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Religious Discrimination in Courtroom Oaths

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RELIGIOUS DISCRIMINATION IN COURTROOM OATHS

Shannon M. Griffith

60 Pages

The main study investigated whether trust in Atheists moderates the relationship between prejudice against Atheists and belief in a hypothetical Atheists' witness testimony. Pilot studies revealed that participants do not inherently label witnesses who affirm as Atheists and determined that there was no significant difference between ratings of belief in Atheists witnesses in comparison to Christian witnesses. In the current study, responses from 185 MTurk participants confirmed that belief in witnesses did not significantly differ between Atheists and Christians. Furthermore, dispositional trust did not moderate the relationship between prejudice against Atheists and belief in the Atheist witness. These studies furthered research in distrust against Atheists by criminal justice context. Limitations and future directions for research in this area are discussed.

KEYWORDS: Atheist, Prejudice, Courtroom, Discrimination, Religion

RELIGIOUS DISCRIMINATION IN COURTROOM OATHS

SHANNON M. GRIFFITH

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Fulfillment of the Requirements
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RELIGIOUS DISCRIMINATION IN COURTROOM OATHS

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CHAPTER I: LITERATURE REVIEW

The first amendment of the constitution outlines the government's separation of church and state, "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof" (Cornell University Law School, n.d). However, religion and God have permeated the government in numerous ways over the years. For example, a way of ensuring honesty in the courtroom has traditionally been to take a religious oath by swearing to God upon a Bible (Tyler, 1834, as cited in Milhizer, 2009). However, research has shown that anti-Atheist prejudice is prevalent in the United States (Gallup Poll, 2012), which is primarily driven by feelings of distrust (Gervais, Shariff, & Norenzayan, 2011). Jury members have been shown to be influenced by many characteristics of witnesses and defendants in a trial (Kang et al., 2012).

Courtrooms that require a witness to give an oath also rely upon trust in this person's testimony. Both the expectation of giving a religious oath and the reliance of trust between the jury and a witness may place Atheists at a disadvantage within the courtroom. This research aims to explore whether these oaths negatively impact perceptions of Atheist witnesses and whether prejudice against Atheists in the courtroom context is related to distrust.

Anti-Atheist Prejudice

Religion is commonly defined as the belief in supernatural agents and is a pattern that is seen in every culture in the world (Alper, 2008; Sosis & Alcorta, 2003). Although over 80% of people in the world identify as religious, there is a growing minority of people who do not believe in a God or ascribe to any religion (Pew Research Center, 2012). The increase in "religious nones" in the U.S. rose from 16.1% in 2007 to 22.8% in 2014 (Pew Research Center, 2015). This figure includes individuals who identify as Atheist (3.1%), Agnostic (4.0%), unaffiliated with religion not important to them (8.8%), and unaffiliated with religion still

important to them (6.9%). Atheists do not believe that gods exists, whereas Agnostics do not confirm nor deny the existence of God, instead deeming that there is no way to know (Cragun, Kosmin, Keysar, Hammer, & Neilsen, 2012).

Although acceptance towards minority races, sexual orientations, and other groups has increased, Atheists remain the least accepted group in America (Gallup Poll, 2012). Previous research has shown that anti-Atheist prejudice is prevalent in the United States (Edgell, Gerteis, & Hartmann, 2006). Prejudice involves a mental process, emotion, or behavior that includes the denigration of members of a group (Brown, 2011). In contrast, discrimination involves unequal treatment of persons due to their membership in a societal group (Sue, 2003). Other researchers have extended the definition of discrimination in order to adapt to current expressions of prejudice such as microaggressions. Microaggressions are more subtle verbal, behavioral, and environmental insults towards a group, which are broken down into three different forms: microinsults, microinvalidations, and microassaults (Sue et al., 2007). Hammer, Cragun, Hwanag, Smith, and Hammer (2012) found that the most common forms of microaggressions towards non-religious participants included observing anti-Atheist comments in media (94.7%) and an expectation to pray against the participants' will (79.1%).

Cragun and colleagues (2012) also found that 41% of Atheists and Agnostics reported experiencing discrimination in at least one context. A similar study found that slander (96.7%) was the most common type of discrimination followed by coercion (92.5%), social ostracism (56.4%), denial of opportunities, goods, and services (15.8%), hate crimes (13.7%), and other (83.7%). Of the various types of coercion, 49.6% of respondents reported "being forced to swear an oath to God (or other religious oath)" on one or more occasions (Hammer et al., 2012, p. 54).

In 2012, one poll found that Atheists were the least supported group for a hypothetical presidential candidate with only 54% of people reporting that they would vote for such a candidate, after Blacks (96%), women (95%), Catholics (94%), Hispanics (92%), Jews (91%), Mormons (80%), Gays or lesbians (68%), and Muslims (58%) (Gallup Poll, 2012). This finding is not surprising considering there are several public and government examples of prejudice against religious nones. In 2009, Cecil Bothwell was almost unseated from his elected city council seat due to North Carolina's Constitution that states, "The following persons shall be disqualified for office: First, any person who shall deny the being of Almighty God" (American Humanist Association, 2012). In fact, there are a total of seven states that have similar lines referencing belief in a Supreme Being (Mississippi, South Carolina, and Texas) or God (Arkansas, Maryland, North Carolina, and Tennessee) as a requirement for government office (American Humanist Association, 2012). The Marines have a longstanding history of discrimination against Atheists, going so far as to deem it a "guidance/moral compass issue" indicating that these individuals are a "potential risk indicator for suicide and other harmful behavior" (Military Religious Freedom Foundation, 2013).

Furthermore, in a 2014 poll, 49% of Americans said they would be unhappy if their child married someone who did not believe in God (Pew Research Center, 2014). Edgell, Gerteis, and Hartmann (2006) found comparable results, reporting that Americans also chose Atheists as the group that were least likely to share their vision of American society. In this study, 34-60% of participants across a variety of groups were not accepting of Atheists. Edgell and colleagues (2006) also found that individuals who were nonwhite, female, conservative, less formally educated, and living in the South or Midwest were not as accepting of Atheists and Agnostics in

comparison to individuals who are white, male, liberal, college educated, and those living in the East or West.

Swan and Heesacker (2012) gave participants a vignette of a character that described various attributions (e.g., in college, runs marathons) along with the description that he is either Atheist or does not believe in God. Participants then evaluated the character on positive and negative traits. Although some individuals do not ascribe to the label “Atheist,” there was no significant difference in negative evaluation between individuals labeled Atheist and those who were described as not believing in God in this study. However, individuals who identify more with their minority status tend to be discriminated against more (Kaiser & Pratt-Hyatt, 2009). For instance, Cragun and colleagues (2012) found that individuals who identified themselves as Atheist or Agnostic reported almost double (42.9%) the amount of discrimination compared to those who were non-religious (21.6%) but did not ascribe to those labels.

Anti-religious hate crimes consist of 17.1% of hate crimes reported and are the third most common type of hate crime after racial hate crimes and sexual orientation hate crimes (Federal Bureau of Investigation, 2014). In one study, 14% of Atheists reported experiencing hate crimes (Hammer et al., 2012). Atheists are not particularly conspicuous, cohesive, or homogenous as a group (Norenzayan & Gervais, 2013). Atheists themselves do not typically perceive that they are part of a unified, coherent group (Ysseldyk, Haslam, Matheson, & Anisma, 2012). They also are not particularly visible due to a lack of symbols that signify their religious affiliation such as the Muslim hijab or Christian cross. This lack of group cohesion may be a protective factor for hate crimes, but also creates a lack of perceived support (Hammer et al., 2012), which has been shown to increase stress among stigmatized individuals (Fingerhut, Peplau, & Gable, 2010).

Distrust in Atheists

Gervais, Shariff, and Norenzayan (2011) found that distrust was central to Atheist prejudice. In comparison to gay men, participants rated that they distrusted Atheists, whereas disgust characterized anti-gay prejudice. Furthermore, increased prejudice was associated with higher rates of religiosity measured by the degree to which the participant rated God as important in their life. In the second part of their study, they tested whether a character in a vignette who behaved selfishly and criminally would be judged as an Atheist. After reading the vignette, participants were given the option of choosing whether they believed it was likely that the character was (a) just a teacher or (b) a teacher and X, where X was a Christian, a Muslim, a rapist, or an Atheist. The second option, known as a conjunction fallacy (Tversky & Kahnemann, 1983), was committed significantly more often when participants were given the option of rapist and Atheist. This pattern of results exemplifies not only that religious individuals are perceived to be more trustworthy and less likely to commit criminal acts but the results also revealed that there was no significant difference between the rapist answer and the Atheist answer.

