Transcendence of Prejudice or Transcendence with Prejudice?

Stronger Beliefs Regarding Transcendence are Correlated With

Greater Intergroup Bias

by

Richard Grove

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Elias Robles-Sotelo, Chair Nicholas Schweitzer Deborah Hall

ARIZONA STATE UNIVERSITY

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ABSTRACT

Recent research has identified affirmation of transcendence and exposure to violent Bible verses as being related to greater prejudice toward value-violating outgroups (Blogowska & Saroglou, 2012; Shen et al., 2013). Effects of exposure to specific Bible verses on attitudes toward out-groups have not been measured in combination with the Post-Critical Belief Scale developed by Hutsebaut (1996). The relationships between exposure to scriptural endorsements of prejudice, affirmation vs. disaffirmation of transcendence, literal vs. symbolic processing of religious content, and prejudice toward value-violating out-groups were examined using an online survey administered to a sample of U.S. adults (*N*=283). Greater affirmation of transcendence scores were linked to greater prejudice toward atheists and homosexuals and more favorable ratings of Christians and highly religious people. Lower affirmation of transcendence scores were linked to less favorable ratings of Christians and highly religious people and more favorable ratings of atheists. Exposure to scriptural endorsements of prejudice did not have a significant effect on levels of prejudice in this study.

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Chapter 1

INTRODUCTION

According to recent polls, 77% of Americans identify themselves as Christians (Gallup, 2012). Christians are certainly one of the largest majority groups in the United States; perhaps only heterosexuals (92%) would qualify as a larger majority group (Gallup, 2012). If Christians are one of the largest majority groups in the U.S. today, they should necessarily be a group of principal interest for psychologists and Christianity should likewise be a focus of equal importance. Furthermore, those who are not members of the religious in-group in America may face unique challenges as a result of the enormous disparity in numbers when compared to the large amount of Americans who have Christian beliefs.

Psychologist William James wrote The Varieties of Religious Experience in 1902, possibly birthing the psychological study of religion (James, 1987). Beginning no later than the 1950's, one of the main topics in Psychology of Religion has been the relationship between religiosity and prejudice (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Allport, 1950). Often it has been noted that many Christians seem to endorse humanitarian or egalitarian ideologies that encourage kindness and love toward others. Correspondingly, there are also many Bible verses that appear to encourage such generous ideologies. For example, 1 John 4: 7 says, "Beloved, let us love one another, for love is of God; and everyone who loves is born of God and knows God." However, endorsements of prejudice are also common throughout the Bible, both implicitly and explicitly.

Prejudice is a term that has been used to describe favorable or unfavorable feelings toward an individual that are not substantiated by actual experience (Allport, 1979). The first prejudice studies began in the 1920's and were actually part of a scientific effort to legitimize the superiority of Whites (Garth, 1930). However, attitudes quickly changed and since the 1930's prejudice has largely been viewed as more of a fallacious judgment than a product of the target's true shortcomings (Duckitt, 1992). Current conceptualizations of prejudice acknowledge in-group favoritism and out-group derogation as separate factors that, when combined, create a phenomenon known as intergroup bias (Hewstone, Rubin, & Willis, 2002). Today, these biases are studied on both the explicit and implicit level; it has been theorized that although there seems to be a decline in explicit or overt racism in the U.S., there may still be a large amount of implicit racism (James, Brief, Dietz, & Cohen, 2001; Saucier, Miller, & Doucet, 2005).

The presumably incompatible nature of prejudice and kindness has led many to label the link between religion and prejudice as a paradox. However, as far as paradoxes go, this one in particular should be relatively unsurprising. Due to the difficulty many devoted followers face when attempting to interpret conflicting scriptural messages, it is not possible for Christians to maintain a love for all of humankind while also accepting the prejudice toward certain out-groups that is endorsed by the Bible. Furthermore, researchers are now discovering that religious prosociality may be offered conditionally to those who endorse similar values (Blogowska & Saroglou, 2012; Jonson et al., 2012).

The present research will primarily investigate two types of prejudice. The first type of prejudice is anti-homosexual prejudice. The second type of prejudice is anti-atheist prejudice. Prejudices against atheists and homosexuals were chosen on the basis

that both groups have been considered value-violating out-groups rather than racial out-groups. In addition to being value-violating out-groups, the Bible appears to repeatedly and explicitly prescribe prejudicial attitudes towards these two groups. Because these types of prejudice are endorsed in the scripture, the present research will examine the effect of scripturally prescribed prejudice on attitudes towards these specific groups. Finally, the present research will also explore the role of the transcendence and literalism dimensions of religious belief on the impact of scripturally prescribed prejudice.

We begin with a short review of research and theory regarding general prejudice toward homosexuals and atheists and then focus more specifically religious prejudice toward homosexuals and atheists, and we will then provide some possible examples of scriptural prescriptions of prejudice toward each group respectively. A review of the theoretical basis and existing literature regarding the transcendence and literalism dimensions of religious belief will then be presented in brief. Following the review of the relevant theories and existing literature, we will introduce an experiment designed to examine the relationship between the following variables: the transcendence and literalism dimensions of religiosity, scriptural prescriptions of prejudice, and attitudes toward value-violating out-groups.

1.1 Value-violating Out-groups

Religiosity has been linked with prejudice toward multiple out-groups through numerous studies (for a review of religious racism, see Hall et al., 2010). As previously illustrated in the opening paragraph, the religious in-group in the United States consists of faiths that endorse either Judeo-Christian values or Judeo-Christian beliefs.

Consequently, the list of value-violating out-groups can include gay men, lesbians,

atheists, Muslims, Buddhists, Hindus, as well as any other group that is perceived as not sharing the values or beliefs of the religious in-group. Recent research on Christians' attitudes toward value-violating out-groups has revealed a story of both in-group favoritism and out-group derogation (Blogowska & Saroglou, 2012; Johnson et al., 2012). Because members of value-violating out-groups may be able to hide their religious beliefs or sexual orientation from others, they may decide to reveal or conceal their association with the socially undesirable out-group; this has been referred to as invisible stigma (Crocker et al., 1998). "Coming out" as atheist or homosexual can be a difficult process and can have both beneficial and detrimental consequences (Chaudoir & Fisher, 2010; Croteau et al., 2008).

1.2 Prejudice Toward Homosexuals

In 2010, a Gallup Poll found that support for the moral acceptability of gay and lesbian relations in the U.S. was *greater* than 50% for the first time in our nation's history. Another way of interpreting this statistic is that prior to 2010 *less* than 50% of Americans felt that gay and lesbian relations were morally acceptable. These numbers are a suitable starting point in beginning to understand the importance of studying attitudes toward homosexuals. As recently as 2012, U.S. presidential candidates have been outspoken in their disapproval of homosexuality, some even using the topic in their speeches and televised campaign ads ("Rick Perry 2012: Strong", December 6, 2011). But it seems almost unthinkable that any presidential candidate in the twenty-first century could get away with publicly advocating for racial segregation policies or renouncing interracial marriage. One could speculate that support for such a candidate might carry

undesirable social consequences. So, why has prejudice toward homosexuals been so acceptable?

