Ideological Prejudice Among Religious Fundamentalists and Atheists

by

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Abstract

Numerous religious variables have been linked to a variety of prejudicial attitudes. Much of this research has repurposed measures from the study of ethnic prejudice. Unfortunately, these measures may not always be appropriate as members of religious groups are primarily distinct from each other due to ideological, rather than innate, differences. The goal of this study was to test the possibility that such prejudicial attitudes directed are partially targeted at outgroup teachings, rather than members, by having participants directly evaluate the morality of a sampling of teachings from several religious affiliations, with the authorship of the teachings scrambled to obscure their true sources. Significant relationships were found to influence assessments via either ingroup favoritism or outgroup discrimination. This study offers a versatile and less ambiguous method of assessing prejudice compared to some existing measures. Other novelties included the assessment of atheists and of how personality might play into religious prejudice.

Keywords: Religion, religious fundamentalism, atheism, personality, prejudice

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Colloquial wisdom asserts that religion and morality are inseparable. Research on religion and morality generally asks questions that fall into two broad categories: "Does being religious make people behave better toward others?"; and the counterpart, "Does being religious make people behave worse toward others?" (Bloom, 2012; Galen et al., 2015; Gervais et al., 2011; Graham & Haidt, 2010; Shariff et al., 2016; Shen et al., 2013). These questions are obviously antithetical and, as with any good scientific dichotomy, the answer to both questions appears to be "Yes". This seemingly paradoxical answer is justified by appealing to context; it depends on who is being targeted by the behaviour.

Research on the relationship between religion and morality has examined these questions in such contexts as generosity (Shariff & Norenzayan, 2007; Thomson, 2015), approval of others' actions or thoughts (Cohen & Rozin, 2001; Simpson & Rios, 2017), and prejudicial attitudes (Rowat et al., 2006; Shen et al., 2013). Overall, the common thread seems to be that religion may increase moral behaviour by providing a sense of belonging and solidarity (Thomson, 2015), and this feeling of being part of a community can lead people to behave more altruistically toward people they perceive as being part of that community (Galen et al., 2015). In this way, religious affiliation can help break down ethnic, racial, and national barriers that may otherwise exist; religions are rarely confined to specific ethnicities or cultures and members can come from many different backgrounds. This extended ingroup sentiment can indeed help people to behave better (Bloom, 2012; Graham & Haidt, 2010). Other research has demonstrated a link between life satisfaction and active practice of religion (Ayten & Korkmaz, 2019; Berthold & Ruch, 2014), indicating that these positive feelings can also be inwardly directed.

The positive feelings and actions discussed above are primarily directed toward members of one's ingroup. Ingroups are cohesive social groups that share an identity and are based on mutual traits (Schiller et al., 2014). These traits can be as important as religion or ethnicity, or as trivial as occupation or even random assignment to a group (Everett et al., 2015). Ingroups are juxtaposed with outgroups, which are social groups that an individual is excluded from because they do not share in the salient traits of that group. For instance, to a Catholic, other Catholics are members of their ingroup while Lutherans, Orthodox Jews, and Zen Buddhists all belong to outgroups. Although outgroups may not always be viewed as rivals, it is possible for outgroups to be viewed with either hostile or neutral consideration (Schiller et al., 2014). Members of ingroups typically receive better treatment relative to individuals of unspecified group affiliation or to members of outgroups. This preferential treatment is thought to be the result of a combination of ingroup favouritism—lenient judgements toward peers, such as a tendency to give them the benefit of the doubt in situations that may merit punishment—and outgroup discrimination, in which outgroup members are actively treated more harshly than both ingroup and unaffiliated individuals (Schiller et al., 2014).

Unfortunately, in addition to of breaking down cultural and racial barriers, religious attitudes and affiliations can also create unnecessary artificial barriers, thereby creating a larger set of outgroups than may have existed otherwise (Hall et al., 2010; Simpson & Rios, 2016), which can often be the target of mistrust (Deslandes & Anderson, 2019; Gervais et al., 2011), derogation (Shariff et al., 2016), and even outright prejudice and hatred (Hall et al., 2010; Rowatt et al., 2006). The targets of these attitudes and behaviours can often be people who, aside from religion, have a great deal in common with those who mistreat them and would otherwise be a part of their ingroup.

One example, to be discussed in greater detail, is that religious fundamentalism can be used to predict prejudicial attitudes. High-scoring fundamentalists tend to distrust atheists and homosexuals while low-scoring fundamentalists dislike Catholics or conservatives (Brandt & van Tongeren, 2017). These results illustrate that prejudicial attitudes can be invoked in religious people despite very little information about a target being made available. In certain circumstances, many people display a belief that outgroups, such as atheists or Muslims, do not share their view of their own society (Edgell et al., 2006), demonstrating a willingness to conceive of their community as one at least partially defined by religion. Further, more frequent attendance at religious services is associated with greater feelings of hostility toward religious outgroups (Lynch et al., 2017) including atheists (Edgell et al., 2006), or even greater support of self-destructive violence, such as suicide-bombings, directed at such groups (Ginges et al., 2009). Behaviours or ideologies that violate a person's perception of what their religion allows can categorize another person as an outsider. Consequently, that person is therefore worthy of neither trust nor the same level of social inclusion and generosity as members of their religious ingroup.

Atheism

Atheism constitutes a unique set of impediments to research on religion that, until recently, have been under-examined (Coleman & Jong, 2019; Galen & Kloet, 2011; Schnell, 2015). If atheists are not to be excluded from research on differences between religious perspectives then there are issues surrounding nonbelief that must be confronted. These issues include how to define atheism and how to deal with the influences of social desirability on atheist identification. It is difficult to settle on a comprehensive way to define atheism, that provides a description that is both useful and able to stand up to scrutiny and criticism (Bullivant, 2013). Indeed, Bullivant (2013) pointed out that there

are many ways to define atheism, and although they might vary in their utility, none of them are necessarily wrong. This makes it important for researchers to be clear about which operational definition they are employing, so that readers can avoid confusion.

In its literal meaning, the word "atheist" is simply the Greek for "godless", referring to one who is without a god (Cliteur, 2009). An atheist can therefore be thought of as anyone who lacks a belief that there is a god, and not necessarily one who possesses a belief that there is not one, although both definitions can be classified as atheism (Bullivant, 2013; Cliteur, 2009; Doane & Elliott, 2015). In other words, atheism includes both those who possess a negative view of the existence of a god, and those who are neutral on the question. To clarify this distinction, picture a fence running from west to east with a north and a south side. If one were to categorize people as "anorthists", that is, someone who is not on the north side of the fence, one would have to include both those who stand on the south side and those who sit atop the fence. The important variable is not where one stands, but where one does not stand; it is not necessary to stand on the south side of the fence to be an anorthist because neither the southists nor the fence-sitters are on the north side. From this perspective, "atheist" describes anyone who does not actively believe that a god exists, and, according to this definition, would include many individuals who refer to themselves as "agnostics".

"Agnostic" is often used to describe those individuals who claim not to know whether a god exists or not (Schnell, 2015). The problem with this term is that "I do not know" is not a valid response to all questions that are pertinent to the existence of gods. In terms of the epistemological question, "Is there a god?', "I do not know" answers the query because neither the existence nor non-existence of a god has ever been demonstrated. If, on the other hand, one was to be asked the ontological question "Do you

believe in a god?", it should be clear that "I do not know" is not actually an answer to the question. The verb in that question is "believe"; it is not something one possesses, but something one does. Belief is also binary, in that at any given moment a person either believes or they do not. "I do not know" is an introspective statement about the knowledge of one's own belief (or lack thereof), not a description of the stance itself. Failing to come up with a clear response is simply another way of not actively believing.

The problem with arguing that agnosticism is a fully distinct category is that the epistemologically agnostic stance is not mutually exclusive from the ontologically theistic or atheistic stances; it is perfectly acceptable for a person to say, "I do not know if there is a god" while also saying "…but I do not believe that there is one." Further, it is also possible for a person to consider themselves to be a believer, without taking a firm stance on the epistemological existence of god(s); this person would also be an agnostic, but they would be theistic, rather than atheistic. Accordingly, agnosticism can be thought of as statement about the confidence or certainty one has in one's belief, and not a belief-stance in itself.

According to this line of reasoning, the next question one must ask is when and where is it important to distinguish between agnostic atheists and other sorts of nonbelievers. For the most part, ontological questions focused on the content of belief rather than knowledge or behaviours have no need to separate agnostics from atheists of greater conviction, as both would provide the same negative response to the belief question. That being the case, the fact that many agnostic nonbelievers seem to think that they are not atheists demands an explanation. Apart from the possibility that the difference between the epistemological and ontological questions is not well-understood by a lay audience, it seems likely that this misunderstanding stems from the

stigmatization of the term “atheist” (Edgell et al., 2006), and the desire of the responder not to have the stereotypes that they have or are aware of about atheists applied to themselves (Grove et al., 2020; Kossowska et al., 2017; Mackey et al., 2021; Rios et al. 2021).

Anti-atheist prejudice is a well-documented phenomenon dating back almost two decades (Edgell et al., 2006). Among Americans, when compared to other religious perspectives and ethnicities, atheists are the least approved-of affiliation group (Edgell et al., 2006), with between 39.6 and 47.6% of respondents expressing outright disapproval of atheists, whether by rejecting them as fellow Americans or as potential spouses for their children. In the same study, the disapproval of Muslims—the next-least approved-of group—was substantially lower, with disapproval indicated by 26.3 to 33.5% of respondents. Gervais et al. (2011) found that atheists were considered less likely to be trustworthy than other religious groups, and approximately as likely to be engaged in untrustworthy behaviour as are rapists. Grove et al. (2020) revealed that distrust of atheists persists even when they are presented as having desirable attributes normally ascribed to other groups, implying that the qualities that atheists actually possess are irrelevant to how they are perceived. This may be an example of subtyping, wherein individuals that belie stereotypes about their group are dismissed as exceptions, thereby preserving the preconceived notions held of that population (Richards & Hewstone, 2001). Atheists can also experience discrimination in the workplace (Rios et al., 2021), showing that there are real-life consequences to negative attitudes about them.