Distrust in Atheists is hypothesized to be largely due to doubt in the morality of a non-religious individual. Roes and Raymond (2003) found evidence that the size of a society is associated with belief in supernatural agents such that large societies were more likely to have greater religious belief than smaller societies. This relationship suggests that large groups of people used gods as a way to impose consistent rules of morality to transmit from generation to generation. Belief in a god in these societies signaled to the rest of the group that they accepted the rules. Religious belief also increased unity and decreased competition in large groups that would otherwise split into smaller factions, which facilitated the creation of large societal groups (Graham & Haidt, 2010).

Gervais (2008) used a Pleasant Implicit-Association Test (IAT) and a Trust IAT to determine whether distrust was the primary motivating factor in prejudice against Atheists. Results indicated that both distrust and unpleasantness were associated with Atheists. However, distrust was significantly greater than general feelings of unpleasantness towards Atheists. Furthermore, this study found that both women and individuals with higher religious belief had higher rates of distrust.

In another study, researchers Tan and Vogel (2006) used a trust game also known as the investment game where participants playing the part of the truster would send points (each point equal to \$.50) to a trustee. For each point the truster sent, the trustee received three points and would then decide how much to send back to the truster. Participants were given information about the other participant's religiosity among other characteristics. They observed that those higher in religiosity trusted individuals who were also high in religiosity and trusted low religiosity individuals less. Individuals low in religiosity did not make any differentiation in trust between high and low religiosity.

Atheists represent a symbolic threat to religious believers. According to terror management theory, reminders of death increase feelings of intense terror, which can only be alleviated through cultural worldviews that provide meaning and value to life (Greenberg & Arndt, 2012). Conflicting existential beliefs force religious believers to face their awareness of death. Cook, Cohen, and Solomon (2015) found that subtle reminders of death increased feelings of distrust and increased behaviors like social distancing and disparagement. Discussion of Atheism also increased implicit thoughts about death.

Atheists are also a symbolic threat due to a clash in morals. The majority of Americans believe that children raised in religious households are more likely to be moral and 47% believe

that belief in God is necessary for morality (Pew Research Center, 2002). Graham and colleagues (2011) looked at the difference between theists, Atheists, and Agnostics in the value placed on the five moral foundations: care, fairness, ingroup, authority, and purity. Individuals in the theist category placed more value on ingroup, authority, and purity than either Atheists or Agnostics. Moreover, within the theist category, individuals who were high in religiosity scored higher on ingroup and authority than individuals who were low in religiosity. Therefore, it may be that religious individuals and non-religious individuals do not differ in the amount of morality displayed but on the specific foundations in which their morality is displayed.

Some anthropologists also theorize that religion was an evolutionary adaptation in order to form group cohesion, ingroup solidarity, trust, and cooperation (Durkheim, 1995; Sosis & Alcorta, 2003). Rituals, large religious structures, customs, and other religious behaviors were a way for the group to monitor members' commitment to the group (Sosis & Alcorta, 2003). This not only diffuses the responsibility of monitoring morality but also punishment of individuals who do not cooperate or break community rules and values. Although some psychologists and anthropologists discount this theory (Boyer, 2001), several studies have shown increased prosociality and morality when primed with religious icons (Shariff & Norenzayan, 2007). One ritual that was developed to monitor morality and promote honesty is religious oaths (Tyler, 1834, as cited in Milhizer, 2009). The phrase "so help me God" has become a part of the default oaths to swear into office as president, becoming active in the military, and to swear in to court (The Washington Post, 2014). The current research will focus on the courtroom context because it requires jury members to trust in individuals who may be Atheist and due to the religious oaths used, it is a context in which Atheists may be pressured to conform or reveal their identity.

Bias in the Courtroom

The right to a trial by an impartial jury is afforded to citizens by the sixth amendment of the Constitution (Cornell University Law School, n.d.). However, the process of jury selection and the trial itself introduce opportunities for a biased outcome. Jury selection, also known as the voir dire process, is where potential jurors can be excused from the group. The prosecution and defense attorneys can dismiss members either “for cause,” which means that the potential juror cannot refrain from being unbiased, or using the peremptory challenge where the counsel can dismiss them for any reason. This process is used to theoretically create a jury panel of impartial members. Hafemeister (2000) found that counsel members use these peremptory challenges to excuse potential jurors who are likely to vote against their side thus allowing counsel members to use the similarity-lenience effect in their favor.

The similarity-lenience effect is the tendency for members of a mutually exclusive group to act favorably towards their ingroup and to be biased against outgroup members (Gerard & Hoyt, 1974). Kerr, Hymes, Anderson, and Weathers (1995) demonstrated that when Jewish jurors were presented with weak to moderately strong evidence against the defendant who was also Jewish, they gave them a more lenient sentence, which was consistent with the similarity-lenience effect. However, when the evidence was strong against the defendant, the jurors in the ingroup judged the defendant harsher in comparison to the outgroup defendants. In a meta-analysis it was revealed that minorities had higher conviction rates when jurors were of a different race; however, the effect sizes were small. Considering that the majority of jury members in the United States are White, this small effect size can have serious consequences for defendants in the legal system, leading to a large disadvantage for minorities on trial (Mitchell, Haw, Pfeifer, & Meissner, 2005).

During a trial, the duty of a jury member is to impartially listen to the evidence and laws pertaining to the case before making an informed decision about the guilt of a defendant. However, previous research has shown that jury members are affected by a variety of factors within the courtroom and that bias in court outcomes is prevalent (Kang et al., 2005). Specifically, overt and subtle differences of appearance and presentation can make an impact on jury decision-making processes (Mazzella & Feingold, 1994). For instance, previous research indicates that defendants receive more lenient sentences in criminal trials when the defendant is judged as physically attractive compared to unattractive defendants (Burke, Ames, Etherington, & Pietsch, 1990; Castellow, Wuensch, & Moore, 1990). Defendants who were rated as attractive were also attributed more positive characteristics, such as being calmer, warmer, kinder, stronger, happier, more sincere, and more intelligent than unattractive defendants (Castellow, Wuensch, & Moore, 1990).

Furthermore, judgments about the body weight and sex of the defendant interact to affect juror perceptions of guilt and responsibility. Male jurors have been found to be more likely to judge obese female defendants as guilty than lean female defendants (Schvey, Puhl, Levandoski, & Brownell, 2013). Beckham, Spray, and Pietz (2007) also found evidence to suggest that jury members' age and gender can influence sentencing. Younger men (20-40 years old) and older men (70 years and above) were less likely to sentence the defendant to death than men who ranged in age from 40-60 years old. However, women in their 20's and 30's were more likely to choose the death penalty for the defendant and the probability decreased gradually with age. Overall, women were more likely to choose the death penalty (65.1%) than men (49.1%).

Jurors also give differential treatment toward defendants who are ethnic minorities. Blacks in the United States are more likely to be found guilty of crimes in comparison to Whites

(Cowan & Fairchild, 1997). Robinson and Darley (1995) found that Blacks, in comparison to Whites, are also more likely to be issued longer prison sentences for the same crime. Interaction between defendant characteristics and the crime can alter the outcome of a trial as well. White jury members are harsher on black (compared to white) defendants unless the crime is racially charged or jury members are advised to be racially unbiased in their decision (Sommers & Ellsworth, 2000).

During the voir dire process, jurors cannot be dismissed from a jury based on their race or gender (*Batson v. Kentucky*, 1986; *J.E.B. v. Alabama*, 1994). However, protection against dismissal does not apply to religious affiliation and some lawyers use this to their advantage in selecting religious jurors to make certain outcomes more likely (Bornstein & Miller, 2009; *Davis v. Minnesota*, 1994).

Religious beliefs can influence jury decision-making in many ways that lawyers are trained to look for in order to increase the chance that the jury will favor their outcome. For instance, many religions have made public statements about their position on the death penalty (Bornstein & Miller, 2009). However, legal attitudes within a religion can vary widely depending upon other factors. For example, biblical literalists or individuals who believe that every word in the Bible should be taken literally, favor punishments in general more than non-literalists (Applegate et al., 2000; Young, 1992). Therefore, jury members' religious beliefs can affect their attitudes toward a defendant on trial.

Moreover, distrust in Atheists can have an impact on the evaluations of judges' effectiveness in courtroom decision-making. Audette and Weaver (2015) conducted a study comparing judges' decisions to either keep or remove a nativity scene from government property. They found that participants were more likely to distrust an Atheist judge's decision to

remove it than a Christian judge's decision to keep it. Participants were also more trusting of the judge in the control condition (i.e., no mention of religious affiliation) who removed it than the Atheist judge.