There are certainly numerous reasons why attitudes about homosexuality are so different than attitudes about race issues (Herek, 1987). Among those reasons may be the difference in the general perception about which attitudes are endorsed and prohibited by religion. In accordance with the possibility that religion may influence perceptions about homosexuals, there is evidence that gay men are not accepted by devoted religious believers (Rowatt, et al., 2009; Whitley, 2009). A study by Duck and Hunsberger (1999) found that, on average, within two samples of students who identified with religious groups, racism was perceived to be religiously proscribed, whereas negative attitudes toward homosexuality were not. They also found that perceived religious proscription predicted an individual's self-reported attitude toward the relevant target group.

1.3 Scripturally Prescribed Prejudice Toward Homosexuals

Prejudice against homosexuals is explicitly endorsed multiple times in the Bible. References to homosexuality in the Bible begin in Genesis, the first book of the Bible. In Genesis chapter 19, all of the men of the city of Sodom gather around Lot's house and demand to have sex with the two men that they saw enter Lot's home. Lot then suggests that it would be better for all of the men of Sodom to rape his own virgin daughters than to have sex with his two guests. Shortly after this incident, God rains hot sulfur on Sodom and destroys the city, killing all of the Sodomites.

References to homosexuality continue in the book of Leviticus, and become much more explicit and aggressive. Leviticus 18:22 states that "You shall not lie with a male as with a woman; it is an abomination", and Leviticus 20:13 continues "If a man lies with a

male as with a woman, both of them have committed an abomination; they shall be put to death; their blood is upon them." After reading such passages, it must be acknowledged that it would be difficult to find a more blatant endorsement of violence and aggression toward homosexual men than the endorsement found in these Bible verses in Leviticus.

Contrary to common misconceptions, homosexuality is not only a topic of the Old Testament. Even the New Testament includes several passages about the evils of homosexuality. Romans 1:26-28 reads as follows: "For this reason God gave them up to degrading passions. Their women exchanged natural intercourse for unnatural, and in the same way also the men, giving up natural intercourse with women, were consumed with passion for one another. Men committed shameless acts with men and received in their own persons the due penalty for their error. And since they did not see fit to acknowledge God, God gave them up to a debased mind and to things that should not be done".

Chapter 1 of Romans is shortly thereafter concluded with "They know God's decree, that those who practice such things deserve to die—yet they not only do them but even applaud others who practice them." Such passages seem to explicitly endorse negative attitudes towards gays and lesbians. Furthermore, these passages seem to suggest that God endorses such negative attitudes.

The following book, 1 Corinthians, continues to condemn homosexuality. 1

Corinthians 6:9 states that homosexuals, along with many other groups characterized as biblical "wrongdoers," will not inherit the kingdom of God. 1 Corinthians 7:2 then explains that one of the reasons men and women are to marry into heterosexual monogamous relationships is to avoid sexual immorality. Later in the New Testament, homosexuality is again referenced in the book of 1Timothy. The first chapter of 1

Timothy explains that "the law" is not intended for the innocent, it is intended to punish wrongdoers, including men who have sex with other men. Given the proscription of homosexuality that is delivered through Biblical scripture, it is not surprising that gay men and lesbians are perceived by some Christians to be violators of important values associated with Christianity.

1.4 Prejudice Toward Atheists

It may seem natural that religious believers would have relatively less favorable views about those who deny the existence of God. However, the Bible does not simply advocate for belief in God, it goes so far as to condemn those who do not believe in God. Accordingly, seven years ago, Edgell, Gerteis and Hartmann (2006) found evidence based on multiple polls that atheists were the least liked group in America. A study by Johnson (2012) found that participants shared the least resources with atheists, behaved more aggressively toward atheists, and felt the most negative and least positive emotions toward atheists. Blogowska & Saroglou (2012) found that fundamentalist participants who were exposed to Bible verses promoting violence demonstrated decreased prosocial attitudes toward atheists and decreased willingness to help out atheists.

Fundamentalism, Christian orthodoxy, intrinsic and extrinsic religiosity, and belief in God are all aspects of religion that are specifically believed to be associated with prejudice toward atheists (Duckitt & Sibley, 2007; Folksinger, 1976; Jackson & Hunsberger, 1999). Attempting to determine the nature of antiatheist prejudice, Gervais et al., (2011) found evidence that negative attitudes toward atheists stem from a general distrust of atheists.

1.5 Scripturally Prescribed Prejudice Toward Atheists

As a consequence of the Bible being a religious text used to advocate, practice, and preserve certain Judeo-Christian beliefs, any contrary beliefs are necessarily illustrated as being less valid. This can simply be viewed as an elevation in the value of the beliefs that are held by the religion, rather than an active disdain for alternative beliefs. However, there are some passages within the Bible that express contempt for those who do not believe in God.

Romans Chapter 13:1-2 states, "Let every soul be subject unto the higher powers. For there is no power but of God: the powers that be ordained of God. Whosoever therefore resisteth the power, resisteth the ordinance of God: and they that resist shall receive to themselves damnation." This passage seems to articulate an active resistance to God on the part of atheists, allowing non-believers to be culpable for their own punishment: damnation.

Psalm 14:1 states that, "The fool says in his heart, "There is no God." They are corrupt, their deeds are vile; there is no one who does good." This passage in particular is quite explicit in its description of those who do not believe in God and seems to arouse feelings of distrust toward those who do not believe in God, similar to the findings of the study by Gervais et al. (2011).

Revelation 21:8 says, "But as for the cowardly, the faithless, the detestable, as for murderers, the sexually immoral, sorcerers, idolaters, and all liars, their portion will be in the lake that burns with fire and sulfur, which is the second death." In this passage, those who do not possess faith are associated with the likes of murderers as not only being denied entrance to heaven, but also being condemned to burn. Considering the sometimes-overt anti-atheist messages within the Bible, and the mutually exclusive

relationship shared by Christianity and atheism, it is unsurprising that some Christians have relatively unfavorable views of atheists.

1.6 Biblical Literalism

Although there are many versions of the Bible, the differences between versions do not account for all of the variance in religious beliefs to be found within Christianity. Even reading from the same source, individuals may differ in interpretations of scripture. The study of Biblical interpretations is known as Biblical hermeneutics. The degree to which an individual processes religious content literally is one of the sources for discrepancies in interpretation. The rigid, literal interpretation of the Bible is known hermeneutically as Biblical Literalism. In light of the explicit prejudice towards homosexuals and atheists in the Bible, it stands to reason that prejudice towards each of these groups should be higher among those who endorse Judeo-Christian beliefs and values. Furthermore, prejudice should be particularly high to the extent a religious individual believes in a literal interpretation of the Bible.

There are many aspects of religion, religious orientations, and correlates of religious belief that have connected rigid, literal interpretations of religious content to the link between religion and prejudice. Religious fundamentalism has been described as an orientation toward religion in which there are certain basic religious truths that cannot be questioned (Altemeyer & Hunsberger, 1992). Research has shown that religious fundamentalism is associated with authoritarianism (Altemeyer & Hunsberger, 2005), need for closure (Saroglou, 2002), a relatively low complexity of thought regarding certain existential and moral topics (Hunsberger, Pratt, & Pancer, 1994), and prejudice (Hunsberger & Jackson, 2005). Hunsberger et al. (1996) suggested that the link between

religious fundamentalism and prejudice may be, at least in part, due to a rigid cognitive style. Additionally, Duriez (2003) has demonstrated that a rigid, literal interpretation of religious content is associated with close-mindedness.