The source of these attitudes has been variously attributed to beliefs that theists have about the nature of morality that are inherently violated by atheists (Simpson et al., 2017), beliefs about how atheists view morality (Simpson & Rios, 2016; Simpson et al.,

2016), and reactions to a perceived threat posed by atheists (Kossowska et al., 2017; Rios et al., 2021). Theists with a strong conviction that belief in a god is necessary for morality have a strong tendency toward anti-atheist prejudice (r = .84; Simpson et al., 2016). Theists who believe that atheists do not value the harm/care foundation of morality (see Graham & Haidt, 2010) are more likely to have negative attitudes toward atheists (Simpson & Rios, 2016). Atheist employees are less likely to be given accommodation to express their beliefs than other minorities on the grounds that doing so would cause both economic and interpersonal problems (Rios et al., 2021). Expression of prejudicial attitudes toward atheists has been shown to decrease threat-reaction (e.g., heart rate) in orthodox believers (Kossowska et al., 2017). In summary, atheists are often seen stereotypically as untrustworthy, unsuitable spouses with no basis for morality, and no desire to have strong moral convictions, who pose a variety of threats to those around them.

The ubiquity of anti-atheist prejudice is a plausible explanation for the reluctance of agnostics to identify as atheists, despite the fact that the term may accurately describe what they actually believe (Doane & Elliott, 2015; Gervais & Najle, 2018, Mackey et al., 2021). It is possible that when an individual who claims to be agnostic sees the word "atheist" on a demographics form and thinks of all the stereotypes that they have or have heard of about atheists, they may decide (consciously or subconsciously) that those stereotypes do not describe them and decide to check a different box. This phenomenon would create a distinction without a difference, leading to an artificial separation of one group into two; self-described agnostics could think that they are different from atheists because they feel that these negative stereotypes are not personally relevant and yet they fail to realize that the stereotypes do not actually describe atheists either, and thus the

perceived differences are not real. Alternatively, they may be aware that they are atheists, but not wish to have the stereotypes associated with the term applied to them by others. In support of these arguments, Mackey et al. (2021) found that many nonbelievers who refer to themselves as atheists in private settings avoid the label, or even the topic, in public. The existence of this closeted behaviour is greatly reinforced by Gervais and Najle (2018), who reported that when socially desirable responses are accounted for, population estimates of atheists increase dramatically, shifting from self-report polling counts of 3% to 11% (Gallup, 2015; Pew, 2015) to a high degree of certainty that the actual number falls between 17% and 35%, with 26% as the most credible estimate within the US population.

This study attempted to overcome this difficulty in identifying atheists by avoiding reliance on self-reported affiliation. Rather than only asking how participants label themselves, participants were directly asked whether they believe that a god exists. Participants who responded with either “No” or “I don’t know” were grouped together as atheists. A subsequent question established participants’ confidence in their position on a god’s existence, allowing for the possibility that self-described agnostics might differ from other atheists in ways other than content of belief. This approach was designed to help ameliorate the problem with underreporting that appears when employing only direct labels like “atheist” or “agnostic” (Gervais & Najle, 2018; Kosmin & Keysar, 2009; Mackey et al., 2021). Similar questions have shown potential results in a Canadian sample of approximately 41% of respondents saying that they do not believe in a god (Maru, 2020).

Religious Fundamentalism and Prejudice

Religious fundamentalism describes a constellation of positions that one can hold regarding the superiority of their religion (Altemeyer & Hunsberger, 1992). These positions include that one's own religion preaches God's true teachings to the exclusion of other traditions, that these teachings are not to be changed in any way, and that the followers of these teachings are closer to God than all others (Altemeyer & Hunsberger, 1992). Rather than a belief in and of itself, fundamentalism is better conceptualized as an attitude about one's beliefs. A similar, but distinct, quality to religious fundamentalism is dogmatism, which is defined as "relatively unchangeable, unjustified certainty" (Altemeyer, 2002) in one's worldview or beliefs. This certainty is generally unmoved by new information that contradicts the held beliefs or shows that the held beliefs are unlikely to be true; for example, Altemeyer (1996) found that highly dogmatic participants' hostility toward homosexuals did not shift when presented with evidence that sexual orientation is influenced by biology, whereas participants with low dogmatism scores had substantial decreases in their hostility. High dogmatism is also associated with an unwillingness to gather new information when faced with a decision (Schulz et al., 2020), likely under the assumption that since one's beliefs are already correct, new information will not be helpful.

There are two major distinctions between religious fundamentalism and dogmatism. First, fundamentalism focuses on a sense of superiority derived from being more right than others, whereas dogmatism reflects an irrational degree of confidence that one is right in the first place. Second, religious fundamentalism is specifically about religious stances, as the beliefs that come out of it are founded in the conviction that closeness to God is the source of one's superiority, but dogmatism can exist in relation to

any number of belief systems and opinions, such as political, moral, scientific, or social beliefs. Although these concepts are clearly related, they nonetheless deal with divergent mentalities, and while dogmatism is certainly an important subject of research, it is not the focus of the present study.

Religious fundamentalism has been linked to higher levels of several prejudicial attitudes; surprisingly, both low and high scores can be linked with prejudice (Brandt & van Tongeren, 2017). What differentiates low and high fundamentalists is the target of their prejudice. Brandt and van Tongeren assessed how religious participants in the United States felt about various groups that could be the target of prejudice. Highly fundamentalist participants tended to have the most negative feelings about atheists, homosexuals, liberals, and feminists. Low-scoring fundamentalists, on the other hand, felt most negatively about Catholics, Tea Party members (a far-right political party in the US), conservatives, and Christians. These results reveal that fundamentalism has no absolute effect on prejudicial attitudes; instead, a person's fundamentalism score on the high-low continuum can predict changes in the target of their prejudicial attitudes.

High fundamentalism scores have also been linked to several politically conservative variables, including foreign policy conservatism (Harnish et al., 2018), right-wing authoritarianism (Altemeyer & Hunsberger, 2004), and hostility toward homosexuals (Cunningham & Melton, 2013). Christian nationalism—the belief that one's country is inherently Christian and that this should be reflected in public policies and actions—has been found to predict support for conservative candidates, in tandem with xenophobia and Islamophobia (Baker et al., 2020), Christian nationalism has also been linked to anti-immigrant attitudes (Al-Kire et al., 2021)—depending on the race of the

nationalist (Perry et al., 2024)—and with xenophobia surrounding the COVID-19 pandemic and its origins (Perry et al., 2021).

Comparing these associations with the pattern revealed by Brandt and van Tongeren (2017) lends credence to the *religious values conflict model* as an explanation for fundamentalism's relationship to prejudice. This model predicts that both religious and nonreligious people will be prejudiced not because of specific directives to do so, but because people tend to like others who are similar to and dislike those who are different from themselves. Based on this model, politically conservative religious fundamentalists dislike homosexuals, feminists, liberals, and atheists because they perceive these groups as unlike themselves and therefore potentially threatening, and not because there is a religious or conservative doctrine that says that people should not trust these groups. This perception, ironically, is something with which these liberal, non-fundamentalist targets concur, as they distrust conservative groups for much the same reason. In this case, the similarities come from mutually-endorsed ideas and values, while the differences come from adherence to different ideas on what is best for society.

In the context of the religious values conflict model, an important detail to note about the prejudicial targets of low and high fundamentalists (Brandt & van Tongeren, 2017) is that although both groups had negative ratings of those they perceived as being different from themselves, this perception of difference was not based on any ethnic or innate dissimilarities. High-scoring fundamentalists tend to be more politically conservative and believe that the targets of their negative feelings—atheists, homosexuals, liberals, and feminists—had different ideas and behaviours than those that they valued. Accordingly, low fundamentalists had more negative feelings toward groups that were ideologically antithetical to them. Thus, although religious fundamentalism

predicts prejudice, it does so based on ideological differences and not ethnic ones. In support of the non-ethnic basis of religious fundamentalism's relationship to prejudice, Brandt and van Tongeren (2017) also examined possible racial biases (against Hispanics, African Americans, Whites, etc.) and reported that feelings toward different groups clustered around neutral for all comparison groups.

The absence of an influence of fundamentalism on ethnic bias is not surprising; although there are always exceptions, few religions are confined to a specific ethnicity, and most are least open to the idea of members of different races becoming members (Oxtoby & Segal, 2007). There is, in other words, little reason for fundamentalists of nearly any religion to view members of a different race as being substantially different from them, at least as far as religion is concerned. This is perhaps best exemplified by the observation that positive religious correlations with racism have grown weaker over time (Hall et al., 2010); in the United States, from 1964 to 2008, many ethnic minorities were gaining in social status and, during the same period, religious racism among whites was getting weaker. In the absence of a religious reformation, this trend would not be expected if ethnic prejudices were the result of specific instructions to devalue particular groups; the groups involved would continue to be looked down upon regardless of their integration, because that is what the doctrines are directing their followers to do. Instead, the pattern implies that as visual minorities integrated in society, it became harder to classify them as different due to diminished perceptions about the breadth of the gulf between their thoughts and actions and those of more mainstream groups. It was not the perception of their ethnicities, but the perception of these groups as having different, religion-violating behaviours and ideas that changed.

To summarize, fundamentalism is able to predict shifts in the targets of prejudicial attitudes; these target groups differ from those of the perceiver primarily on the basis of ideological discrepancies rather than ethnic ones, and what relationships have been found between fundamentalism and ethnic prejudice have been small and have shrunk over time. These findings can be combined to yield the supposition that religious fundamentalism contributes to prejudice or distrust based on perceived ideological or behavioural differences that are not innate to the target of the prejudicial attitude. It could be the case, therefore, that investigations would best be conducted by examining how fundamentalists feel about specific ideas, rather than the people who hold them. The current study sought to accomplish this by having participants rate the morality of the teachings of their own and other religious traditions, under the presumption that high fundamentalism would be associated with more positive moral evaluations of religious texts that participants believed were drawn from their own tradition compared to those from another, with the least favorable evaluations being awarded to those traditions that are perceived as least similar to their personal religion.