Religious Oaths as a Form of Bias in the Courtroom

One potential source of bias is the religious tradition incorporated into sworn oaths. The religious oath that is used within the courtroom is a variation of the statement, "Do you solemnly swear that you will tell the truth, the whole truth, and nothing but the truth, so help you God?". In contrast, an *affirmation* is a nonreligious statement that witnesses can choose as an alternative to a religious oath. Affirmations are recited as a variation of the statement, "Do you affirm that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth, under pain and penalty of perjury?" (Milhizer, 2007).

Historically, oaths were used as a means of keeping an individual truthful and to ensure credibility. If the individual did not tell the truth, it would incite the wrath of the god. The belief increased the duty of the individual to tell the truth by invoking a supernatural punishment if they were dishonest (Tyler, 1834, as cited in Milhizer, 2009). Priming supernatural agents (Bering, McLeod, & Shackelford, 2005; Shariff & Norenzayan, 2007, 2011) or secular authority figures (Gervais & Norenzayan, 2012) increases prosocial behavior (e.g., generosity) and decreases negative behaviors (e.g., cheating). The courtroom context primes both secular authority figures (e.g., judges) as well as supernatural beings through the use of the oath.

The requirement of religious oaths may specifically have negative implications for non-religious individuals. For example, in the case of *Suhre v. Haywood County* (1997, as cited in Levine, 1998), Suhre refused to swear on the Bible and also stated that he was offended by the display of the Ten Commandments within the courtroom. He was convicted but argued it was

because of his identity as an Atheist and the influence of religious symbols in the courtroom, instead of the evidence. As a result, Suhre appealed to the District Court, which stated it did not find that “the presence of an abbreviated version of the Ten Commandments on either side of Lady Justice constitutes an unwelcome religious exercise or the assumption of a special burden sufficient to establish standing” (p. 19). *Suhre v. Haywood County* may not be an isolated incident. However, no research has investigated the impact of religious oaths in the courtroom or how this may impact Atheists who give testimony during a trial.

The current studies aim to expand the literature on anti-Atheist prejudice and whether distrust in Atheists influences decisions within the context of the courtroom. A pilot study was conducted in order to examine the correlations between the new Witness Evaluation Scale and the Three Domain Disgust Scale to determine whether trust in the witness is a different construct than disgust. The Witness Evaluation Scale measures how believable the testimony of the witness is in hypothetical vignettes given to the participants. The pilot study also determined whether participants have more belief in the testimony of Muslims and Christians than Atheists. The second study examined the relationship between prejudice against Atheists, distrust, and belief in courtroom witnesses. Having a standard religious oath in the courtroom may make a witness’s religious affiliation more apparent. Furthermore, juries composed of religious individuals may be more inclined to distrust witnesses who do not swear on a religious text and choose an affirmation because they do not identify as religious. The current study was designed to test this assertion.

CHAPTER II: PILOT STUDY

This pilot study investigated whether participants' belief in a witness' testimony varies, dependent upon the witness' religious affiliation, use of a religious text, and a deity in an oath. To prevent participants from assuming that the affirming witness is religious, the vignettes specified whether the witness was Christian, Muslim, or Atheist. I also investigated whether belief in a witness was correlated with Atheist prejudice, Islamophobia, and disgust.

Hypothesis 1: There will be a significant difference between conditions on the Witness Evaluation Scale but no significant differences on the Negative Attitudes Towards Atheists Scale, Islamophobia Scale, and Three Domain Disgust Scale.

Hypothesis 2: On the Witness Evaluation Scale, the Christian witness will be rated as the most believable. The Muslim witness will be rated as less believable than the Christian but more than the Atheist witness. The Atheist witness will be rated as the least believable.

Exploratory Research Question 1: Will a single factor emerge from a principle axis factor analysis of the Witness Evaluation Scale?

Exploratory Research Question 2: Are there correlations among the Witness Belief Scale, the Three Domain Disgust Scale, and the Negative Attitudes Towards Atheist Scale?

Exploratory Research Question 3: Are there differences between samples of participants recruited through MTurk and a college sample?

Sampling Method

I recruited participants both from undergraduates taking psychology courses at a Midwestern university, and from Amazon MTurk. MTurk is an inexpensive crowdsourcing marketplace that allows researchers to have access to a large number of participants, an automatic compensation system, and rapid collection of data while allowing for selectivity in

participant demographics. Researchers create a requester account, which allows for the creation and management of surveys or other research activities, also known as Human Intelligence Tasks (HIT's), as well as the collection of the participant data (Buhrmester, Kwang, & Gosling, 2011). MTurk workers received \$0.20 for their participation in the study. Buhrmester and colleagues (2011) found that MTurk workers are internally motivated to participate in research; therefore compensation should not influence participation in the study.

The highest proportion of MTurk workers are from the United States (57%; Ross, Silberman, Zaldivar, & Tomlinson, 2009). Because the study focused on jury making decisions within the United States judicial system, participation was limited to MTurk workers who were legal citizens of the United States. The recruitment criteria were set to only allow participants who have an 80% or higher approval rating. Approval ratings are based upon the MTurkers' past performance on surveys and can decrease if a requester rejects the worker's submission due to failure of attention checks, memory checks, or failure to accurately complete the HIT (Amazon Mechanical Turk, 2011; Peer, Vosgerau, & Acquisti, 2014). There was also an additional question included to filter out participants who completed the pilot study through MTurk. Of the 110 MTurkers, seven participants' data were excluded for missing over five answers, missing attention checks, or for already completing the first survey.

Previous research has demonstrated that MTurk worker behavior and laboratory participant behavior is equivalent (Horton, Rand, & Zeckhauser, 2011). However, the pilot study found results consistent with previous research on the demographic composition of MTurk workers, in which over 31% of the participants in the pilot study identified as nonreligious. Audette and Weaver (2015) found similar results using MTurk with over 40% of their

participants reporting that they have no religion and over 20% identifying as Atheist. They also found that over 50% of the participants had never attended church.

Demographic studies of MTurk workers reveal a higher amount of ethnic diversity (36% non-white) than either college student samples or other Internet samples. Gender demographics of MTurk workers are composed of slightly more women (55%) than men, which is consistent with data on the composition of juries (56.9% female; Buhrmester et al., 2011; Lehmann & Smith, 2013; Ross, Silberman, Zaldivar, & Tomlinson, 2009). MTurk workers age demographic reveal that 40% are 18-24, 22% are 25-30, 19% are 31-40, 11% are 41-50, 8% are 51-60, and only 1% are over the age of 60 (Ross et al., 2009). In comparison, the average age of individuals on jury panels is 41.5 ($SD = 3.98$) with a minimum age of 18 (Lehmann & Smith, 2013).

Participants

Of the 212 participants recruited, 110 completed the survey through Amazon MTurk and 102 were college students from a Midwestern university. Of the 102 participants, one was excluded for missing over five answers. The remaining missing data were imputed for both the MTurk and the college student samples. For this dataset, the Fully Conditional Specification method of Multiple Imputations (MI) was used. Carpenter and Kenward (2012) recommend MI over other methods of imputation because of its applicability and efficacy. Students were recruited in addition due to the high number of nonreligious MTurkers.

The majority of participants (73.5%) identified as religious. The non-religious categories included anyone who identified as “none,” Atheist, Agnostic, or spiritual but not religious. Of those who were religious, 94.67% were Christian and the other 5.33% consisted of Jews, Hindus, Shintos, Baha’is, wiccans, and pagans. Because the study is examining non-religious prejudice,

only religious participants' data ($N = 150$) were analyzed. Of the 150 religious participants, 71 were MTurkers and 79 were college students.

There were 109 female and 41 male participants. The average age of participants was 28.81 ($SD = 13.17$), ranging from 18 to 74. There was a significant difference between the age of the two samples. MTurkers had an average age of 38.36 ($SD = 13.34$) and college students had an average age of 19.78 ($SD = 1.27$), $t(142) = 11.92$, $p < .001$. Participants reported a wide range of ethnicities: 98 Caucasian, 20 African American/Black, 11 Asian American or Pacific Islander, 9 Mexican American or Chicano, 9 Multiracial, and 2 Puerto Rican, Cuban, or other Hispanic Origin. Most participants had some college-level education (54.7%), Bachelor's Degree (14.7%), followed by 11-12th grade (13.3%), Technical School or Associates Degree (8.0%), Master's Degree (7.8%), Doctorate Degree (7.3%), and 6-8th grade (2.0%).