Literal interpretation of the Bible has been studied under the umbrella of religious fundamentalism in the past, but psychologists have recently considered using a scale that measures the level of religious belief and the rigidity of interpretation as separate dimensions rather than as part of a single, unidimensional measure (Duriez, 2004; Duriez, Appel, & Hutsebaut, 2003; Duriez, Fontaine, and Hutsebaut, 2000; Hutsebaut, 1996; Wulff, 1991; 1997).

1.7 Post-Critical Belief Scale

One tool that can be used to determine whether or not an individual interprets the Bible literally is the Post-Critical Belief Scale (PCBS) (Hutsebaut, 1996). The PCBS was developed based on the idea that religiosity could be measured two-dimensionally using two axes (Wulff, 1991; 1997). The y-axis, Exclusion vs. Inclusion of Transcendence, indicates the degree to which an individual is either spiritual and or religious, or neither spiritual nor religious. The x-axis, Literal vs. Symbolic, indicates whether an individual tends to process religious content literally or symbolically. The resulting graph places an individual into one of four different quadrants: 1. Symbolic Affirmation, 2. Literal Affirmation, 3. Literal Disaffirmation, or 4. Symbolic Disaffirmation. Symbolic Affirmation refers to the position that the religious realm is real, but religious teachings and texts can be interpreted symbolically in a way that is personally relevant to the individual. Literal Affirmation refers to the literal acceptance of the religious realm and of religious texts and teachings, an orientation that may be similar to religious

fundamentalism. Literal Disaffirmation refers to the belief that religious texts are neither symbolically nor literally meaningful, a view that is likely to be held by atheists.

Symbolic Disaffirmation is the perspective that the objects of the religious realm do not actually exist, but that there may still be some symbolic meaning to some religious content.

Duriez, Fontaine, and Hutsebaut (2000) have demonstrated that the subscales of the PCBS are accurate measures of Wulff's four categories. Using the PCBS, an individual's acceptance of religion, interpretation of religion, and the effects of each can be examined individually and in combination with one another. This has proven to be a useful tool in the investigation of the relation between religion and racial prejudice.

Duriez (Duriez, 2004; Duriez, Appel, & Hutsebaut, 2003) has repeatedly found that there is a strong link between racism and processing religious content literally, but found no evidence of a direct link between racism and simply being religious. Additionally, at the time of this study, only two published prejudice studies implementing the PCBS, using a U.S. sample, were found upon conduction of a literature search (Johnson et al., 2012; Shen, et al., 2013).

1.8 The Present Study

The following two hypotheses were made prior to conducting the present study: 1.

Across conditions, participants that score high in transcendence will have greater prejudice toward atheists and homosexuals than participants that score low in transcendence. 2. Participants in the Literal Affirmation quadrant will have significantly greater prejudice toward atheists and homosexuals respectively if exposed to a Biblical

endorsement of prejudice toward that group, but participants in the other three quadrants will not.

Chapter 2

METHOD

2.1 Participants.

Three hundred and one adults from the United States participated in the study through Amazon Mechanical Turk. Eighteen participants were excluded from analyses due to incomplete responses, yielding a final sample of N = 283. The age of the participants ranged from 18 to 72 years (M = 32.36, SD = 11.91). Three participants did not indicate their age. The sample was 47.7% male and 52.3% female. The ethnic makeup of the sample was 92.2% Non-Hispanic / Non-Latino and 7.8% Hispanic / Latino. The racial background of the sample was 76.7% White, 19 6.7% Black / African American, 0.7% American Indian or Alaskan Native, 10.2% Asian, 4.2% Multiracial, and 1.4% other.

18.7% of participants identified themselves as Christian - Protestant, 9.5% of participants identified themselves as Christian - Catholic, 6.7% of participants identified themselves as Christian - Other, 1.8% of participants identified themselves as Jewish, 2.5% participants identified themselves as Buddhist, .4% of participants identified as Islamic, .7% of participants identified as Hindu, 2.1% participants identified themselves as Other, 44.2% participants identified themselves as neither religious nor spiritual, and 13.4% participants identified themselves as religious or spiritual with no affiliation.

2.2 Procedures and Measures.

All participants first completed an 18-item version of the *Post-Critical Belief*Scale (PCBS) (Hutsebaut, 1996), which has been validated by Fontaine et al. (2003) and

is intended to measure two dimensions of religious belief. The 18-item version of the Post Critical Belief Scale (Hutsebaut, 1996) contains four subscales. The Second Naiveté subscale contains questions such as "Despite the injustices caused by Christianity, Christ's message remains valuable". The Orthodoxy subscale contains questions such as "I think that Bible stories should be taken literally, as they are written." The External Critique subscale contains questions such as "Faith turns out to be an illusion when one is confronted with the harshness of life." The Relativism subscale contains questions such as "God grows together with the history of humanity and therefore is changeable".

Participants were then randomly assigned to one of three conditions. Participants in the first experimental condition were asked to read a Bible verse endorsing violence and prejudice towards homosexuals (Leviticus, 20:13; King James Version; see Appendix D). Participants in the second experimental condition were asked to read a Bible verse endorsing prejudice towards atheists (Psalm, 14:1; King James Version; see Appendix D). To ensure that participants actually read the passages, participants in both experimental conditions were required to write a brief description of the passage that they were asked to read. Participants in a third, control condition were not given a Bible verse to read. Instead, they were simply asked to briefly write about some of their favorite foods.

Participants were then given the 7-item *Negative Attitudes Toward Atheists Scale* (NATA; Gervais et al., 2011), which is intended to measure explicit negative attitudes toward atheists. The scale contains five items such as "I would be uncomfortable with an atheist teaching my child", as well as two reverse scored items such as "I strongly believe that church and state should be kept separate". A 7-point Likert scale was used for each

item and participants were given the following instructions: "Please rate how much you agree with each of the following statements (1 = strongly disagree, 7 = strongly agree)."

Participants' attitudes toward homosexuals were then measured using the 12-item *Attitudes Toward Homosexuals* scale (ATH; Altemeyer & Hunsberger, 1992). The scale contains 6 items such as "Homosexuals should be locked up to protect society", as well as 6 reverse scored items such as "If two homosexuals want to get married, the law should let them." A 7-point Likert scale was used for each item and participants were given the following instructions: "Please rate how much you agree with each of the following statements (1 = strongly disagree, 7 = strongly agree)."

Favorability toward various groups was measured using thermometer scales. For the list of target groups, participants were given the following instructions: "Please indicate how warm and favorable versus cold and unfavorable you feel towards each of the following groups. (-5 = cold / unfavorable, 0 = neutral, +5 = warm / favorable)." The list of groups included atheists, gay men, and lesbians, as well as Christians and highly religious people. These groups were included in order to obtain general favorability ratings of the religious in-groups and value-violating out-groups. For less religious and non-religious participants, it is a possibility that atheists may be considered an in-group and/or that Christians and highly religious people may be considered an out-group.

After completing the prejudice measures, participants were asked to provide some basic demographic information. Participants were asked to report their age, sex, ethnicity, racial background, religious affiliation, and frequency of attendance at religious meetings. The entire task typically took participants between 5 and 15 minutes to

complete. Participants' Amazon Mechanical Turk accounts were credited \$0.30 for their participation in this study.