Atheism and Fundamentalism

Although a cursory internet search reveals many blogs and opinion articles accusing atheists of fundamentalism, strictly speaking it is not possible for an atheist to be fundamentalist. In psychological research, fundamentalism's best-received and supported definition is provided by Altemeyer and Hunsberger's (1992) widely used *Religious Fundamentalism Scale* (RFS), which has seen exceptional validation in its revised form (RFS-R; Altemeyer & Hunsberger, 2004) including a Cronbach's α of .91 in a student population and strong correlations with related constructs such as right-wing authoritarianism (r = .79), belief in creation science (r = .77), dogmatism (r = .75), and

religious ethnocentrism (r = .71; Altemeyer & Hunsberger, 2004). The provided definition is heavily dependent upon how the participant feels about religious texts. Specifically, a highly fundamentalist person believes that the texts of their religion contain essential truths about reality and that adhering to these truths is necessary for happiness and salvation. Moreover, these texts are specifically held to be superior because they are sourced from the religion's god. Atheism, apart from not having a set of sacred texts to uphold, is the explicit negation of those beliefs and attitudes. Indeed, atheism, as previously defined, is characterized by what one does *not* believe and thus cannot be associated with a specific set of beliefs; although there are books written by atheists and about atheism, there is no established set of scriptures to which one must adhere to be considered an atheist. In other words, there is no atheist equivalent to The Bible or The Quran to which an atheist can cleave, and that is what would be necessary for them to exhibit true fundamentalism. In the absence of such a scripture, there simply is no way for one atheist to be more or less fundamentalist than the next, rendering the descriptor meaningless. None of this, of course, is to say that an atheist cannot be over-confident or closed-minded or belligerent, but to use "fundamentalism" to describe this would be a misnomer.

The problem of how to deal with atheist participants who cannot be placed on the fundamentalism spectrum seems difficult at first; if it does not make sense to ask atheists about fundamentalist attitudes, it seems impossible for researchers to make predictions about them when trying to examine such positions. Rather than simply ignoring or disqualifying atheists, there may be reason to think that, regarding certain prejudicial attitudes, atheists and low-scoring fundamentalists may follow similar trends. Uzarevic et al. (2019) found that atheists, compared with Christians, showed greater dislike for

antigay activists, religious fundamentalists, and Catholics. According to Brandt and van Tongeren (2017), the targets of these attitudes are similar to those reported by low fundamentalists, which included Catholics, Christians, Tea Party members, and conservatives, the latter two likely including many antigay activists and religious fundamentalists. The similarity between these two lists justifies a prediction that although atheists cannot be placed on a fundamentalism distribution, they may nonetheless adhere to prejudicial trends similar to those exhibited by low fundamentalists.

Personality, Prejudice, and Religion

Personality-based variables have been extensively used as a means of uncovering patterns in those who hold prejudicial beliefs (Carlson et al., 2019; Sibley & Duckitt, 2008). The most commonly used framework is the Five Factor or Big Five model (Costa & McCrae, 1992), which includes the factors openness to experience (open-mindedness), conscientiousness, extraversion, agreeableness, and neuroticism (negative emotionality). Openness describes one's propensity toward high levels of imagination, curiosity, creativity, and so on. Conscientiousness deals with ambition, work-ethic, and attention to detail. Extraversion measures assertiveness, excitement seeking, and social gregariousness. Agreeableness includes traits such as trust, generosity, leniency, and friendliness. Neuroticism covers emotional instability and negative affect. These dimensions have been consistently found to be broadly descriptive and independent of each other (Costa & McCrae, 1992; Sibley & Duckitt, 2008).

The Big Five factors have been used to assess a variety of personal and interpersonal psychometrics. For example, satisfaction with life has moderate positive correlations with extraversion and conscientiousness and a negative correlation with neuroticism (Hayes & Joseph, 2002). Sibley and Duckitt (2008) found that of these

factors, both low openness and low agreeableness had moderate meta-analytical correlations with prejudicial attitudes, and this trend has been consistently found until recently, as new findings have altered the perception of openness's relationship to prejudice (Crawford & Brandt, 2019; Koehn, et al., 2019).

Sibley and Duckitt (2008) hypothesized that openness to experience would have an inverse relationship with prejudice because individuals who have low scores on openness prefer normativity and conformity, find comfort in the existing social order, and perceive outgroups as a threat to the values and norms of their worldview. These individuals should also exhibit a preference for clear, unambiguous rules and morals, and thus they might be wary of ideologies that muddle such rules. In their meta-analysis that included more than 70 studies, Sibley and Duckitt reported a moderate negative correlation between openness and prejudice ($r = -.30$, $p < .05$) and concluded that low openness is associated with a general propensity toward prejudice.

Crawford and Brandt (2019) offered a compelling critique of this assertion. Research on prejudice has almost exclusively examined attitudes and behaviours directed at what one might call "liberal" targets such as racial minorities, homosexuals, and other disadvantaged groups (Crawford & Brandt, 2019). Although it could be argued that there is good reason to prioritize prejudice targeted at these demographics, Crawford and Brandt argued that focusing on only one end of what are clearly spectra is inconsistent with accepted definitions of prejudice, which they claimed is best described as a tendency toward making "a negative evaluation of a group or of an individual on the basis of group membership" (Crandall et al., 2002, p. 359). Therefore, they wanted to examine whether the established relationships between the Big Five personality factors and prejudice also held for conservative, high-status, or advantaged groups. When presenting their

participants with a heterogenous assortment of potential targets of prejudice, Crawford and Brandt found that the perceived ideology of the target moderated the relationship between openness and prejudice such that low openness was associated with greater prejudice toward liberal targets, and high openness predicted greater prejudice toward conservative targets. Koehn et al. (2019) also found that openness was not universally linked with prejudice; when other personality traits were controlled, openness was unable to predict cognitive prejudice (what beliefs and attitudes participants have about multicultural issues) but the relationship between openness and affective prejudice (how participants feel about close personal interactions with a particular group) was maintained. Thus, low openness was not reflective of a generalized tendency to be prejudiced, which conflicts with Sibley and Duckitt's (2008) conclusion that low openness predicted prejudice in all cases.

In Sibley and Duckitt's (2008) meta-analysis agreeableness was also negatively correlated with prejudice ($r = -.22$, $p < .05$). Unlike openness, this relationship has been consistently found across target groups (Crawford & Brandt, 2019; Koehn et al., 2019), even when controlling for ideology and other potential confounds. There is some disagreement, however, concerning how these results should be interpreted. Sibley and Duckitt (2008) reasoned that people with low agreeableness may be more ruthless in pursuing their own interests, leading to a limited concern for those who cannot help them get what they want. They may also be more sensitive to signals of resource scarcity, making it easier to perceive outgroups as a threat to their own group in a competitive situation. On the other hand, Crawford and Brandt (2019) cautioned that the relationship between low agreeableness and measures of prejudice might not be reflective of what is normally considered prejudice, that is, a negative judgement based on group membership.

People with low agreeableness scores express a disliking for low- and high-status groups, advantaged and disadvantaged groups, and liberal and conservative groups. The strength of these relationships is consistent across several spectra, which could mean that people with low agreeableness do not take group membership into account when making judgements and forming opinions. If prejudice is a tendency to make negative judgments based on group membership, and people who report low agreeableness do not care about group membership and simply tend to dislike everybody, it may not be fair to refer to this tendency as a disposition toward prejudice. As unsatisfying as it may be to say, further study is needed to see if research can corroborate these speculations.

For now, it may be tentatively asserted that the current personality profile of people with a tendency toward prejudice includes low levels of agreeableness in all circumstances, as well as low openness in the case of the traditional liberal targets and high openness for conservative targets. Other research (Ekehammar & Akrami, 2007) has explored which facets of these personality factors are the strongest predictors of prejudicial attitudes and has found that nearly all of the facets of both openness and agreeableness have independent moderate correlations with generalized prejudice, with values and tender-mindedness (meaning empathy or understanding) respectively claiming the strongest links. It should be noted that the generalized prejudice construct used in that work did not incorporate prejudice based on religious differences.

Given the ubiquity of personality measures in prejudice research and in psychological research in general, it is surprising to see that there has been very little research directly examining how personality might influence the relationship between religion and prejudice. Indeed, I could find only one study that incorporated all three of these variables. Carlson et al. (2019) found that Big 5 personality factors explained 15%

of the variance in prejudicial attitudes toward Syrian refugees, with high levels of agreeableness and openness being associated with lower levels of prejudice; extraversion and conscientiousness had small positive associations with prejudicial attitudes. Religious orientation—how religion impacts a person's life—predicted an additional 2.5% of the variance on top of personality, with extrinsic orientation—pursuit of faith for personal gain—representing the strongest correlation with prejudice. Intrinsic orientation, in which one's life finds meaning from faith and views religion as an end in itself, had a weak positive relationship with prejudice, while quest orientation, which is an open, questioning approach to how religious beliefs are held, had a weak negative correlation to prejudice toward refugees. This study relied on explicit measures of prejudice by directly asking how participants felt toward certain groups including refugees in general and Syrians in particular. Although this information is certainly useful, the authors themselves admit that the attitudes found may have been stronger or different had they employed more subtle measures in assessing these attitudes.

It has been well documented that certain religious variables have small-to-moderate correlations with various measures of prejudicial attitudes. Beliefs about the necessity of a god or religion as a foundation for morality have been linked to prejudice toward atheists (Simpson et al., 2016) and Christian nationalism is strongly related to xenophobic fears of outsiders (Baker et al., 2020). Religious belief has been found to correlate with racism (Hall et al., 2010), although these correlations are small and have decreased over time. Low religious fundamentalism is linked with prejudice toward conservative targets, whereas high fundamentalism is associated with prejudice toward liberal groups (Brandt & van Tongeren, 2017). Although the previous lack of consideration for personality in this field makes prediction difficult when incorporating

personality variables, there are still grounds for such hypothesizing. Bearing in mind that the majority of research in these areas has examined prejudice directed at liberal groups, an astute reader may notice that the magnitude of the relationship between fundamentalism and prejudice is almost identical to the relationship that openness has with prejudice – only the direction is different. Openness also has been found to have a moderate negative correlation with religious fundamentalism (r = -.38, p < .01, Carlucci et al., 2011). High Openness is known to be associated with low fundamentalism and with lower prejudice toward socially liberal targets, and thus was predicted to have an inverse correlation with the size of the gap between the moral assessment of other's religious teachings compared to one's own. Carlucci et al. found no link between agreeableness and fundamentalism. Given that the relationship between agreeableness and prejudice is ambivalent about ideological differences in the target of the attitudes, it seems unlikely that fundamentalism would impact this interplay. Low agreeableness was therefore also expected to predict smaller gaps between ratings of ingroup and other traditions' passages.