Measures

Vignettes and Witness Evaluation Scale

A preliminary within-subjects ($N = 99$) study was conducted to determine whether participants assume that individuals who use an affirmation instead of a religious oath are Atheist. Participants were given three counterbalanced vignettes with (a) a witness who swore on the Bible to God, (b) a witness who swore on the Quran to Allah, and (c) a witness who used a non-religious affirmation. Participants only assumed the witness who gave the affirmation was an Atheist if it came after the Christian or Muslim vignettes. Due to these results, religious affiliation was added to the vignettes in the subsequent studies. Correlations of the same individual difference measures as the pilot study was analyzed, which revealed similar relationships.

Participants in this pilot study read a series of three vignettes (see Appendix A) pertaining to witnesses giving an oath and testimony within a courtroom. The vignettes differentiated between the various methods of oaths including: (a) a Christian swearing to God upon the Bible, (b) a Muslim swearing to Allah upon the Quran, and (c) an Atheist repeating a non-religious affirmation. Participants were assigned randomly to one of the three vignettes. Participants were then instructed to complete the Witness Evaluation Scale.

The Witness Evaluation Scale (see Appendix B) consists of eight questions assessing how trustworthy they perceived the witness (e.g., Do you believe the witness is reliable?; Do you believe the witness fabricated their story?). Negative items were reverse-coded so that lower scores indicated higher perceived belief in the witness' testimony. This new measure was created to assess belief in a witness.

Negative Attitudes Toward Atheists Scale

The Negative Attitudes Toward Atheists Scale (see Appendix C) from Gervais and Shariff (2010) includes seven items and measures explicit prejudice against Atheists, including "I would be uncomfortable with an atheist teaching my child." The scale has high internal consistency and reliability ($\alpha = .80$). Scales measuring implicit distrust of Atheists positively correlated with scores on this scale (Gervais & Shariff, 2010).

Islamophobia Scale

Gibbon (2005) modified the Religion and Diversity Survey to isolate questions related to Islamophobia (see Appendix D). The eight-item scale consists of questions that ask, "Please tell me if you think each of these words applies to the Muslim religion," which included five negative words (fanatical, backward, close-minded, violent, strange) and three positive words (tolerant, peace-loving, appealing). In coding the negative word questions, if a participant

answered “Yes” they were coded as 2, “Don’t know” is coded as 1, and “No” is coded as 0. Positive word questions were reverse-coded. Scores range from zero to 16 ($\alpha = .78$) with high scores indicating high Islamophobia and low values indicate little to no Islamophobia. Gibbon (2005) found that Islamophobia is related to religious particularism, a fear of terrorism, and prejudicial views that Islam is un-American. Because Muslims are a religious out-group for most Americans, they are commonly used as a comparison group for studying prejudice against Atheists.

The Three Domain Disgust Scale

The Three Domain Disgust Scale (see Appendix E; Tyber, Lieberman, & Giskevicious, 2009) is a 49-item scale that measures three domains of disgust: moral (e.g., cheating in a relationship; $\alpha = .89$), sexual (e.g., incestuous behaviors; $\alpha = .86$), and pathogen (e.g., individuals with body odor; $\alpha = .83$). The scale is scored from 0 (*not at all disgusting*) to 6 (*extremely disgusting*). Disgust is one of the emotional reactions that is associated with prejudice and discrimination (Gervais, Shariff, & Norenzayan, 2011). The Three Domain Disgust Scale was used to determine whether prejudice against Atheists stems from disgust or distrust.

Procedure

For MTurkers, the study was located on Amazon’s MTurk website under keywords (*courtroom, law, eyewitness testimony, and psychology*) with a description of the study. After accessing the study through the MTurk database, participants were given informed consent information. Participants click “I agree” to continue with the study. College student participants were given paper copies of the informed consent to sign by a research assistant before accessing the survey in an individual computer lab. After completing the survey, they were given a paper copy of the debriefing.

After reading the vignettes, participants were given the Witness Evaluation Scale. Participants then filled out several individual difference measures: the Negative Attitudes Toward Atheists Scale (Gervais, 2011), the Islamophobia Scale (Gibbon, 2005), and the Three Domain Disgust Scale (Tyber, Lieberman & Giskevicious, 2009). After the measures were completed, participants received a debriefing statement and a unique identification number to claim compensation.

Pilot Study Results and Discussion

Scale Differences between Conditions

A MANOVA conducted on the Three Domain Disgust Scale, the Witness Evaluation Scale, the Negative Attitudes Towards Atheist Scale, and the Islamophobia Scale revealed a significant difference among the three vignette conditions, Wilk's $\Lambda = .88$, $F(4, 288) = 2.33$, $p = .02$, partial $\eta^2 = .075$. A Bonferroni post-hoc analysis revealed that the difference between the affirmation ($M = 3.61$, $SD = 1.14$) and Muslim vignettes ($M = 2.97$, $SD = 1.25$) on the Witness Evaluation Scale was significant ($p = .03$, $d = .53$). There was no significant difference on the Witness Evaluation Scale between the Christian vignette ($M = 3.12$; $SD = 1.25$) and the affirmation ($p = .16$, $d = .41$) or between the Christian and Muslim vignettes ($p > .99$, $d = .12$).

Factor Analysis on Witness Evaluation Scale

A principal axis factor analysis with promax rotation was conducted on the eight items of the Witness Evaluation Scale. Originally, two factors with eigenvalues greater than one were extracted. SPSS uses an eigenvalue of one as an arbitrary cutoff and will extract any factors greater than one. Other researchers recommend other eigenvalue cutoff values (Jolliffe, 1972; Kaiser, 1960). Fields, Miles, and Field (2012) recommend looking at the interpretability of the results. Because all of the questions of the Witness Evaluation Scale had larger loadings on the

first factor than the second factor, further analysis was required. In this situation, it is typical for researchers to re-run the analysis using the number of factors that fit these data best, also colloquially known as “forcing SPSS’ hand” (University of Colorado Denver, n.d.). A second factor analysis, extracting only one factor provided a more interpretable solution. This factor had an eigenvalue of 4.59 and explained 65.58% of the variance. Factor loadings of the 8-items are provided below in Table 1.

Table 1.

Pilot Study Factor Loadings of 8-item Witness Evaluation Scale

Items of the Witness Evaluation Scale	<i>Factor 1</i>
1. How likely are you to believe that the witness was an accomplice to the crime?	.613
2. How likely are you to believe that the witness is a trustworthy person?	.791
3. How likely are you to believe that the witness lied?	.775
4. How likely are you to believe that the witness was at the gas station at the time of the crime?	.845
5. How likely are you to believe the witness was honest?	.935
6. How likely are you to believe that the witness is reliable?	.785
7. How likely are you to believe the witness’ account of the crime is accurate?	.863
8. How likely are you to believe that the witness fabricated part of the story?	.566

Note. Extraction Method: Principal Axis Factoring. a.1 factors extracted. 5 iterations required.

Correlations between Individual Difference Measures

Significant correlations between the Witness Evaluation Scale, Islamophobia Scale, and Negative Attitudes Towards Atheists Scale indicate that belief in the witness was related to prejudicial attitudes (see Table 2). However, there was no relationship between the Witness Evaluation Scale and any of the disgust domains or the total Disgust Scale indicating that the Witness Evaluation Scale is measuring a distinct concept.

Interestingly, participants as a whole answered that Muslim witnesses were more believable ($M = 2.98, SD = 1.28$) than Christian ($M = 3.28, SD = 1.25$) or Atheist ($M = 3.48, SD =$

1.15) witnesses. This could possibly be due to participants' motivation to control prejudice. A person's motivation to appear non-prejudiced may stem from external motivation such as societal norms that condemn prejudice against certain groups or internal motivation such as a person's internal values to become less prejudiced (Plant & Devine, 1998). As a result of this finding, in the main study, a control group (i.e., no religious affiliation mentioned) was used as a comparison of distrust between the Christian and Atheist witnesses.

Table 2.