Chapter 3

RESULTS

3.1 Data Analysis

Each of the participants' brief descriptions of the Bible verses was examined to ensure that participants in the experimental conditions had actually attended to the verse that they were given. The responses indicated that all participants in the experimental conditions appeared to have read the Bible verse that they were given. Regressions were performed using PROCESS! by Andrew Hayes to check for transcendence x symbolism interactions for the NATA, ATH, and thermometer items, but the results will not be reported because the tests yielded no significant interactions. Two-way ANOVA's were used to test for quadrant x condition interactions for the NATA, ATH, and thermometer items. Tukey post hoc tests were used to identify significant differences between quadrants and conditions. Bivariate correlations were used to identify relationships between variables.

3.2 Post-Critical Belief Scale

Scores from each of the four subscales of the PCBS were averaged and then used to create a y-axis transcendence score and an x-axis symbolism score. Each participant was then placed into one of four quadrants using these scores as the x and y coordinates. Quadrant 1 represents Symbolic Affirmation (n = 81), quadrant 2 represents Literal Affirmation (n = 11), quadrant 3 represents Literal Disaffirmation (n = 55), and quadrant 4 represents Symbolic Disaffirmation (n = 136).

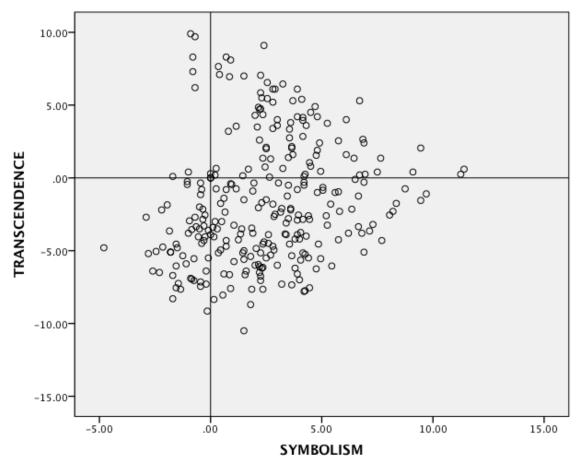


Figure 1. Results of the Post-Critical Belief Scale. This figure illustrates the distribution of participants (N = 283) among the four quadrants established by the PCBS. The y-axis represents affirmation vs. disaffirmation of transcendence with greater numbers representing greater affirmation of transcendence. The x-axis represents literal vs. symbolic processing of religious content with greater numbers representing a greater degree of symbolic and a lesser degree of literal processing.

3.3 Negative Attitudes Toward Atheists Scale

The NATA scale demonstrated very high reliability (α = .93). A two-way ANOVA revealed significant differences between quadrants, F(3, 266) = 112.168, p < .001, but did not reveal significant differences between conditions. There was not a significant quadrant x condition interaction, F(6, 266) = 1.082, p = .373. Tukey post hoc tests revealed several significant differences between quadrants. Symbolic Affirmation

(M=4.33, SD=1.58) reported significantly *greater* prejudice toward atheists than Symbolic Disaffirmation (M=1.45, SD=.77), p < .001, and Literal Disaffirmation (M=1.78, SD=.91), p < .001. Literal Affirmation (M=4.83, SD=1.55) reported significantly *greater* prejudice toward atheists than Symbolic Disaffirmation (M=1.78, SD=.91), p < .001, and Literal Disaffirmation (M=1.45, SD=.78), p < .001. Symbolic Disaffirmation (M=1.78, SD=.91) reported significantly *greater* prejudice toward atheists than Literal Disaffirmation (M=1.45, SD=.78), p = .023.

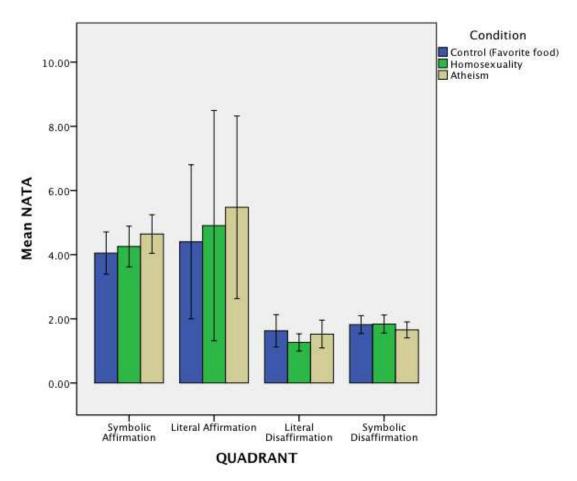


Figure 2. Mean Scores for Negative Attitudes Toward Atheists Scale. This figure illustrates the differences in scores on the NATA between quadrants and conditions. The y-axis represents the mean score, the x-axis indicates each quadrant, and conditions are indicated by color.

These results indicated that Literal and Symbolic Affirmation had significantly more negative attitudes toward atheists than Literal and Symbolic Disaffirmation and that Literal Disaffirmation had significantly lower negative attitudes toward atheists relative to Symbolic Disaffirmation. Reading Bible verses did not significantly increase negative attitudes toward atheists.

3.4 Attitudes Toward Homosexuals Scale

The ATH scale demonstrated very high reliability (α = .95). A two-way ANOVA revealed significant differences between quadrants, F(3, 262) = 39.85, p < .001, but did not reveal significant differences between conditions. There was not a significant quadrant x condition interaction, F(6, 262) = 1.645, p = .135. Tukey post hoc tests revealed several significant differences between quadrants. Literal Affirmation (M = 4.27, SD = 1.17) reported significantly *greater* prejudice toward homosexuals than Symbolic Affirmation (M = 2.94, SD = 1.47), p = .003, Literal Disaffirmation (M = 1.78, SD = 1.24), p < .001, and Symbolic Disaffirmation (M = 1.52, SD = .80), p < .001. Symbolic Affirmation (M = 2.94, SD = 1.47) reported significantly *greater* prejudice toward homosexuals than Literal Disaffirmation (M = 1.78, SD = 1.24), p < .001, and Symbolic Disaffirmation (M = 1.52, SD = .80), p < .001.

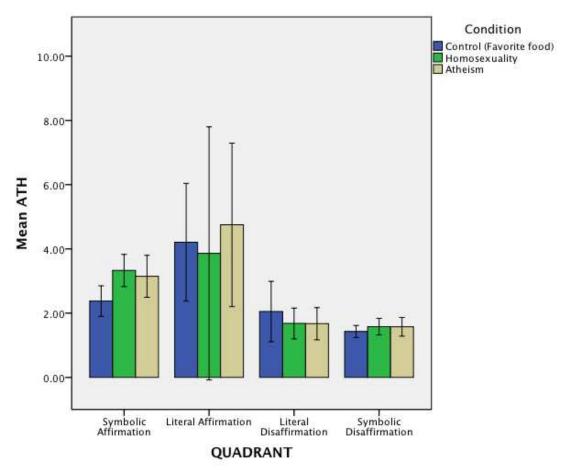


Figure 3. Mean Scores for Attitudes Toward Homosexuals Scale. This figure illustrates the differences in scores on the ATH between quadrants and conditions. The y-axis represents the mean score, the x-axis indicates each quadrant, and conditions are indicated by color.

