Kruglanski, 1994]

For the following section you will be asked about your perceptions of a variety of groups, especially in regards to their descriptions. Please use the following scale. Remember your answers are completely anonymous. You honest answer is important to us.

1-------------2-------------3-------------4-------------5-------------6-------------7
Not at all   Very much

1. To what extent do you characterize [Insert Target Group] with the following traits?
   a. Awesome

   1 2 3   4 5 6 7
   Not at all   Very Much

   b. Inspiring

   1 2 3   4 5 6 7
   Not at all   Very Much

   c. Heavenly

   1 2 3   4 5 6 7
   Not at all   Very Much

   d. Sacred

   1 2 3   4 5 6 7
   Not at all   Very Much

   e. Blessed

   1 2 3   4 5 6 7
   Not at all   Very Much

   f. Broadminded

   1 2 3   4 5 6 7
   Not at all   Very Much

g. Conscientious
1 2 3 4 5 6 7
Not at all   Very Much

h. Humble
1 2 3 4 5 6 7
Not at all   Very Much

i. Disorganized
1 2 3 4 5 6 7
Not at all   Very Much

j. Rude
1 2 3 4 5 6 7
Not at all   Very Much

k. Stingy
1 2 3 4 5 6 7
Not at all   Very Much

[Moral Thermometer: Same as Study 1]

Please rate your agreement/disagreement with the following statements regarding Christians, Gays, and Blacks/African Americans. Use the following scale.

1-------------2-------------3-------------4-------------5-------------6-------------7
strongly disagree   strongly agree

_____Typically, [Insert Target Group] do not uphold the values of my religion.
_____ Typically, [Insert Target Group] disagree with the teachings of my religion.
_____ Typically, [Insert Target Group] do not uphold the traditions of my religion.
_____ Typically, [Insert Target Group] threaten the vision of my religion.
_____ [Insert Target Group] threaten the expression of my religion.

For this next section we are interested in your attitudes and opinions towards a variety of social issues. Please answer the following questions.

1-------------2-------------3-------------4-------------5-------------6-------------7
strongly oppose   strongly support

_____Do you strongly support or strongly oppose: A ballot measure to substantially increase federal spending in support of the civil rights of African-Americans/Blacks.
_____Do you strongly support or strongly oppose: A ballot measure to substantially decrease federal spending in support of the civil rights of African-Americans/Blacks.

_____Do you strongly support or strongly oppose: A ballot measure to substantially <u>increase</u> federal spending in support of the civil rights of <u>Gays</u>.

_____Do you strongly support or strongly oppose: A ballot measure to substantially <u>decrease</u> federal spending in support of the civil rights of <u>Gays</u>.

_____Do you strongly support or strongly oppose: A ballot measure that would legalize <u>gay</u> marriage and would allow same-sex married couples all the same benefits of heterosexual married couples, including tax and insurance benefits.

_____Do you strongly support or strongly oppose: A constitutional amendment that will define marriage as something that can exist only between a man and a woman.

_____Do you strongly support or strongly oppose: Laws designed to protect <u>gay people</u> from discrimination in the work place.

_____Do you strongly support or strongly oppose: Employers should not be forced to hire a <u>gay person</u> in that profession if they do not want to.

_____Do you strongly support or strongly oppose: Laws designed to restrict <u>gay people</u> from adopting children.

Footnotes

[1]   The degrees of freedom contain decimal points because linear mixed-

models utilized slightly different calculations for the degrees of freedom than

traditional general linear models.