Correlations, Descriptives, and Cronbach's Alphas for Prejudice, Witness Evaluation, and Disgust Scales

	1	2	3	4	5	6	7
1. Islamophobia							
2. Neg. Att. Towards Atheists	.25**						
3. Pathogen Disgust	.12	.07					
4. Sexual Disgust	.20*	.32**	.53**				
5. Moral Disgust	.09	.12	.51**	.52**			
6. Total Disgust	.17*	.21*	.81**	.83**	.83**		
7. Witness Evaluation Scale	.28**	.16*	.12	.11	.01	.09	
<i>M</i>	0.93	2.83	5.55	4.78	6.37	5.71	3.22
<i>SD</i>	0.56	0.86	1.22	1.64	1.33	1.15	1.24
Cronbach's α	.84	.80	.85	.87	.89	.96	.91

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

The purpose of this pilot study was to determine whether there was less belief in Atheist witness' testimony than Christian or Muslim witnesses. Although the analyses show that there was no difference between belief in the Christian witness and the Atheist witness, the Atheist had the lowest rating as expected. A larger sample size may reveal significant results.

College Students vs. MTurk

Independent sample *t*-tests showed no significant difference in participant responses to each scale between the two samples except on the Islamophobia Scale, $t(202) = 4.07, p < .001$. The degree of difference in the means (mean difference = .29, 95% CI: .15 to .43) was large ($d = .57$). MTurk participants had higher Islamophobia ($M = 1.06, SD = .57$) than college students ($M = .81, SD = .46$).

Furthermore, the college student sample rated all three groups as more believable than MTurkers. The college student sample may have felt more pressure to respond in a less prejudiced manner than MTurkers, who had anonymity. The online disinhibition effect is a phenomenon in which individuals lower their inhibition when online, increasing negative behaviors such as prejudice, harassment, and bullying that would not be displayed by these individuals in real world situations (Suler, 2004). Lefler and Barak (2012) theorize that anonymity, invisibility, and lack of eye contact all contribute to this effect with lack of eye contact being the most influential. Even though students complete the survey in a single-computer room alone, the presence of a research assistant before and after may contribute to the students' motivation to control prejudice. In order to reduce the likelihood of pressure to respond in less prejudiced ways, MTurkers were used in the main study.

Based on what was learned from the results of the pilot study, the following methodological features were implemented in the main study: (a) the disgust scale was not used; (b) the same between-subjects design was implemented, with the addition of a control condition to replace the Muslim/Quran vignette; (c) both a general trust scale (i.e., the Propensity to Trust Scale) and a specific trust scale (i.e., the Group Trust Scale) were administered to analyze the relationship with the Witness Evaluation Scale; (d) the Witness Evaluation Scale was reevaluated

to determine whether it loads on a single factor; (e) participants were sampled from MTurk to provide anonymity, to increase the probability that participants' true attitudes will be reflected without environmental pressure to control their bias; and (f) the Islamophobia scale was replaced with a modification to assess prejudice against Christians.

CHAPTER III: MAIN STUDY INTRODUCTION

This study examined whether dispositional distrust towards atheists moderates the relationship between prejudice towards Atheists and how trustworthy participants viewed the witness. Additionally, this study examined whether there is a difference in prejudicial attitudes and trust towards Christians in comparison to Atheists. Because this study focuses on prejudice towards Atheists, only data from participants who identify as religious were examined. Relationships between all attitudinal scales and potential interactions with the manipulation of the witness' religious affiliation were examined.

The following hypotheses and research questions were developed, based on the review of the literature and the results of the pilot study:

Hypothesis 1: Scores on the Prejudice Toward Atheists Scale will negatively correlate with scores on the Witness Evaluation Scale.

Hypothesis 2: Participants will rate the Christian witness and the control witness as more believable than the Atheist witness.

Hypothesis 3: The relationship between prejudice towards Atheists and the Witness Evaluation Scale will be moderated by distrust such that high levels of distrust as measured by the Propensity to Trust Scale will increase the strength of this relationship.

Research Question 1: Will an exploratory factor analysis of the witness evaluation scale suggest a single factor scale or suggest separate sub-factors?

Research Question 2: Are there correlations among the Witness Belief Scale, Propensity to Trust Scale, the Attitudes Towards Christians Scale, the Group Trust Scale, and the Negative Attitudes Towards Atheist Scale?

Research Question 3: Provided the Group Trust Scale is not affected by the manipulation, will ratings on the Atheist question of the Group Trust Scale moderate the relationship between prejudice towards Atheists and the Witness Evaluation Scale?

Research Question 4: Provided the Group Trust Scale is not affected by the manipulation, will ratings on the Christian question of the Group Trust Scale moderate the relationship between attitudes towards Christians and the Witness Evaluation Scale?

Research Question 5: Provided the Group Trust Scale is not affected by the manipulation, will composite scores on the Group Trust Scale moderate the relationship between prejudice towards Atheists and the Witness Evaluation Scale?

CHAPTER IV: METHODS

Participants

I recruited 251 participants from Amazon's MTurk website where MTurkers had access to the survey under the same keywords as the previous studies. MTurkers received \$.20 compensation for their participation in the survey. Specifications on which MTurkers can access the survey were kept the same as the pilot study. Of the 251 recruited, 25 participated more than once and duplicate cases were removed. There were also 11 participants who left more than five questions unanswered and 30 who incorrectly answered the manipulation check (described below). These participants were removed from the dataset leaving a total of 185 participants. Missing data was imputed similar to the pilot study.

Out of 185 participants, 85.4% were Christian, 2.7% Buddhist, 2.7% Muslim, 1.6% Jewish, and 7.6% other. Participants' ages ranged from 20 to 74 ($M = 41.75$, $SD = 13.15$). The majority of participants were Caucasian (76.2%), followed by African Americans (9.7%), Asian American or Pacific Islander (5.4%), Mexican American or Chicano (2.7%), American Indian or Alaskan Native (2.2%), Puerto Rican, Cuban, or Other Hispanic (2.2%), Multiracial (1.1%), and Other (0.5%). Many participants had bachelor's degrees (35.7%), followed by some college (23.2%), Technical School or an Associate's degree (16.8%), 11-12th grade in high school (10.8%), Master's degree (7.6%), and a Doctoral or Professional Degree (5.9%). The gender identity of the sample included female (67%), male (32.4%), and Transgender (0.5%).

Measures

After completing demographic information, participants were randomly assigned to read the Atheist vignette, the Christian vignette, or the control vignette before answering the Witness

Evaluation Scale (Appendix B). The control vignette is similar but does not include the witness' religious affiliation and does not mention any religious texts (Appendix A).

Group Trust Scale

Participants completed a Group Trust Scale (see Appendix F) in which different groups (e.g., Muslims, police, politicians), including Atheists and Christians, were presented and rated on trustworthiness on a 5-point rating scale (1=*distrust*, 3=*neutral*, 5=*trust*). Composite scores, as well as participants' ratings of Atheists and Christians separately, were analyzed.

Propensity to Trust

The Propensity to Trust Scale (see Appendix G) is an 8-item measure in which participants rated on a 5-point Likert Scale (1=*Disagree strongly* to 5=*Agree strongly*) how much they agreed with various situations involving trust. Schmoorman, Mayer, and Davis (1996, as cited Mayer & Davis, 1999) developed this scale based upon Rotter (1967) to gauge individuals' general trust in others.

Negative Attitudes Towards Atheist Scale

Participants completed the Negative Attitudes Towards Atheists Scale (Gervais, 2011), similar to the pilot study.

Witness Evaluation Scale

The Witness Evaluation Scale (Appendix B) was reduced to seven-items after the item with the lowest factor loading from the pilot study ("How likely are you to believe that the witness fabricated parts of the story?") was excluded.

Attitudes Towards Christians Scale

An Attitudes Towards Christians Scale, created from a modified version of the Islamophobia Scale (Gibbons, 2005) was also be administered. Participants rated eight words,

both positive and negative, (“Yes”, “No”, or “Don't know”) to reflect their attitudes towards the Christian religion.

Manipulation/Attention Check

An attention check question was added after the Witness Evaluation Scale to determine whether participants read the vignette and remembered the religious affiliation of the witness (i.e., which of the following statements BEST describes the witness?).

Procedure

Once participants read the informed consent and agreed to participate, they completed the Propensity to Trust Scale. Afterwards, they were asked to identify whether they are religious or not through a yes or no selection. Participants who answered that they are religious (e.g., Christian, Muslim) continued to the study survey whereas non-religious participants (i.e., Atheist, Agnostic, or none) were given an alternative survey to complete unrelated to this project. Thus, non-religious participants were not included in this sample.

Religious participants were given one of the three vignettes randomly before completing the Witness Evaluation Scale, the Negative Attitudes Towards Atheist Scale, the Attitudes Towards Christians Scale, and the Group Trust Scale.