These results indicated that Literal and Symbolic Affirmation reported significantly greater prejudice toward homosexuals than Literal and Symbolic Disaffirmation and that Literal Affirmation had significantly more negative attitudes toward homosexuals than Symbolic Affirmation. Reading Bible verses did not significantly increase negative attitudes toward homosexuals.

3.5 Thermometer items

Atheists. A two-way ANOVA revealed significant differences between quadrants, F(3, 270) = 16.51, p < .001, but did not reveal significant differences between conditions. There was not a significant quadrant x condition interaction, F(6, 270) = .729, p = 626. Tukey post hoc tests revealed several significant differences between quadrants. Symbolic Affirmation (M = -.04, SD = 2.98) felt significantly *less* favorable about atheists than Symbolic Disaffirmation (M = 2.32, SD = 2.19), p < .001, and Literal Disaffirmation (M = 2.38, SD = 2.21), p < .001.

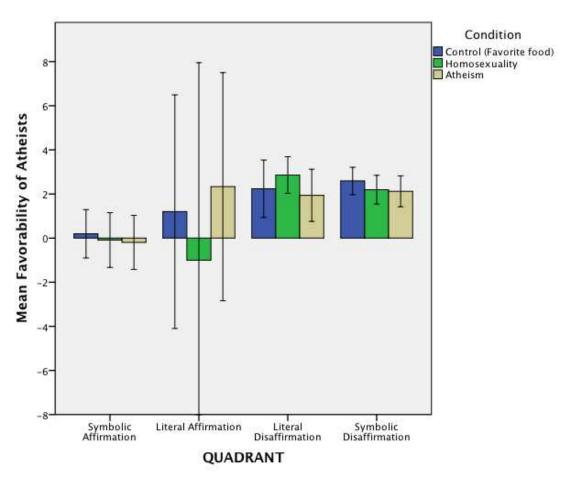


Figure 4. Mean Thermometer Scores for Atheists. This figure illustrates the differences in favorability ratings of atheists between quadrants and conditions. The y-axis represents the mean score, the x-axis indicates the quadrant, and conditions are indicated by color.

Christians. A two-way ANOVA revealed significant differences between quadrants, F(3, 270) = 20.70, p < .001, but did not reveal significant differences between conditions. There was not a significant quadrant x condition interaction, F(6, 270) = .675, p = .670. Tukey post hoc tests were performed and revealed several significant differences between quadrants. Symbolic Affirmation (M = 3.20, SD = 2.18) felt significantly *more* favorable about Christians than Symbolic Disaffirmation (M = .91, SD = 2.67), p < .001, and Literal Disaffirmation (M = .20, SD = 2.18), p < .001. Literal Disaffirmation (M = .20, SD = 2.18) felt significantly *less* favorable about Christians than Symbolic Disaffirmation (M = .91, SD = 2.67), p = .039.

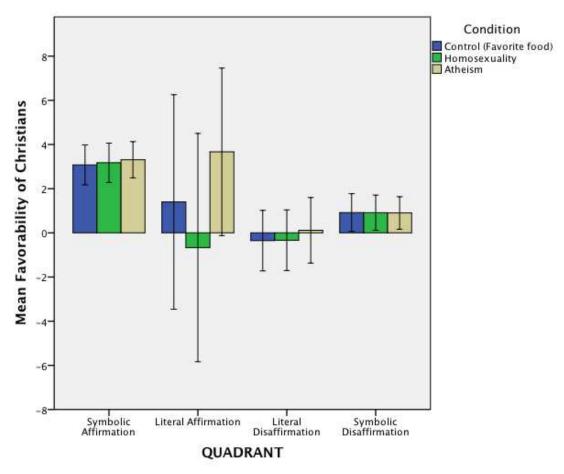


Figure 5. Mean Thermometer Scores for Christians. This figure illustrates the differences in favorability ratings of Christians between quadrants and conditions. The y-axis represents the mean score, the x-axis indicates the quadrant, and conditions are indicated by color.

Gay Men. A Two-Way ANOVA revealed significant differences between quadrants, F(3, 270) = 7.68, p < .001, but did not reveal significant differences between conditions. There was not a significant quadrant x condition interaction, F(6, 270) = .988, p = .434. Tukey post hoc tests were performed and revealed several significant differences between quadrants. Symbolic Affirmation (M = .68, SD = 3.34) felt significantly *less* favorable about Gay Men than Symbolic Disaffirmation (M = 2.02, SD = 2.30), p = .002, and Literal Disaffirmation (M = 1.89, SD = 2.31), p = .050. Literal

Affirmation (M = -.91, SD = 3.53) felt significantly *less* favorable about Gay Men than Symbolic Disaffirmation (M = 2.02, SD = 2.30), p = .003, and Literal Disaffirmation (M = 1.89, SD = 2.31), p = .009.

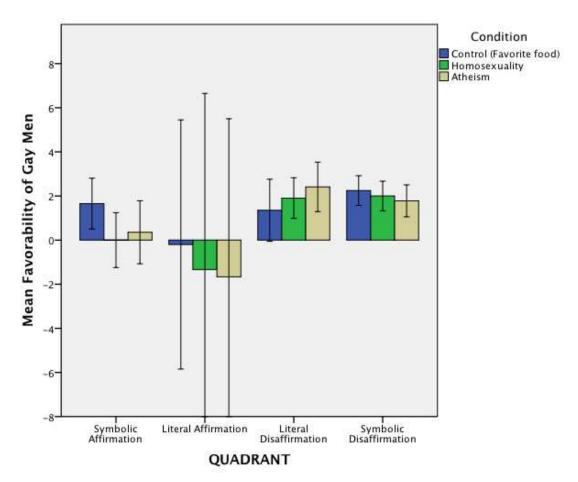


Figure 6. Mean Thermometer Scores for Gay Men. This figure illustrates the differences in favorability ratings of gay men between quadrants and conditions. The y-axis represents the mean score, the x-axis indicates the quadrant, and conditions are indicated by color.

Highly Religious People. A Two-Way ANOVA revealed significant differences between quadrants, F(3, 269) = 28.02, p < .001, but did not reveal significant differences between conditions. There was not a significant quadrant x condition interaction, F(6, 9) = 28.02

269) = .684, p = .663. Tukey post hoc tests were performed and revealed several significant differences between quadrants. Symbolic Affirmation (M = 2.10, SD = 2.58) felt significantly *more* favorable about Highly Religious People than Symbolic Disaffirmation (M = -.78, SD = 2.80), p < .001, and Literal Disaffirmation (M = -1.98, SD = 3.10), p < .001. Literal Affirmation (M = 2.00, SD = 2.94) felt significantly *more* favorable about Highly Religious People than Symbolic Disaffirmation (M = -.78, SD = 2.80), p = .014, and Literal Disaffirmation (M = -1.98, SD = 3.09), p < .001. Literal Disaffirmation (M = -1.98, SD = 3.09) felt significantly *less* favorable about Highly Religious People than Symbolic Disaffirmation (M = -.78, SD = 2.80), p = .040.