Prejudice Toward Ideas, Using Texts as Proxies

The current study is an early step in exploring the possibility that prejudicial attitudes toward religious outgroups can be least partially explained as stemming from a more specific disdain for the ideas associated with those outgroups, rather than being solely focused on members of specific groups. As such, this study attempted to directly measure how atheists or the members of a given religious group view the teachings of other groups. The employed method is uniquely suited to measuring prejudicial attitudes emerging from unfamiliarity since a participant who provided a negative view of the

teachings of an outgroup was unlikely to have done so because of a thorough examination of their texts, as the teachings presented were not all attributed to the proper source.

The inspiration for this method was drawn from political research on framing effects, wherein the manner of presentation and emphasis that a communicator bestows upon a given political issue can alter the public perception of the issue (Slothus & de Vreese, 2010). Of particular interest was the evidence that the affiliation of the communicator can interact with that of the listening citizen to produce a stronger reaction to an issue. For example, Slothuus and de Vreese (2010) found that when Danish citizens were presented an issue frame by a party that they support, they responded more favourably than they did to the identical frame presented by a different party. It is important to note that in this study the content was identical, but the source was different. Further, this partisan bias was stronger among those citizens who were the most politically aware, meaning that those who spend the most time thinking about their feelings toward public policy actually made greater use of the heuristic of party-source when appraising a new policy than did those who pay less attention to politics. This finding corroborates other research arguing that those with weak or uninformed attitudes simply lack the motivation required to mount a defense of their attitudes, leading to less bias in processing new arguments or in applying personal preference to public policy (Taber & Lodge, 2006). Finally, Slothuus and de Vreese also found that partisan bias plays a larger role in issues where there is conflict between parties compared to consensus issues.

Other political research has indicated that party identification can be more stable and enduring than core political values and that new information is parsed in such a way as to support the conclusion endorsed by one's party (Goren, 2005). These results indicate

that a community identification, when highly valued, can take precedent over the actual contents of beliefs when passing judgment of a presented idea. Finally, further research has found that attitude polarization—the phenomenon of strong attitudes becoming more extreme on contact with pro and con arguments—is largely the product of both a confirmation bias and a disconfirmation bias (Taber & Lodge, 2006). This means that polarization is propped up by a propensity to uncritically accept evidence that supports one's position while interrogating disconfirming evidence, as well as to spend more effort finding supporting evidence over detracting arguments. These biases were stronger among those who had stronger attitudes and higher levels of political sophistication going into the study.

To summarize, Slothuus and de Vreese (2010) found that the strongest impact of framing on a citizen's assessment of a policy is that provided on a controversial subject, by an already-liked source, to an audience that cares deeply about the category into which the subject falls. Group identification, in the form of partisan stance, can be relied upon over actual values to evaluate an idea's worth (Goren, 2005). Lastly, the stronger one's prior attitude is, the more likely one is to devalue an idea from an incongruent viewpoint, contributing to a yet stronger attitude, without a fair assessment of the new idea's substance (Taber & Lodge, 2006).

It is possible to draw theoretical parallels between these political constructs and many religious variables. Partisan identification can be considered synonymous with religious and denominational affiliation. Those who are particularly susceptible to political biases happen to be those with the strongest prior attitudes and are therefore analogous to religious fundamentalists, who are known to be less open than others (Bartoszuk & Deal, 2016; Saroglou, 2010). In this scenario, policy preferences become

supported teachings and passages from religious or atheist texts, while the sources change from party representatives to the religious books and authors. In this way it is possible to utilize similar designs to assess how atheists and religious people, particularly fundamentalists, feel about the ideas of other religious groups.

To take this comparison a little further, the analogous arrangement would show that a person's evaluation of a passage would depend upon their affiliation, the strength of their existing attitudes, how contentious the subject matter covered by the passage (but not necessarily the conclusions about that subject contained therein), and of course the source of the passage. In the current study, passages taken from different religious texts—namely, the Bible (Christian), the Quran (Muslim), and the Bhagavad Gita (Hindu)—and the writings of Bertrand Russell (atheist) were randomly presented to participants but the source of some of the passages was manipulated. For example, participants may have been presented with a Biblical passage but told it was from the Quran. Passages were presented in four clusters of four passages apiece. Each cluster was attributed to a different source but contained one passage from each of the four sources. The specific passage from each source was randomly selected from a pre-constructed pool of eligible passages (see Appendix A for complete passages). After reading each passage participants were asked to rate its morality. It was expected that participants would rate the passages that were presented as being from their own affiliation's teachings as more moral than others, regardless of the actual source, and that this trend would be strongest for those with the highest fundamentalism scores.

Choosing moral evaluations of teachings, rather than evaluating some other aspect of the texts, serves as a proxy for prejudicial attitudes for several reasons. First, one known reason for religiously motivated prejudice is the assumption that members of other

groups are less moral than are members of one's own affiliation (Simpson & Rios, 2016; Simpson et al., 2016; Simpson & Rios, 2017). Second, because the passages were selected from differing sources, a tendency to consistently rate highly the passages attributed to a given source cannot be reflective of a thorough examination of the text that led to a genuinely thought-out conclusion about its contents. For example, if the most confident atheists rated passages attributed to atheist philosopher Bertrand Russell as being on average more moral than those presented as Christian, Muslim, or Hindu writings, it could not be the result of an actual moral superiority of Russell's teachings, as those atheists would have read a random set of passages, some of which were taken from each of those religious groups. This is also true for members of each of those religions; a pattern of biased moral ratings cannot follow from the actual moral value of a text if the presented passages were drawn from discrepant sources. It follows that any such biased trends that emerged would be due to preconceived opinions about the claimed source of the passages, as that was the only constant across participants. The previously provided definition of prejudice, negative judgements of a group or individual stemming from group membership (Crandall et al., 2002), can be tweaked to account for these trends, as the same phenomenon is occurring, just with ideas in the form of quoted passages as the target instead of individuals. Negative assessments of ideas on no possible grounds other than their attribution to a certain outgroup may be thought of as a form of prejudice.

Purpose of the Current Study

To summarize, "atheist" is a loaded term, and it should not be relied upon to identify those whom it describes (Kosmin & Keysar, 2009; Mackey et al., 2021). If atheists are not to be mischaracterized or excluded from research on religious stances, methods must account for the social desirability issues with the term (Gervais & Najle,

2018). Although personality has been thoroughly examined as a predictor of prejudice, no previous study has examined how personality might play into religious prejudicial attitudes. Both high and low scoring fundamentalists as well as atheists have been found to endorse prejudicial views (Brandt & van Tongeren, 2017; Uzarevic et al., 2019). The outgroups targeted by these attitudes are distinct from the ingroup on the basis of ideological differences and not ethnic or innate ones; methods should acknowledge this and seek to ask questions that assess perceptions of the ideas that define these groups.

This study is meant to serve as an example for addressing the social desirability issues surrounding atheism by identifying atheists via a direct query into participants' belief in the existence of a god and using confidence in this position to differentiate among atheists. Using the personality traits agreeableness and openness to assess moral ratings will help close some of the gaps in the personality literature. The passage clusters presented to participants for moral assessment allowed for a direct measure of prejudicial attitudes toward the ideas of the associated outgroups, thereby offering a more appropriate method of inquiry.

Hypotheses

This study's hypotheses focus on how religious fundamentalism and atheism, the strength of one's position on the existence of gods, religious service attendance, and personality might affect the pattern of participants' ratings of the morality of the passages presented to them. In this study, participants rated passages on a scale ranging from extremely immoral to extremely moral, and the totaled ratings of each cluster (Christian, Muslim, Hindu, and atheist) were used as the dependent variables. A "gap" refers to the difference between the sum-total of the ratings given to the cluster presented as being authored by a participant's ingroup compared to that of the cluster that received their

lowest rating. Utilizing ingroup scores allows participants of differing affiliations to be examined together, and relying on participants' lowest-rated group means that the group that is most likely to be the target of a given participants' prejudicial attitudes can be included for each participant, regardless of target variation between participants. The core assumption behind most of these hypotheses was that a consistent difference in gap sizes between groups is enough to establish that a given cohort is exhibiting prejudice, as this difference is not the product of consistent discrepancies in the morality of the passages.

As stated earlier, the two primary vectors by which prejudicial attitudes emerge are ingroup favoritism and outgroup discrimination (Schiller et al. 2014). The former involves unduly positive treatment of ingroup members, and the latter is needlessly harsh treatment of outgroup members. Differences in the ratings given to ingroup clusters were thought to offer insight into which of these mechanisms is being activated in a given instance. When coupled with a significant correlation with increased gap size, a correlation with higher ingroup ratings was interpreted as reflective of ingroup favoritism; ingroup passages were being rated as morally superior despite the absence of a consistent difference in content with the outgroup passage clusters. Conversely, the absence of a correlation with ingroup ratings meant that the discrepancy in moral ratings between groups must have been the result of more negative ratings of outgroup passages, and was therefore interpreted as outgroup discrimination.

1) Ratings of a passage cluster's morality were expected to be highest when the cluster is presented as being drawn from the teachings of the denomination of

which the participant is a member. For example, Christians would rate the presented as Biblical as the most moral.

2) When a passage cluster was presented as being quoted from the group that is most dissimilar to that of the participant, the ratings of morality were expected to be the lowest. For example, Christians were expected to rate the atheist cluster as lowest. In fact, the atheist cluster is considered to be the least similar to all three of the religious clusters and therefore I anticipated atheist passages to be the lowest-ranked grouping for any other religions as well. For atheist participants, as all religions are technically equal in their contents' dissimilarity to that of atheism, there was no prediction about which religious writing would be ranked lowest.
3) The gap between the ratings of one's own teachings and the teachings from the lowest-rated group was expected to be larger for participants with high levels of religious fundamentalism compared to atheists or those with low levels of religious fundamentalism.
4) The gap between the ratings of one's own teachings and the teachings from the lowest-rated group were expected to be larger for participants with low openness. Although high openness has been linked to prejudice toward conservative targets (Crawford & Brandt, 2019), passages alone were thought to be insufficient to cue images of such believers in the minds of highly open participants. In other words, merely presenting a passage from someone else's religion provides no information on how that passage is interpreted, and therefore would not reliably evoke thoughts of the fundamentalist believers that are typically targeted by the prejudicial attitudes of highly open people. Conversely, those with low openness do not seem to care about how outsiders interpret their beliefs, and only seem to

be wary of the fact that outsiders believe differently than they do. For this reason, no predictions were made about participants with high openness scores, as the design only presents participants with information about *what* is believed by other groups, and not about how those beliefs are interpreted by individual believers.