CHAPTER V: RESULTS

The descriptive statistics and correlations will be presented first. Next, the specific hypotheses pertaining to ratings of Atheist versus Christian witnesses and the factor analysis of the Witness Evaluation Scale as outlined in Chapter III will be addressed. Finally, analyses related to the set final hypothesis and exploratory moderation analyses addressed in the research questions 3-5 will be presented.

Correlations between Individual Difference Measures

A bivariate correlation was run to determine whether there is a negative relationship between the Prejudice Towards Atheist Scale and the Witness Evaluation Scale (hypothesis 1). Correlations between the other scales, as state in research question 2, were also analyzed (see Table 3).

A significant positive correlation was found between the Negative Attitudes Towards Atheists and the Attitudes Towards Christian Scale indicating that higher negative ratings of Atheists correlated with higher positive ratings of Christians. The Witness Evaluation Scale had a positive relationship with the Group Trust Scale, the Propensity to Trust Scale, and the Attitudes Towards Christians Scale but there was no significant relationship with the Negative Attitudes Towards Atheists Scale. Therefore, the first hypothesis that scores on the Prejudice Toward Atheists Scale will negatively correlate with scores on the Witness Evaluation Scale was not supported.

The Negative Attitudes Towards Atheist Scale had a significant negative correlation with the Group Trust Atheist question indicating that negative views of Atheists corresponded to less trust. Similarly, the Attitudes Towards Christians scale was positively correlated with the Group

Trust Christian question indicating that positive views of Christians were related to more trust in Christians. All scales had acceptable reliability as seen in the table below.

Table 3.

Correlations, Means, Standard Deviations, and Cronbach's Alphas for Main Study Scales

	1	2	3	4	5	6	7
1. Neg. Att. Towards Atheists							
2. Propensity to Trust	.10						
3. Attitudes Towards Christians	.47**	.11					
4. Witness Evaluation Scale	.09	.16*	.16*				
5. Group Trust	-.09	.41**	.22**	.17*			
6. Group Trust (Christian Question)	.32**	.09	.53**	.14	.54**		
7. Group Trust (Atheist Question)	-.46**	.21**	-.12	.01	.56**	-.01	
<i>M</i>	21.31	22.93	20.15	24.42	35.29	3.89	2.99
<i>SD</i>	7.10	4.11	3.81	6.78	6.27	.86	.98
Cronbach's α	.87	.73	.82	.94	.79		

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

Scale Differences between Conditions

A MANOVA was conducted between the three vignette conditions (Atheist, Christian, and Control) with the Negative Attitudes Towards Atheist Scale, The Attitudes Towards Christians Scale, the Witness Evaluation Scale, the Propensity Towards to Scale, the Group Trust Scale, the Group Trust Atheist question, and Group Trust Christian question. There was a significant difference among the three conditions, Wilk's $\Lambda = .014$, $F(6, 177) = 2086.05$, $p < .001$, partial $\eta^2 = .99$.

A Bonferroni post-hoc analysis revealed that the only difference between the conditions was on the Group Trust Atheist question when it was asked after the Christian vignette ($M = 2.67$, $SD = 1.04$) and the control vignette ($M = 3.22$, $SD = 1.03$). There was no significant difference of ratings on the Witness Evaluation Scale between the Atheist ($M = 24.50$, $SD = 6.59$),

Christian ($M = 24.54$, $SD = 7.47$), and control ($M = 24.26$, $SD = 6.49$) conditions. Participants rated each witness to be approximately equal in terms of their trustworthiness. Therefore, the hypothesis that the Christian and control witnesses will be rated more believable than the Atheist witness was not supported.

Factor Analysis on Witness Evaluation Scale

The lowest loading item on the Witness Evaluation Scale as determined from the pilot study was removed from the main study. A principal axis factor analysis with promax rotation was conducted on seven items of the Witness Evaluation Scale to determine whether the scale remained a one-factor scale as stated in first research question. The analysis revealed one factor, which had an eigenvalue of 5.27 and explained 75.32% of the variance. Factor loadings of each item are stated below in Table 4.

Table 4.

Main Study Factor Loadings of 7-item Witness Evaluation Scale

Items of the Witness Evaluation Scale	<i>Factor 1</i>
1. How likely are you to believe that the witness was an accomplice to the crime?	.666
2. How likely are you to believe that the witness is a trustworthy person?	.907
3. How likely are you to believe that the witness lied?	.757
4. How likely are you to believe that the witness was at the gas station at the time of the crime?	.859
5. How likely are you to believe the witness was honest?	.938
6. How likely are you to believe that the witness is reliable?	.847
7. How likely are you to believe the witness' account of the crime is accurate?	.917

Note. Extraction Method: Principal Axis Factoring. a.1 factors extracted. 5 iterations required.

Moderation Analyses

Moderation analyses were conducted using MODPROBE (Hayes & Matthes, 2009). Propensity to Trust was examined as a moderator in the relationship between ratings on the Negative Attitudes Towards Atheists Scale and Witness Evaluation Scale, which was not significant, $\Delta R^2 < .01$, $F(1, 181) = .06$, $p = .81$. The unstandardized simple slope for participants 1 *SD* below the mean of the Propensity to Trust was .09, the unstandardized simple slope for participants with a mean level of Propensity to Trust was .10, and the unstandardized simple slope for participants 1 *SD* above the mean of the Propensity to Trust was .12 (see Appendix H). There was no support that the hypothesized relationship between prejudice towards Atheists and the Witness Evaluation Scale was moderated by distrust such that high levels of distrust as measured by the Propensity to Trust Scale will increase the strength of this relationship.

The Group Trust Atheist question was examined as a moderator in the relationship between ratings on the Negative Attitudes Towards Atheists Scale and Witness Evaluation Scale, which was not significant, $\Delta R^2 < .01$, $F(1, 181) = 1.46$, $p = .23$. The unstandardized simple slope for participants 1 *SD* below the mean of the Atheist question was .21, the unstandardized simple slope for participants with a mean level of Atheist question was .13, and the unstandardized simple slope for participants 1 *SD* above the mean of the Atheist question was .04. Thus, there was no support that the hypothesized relationship between prejudice towards Atheists and the Witness Evaluation Scale was moderated by the Atheist question of the Group Trust Scale.

The Group Trust Christian question was examined as a moderator in the relationship between ratings on the Attitudes Towards Christian Scale and Witness Evaluation Scale, which was not significant, $\Delta R^2 = .02$, $F(1, 181) = 3.17$, $p = .08$. The unstandardized simple slope for participants 1 *SD* below the mean of the Christian question was .10, the unstandardized simple

slope for participants with a mean level of Christian question was .30, and the unstandardized simple slope for participants 1 *SD* above the mean of the Christian question was .50. Therefore, there was no support that the hypothesized relationship between the Attitudes Towards Christians Scale and the Witness Evaluation Scale was moderated by the Christian question of the Group Trust Scale.

Group Trust was examined as a moderator in the relationship between ratings on the Negative Attitudes Towards Atheists Scale and Witness Evaluation Scale, which was not significant, $\Delta R^2 < .01$, $F(1, 181) = .15$, $p = .70$. The unstandardized simple slope for participants 1 *SD* below the mean of the Group Trust was .08, the unstandardized simple slope for participants with a mean level of Group Trust was .10, and the unstandardized simple slope for participants 1 *SD* above the mean of the Group Trust was .13 (see Appendix I). Thus, there was no support for the final research question, which stated that the composite scores on the Group Trust Scale moderated the relationship between prejudice towards Atheists and the Witness Evaluation Scale.

CHAPTER VI: DISCUSSION

The purpose of this research was to determine whether Atheist witnesses who use an affirmation are less believable than witnesses who use a religious oath. This study also examined whether trust is a moderator between believability of the witness and prejudice against Atheists.

Trust in Atheist Witnesses

Social Desirability

Previous research has found that Atheists are the least liked group in America. However, participants did not rate Atheist witnesses as less believable than Christian or control witnesses. One possible reason for these results may be due to social desirability. Social desirability is a type of bias that occurs when participants respond according to what answer is socially acceptable instead of their actual opinion (McBurney & White, 2009).

Social desirability bias has been found in surveys that ask controversial questions about prejudice towards minority groups. For example, white participants were more likely to admit racial prejudice on a survey if given a self-administered questionnaire in comparison to an interview (Krysan, 1998). Breton and colleagues (2014) found that the anti-prejudice norm that leads to social desirability can vary depending upon the groups and does not equal. In this main study, over 43% of participants rated Atheists as neutral (3 on a 5-point likert scale) on the Group Trust Scale, which conflicts with previous research on anti-Atheist prejudice.