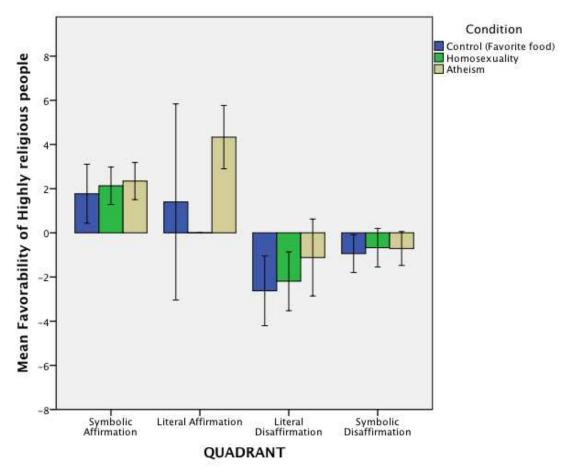


Figure 7. Mean Thermometer Scores for Highly Religious People. This figure illustrates the differences in favorability ratings of highly religious people between quadrants and conditions. The y-axis represents the mean score, the x-axis indicates the quadrant, and conditions are indicated by color.

Lesbians. A Two-Way ANOVA revealed significant differences between quadrants, F(3, 271) = 5.827, p = .001, but did not reveal significant differences between conditions. There was not a quadrant x condition interaction, F(6, 271) = 1.022, p = .411. Tukey post hoc tests were performed and revealed one significant difference between quadrants. Symbolic Affirmation (M = .94, SD = 3.18) felt significantly less favorable about Lesbians (p = .002) than Symbolic Disaffirmation (M = 2.24, SD = 2.04).

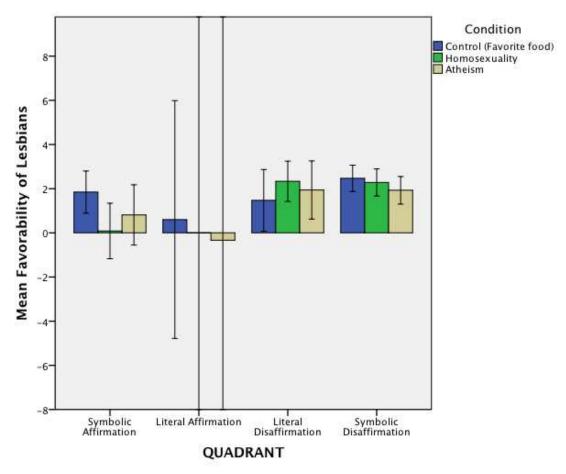


Figure 8. Mean Thermometer Scores for Lesbians. This figure illustrates the differences in favorability ratings of lesbians between quadrants and conditions. The y-axis represents the mean score, the x-axis indicates the quadrant, and conditions are indicated by color.

3.6 Correlations

Although regression analyses found no transcendence x symbolism interactions for any of the dependent variables, bivariate correlations between all variables were examined within different areas of the two-dimensional graph that was created using the PCBS in order to further examine relationships between variables among the full sample, and also to examine the relationships between variables within the portions of the sample

that fell into the high transcendence, low transcendence, literal, and symbolic sections of the graph.

All of Sample (N = 283). Bivariate correlations between all variables were performed to determine relationships between variables within the full sample. Transcendence was significantly positively correlated with higher scores on the NATA (r = .83, p < .001), ATH (r = .60, p < .001), and thermometer ratings of Christians (r = .45, p < .001) and Highly Religious People (r = .54, p < .001). Transcendence was significantly negatively correlated with thermometer ratings of Atheists (r = -.47, p < .001), Gay Men (r = -.28, p < .001), and Lesbians (r = -.29, p < .001). Symbolism was significantly negatively correlated with higher scores on the ATH (r = -.14, p = .018) and significantly positively correlated with thermometer ratings of Christians (r = .23, p < .001) and Highly Religious People (r = .54, p < .001).

Table 1. All of Sample Correlation Matrix. This table shows the relationships between Transcendence, Literalism/Symbolism, Negative Attitudes Toward Atheists Scale, Attitudes Toward Homosexuals, and thermometer items in the sample (N = 283).

Measure	SD	1	2	3	4	5	6	7	8
1. TRANSCENDENCE	(4.24)								
2. SYMBOLISM	(2.78)	.20**							
3. NATA	(1.71)	.83**	.07						
4. ATH	(1.35)	.60**	14*	.70**					
5. Atheists	(2.71)	47**	07	58**	49**				
6. Christians	(2.87)	.45**	.23**	.42**	.20**	.07			
7. Gay Men	(2.78)	28**	.09	39**	67**	.65**	.18**		
8. Highly religious people	(3.20)	.54**	.19**	.54**	.30**	07	.81**	.09	
9. Lesbians	(2.64)	29**	.08	39**	58**	.68**	.17**	.87**	.08

^{**} Correlation is significant at the 0.01 level (2-tailed).

These results indicate that across the entire sample, transcendence was positively related to negative attitudes toward atheists and homosexuals and less favorable feelings

^{*} Correlation is significant at the 0.05 level (2-tailed).

toward Atheists, Gay Men, and Lesbians while transcendence was positively related to more favorable feelings toward Christians and Highly Religious People.

High Transcendence (n=92). Bivariate correlations between all variables were performed to determine the relationship between variables among participants that had positive scores for transcendence. Transcendence was significantly positively correlated with higher scores on the NATA (r=.64, p<.001) and ATH (r=.34, p=.001). Transcendence was significantly positively correlated with thermometer scores regarding Christians (r=.31, p=.003) and Highly Religious People (r=.36, p<.001). Transcendence was significantly negatively correlated with thermometer scores regarding Atheists (r=-.36, p<.001), Gay Men (r=-.23, p=.027), and Lesbians (r=-.33, p=.001). Symbolism was significantly negatively correlated with higher scores on the NATA (r=-.41, p<.001) and ATH (r=-.50, p<.001). Symbolism was significantly positively correlated with thermometer scores regarding Gay Men (r=.35, p=.001) and

Table 2. High Transcendence Correlation Matrix. This table shows the relationships between Transcendence, Literalism/Symbolism, Negative Attitudes Toward Atheists Scale, Attitudes Toward Homosexuals, and thermometer items among participants with positive scores for transcendence (n = 92).

Measure	SD	1	2	3	4	5	6	7	8
1. TRANSCENDENCE	(2.64)								
2. SYMBOLISM	(2.62)	35**							
3. NATA	(1.58)	.64**	41**						
4. ATH	(1.50)	.34**	50**	.61**					
5. Atheists	(3.05)	36**	.18	59**	43**				
6. Christians	(2.37)	.31**	.14	.32**	05	.08			
7. Gay Men	(3.38)	23*	.35**	45**	80**	.58**	.20		
8. Highly religious people	(2.61)	.36**	07	.40**	.12	.07	.74**	.08	
9. Lesbians	(3.29)	33**	.31**	46**	70**	.66**	.15	.87**	.07

^{**} Correlation is significant at the 0.01 level (2-tailed).

Lesbians (r = .31, p = .003).

^{*} Correlation is significant at the 0.05 level (2-tailed).

These results indicate that within the group of participants who had positive scores for transcendence, higher levels of transcendence were correlated with greater prejudice toward atheists and homosexuals, more favorable attitudes toward Christians and Highly Religious People, and less favorable attitudes toward Atheists, Gay Men, and Lesbians. Higher levels of symbolism were significantly positively correlated with more positive attitudes toward atheists and homosexuals and more favorable feelings toward Gay Men and Lesbians.