5) The gap between the ratings of one's own teachings and the teachings from the lowest-rated group were expected to be larger for participants with low agreeableness. This would replicate previous findings that indicate that those with low agreeableness tend to dislike anyone unlike themselves (Crawford & Brandt, 2019; Sibley & Duckitt, 2008).
6) The gap between the ratings of one's own teachings and the teachings from the lowest-rated group were expected to be larger for participants with greater confidence in their position on the existence of gods.
7) Confidence in one's position on the existence of a god, religious fundamentalism, and frequency of religious service attendance would be positively associated with a higher average moral rating of one's own cluster. It was thought that these variables are reflective of a stronger identification with one's religious affiliation, meaning that the teachings of their group might be considered to be more important for their identity.
8) For participants that identify as religious, frequency of religious service attendance will be positively associated with satisfaction with life after controlling for physical wellness (Speed & Lamont, 2021). This would replicate previous findings (Ayten & Korkmaz, 2019; Berthold & Ruch, 2014).

Method

Participants

After all conditioning and exclusion criteria were considered, the final sample included 418 participants (see Table 1 for a breakdown of demographics). The sample had a mean age of 29.86 years (*SD* = 11.72), and most of these participants women (55.3%), white (74.9%), either American (48.3%) or Canadian (41.9%), and either Christian (36.2%) or atheist (42.8%). The proportion of atheists in the current sample was considerably higher than even Gervais and Najle's (2018) and supports the view that reducing social desirability leads to more people reporting that they are atheist; Gervais and Najle reported that between 17% and 35% of the general population are atheists. There are at least three explanations for this discrepancy. First, and probably most significantly, during the recruiting process for this study, a variety of social media groups were contacted asking them to allow a recruitment post to be added to their pages; of the explicitly religious-oriented groups that were approached, only an atheist group allowed the post to be made. This obviously meant that a greater proportion of atheists were exposed to the study than were other groups. The second explanation is that this study deliberately defines atheism in the broadest possible terms; participants had only to indicate that they did not actively believe in a deity in order to be considered atheists, which likely led to a higher number than simply asking people if they were atheist. Finally, the sample was relatively young, and young people are more secular than the general population. Unfortunately, aside from Christians and atheists, no religious affiliation had enough participants to reach the statistical power required to be treated separately in the analyses.

Table 1

Demographics

	n	%
Religious affiliation		
Atheist	179	42.8
Christian	151	36.2
Catholic	45	10.8
Non-Catholic/unspecified	106	25.4
Muslim	21	5
Deist	33	7.9
Hindu	14	3.3
Other/Multiple affiliations	11	2.6
Unspecified	9	2.2
Sex		
Male	178	42.6
Female	232	55.5
Intersex	4	1
Prefer not to say	4	1
Gender		
Man	173	41.4
Woman	231	55.3
Other	14	3.3
Race		
White	313	74.9
Black	11	2.6
Asian	21	5
Latin/Hispanic	35	8.4
Indigenous	3	0.7
Multiracial	6	1.4
Other	8	2
Unspecified	11	2.6
Missing	10	2.4
Nationality (self-identified)		
American	202	48.3
Canadian	175	41.9
Asian	18	4.3
African	5	1.2
European	5	1.2
Latin American	2	0.5
Multiple	6	1.4
Unspecified	2	0.5
Missing	3	0.7

Materials

Religious Affiliation and Belief (see Appendix B)

Religious belief was examined through two questions. First, participants were plainly asked if they believe in a god, with "Yes", "No", "I don't know", and "Refuse to answer" as available options; participants who answered "No" or "I don't know" were both categorized as atheists. Second, participants were asked how confident they are in their position on the existence of a god on a scale of 1 to 5, where 1 = "I am not confident at all that this is true" and 5 = "I am absolutely confident that this is true". These questions were designed, in part, to assess possible atheism without directly referring to atheism, as there are known biases against atheists (Edgell et al., 2016; Mackey et al., 2021) that may prevent participants from describing themselves as such, even though it may be the best description of their positions. These questions also allowed for the possibility that a person could believe in a deity while acknowledging that its existence may be unlikely.

Participants were asked what religion they affiliate with (Christianity, Islam, Judaism, Hinduism, Other, or None) as well as with which denomination they associate. In addition, they were asked to rate the importance of possible reasons for their affiliation. Available answers included "I believe my affiliation is factually true", "I believe my affiliation is morally superior", "I find comfort in my religious community", "I was raised with this affiliation and have seen no reason to leave", and "I converted for the sake of a loved one". Importance ratings for each option were on a scale of 1 = "Not at all

important to me" to 5 = "It is the most important thing to me". Participants were also be asked how important religion is to them on the same scale.

Finally, participants were asked how frequently they attend a religious service (1 = "Never", 2 = "A few times a year", 3 = "Once or twice a month", 4 = "Once a week", or 5 = "More than once a week"). There were separate questions for attendance prior to and since the COVID-19 pandemic, as the lockdown rules in place in many locations strictly prohibited large gatherings including religious services. Participants were asked why they attend these services (or why they do not) and were offered several broad reasons to choose from. If the participant stated that they do attend, the options were "These services are important to my beliefs", "It is important to observe religious holidays", "I go to be with my family", "I go because it feels nice to be a part of the community", and "I go out of habit". For participants who stated that they do not attend or rarely attend, the options were "I am not a member of a religion", "I do not think that such services are necessary to my belief system", "The services are boring/uninteresting", and "There is nowhere locally for me to go". Participants were asked to rate the importance of each option on a scale of 1 = "Not at all important to me" to 5 = "Very important to me".

Participants were also be asked to assess their own physical and psychological health using the questions "In general, would you say your physical health is…" and "In general, would you say your psychological health is…". Participants could answer on a Likert scale from 1= "Poor" to 5 = "Excellent".

Religious Fundamentalism

Religious fundamentalism was measured using the Revised Religious Fundamentalism Scale (RFS-R; Altmeyer & Hunsberger, 2004; see Appendix B). This

scale was designed to measure a participant's belief that "there is one set of religious teachings that clearly contains the fundamental, basic, intrinsic, essential, inerrant truth about humanity and deity: that this essential truth is fundamentally opposed by forces of evil which must be vigorously fought: that this truth must be followed today according to the fundamental, unchangeable practices of the past; and that those who believe and follow these fundamental teachings have a special relationship with the deity" (Altmeyer & Hunsberger, 1992, p. 118). The RFS-R includes 12 statements such as "God has given humanity a complete, unfailing guide to happiness and salvation, which must be totally followed," and "Whenever science and sacred scripture conflict, science is probably right (reverse-scored)". Participants were asked to rate their agreement with each statement on a scale of -4 to +4 (-4 = very strongly disagree, -3 = strongly disagree, -2 = moderately disagree, -1 = slightly disagree, 0 = precisely neutral, +1 = slightly agree, +2 = moderately agree, +3 = strongly agree, +4 = very strongly agree). The scale has an $\alpha = .91$ with a student sample and has been strongly correlated with constructs such as right-wing authoritarianism (.79), belief in creation science (.77), dogmatism (.75), and religious ethnocentrism (.71), all of which are traits of the stereotypical fundamentalist (Altmeyer & Hunsberger, 2004).

Personality

Personality was measured using the Big Five Inventory-2 (BFI-2; Soto & John, 2017; see Appendix B). This revised version of the original Inventory examines extraversion, agreeableness, conscientiousness, negative emotionality, and open-mindedness with good reliability (mean alpha of .87). The BFI-2 has been strongly correlated with other accepted measures of Big Five traits, ranging from .68 for extraversion on the NEO PI-R to .94 for negative emotionality on the original BFI (Soto

& John, 2017). This scale also examines the various facets that make up their respective Big Five domain. For example, open-mindedness is constructed of the facets intellectual curiosity (α = .73), aesthetic sensitivity (α = .83), and creative imagination (α = .78). Agreeableness is a combination of compassion (α = .72), respectfulness (α = .72), and trust (α = .73). The facets as a whole have an overall α = .77 with a student sample. The BFI-2 uses sixty statements such as "I am someone who is curious about many different things (intellectual curiosity, open-mindedness)" and "I am someone who is compassionate, has a soft heart (compassion, agreeableness)" which participants are asked to rate on how well they describe them (1 = Disagree strongly, 2 = Disagree a little, 3 = Neutral; no opinion, 4 = Agree a little, 5 = Agree strongly).

Life Satisfaction

The Satisfaction with Life Scale (SWLS; Diener et al., 1985; see Appendix B) was used to assess participants' general life satisfaction. The SWLS has good test-retest reliability (α=.87; Diener et al., 1985) and has moderate correlations with other accepted measures of subjective well being (Diener et al., 1985) ranging from r = -.32 for the Bradburn Negative Affect Scale to r = .75 for the Semantic Differential-Like Scale. The SWLS allows participants to answer the questions based on their own standards and not some external criteria. It uses five items such as "In most ways my life is close to my ideal" and "The conditions of my life are excellent" which participants are asked to agree with on a scale of 1 to 7 (1 = Strongly disagree, 2 = Disagree, 3 = Slightly disagree, 4 = Neither agree nor disagree, 5 = Slightly agree, 6 = agree, 7 = Strongly agree).

Passages (see Appendix A)

The religious and atheist passages that were used in this study were chosen based on the following criteria. First, they had to clearly deal with questions of morality. For

present purposes, this simply means that they address some feature of the well-being or suffering of conscious creatures and what to do about it. Second, there were to be four passages each from Christian (Bible; Tyndale, 2008), Muslim (Quran; Itani, 2012), Hindu (Bhagavad Gita; Mitchell, 2002), and atheist (i.e., *The Collected Papers of Bertrand Russell,* 1983) texts. These sources were selected because they present a range of different religious beliefs. Christianity was chosen because it was expected to be the most common religion among participants. Islam was chosen because it is related to but distinct from Christianity (i.e., they are both from the Abrahamic family of religions). Hinduism was chosen to represent a non-Abrahamic religion and, as such, has a religious text that is not related to Christianity and Islam. Finally, Russell was selected as the atheist author because most of his writings are over a century old now, and the writing style is therefore less easily distinguished from that of the scriptures than would be a more contemporary work. Further, Russell's relative anonymity compared to some contemporary atheist authors, such as Richard Dawkins or Sam Harris, reduced the risk that participants valued the passages based on their impressions of the author's personality and reputation.