There is some evidence that education level affects social desirability. Heerwig and McCabe (2009) found that higher education levels corresponded to more social desirability. The majority of participants in both studies had some college or a college degree, which could impact how they rate Atheist witnesses.

Participants still did not rate Atheists positively across all scales as would be expected if participants were biased by social desirability though. Atheists still ranked seventh out of the eleven groups in trustworthiness on the Group Trust scale. There was also a significant positive correlation between the Attitudes Towards Christian Scale and the Negative Attitudes Towards Atheist Scale indicating that more positive views of Christians is related to more negative views of Atheists. Furthermore, participants' average ratings were close to the midpoint of the scale, which could indicate uncertainty rather than social desirability.

Secular Primes

Gervais and Norenzayan (2012) found that reminders of secular authority figures (e.g., police, courts) increased prosocial behavior and decreased distrust in Atheists. These secular authority figures act as a social monitor of morality, similar to religious deities, who can hold Atheists accountable for their actions.

Although distrust of Atheists decreased when primed with secular authority figures, these primes do not reduce prejudiced reactions towards Atheists. Furthermore, even though distrust decreased towards Atheists, ratings of distrust were still comparable to gay people (Gervais & Norenzayan, 2012). Participants may have had increased feelings of trust towards the Atheist witness when primed by the courtroom vignette. However, it is unlikely that this accounts completely for the equality in ratings of trustworthiness between Atheists and Christians.

MTurk demographics

MTurk provides an easy and inexpensive system for collecting data, however, there are differences in terms of their religious population. In comparison to student and nationally representative samples, MTurk contains a significantly higher population of secular and non-

religious participants. Furthermore, those who report a religious affiliation are less religious. This population also tends to be more liberal (Lewis, Mockabee, Djupe, & Wu, 2015).

Because of these differences in religiosity and political views, religious participants from this study may also differ in their views of Atheists in comparison to the general population. However, MTurk has been used in several studies to examine distrust and prejudice against Atheists (Gervais & Norenzayan, 2012; Gervais, 2014; LaBouff & Ledoux, 2016).

Limitations and Further Research Directions

While research on prejudice against Atheists has been expanding in recent years, there has been a lack of research in how this prejudice affects Atheists in real world contexts. However, there are limitations that should be addressed in future research.

Jury Deliberation and Groupthink

First, the hypothetical courtroom vignettes differ from real court cases, which could impact the decision-making of the jury. For example, after all evidence is presented for the trial, the process of jury deliberations begins. During jury deliberation, jurors discuss the evidence together and vote on the verdict (American Bar Association, 2017). Groupthink is the tendency for individuals to conform when making decisions in a group (Janis, 1971). Mitchell and Eckstein (2009) suggest that groupthink can influence the decision of jury members and sway members.

There are several different factors that can play role in why people succumb to groupthink: interpersonal pressure, apparent unanimity, illusions of invulnerability, illusions of moral superiority, negative views of non-group members, and self-censorship of doubts (Cook, n.d.). The role of a jury member is one of moral superiority over the defendant, a non-group member, who has been immoral. When making moral decisions, individuals are guided by their

worldview and their religious affiliation (Jeeves & Brown, 2009). Moral superiority created by groupthink during jury deliberation and primed by religiosity could potentially increase prejudice towards Atheists. Therefore, participants who answer as individuals, in hypothetical scenarios, only simulate some aspects of real jury deliberations.

Jury Demographics

Secondly, the demographic characteristics of participants likely differ from the average jury member. Both samples mainly consisted of participants with some experience with higher education, which may not be representative of the jury pool or on jury panels. Most participants had some college education or a degree in the main study. In one study, jury members had an average education level of 12.3 years of schooling as opposed to the national average of 11.6 years (Kalven & Zeisel, 1986). However, this study is dated and there is a lack of information on the demographics of jury members.

The participants in this study ranged in age from 20 to 74 with an average age of 41.75. There are also several exemptions for jury duty that vary across the U.S. Some courts exempt people over 70 and others will allow an individual to file for an exemption if they are currently taking classes in a higher education institution (United States Courts, n.d.). During peremptory challenge, it is common for prosecutors to exclude younger jury members and defense attorney's to exclude older jurors (Anwar, Bayer, Hjalmarsson, 2013). Both the exemptions and peremptory challenges can create a bias that excludes people at the extreme ends of the age range. This can have an effect on prejudice towards Atheists in the courtroom because people tend to get more religious as they age (Pew Research Center, 2015).

Future Directions

Further research should be conducted on how prejudice against Atheists influences belief in non-religious witnesses. Jury members often weigh the testimony of eyewitnesses in court cases more than other types of evidence (Loftus, 1974; Penrod & Cutler, 1995). Such anti-Atheist prejudice could result in a biased outcome for either the prosecution or defense. Furthermore, there is a lack of research on how prejudice against Atheists may impact conviction rates and harshness of penalties in criminal trials for non-religious defendants facing charges.

Prejudice can impact multiple facets of life for minority individuals. Furthermore, perceptions of trust can create obstacles for secular individuals in more than just the courtroom. Future research should determine how anti-Atheist prejudice influences views of trustworthiness in other contexts where religious affiliation may become apparent (i.e., trust of peers in schools where the pledge of allegiance is recited, peers in a civic meeting who do not engage in an opening prayer, etc.). This could include other contexts in which religious oaths are used such as in the views of fellow peers who affirm rather than swear into the military or public perceptions of officials who swear into government offices.

Conclusions

This study expanded the literature on anti-Atheist prejudice and how it relates to distrust through application in a courtroom context. Religious oaths used to testify in court are a tradition that can expose the religious affiliation of witnesses, defendants, and prosecutors. Reduced trust due to anti-Atheist prejudice in the courtroom can lead to biased verdicts against defendants or prosecutors. Although previous research has found that distrust is anti-Atheist prejudice increases distrust, no difference was found on ratings of believability between Atheist, Christian, and control witnesses.

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APPENDIX A: VIGNETTES

Muslim Vignette

A man is a witness in a criminal court case. This man identifies as Muslim and chooses to take an oath. Before taking the stand to testify, a bailiff holds out a Quran to recite the oath, "If you could place your left hand on the Quran and raise your right hand. Do you swear that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you Allah?" The witness responds, "Yes." and takes the stand.

Prosecutor: Where were you on the night of February 1, 2015?

Witness: At the gas station, just picking up a few things.

Prosecutor: At 3 a.m.?

Witness: Yes.

Prosecutor: Do you know the defendant?

Witness: I have seen him around but I don't know him personally.

Prosecutor: What did you see while you were there?

Witness: I saw the defendant come in and walk up to the counter. He said he had a gun and that he wanted all the money. The defendant looked around and saw me but said nothing. The cashier tried to take his gun when the defendant wasn't looking which was when the defendant fired the gun and ran out.

Atheist Vignette

A man is a witness in a criminal court case. This man identifies as an Atheist and chooses to affirm when sworn in. Before taking the stand to testify, a bailiff begins to recite the affirmation,

"Raise your right hand. Do you swear that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, under pain and punishment of perjury?" The witness responds, "Yes." and takes the stand.

Prosecutor: Where were you on the night of February 1, 2015?

Witness: At the gas station, just picking up a few things.

Prosecutor: At 3 a.m.?

Witness: Yes.

Prosecutor: Do you know the defendant?

Witness: I have seen him around but I don't know him personally.

Prosecutor: What did you see while you were there?

Witness: I saw the defendant come in and walk up to the counter. He said he had a gun and that he wanted all the money. The defendant looked around and saw me but said nothing. The cashier tried to take his gun when the defendant wasn't looking which was when the defendant fired the gun and ran out.

Christian Vignette

A man is a witness in a criminal court case. This man identifies as a Christian and chooses to take an oath. Before taking the stand to testify, a bailiff holds out a Bible to recite the oath, "If you could place your left hand on the Bible and raise your right hand. Do you swear that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you God?" The witness responds, "Yes." and takes the stand.

Prosecutor: Where were you on the night of February 1, 2015?

Witness: At the gas station, just picking up a few things.

Prosecutor: At 3 a.m.?

Witness: Yes.

Prosecutor: Do you know the defendant?

Witness: I have seen him around but I don't know him personally.

Prosecutor: What did you see while you were there?

Witness: I saw the defendant come in and walk up to the counter. He said he had a gun and that he wanted all the money. The defendant looked around and saw me but said nothing. The cashier tried to take his gun when the defendant wasn't looking which was when the defendant fired the gun and ran out.

Control Vignette

A man is a witness in a criminal court case. This man is sworn in by the bailiff before taking the stand to testify.