Low Transcendence (n=190). Bivariate correlations between all variables were performed to determine the relationship between variables among participants that had negative scores for transcendence. Transcendence was significantly positively correlated with higher scores on the NATA (r=.54, p<.001) and ATH (r=.38, p<.001). Transcendence was significantly positively correlated with thermometer scores regarding Christians (r=.22, p=.002) and Highly Religious People (r=.28, p<.001). Transcendence was significantly negatively correlated with thermometer scores regarding Atheists (r=-.21, p=.005). Symbolism was significantly negatively correlated with higher scores on the ATH (r=-.18, p=.017). Symbolism was significantly positively correlated with thermometer scores regarding Christians (r=.18, p=.011) and Highly Religious People (r=.17, p=.018).

Table 3. Low Transcendence Correlation Matrix. This table shows the relationships between Transcendence, Literalism/Symbolism, Negative Attitudes Toward Atheists Scale, Attitudes Toward Homosexuals, and thermometer items among participants with negative scores for transcendence (n = 190).

Measure	SD	1	2	3	4	5	6	7	8
1. TRANSCENDENCE	(2.25)								
2. SYMBOLISM	(2.76)	.25**							
3. NATA	(0.86)	.54**	.10						
4. ATH	(0.95)	.38**	18*	.46**					
5. Atheists	(2.19)	21**	08	31**	28**				
6. Christians	(2.77)	.22**	.18*	.16*	.03	.37**			
7. Gay Men	(2.29)	03	.02	12	46**	.65**	.40**		
8. Highly religious people	(2.93)	.28**	.17*	.31**	.03	.19*	.78**	.36**	
9. Lesbians	(2.15)	04	.04	13	36**	.65**	.39**	.85**	.35**

^{**} Correlation is significant at the 0.01 level (2-tailed).

These results indicate that among all participants that had negative scores for transcendence, higher levels of transcendence were positively correlated with negative attitudes toward atheists and homosexuals. Higher levels of transcendence were positively correlated with greater favorability toward Christians and Highly Religious People and positively correlated with less favorable attitudes toward Atheists. Higher levels of symbolism were negatively correlated with negative attitudes toward homosexuals and positively correlated with greater favorability toward Christians and Highly Religious People.

Literal (n = 66). Bivariate correlations between all variables were performed to determine the relationship between variables among participants that had negative scores for symbolism. Transcendence was significantly positively correlated with higher scores on the NATA (r = .86, p < .001) and ATH (r = .70, p < .001). Transcendence was significantly positively correlated with thermometer scores regarding Christians (r = .37,

^{*} Correlation is significant at the 0.05 level (2-tailed).

p = .003) and Highly Religious People (r = .49, p < .001). Transcendence was significantly negatively correlated with thermometer scores regarding Atheists (r = -.32, p = .009), Gay Men (r = -.43, p < .001), and Lesbians (r = -.36, p = .003).

Table 4. Literal Correlation Matrix. This table shows the relationships between Transcendence, Literalism/Symbolism, Negative Attitudes Toward Atheists Scale, Attitudes Toward Homosexuals, and thermometer items among participants with negative scores for symbolism (*n* = 66).

Measure	SD	1	2	3	4	5	6	7	8
1. TRANSCENDENCE	(4.10)								
2. SYMBOLISM	(0.89)	.19							
3. NATA	(1.60)	.86**	.16						
4. ATH	(1.52)	.70**	.09	.68**					
5. Atheists	(2.51)	32**	17	41**	34**				
6. Christians	(2.94)	.37**	02	.36**	.24	.17			
7. Gay Men	(2.73)	43**	16	42**	66**	.57**	.13		
8. Highly religious people	(3.38)	.49**	.02	.58**	.27*	.04	.78**	.10	
9. Lesbians	(2.79)	36**	09	36**	57**	.62**	.08	.88**	.09

^{**} Correlation is significant at the 0.01 level (2-tailed).

These results indicate that among all participants who had negative scores for symbolism, higher levels of transcendence were positively correlated with negative attitudes toward atheists and homosexuals. Higher levels of transcendence were positively correlated with more favorable attitudes toward Christians and Highly Religious People and *less* favorable attitudes toward Atheists, Gay Men, and Lesbians.

Symbolic (n=217). Bivariate correlations between all variables were performed to determine the relationship between variables among participants that had positive scores for symbolism. Transcendence was significantly positively correlated with higher scores on the NATA (r=.82, p<.001) and ATH (r=.60, p<.001). Transcendence was significantly positively correlated with thermometer scores regarding Christians (r=.44,

^{*} Correlation is significant at the 0.05 level (2-tailed).

p < .001) and Highly Religious People (r = .53, p < .001). Transcendence was significantly negatively correlated with thermometer scores regarding Atheists (r = -.49, p < .001), Gay Men (r = -.24, p < .001), and Lesbians (r = -.28, p < .001). Symbolism was significantly negatively correlated with higher scores on the ATH (r = -.21, p = .003). Symbolism was significantly positively correlated with thermometer scores regarding Gay Men (r = .14, p = .042).

Table 5. Symbolic Correlation Matrix. This table shows the relationships between Transcendence, Literalism/Symbolism, Negative Attitudes Toward Atheists Scale, Attitudes Toward Homosexuals, and thermometer items among participants with positive scores for symbolism (n = 217).

Measure	SD	1	2	3	4	5	6	7	8
1. TRANSCENDENCE	(4.18)								
2. SYMBOLISM	(2.24)	.08							
3. NATA	(1.72)	.82**	09						
4. ATH	(1.29)	.60**	21**	.73**					
5. Atheists	(2.75)	49**	.03	61**	55**				
6. Christians	(2.73)	.44**	.10	.41**	.21**	.08			
7. Gay Men	(2.80)	24**	.14*	39**	67**	.68**	.20**		
8. Highly religious people	(3.05)	.53**	.07	.51**	.32**	08	.80**	.09	
9. Lesbians	(2.60)	28**	.13	41**	58**	.70**	.20**	.87**	.08

^{**} Correlation is significant at the 0.01 level (2-tailed).

These results indicate that among all participants who had positive scores for symbolism, higher levels of transcendence were positively correlated with negative attitudes toward atheists and homosexuals. Higher levels of transcendence were positively correlated with more favorable attitudes toward Christians and Highly Religious People and less favorable attitudes toward Atheists, Gay Men, and Lesbians. Symbolism was negatively correlated with negative attitudes toward homosexuals and positively correlated with greater favorability toward Gay Men.

^{*} Correlation is significant at the 0.05 level (2-tailed).

Chapter 4

DISCUSSION

Adding to the vast and ever-growing body of literature about the link between religion and prejudice, the results of this study suggest that acceptance of transcendence is related to less favorable attitudes toward value-violating out-groups such as atheists and homosexuals. These findings are congruent with the findings of Shen et al. (2013), who found that the transcendence dimension of the PCBS is most strongly associated with prejudice toward value-violating out-groups. The current study used multiple-item scales to measure feelings toward out-groups in addition to thermometer items, whereas the study by Shen et al. (2013) used single-item measures of social distance. Previous studies that did not find a link between prejudice and transcendence have mostly looked at prejudice toward racial out-groups rather than value-violating out-groups (Duriez, 2004; Duriez, Appel, & Hutsebaut, 2003).