In order to minimize the chance that participants might have recognized that a passage was not from the assigned text, recent translations of the scriptures were used. The use of modern translations ensured that the language and style of the religious texts were less distinct from each other and from the more recently authored atheist passages. The passages also underwent minimal paraphrasing to replace identifying words such as "Hell" or "angels". Care was also taken to avoid selecting passages that are either famous or otherwise instantly recognizable, or that possessed some message of obvious moral extremity (such as "Thou shalt not kill").

The passages were presented to participants in four clusters, with each cluster containing one passage from each of the four sources. The specific passages included in each cluster shown to a given participant were randomly selected from a pre-constructed pool of eligible passages. Participants were asked to rate how moral they think each passage is on a scale ranging from -7 (extremely immoral) to +7 (extremely moral), with a 0 reflecting a morally neutral rating. The scores given to each passage in a cluster were combined to give a total rating for that cluster. The only definition of morality that was provided was that a moral action is a good thing to do or way to behave and an immoral action is an evil thing to do or way to behave; participants were otherwise be allowed to use their personal definition and standard of morality.

Manipulation Check

In order to assess the possibility that a given participant saw through the scrambled authorship of the passages, participants were asked how well they felt they know the written scriptures of the traditions assessed in this study. For each of these questions, 1 = "I do not know them at all", 2 = "I know them a little bit", 3 = "I know them fairly well", 4 = "I know them very well", and 5 = "I know them extremely well". Participants were also asked if anything about any of the passages went against what they know about the text that the passage came from.

Procedure

After the participants read the explanation of the study they read and signed an informed consent form. The measures in the study were delivered in a semi-randomized order; to avoid the possibility that participants forgot or mixed up the claimed source, each cluster of passages was separated by a psychometric measure, thus preventing the clusters from bleeding together in the eyes of the participants. Other than the separation

of the clusters the order of presentation of the items was randomized. It was essential that participants remained aware of the attributed source for the passages that they were reading and rating at any given moment.

Four passage clusters were randomly constructed from passages selected from each text. Each cluster contained one passage from each source, meaning that only one per cluster was presented with its proper authorship while the other three were taken from the other sources. For instance, the Christian cluster contained one Biblical passage, one from the Quran, one from the Bhagavad Gita, and the fourth was from Russell. This was done for every cluster so that each contained a passage from each mentioned source (see Table 2 for a set of possible passage clusters). The specific contents of each cluster were randomized, such that the passages comprising a given cluster viewed by one participant were different from that presented to the next. Participants were given a clear statement declaring a source for each cluster (such as "The following passages are quoted from the Quran, a holy book of the Muslim religion" or "The following passages are quoted from the writings of atheist philosopher Bertrand Russell") and asked to rate the morality of each passage contained therein. The scores given to each passage within a cluster were added together to provide a total rating for that cluster. In the results and discussion sections, clusters will be referred to by the affiliation that participants were told that the passages were quoted from; for example, a participant's "atheist cluster" contains the passages that were presented to them as being taken from Bertrand Russell, even though three of the four passages were derived from other sources.

Table 2

Examples of Passage Clusters

Source	Christian Cluster	Islamic Cluster	Hindu Cluster	Atheist Cluster
Bible	**Mark 7:14-15**	Matthew 19:9	2 Corinthians 8:13-14	Hebrews 13:2-3
Quran	4.2	**24.22**	24.31	49.11
Bhagavad Gita	2.56-57	6.8-9	**16.21-24**	18.47-48
Bertrand Russell	31, p. 209-210	33, p.216	36, p.228	**37, p. 239**

Note. Passages in bold have been attributed to their proper source. All other passages have been attributed to an inaccurate source. The exact content of each cluster varied from participant to participant, but each cluster always contained exactly one passage from each source. See Appendix A for full passages.

Results

Data Conditioning

The original sample included 494 participants. Prior to data conditioning, I examined the dataset to ensure that there was adherence to the exclusion criteria. Based on the manipulation check, seven participants reported that they understood the purpose of the scrambled passages and were excluded from all subsequent analysis. Of these seven, two were atheists, three were non-Catholic Christians, one was a Muslim, and one was a deist. They had an average religious fundamentalism score of -2.43, or 33 when the two atheists (who had scores of -42 and -40) were excluded. This may be an indication that extreme levels of fundamentalism can mean a participant is more likely to recognize specific passages, however a sample of seven is hardly convincing evidence. Another 10 participants revoked their consent after reading the debriefing form that explained the deception involved in the passages and were removed. Because analysis required that participants completed passage ratings for all hypotheses, 52 participants were removed due to missing ratings. Participant responses were also examined to ensure that they were missing no more than 20% of overall data; all remaining participants completed at least 80% of the questionnaire package. Thus, after ensuring the exclusion and missing data criteria were met, the final sample included 425 participants.

Responses to demographic and questionnaire items were examined for accuracy of input, including out-of-range values and univariate and multivariate outliers. No out-of-range responses were detected. Among all variables examined, only Age contained univariate outliers, which were identified as exceeding three standard deviations from the mean. These three outliers were winsorized; the age of the participant was replaced with the next highest value that was not an outlier, in this case 67 years. A total of seven

multivariate outliers were identified using Mahalanobis distance and removed from further analyses. The normality of the variables was assessed through abnormal skewness and kurtosis levels. No variable exceeded the threshold regarding kurtosis (± 3) levels. Three demographic variables did breach the skewness threshold (± 1.5); these breaches were small and on relatively unimportant questions (all three were reasons that participants did not attend religious services) and so were deemed acceptable. Mean substitution was used for missing data in the questionnaires; this was a minimal concern once other exclusion criteria had been dealt with, and there was only a handful of missing values to replace.

Demographics, Religious Beliefs, and Psychometrics

Participants were asked several questions about their religious beliefs and habits. When asked to provide a probability of the existence of at least one god (Table 3), the mean response for the overall sample was 57.03%, with non-atheists (theists and deists) reckoning 74.15% and atheists providing a likelihood of 34.06%.

Table 3

Probability that God(s) Exist(s)

Stance	$\bar{x}$	*SD*	*mode*	*median*
Overall	57.03	30.15	100 (12.2%)	60.0
Non-atheists	74.15	20.69	100 (20.1%)	74.0
Atheists	34.06	25.19	50 (18.0%)	30.5

Note. Participants gave a probability from 0% to 100%

When asked about the importance of religion in their lives (see Table 4), the most common response was “somewhat important”. The most highly rated reason for participants’ affiliation (see Table 5) was that they believed their affiliation was factually true, as 15.8% of participants rated this as the most important reason, with the fact that they were raised in this group and had seen no reason to leave, and that they found

comfort in the sense of community provided by the religious services they attend tying for second with 12% each.

Table 4

Importance of Religion

	n	*%*
Not at all important to me	73	17.5
Not very important to me	104	24.9
Somewhat important to me	147	35.2
Very important to me	72	17.2
The most important thing to me	22	5.3

Table 5

Reasons for Religious Affiliation

	n	*%*
My affiliation is factually true		
This does not apply to me	48	11.5
This is not at all important to me	38	9.1
This is not very important to me	79	18.9
This is somewhat important to me	105	25.2
This is very important to me	81	19.4
This is the most important reason for me	66	15.8
My affiliation is morally superior		
This does not apply to me	88	21.1
This is not at all important to me	60	14.4
This is not very important to me	76	18.2
This is somewhat important to me	92	22.1
This is very important to me	69	16.5
This is the most important reason for me	32	7.7
I was raised with this affiliation and have seen no reason to leave		
This does not apply to me	79	18.9
This is not at all important to me	46	11.0
This is not very important to me	66	15.8
This is somewhat important to me	98	23.4
This is very important to me	78	18.7
This is the most important reason for me	50	12.0
I converted for the sake of a loved one		
This does not apply to me	168	40.2
This is not at all important to me	44	10.5
This is not very important to me	47	11.2
This is somewhat important to me	70	16.7
This is very important to me	67	16.1
This is the most important reason for me	21	5.0
I find comfort in my religious community		
This does not apply to me	102	24.4
This is not at all important to me	45	10.8
This is not very important to me	52	12.4
This is somewhat important to me	89	21.3
This is very important to me	78	18.7
This is the most important reason for me	50	12.0

Attendance at religious services differed little before and since the onset of the COVID-19 pandemic (see Table 6); in both cases, the overall sample most frequently reported "never" attending these services, while those who affiliated with a specific faith most frequently attended "once a week" before COVID-19 and "once or twice a month" since COVID-19.

Table 6

Religious Service Attendance

	Attendance prior to COVID-19				Attendance since COVID-19			
	Believers		Overall		Believers		Overall	
	n	%	*n*	%	*n*	%	*n*	%
More than once a week	27	13.1	31	7.4	13	6.3	14	3.3
Once a week	75	36.4	86	20.6	42	20.4	53	12.7
Once or twice a month	49	23.8	80	19.1	69	33.5	90	21.5
A few times a year	40	19.4	89	21.3	58	28.2	108	25.8
Never	15	7.3	132	31.6	24	11.6	153	36.6

Prior to the pandemic the most important reason for attending (see Table 7) was to observe religious holidays; this was still the case during the COVID-19 pandemic, with the sense of community as a close second in both cases. Among those who "never" attend religious services, the most important reasons for this non-attendance (see Table 8) were because the participants are not members of any religions (33.5%) or because the services were deemed unnecessary for participants' belief systems (28.6%).