Prosecutor: Where were you on the night of February 1, 2015?

Witness: At the gas station, just picking up a few things.

Prosecutor: At 3 a.m.?

Witness: Yes.

Prosecutor: Do you know the defendant?

Witness: I have seen him around but I don't know him personally.

Prosecutor: What did you see while you were there?

Witness: I saw the defendant come in and walk up to the counter. He said he had a gun and that he wanted all the money. The defendant looked around and saw me but said nothing. The cashier tried to take his gun when the defendant wasn't looking which was when the defendant fired the gun and ran out.

APPENDIX B: WITNESS EVALUATION SCALE

We will now give you an example of a hypothetical court case transcript and ask you some questions about it. (1=Very likely to 7=Very unlikely)

- 1) How likely are you to believe that the witness was at the gas station at the time of the crime?
- 2) How likely are you to believe the witness' account of the crime is accurate?
- 3) How likely are you to believe the witness was honest?
- 4) How likely are you to believe that the witness fabricated parts of the story?
- 5) How likely are you to believe that the witness is a trustworthy person?
- 6) How likely are you to believe that the witness was an accomplice to the crime?
- 7) How likely are you to believe that the witness lied?
- 8) How likely are you to believe that the witness is reliable?

APPENDIX C: NEGATIVE ATTITUDES TOWARDS ATHEISTS SCALE

For each question, please select the number that best represents the feelings you have towards these scenarios. (1=Strongly agree to 5=Strongly Disagree)

1. I would be uncomfortable with an Atheist teaching my child.
2. I strongly believe that church and state should be kept separate.
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.
7. In times of crisis, I am more inclined to trust people who are religious.

APPENDIX D: ISLAMOPHOBIA SCALE

Please tell me if you think each of these words applies to the Muslim religion. (Yes, Don't Know, or No)

1. Tolerant
2. Closed-Minded
3. Backward
4. Appealing
5. Strange
6. Violent
7. Peace-Loving
8. Fanatical

APPENDIX E: THE THREE DOMAIN DISGUST SCALE

Please indicate your level of disgust with each scenario listed. Using the scale below as a guide, select a number beside each statement to indicate how much you agree with it. (From 0=Not at all disgusting, 4=Moderately disgusting, and up to 8=Extremely disgusting)

1. Accidentally touching someone's bloody cut
2. Sitting next to someone with open red sores on their arm
3. Shaking hands with a stranger who has sweaty palms
4. Stepping in a large pile of dog poop
5. Standing next to someone on the bus who has strong body odor
6. Seeing mold on some leftovers in your refrigerator
7. Seeing someone pick their nose
8. Finding a hair in your food
9. Seeing someone's bone sticking out of their leg
10. Touching a stranger's feet
11. Eating a cracker that has fallen on the ground outside
12. Seeing a 25-year-old man and a 65-year-old woman out on a date
13. Touching a dead body
14. Kissing someone you find physically unattractive
15. Smelling that the milk you are about to drink is slightly spoiled
16. Having sex with someone with Down's syndrome
17. Hearing someone vomit
18. Bringing someone you just met back to your room to have sex knowing you will never see them again
19. Watching pornography
20. An opposite-sex stranger touching your thigh in an elevator
21. Hearing two strangers having sex
22. Walking into a changing room and accidentally seeing someone your age of the opposite sex naked
23. Having anal sex with someone of the opposite sex
24. Having sex in exchange for money
25. Find out that someone you don't like has sexual fantasies about you
26. Going to a nude beach
27. You having sex with a person 30 years older than you
28. Having sex with your sweaty partner after they worked out for an hour
29. Having sex while you (or your partner) have their period
30. A woman terminating her pregnancy
31. Being hit on by an attractive individual of the same sex
32. Stealing bank account information online
33. Forging another person's signature on a legal document
34. A mechanic overcharging elderly people

35. Cutting to the front of the line to purchase the last four tickets of a show
36. A student cheating to get good grades
37. Selling illegal drugs
38. Intentionally lying during a business transaction
39. A business owner making a very high salary but keeping his employees at minimum wage
40. A member of a work group choosing not to contribute
41. Anything but sharing equally in all the benefits
42. Stealing from a neighbor
43. Someone who is addicted to pill drugs
44. Someone who is addicted to IV drugs
45. A parent ignoring their crying child
46. Wishing one's spouse was dead
47. Thinking a cheating on a long-term romantic partner
48. A poor couple selling their child to a rich couple
49. Illegal immigrant workers

APPENDIX F: GROUP TRUST SCALE

Please rate how much you trust each group of people. (1=Distrust, 3=Neutral, 5=Trust).

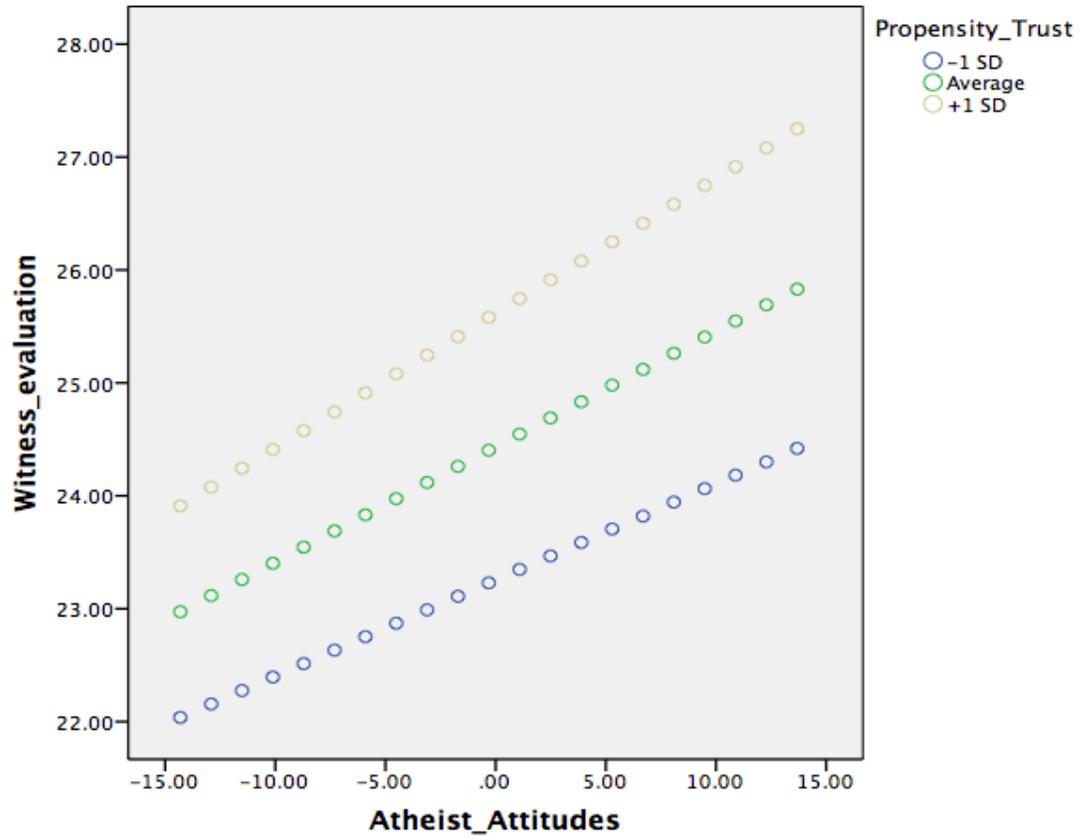
1. Muslim
2. Christian
3. Atheist
4. Jews
5. Republicans
6. Democrats
7. Obese People
8. Police
9. African-Americans
10. Transgender individuals
11. Politicians

APPENDIX G: THE PROPENSITY TO TRUST SCALE

Indicate the degree to which you agree with each statement by using the following scale:
1=Disagree strongly, 2=disagree, 3=Neither agree nor disagree, 4=Agree, and 5=Strongly agree

1. One should be very cautious with strangers.^[1-5]
2. Most experts tell the truth about the limits of their knowledge.
3. Most people can be counted on to do what they say they will do.
4. These days, you must be alert or someone is likely to take advantage of you.^[1-5]
5. Most salespeople are honest in describing their products.^[1-5]
6. Most repair people will not overcharge people who are ignorant of their specialty.^[1-5]
7. Most people answer public opinion polls honestly.
8. Most adults are competent at their jobs.

APPENDIX H: PROPENSITY TO TRUST AS A MODERATOR



APPENDIX I: GROUP TRUST AS A MODERATOR