The Literal vs. Symbolic dimension was found to be related to attitudes toward the groups conditionally based on the degree of acceptance of transcendence. This demonstrates that among those who accept transcendence, literalism is related to less favorable attitudes toward value-violating out-groups such as atheists and homosexuals and more favorable attitudes toward in-groups such as Christians and highly religious people. However, among those who do not accept transcendence, literalism is related to less favorable attitudes toward Christians and highly religious people. It is important to not that these findings are based on correlational analyses, the regression analyses performed to test for moderation were not significant.

Similar to the findings of Johnson et al. (2012), the current study found evidence

of in-group favoritism as well as out-group derogation. Greater affirmation of transcendence was correlated with more favorable ratings of in-groups such as Christians and highly religious people as well as less favorable ratings for value-violating out-groups such as atheists and homosexuals. Moreover, these results provide preliminary evidence for the same phenomenon among the less religious and non-religious. Lower affirmation of transcendence was correlated with greater preference for in-groups such as atheists as well as a lesser preference for out-groups such as Christians and highly religious people. This combination of out-group derogation and in-group favoritism has been referred to as intergroup bias.

Hypothesis 2 predicted that reading Bible verses endorsing prejudice toward homosexuals and atheists respectively would increase prejudice against the group among participants in the Literal Affirmation quadrant. However, reading Bible verses that endorse prejudice toward homosexuals and atheists seemed to have little or no impact on attitudes toward these groups regardless of symbolic or literal processing of religious content. This seems to be in contrast with previous research that found that exposure to violent Bible verses caused fundamentalists, who tend to endorse more literal interpretations of the Bible (Altemeyer & Hunsberger, 1992), to decrease prosocial attitudes toward and willingness to help out-groups such as atheists (Blogowska & Saroglou, 2012). One possible explanation for this is that the existing differences that were predicted by transcendence were too strong to be significantly changed by exposure to Bible verses. It is also possible that differences between conditions could have been better detected using an implicit measure of prejudice rather than explicit measures, as implicit measures are less susceptible to socially desirable responding and may be able to

pick up subtle aspects of prejudice.

The present research was also limited due to a relatively low number of participants in the literal affirmation quadrant based on scores on the transcendence and literalism dimensions measured by the PCBS. Future research would benefit from a greater number of participants in the literal affirmation quadrant, which may yield more accurate and meaningful comparisons between the quadrants as well as between conditions within the literal affirmation quadrant. Additionally, future research may benefit from exposing participants to prosocial Bible verses, similar to Blogowska & Saroglou (2012). Exposing participants to prosocial Bible verses in combination with the PCBS may help to determine whether literal interpretation applies to both prosocial and prejudicial scripture. Future research may also seek to explore anti-Christian prejudice among those who are less religious or non-religious.

The results of this study, taken in combination with the recent results of other studies, such as Shen et al. (2013), demonstrate the utility of a multidimensional measure of religiosity. Through the use of the PCBS, it has been found that, although interpretation of religious content is an important component of some prejudice (Duriez, 2004; Duriez, Appel, & Hutsebaut, 2003), affirmation of transcendence also predicts prejudice. It is also noteworthy that disaffirmation of transcendence may also predict prejudice toward those who are part of the religious in-group of America. All of these findings indicate the importance of group dynamics, specifically in-group/out-group biases, in the link between religious belief (or lack thereof) and prejudice toward outgroups.

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APPENDIX A

POST-CRITICAL BELIEF SCALE

- (1 = completely opposed, 4 = neutral, 7 = completely in agreement)
- (S1) The Bible holds a deeper truth which can only be revealed by personal reflection
- (O1) God has been defined for once and for all and therefore is immutable
- (E1) Faith turns out to be an illusion when one is confronted with the harshness of life
- (S2) The Bible is a rough guide in the search for God, and not a historical account
- (O2) Even though this goes against modern rationality, Mary truly remained a virgin
- (R1) Each statement about God is a result of the time in which it was made
- (S3) Even though the Bible was written a long time ago, it retains a basic message
- (O3) Only the major religious traditions guarantee admittance to God
- (R2) The manner in which humans experience God will always be colored by society
- (O4) Ultimately, there is only one correct answer to each religious question
- (E2) The world of Bible stories is so far removed from us, that it has little relevance
- (E3) Science has made a religious understanding of life superfluous
- (R3) God grows together with the history of humanity and therefore is changeable
- (R4) My ideology is only one possibility among so many others
- (O5) I think that Bible stories should be taken literally, as they are written
- (S4) Despite the injustices caused by Christianity, Christ's message remains valuable
- (E4) In the end, faith is nothing more than a safety net for human fears
- (E5) Faith is an expression of a weak personality

APPENDIX B

NEGATIVE ATTITUDES TOWARD ATHEISTS SCALE

Please rate how much you agree with each of the following statements (1 = strongly disagree, 7 = strongly agree)

- 1. I would be uncomfortable with an atheist teaching my child.
- 2. I strongly believe that church and state should be kept separate.a
- 3. Societies function better if everyone believes in God.
- 4. Religion facilitates moral behavior in a way that nothing else can.
- 5. I would prefer to spend time with people who are religious believers.
- 6. I would not at all be bothered by a President who did not have religious beliefs.a
- 7. In times of crisis, I am more inclined to trust people who are religious.

a = reverse scoring

APPENDIX C ATTITUDES TOWARD HOMOSEXUALS SCALE

(Disagree-Agree)

- 1. I won't associate with known homosexuals if I can help it.
- 2. The sight of two men kissing does NOT particularly bother me.
- 3. If two homosexuals want to get married, the law should let them.
- 4. Homosexuals should be locked up to protect society.
- 5. Homosexuals should never be given positions of trust in caring for children.
- 6. I would join an organization even though I knew it had homosexuals in its membership.
- 7. In many ways, the AIDS disease currently killing homosexuals is just what they deserve.
- 8. Homosexuality is "an abomination in the sight of God."
- 9. Homosexuals have a perfect right to their lifestyle, if that's the way they want to live.
- 10. Homosexuals should be forced to take whatever treatments science can come up with to make them normal.
- 11. People should feel sympathetic and understanding of homosexuals, who are unfairly attacked in our society.
- 12. I wouldn't mind being seen smiling and chatting with a known homosexual.

APPENDIX D

BIBLE VERSES USED FOR EXPERIMENTAL CONDITIONS

13 "If a man has sexual relations with a man as one does with a woman, both of them have done what is detestable. They are to be put to death; their blood will be on their own heads.

-Leviticus 20:13

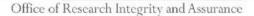
The fool says in his heart, "There is no God." They are corrupt, their deeds are vile; there is no one who does good.

-Psalm 14:1

APPENDIX E

IRB APPROVAL





To: Deborah Hall

From: Mark Roosa, Chair

Soc Beh IRB

Date: 02/25/2013

Committee Action: Exemption Granted

IRB Action Date: 02/25/2013
IRB Protocol #: 1302008868

Study Title: Thinking Styles, Attitudes, and Beliefs

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(2).

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.