Table 7

Reasons for Religious Service Attendance

	Prior to COVID-19		Since COVID-19	
	n	%	*n*	%
These are important to my beliefs				
This does not apply to me	19	6.7	12	4.5
This is not at all important to me	27	9.5	24	9.1
This is not very important to me	64	22.5	58	22.0
This is somewhat important to me	82	28.8	72	27.3
This is very important to me	61	21.4	63	23.9
This is the most important reason to me	32	11.1	35	13.3
It is important to observe holidays				
This does not apply to me	9	3.2	7	2.7
This is not at all important to me	29	10.2	28	10.6
This is not very important to me	62	21.8	49	18.6
This is somewhat important to me	70	24.6	77	29.2
This is very important to me	71	25.0	58	22.0
This is the most important reason to me	43	15.2	45	17.0
I go to be with my family				
This does not apply to me	20	7.0	11	4.2
This is not at all important to me	30	10.5	25	9.5
This is not very important to me	54	18.9	61	23.2
This is somewhat important to me	83	29.1	70	26.6
This is very important to me	61	21.4	63	24.0
This is the most important reason to me	37	13.1	33	12.5
I go because it feels nice to be a part of the community				
This does not apply to me	19	6.7	7	2.7
This is not at all important to me	33	11.6	24	9.1
This is not very important to me	58	20.4	51	19.4
This is somewhat important to me	78	27.4	85	32.3
This is very important to me	62	21.8	59	22.4
This is the most important reason to me	35	12.1	37	14.1
I go out of habit				
This does not apply to me	49	17.3	39	14.8
This is not at all important to me	63	22.2	54	20.5
This is not very important to me	60	21.1	55	20.8
This is somewhat important to me	57	20.1	57	21.6
This is very important to me	44	15.5	40	15.2
This is the most important reason to me	11	3.8	19	7.2

Table 8

Reasons for Not Attending Religious Services

	n	*%*
I am not a member of a religion		
This does not apply to me	40	24.8
This is not at all important to me	26	16.1
This is not very important to me	16	9.9
This is somewhat important to me	10	6.2
This is very important to me	15	9.3
This is the most important reason to me	54	33.5
I do not think that such services are necessary for my belief system		
This does not apply to me	41	25.5
This is not at all important to me	18	11.2
This is not very important to me	13	8.1
This is somewhat important to me	18	11.2
This is very important to me	25	15.5
This is the most important reason to me	46	28.6
The services are boring or uninteresting		
This does not apply to me	39	24.4
This is not at all important to me	27	16.9
This is not very important to me	23	14.4
This is somewhat important to me	19	11.9
This is very important to me	19	11.9
This is the most important reason to me	33	20.6
There is nowhere locally for me to go		
This does not apply to me	96	59.6
This is not at all important to me	35	21.7
This is not very important to me	11	6.8
This is somewhat important to me	10	6.2
This is very important to me	4	2.5
This is the most important reason to me	5	3.1

Participants also responded to three psychometric surveys (see Table 9). Overall scores on the RFS-R indicated that the sample had low to neutral levels of religious fundamentalism, with an overall mean score of -9.5 (on a scale ranging from -48 to +48), the mean score of believers was -1.95. The mean satisfaction with life score was 24.14, indicating average life satisfaction (see Diener et al, 1985). The mean scores for the BFI-2

personality measures were 3.45 for open-mindedness, 3.55 for agreeableness, 3.30 for extraversion, 3.49 for conscientiousness, and 2.92 for negative emotionality.

Table 9

Mean Psychometric Scores

Metric	Overall		Believers		Atheists	
	$\bar{x}$	*SD*	$\bar{x}$	*SD*	$\bar{x}$	*SD*
Religious Fundamentalism	-9.50	18.93	-1.95	16.11	-19.59	17.71
Satisfaction with Life	24.14	6.00	24.38	6.01	23.83	5.98
Open-mindedness	3.45	0.60	3.40	0.58	3.51	0.62
Intellectual Curiosity	3.54	0.72	3.46	0.70	3.64	0.73
Aesthetic Sensitivity	3.36	0.78	3.34	0.70	3.40	0.87
Creative Imagination	3.45	0.70	3.40	0.70	3.50	0.71
Agreeableness	3.55	0.52	3.55	0.54	3.55	0.49
Compassion	3.75	0.61	3.71	0.64	3.80	0.55
Respectfulness	3.76	0.71	3.72	0.71	3.80	0.55
Trust	3.52	0.60	3.54	0.62	3.49	0.58
Extraversion	3.30	0.58	3.30	0.56	3.30	0.60
Sociability	3.19	0.76	3.20	0.70	3.19	0.84
Assertiveness	3.26	0.73	3.26	0.71	3.25	0.76
Energy Level	3.45	0.71	3.45	0.70	3.47	0.71
Conscientiousness	3.49	0.62	3.52	0.62	3.46	0.63
Organization	3.51	0.81	3.56	0.76	3.46	0.86
Productiveness	3.46	0.71	3.48	0.74	3.42	0.67
Responsibility	3.31	0.73	3.35	0.70	3.26	0.76
Negative Emotionality	2.92	0.67	2.88	0.66	2.98	0.68
Anxiety	3.22	0.80	3.10	0.78	3.37	0.80
Depression	2.71	0.80	2.71	0.78	2.71	0.82
Emotional Volatility	2.78	0.78	2.76	0.77	2.82	0.80

Note. Although the different scores for atheists and believers were only considered important for religious fundamentalism, they are presented here for all psychometrics in the interest of completeness.

H1: The Effect of Religious Affiliation on Passage Ratings

The first hypothesis predicted that participant ratings of a passage cluster's morality would be highest when participants were told that the cluster was drawn from the teachings of their personal denomination. For example, I expected that atheists would rate the cluster presented as being written by Bertrand Russell as representing higher

morality, on average, than clusters portrayed as being from any of the religious texts. The means and standard deviations for each cluster and the overall morality ratings for each cluster are presented in Table 10; the sample of Muslims in this study was not large enough to reach power for inferential analyses and thus some results are presented for descriptive purposes only. No other affiliation, including Hindus, reached enough participants to be examined descriptively.

Table 10

Mean Cluster Ratings by Affiliation

	Muslim Cluster		Christian Cluster		Atheist Cluster		Hindu Cluster	
	$\bar{x}$	*SD*	$\bar{x}$	*SD*	$\bar{x}$	*SD*	$\bar{x}$	*SD*
Atheists (*n* = 179)	5.19	8.55	4.08	9.43	**6.49**	**8.14**	5.86	8.97
Catholic Christians (*n* = 45)	11.76	9.53	**12.73**	**8.40**	9.96	10.75	9.89	9.16
Non-Catholic Christians (*n* = 106)	8.07	8.33	**11.05**	**9.21**	8.05	9.11	8.46	9.31
Muslims (*n* = 21)	**9.19**	**8.89**	7.19	6.01	7.52	7.00	6.76	6.72
Overall sample	7.38	8.90	7.52	9.39	7.28	8.54	7.16	8.94

Note. Bolded ratings are from ingroup affiliations. Descriptive statistics for Muslim participants are presented but due to low sample size, inferential statistics will not be presented.

To test hypothesis one, I conducted a 3 (Affiliation: atheist, Christian Catholic, Christian Non-Catholic) x 4 (Text: atheist, Christian, Muslim, Hindu) mixed model analysis of variance to determine if there were differences in the morality ratings for each cluster. Although the main effect of religious text was not statistically significant, $F(3, 981) = 1.61$, $p = .185$, Partial $\eta^2 = .01$, the main effect of religious affiliation had a statistically significant medium effect, $F(2, 327) = 17.66$, $p < .001$, partial $\eta^2 = .10$. Post

hoc analyses indicated that, overall, atheist participants gave lower morality ratings than the Christian participants; there were no statistically significant differences between the Christian Catholic and Christian Non-Catholic participants.

There was also a small statistically significant interaction between Affiliation and Text, $F(6, 981) = 5.07$, $p < .001$, Partial $\eta^2 = .03$. Post hoc tests were conducted to examine specific differences in morality ratings for each affiliation. The morality ratings of all four texts were similar for Christian Catholics, $F(3, 132) = 2.02$, $p = .114$, partial $\eta^2 = .04$. Interestingly, there was a statistically significant difference with a small effect size in the morality ratings for participants who were Christian Non-Catholic, $F(3, 315) = 4.44$, $p = .005$, Partial $\eta^2 = .04$. Overall, Christian Non-Catholic participants rated the Christian texts as higher in morality than the atheist ($p = .003$), Muslim ($p = .014$) and the Hindu ($p = .009$) texts (Table 11). Among atheist participants, there was a statistically significant difference with a small effect size in morality ratings, $F(3, 534) = 3.98$, $p = .008$, Partial $\eta^2 = .02$, with these participants only rating the atheist text as significantly higher in morality than the Christian text ($p = .002$); there was no difference in morality ratings of the atheist text and either the Muslim text ($p = .072$) or Hindu text ($p = .400$). Thus, overall, hypothesis one was partially supported. Individuals who were Christian Non-Catholic rated what were presented as their own texts as higher in morality than the texts of other religions. The hypothesis was partially supported for the participants who were atheist; however, they did not rate the atheist cluster as more moral than all other clusters, just the Chistian cluster.

Table 11

Hypothesis 1 Results

	Muslim Cluster		Christian Cluster		Atheist Cluster		Hindu Cluster	
	$\bar{x}$	p	$\bar{x}$	p	$\bar{x}$	p	$\bar{x}$	p
Atheists (n = 179)	5.19	.072	4.08	.002	6.49	-	5.86	.400
Catholic Christians (n = 45)	11.76	.458	12.73	-	9.96	.072	9.89	.015
Non-Catholic Christians (n = 106)	8.07	.014	11.05	-	8.05	.003	8.46	.009
Muslims (n = 21)	9.19	-	7.19	.251	7.52	.476	6.76	.202

H2: Finding the Lowest-Rated Passage Clusters

The second hypothesis stated that participants would rate the passage cluster associated with the group that is most dissimilar to their own as the lowest of the four clusters. For all religions, atheism is, by definition, the most dissimilar group, and thus this hypothesis focused on comparing the ratings of the Bertrand Russell cluster to all non-atheist groups. I grouped together faiths with low numbers of participants for this hypothesis, as the logic of labelling atheism as the most-dissimilar affiliation holds regardless of the religion under consideration. Conversely, because all religions are equally dissimilar to atheism, no predictions were made regarding atheists' lowest-rated cluster. This hypothesis was tested with a series of 1-way ANOVAs, in which the rating of each group was considered separately. As can be seen in Table 12, Catholic Christians rated the Hindu cluster the lowest, $F(1, 416) = 4.76$, $p = .030$, Partial $\eta^2 = .011$. The atheist cluster was rated the lowest for both non-Catholic Christians, $F(1, 416) = 1.13$, $p = .288$, and other faiths, $F(1, 416) = 1.24$, $p = .265$), but these effects were not statistically significant. Thus, this hypothesis was not supported.

Table 12

Hypothesis 2 Results

	$\bar{x}$ rating	*SD* rating	range	*F*	*p*
Catholic Christians					
Muslim cluster	11.76	9.53	-6 – 28	12.52	<.001
Christian cluster	12.73	8.40	-9 – 28	-	-
Atheist cluster	9.96	10.75	-26 – 26	4.98	.026
Hindu cluster	9.89	9.16	-12 – 28	4.76	.030
Non-Catholic Christians					
Muslim cluster	8.07	8.33	-16 – 26	3.12	.078
Christian cluster	11.05	9.21	-11 – 28	-	-
Atheist cluster	8.05	9.11	-28 – 22	1.13	.288
Hindu cluster	8.46	9.31	-19 – 28	3.05	.081
Other faiths					
Muslim cluster	9.91	8.04	-12 – 28	4.21	.041
Christian cluster	9.50	5.54	-4 – 23	2.31	.129

Hypothesis 2 Results (continued)

	$\bar{x}$ rating	*SD* rating	range	*F*	*p*
Other faiths					
Atheist cluster	8.61	6.58	-5 – 23	1.24	.265
Hindu cluster	8.91	7.17	-12 – 28	2.00	.158
Atheists					
Muslim cluster	5.19	8.55	-16 – 27	19.87	<.001
Christian cluster	4.08	9.43	-23 – 28	46.55	<.001
Atheist cluster	6.49	8.15	-15 – 25	-	-
Hindu cluster	5.86	8.97	-22 - 24	6.67	.010

H3: Religious Fundamentalism and Gap

The third hypothesis predicted that religious fundamentalism would positively predict the size of the gap between the ratings that participants gave to their own affiliations' teachings and those of the lowest-rated group. The variable "gap" was constructed by subtracting the scores assigned to the lowest-rated group from those given out to one's own group; this meant that only the gap scores of atheists, Christians, Muslims, and Hindus were able to be produced. This hypothesis was tested by examining the correlation between RFS total scores and gap values, and since—as argued earlier—religious fundamentalism does not apply to atheists, this correlation was examined twice;

one correlation included the RFS scores of atheists, and one correlation excluded the RFS scores of atheist participants. The results indicated that both correlations were statistically significant: $r = -.12$, $p = .025$ (whole sample), and $r = .15$, $p = .042$ (atheist participants excluded). This hypothesis was supported.

H4: Open-mindedness and Gap

The fourth hypothesis states that the size of the gap between ratings given to one's own cluster and those given to the lowest rated group would be larger for participants with low open-mindedness. In other words, open-mindedness should negatively correlate with gap size. The correlation was positive and significant, $r = .18$, $p = .001$, and thus this hypothesis was not supported, and the reverse was found instead.

H5: Agreeableness and Gap

Hypothesis 5 stated that agreeableness would negatively correlate with gap size. This correlation was significant, but positive, $r = .19$, $p < .001$. This hypothesis was not supported, and again, the finding was reverse to the hypothesis.

H6: Confidence and Gap

The sixth hypothesis stated that the confidence in one's position on the existence of a god should positively correlate with both the size of the gap between one's own cluster and the lowest-rated cluster. This was examined through bivariate correlations, the first examining the confidence of believers and the second that of atheists. Confidence in the existence of a god positively correlated with gap size, $r = .21$, $p = .005$. Confidence that a god does not exist was also found to positively correlate with gap size, $r = .24$, $p = .001$, thus, this hypothesis was supported.

H7: Ingroup Ratings and Religious Variables

The seventh hypothesis predicted several positive correlations with the total of the ratings given to one's own cluster including confidence in one's position on the existence of a god, religious fundamentalism, and frequency of attendance to religious services (see Table 13). Please note that because these correlations required participants to have a cluster of their own affiliation to rate, only atheists, Christians, Muslims, and Hindus were included. The association between morality ratings and confidence in the existence of a god was not statistically significant, $r = .13$, $p = .076$, nor was confidence in the non-existence of a god, $r = .04$, $p = .640$. Religious fundamentalism was significantly correlated with morality ratings, $r = .21$, $p < .001$, and this association this was weaker, but still significant, when atheists were excluded from the analysis, $r = .17$, $p = .021$. Religious service attendance, both before ($r = -.18$, $p = .001$) and after ($r = -.18$, $p < .001$) the advent of COVID-19, was associated with morality ratings, although when atheists were excluded, the relationships were no longer statistically significant ($r = .01$, $p = .849$; $r = .02$, $p = .792$). This hypothesis was partially supported.

Table 13
Correlations with ingroup ratings

	r	*p*
Confidence in the existence of a god	.131	.076
Confidence in the non-existence of a god	.035	.640
Religious fundamentalism		
Overall	.209	<.001
Believers	.169	.021
Pre-COVID-19 service attendance		
Overall	-.180	.001
Believers	.014	.849
Post-COVID-19 service attendance		
Overall	-.183	<.001
Believers	.019	.792

H8: Satisfaction with Life and Service Attendance

The eighth and final hypothesis was a replication hypothesis that predicted that religious believers' attendance of religious services would be positively associated with satisfaction with life after controlling for physical wellness. This was tested with a partial correlation, and satisfaction with life was not associated with either pre-COVID-19 attendance, $r = -.01$, $p = .897$, or post-COVID-19 attendance, $r = -.04$, $p = .587$. Thus, this hypothesis was not supported.

Discussion

Overview of Findings

This study identified four variables that contribute to ideological prejudice (see Table 14). Religious fundamentalism seems to do so via ingroup favouritism (Schiller et al., 2014), which was supported by the current results that participants with higher levels of fundamentalism had both a larger gap between ratings of ingroup and outgroup morality and higher morality ratings of ingroup texts compared to those of participants with lower levels of fundamentalism. Confidence in one's position on the existence of a god, open-mindedness, and agreeableness all had positive relationships with gap size, but the correlation with higher ingroup ratings was not statistically significant, suggesting that these variables could be influencing prejudice through outgroup discrimination (Schiller et al., 2014). Conversely, for most groups, the frequency of religious service attendance and affiliation were not correlated with increased prejudicial attitudes, with the exception of non-Catholic Christians believing their text to be morally superior to all others, which may be indicative of ingroup favouritism. Although it is possible that ideological prejudice may only be common in the laity of some sects and not others, it seems that, in the absence of a more nuanced incorporation of the specific differences between belief systems, religious affiliation alone is insufficient to garner such attitudes. It seems plausible that if an individual's primary reward for their religious affiliation is the sense of community that it provides (Galen et al., 2015; Thomson, 2015)—rather than a feeling of surety, a moral framework, or a sense of superiority—then it does not appear to impact ideological prejudice.

Table 14

Overview of hypotheses' results

Prediction	Support
Ingroup passages should receive the highest ratings	Partial; non-Catholic Christians only
Atheist passages should be lowest-rated for non-atheists	Not supported
RFS should positively predict gap	Supported
RFS should positively predict ingroup scores	Supported
Confidence should positively predict gap	Supported
Confidence should positively predict ingroup scores	Not supported
Service attendance should positively predict gap	Not supported
Service attendance should positively predict ingroup scores	Not supported
Open-mindedness should negatively predict gap	Not supported; positive correlation
Agreeableness should negatively predict gap	Not supported; positive correlation
Service attendance should positively predict SWLS	Not supported

Religious Affiliation and Prejudice

The central goal of this thesis was to examine the possibility that the known associations between religion and prejudicial attitudes might be partially explained by ideological prejudice, whereby prejudicial attitudes are directed at the *ideas* held by an outgroup rather than at the *members* of the outgroup. The first step in assessing this research question was to examine the overall ratings that participants gave to the passage clusters to see if their moral evaluations could be predicted by affiliation alone. I predicted that participants would rate passages they *believed* were drawn from their own religion as the most moral. Further, I hypothesized that religious participants would rate the atheist cluster as the least moral since atheism is the outgroup which is most dissimilar to any given religion. These predictions were not supported in most instances;

although the revealed patterns were generally in line with my hypotheses, they did not reach statistical significance. Although these predictions were not supported in most instances, given the trends in the data, future researchers could explore these relationships using larger, more diverse, or more specific samples.

Non-Catholic Christians were the only group to rate their own cluster as significantly higher than that of all other groups, and while they did rate the atheist passages as the least moral, the difference between atheist and Hindu text ratings was not significant. Catholic Christians did rate the Bible as the most moral but not significantly more so than the Quran or the Bertrand Russell passages, and they rated the Bhagavad Gita as the least moral text. Since members of other religions did not number enough to examine their affiliations separately, they were grouped together to assess their lowest-rated cluster, which was that of the atheists, but again this was not significant. Lastly, atheists did rate their own cluster as the most moral, but this was only significant when compared to their lowest-rated passage cluster, which was the Biblical cluster. Overall, these findings indicate that affiliation alone may be insufficient to establish ideological prejudice; simply being a member of a religious affiliation is not enough to make someone prejudiced against other groups' teachings.

The contrast between Catholic and non-Catholic Christians may be the most interesting finding to emerge from these comparisons. Non-Catholic Christians were the only affiliation in this study that rated their own cluster as significantly more moral than all other clusters; Although individuals who were Catholic rated the Biblical passages as significantly more moral than Hindu passages, there were no differences between Christian, Muslim, and atheist passages. It seems that there may be something about Catholicism that insulates it from engendering ideological prejudice among its members;

conversely, there could be something about other forms of Christianity that influences worshippers to have greater disliking toward the ideas of other groups. Non-Catholic denominations of Christianity, as a rule, have a greater emphasis on biblical authority to guide the beliefs of its members than does Catholicism (Oxtoby & Segal, 2007), which instead relies on institutional tradition via the papal hierarchy to guide followers about which beliefs are important and how worship is properly conducted (Oxtoby & Segal, 2007). Thus, if ideological prejudice is based on religious beliefs, it should be strongest in religions and affiliations that emphasize textual commandment over other forms of moral authority; the more a group incorporates religious texts as a source of morality, the more likely they are to believe that their books are superior to the books of other groups. As controversial as it may be to suggest, it is possible that in the absence of more specific attributes, ideological prejudice can only be associated to the broader laity of some affiliations and not others.

Despite being the outgroup that is most foundationally dissimilar to all religions, the atheist passages were not rated as the least moral by individuals who had a religious affiliation. This result was surprising, as anti-atheist prejudice is partially explained by beliefs about atheists' inherent lack of moral sophistication (Simpson & Rios, 2016; Simpson et al., 2016; Simpson et al., 2017), which should indicate that they should be assessed in a particularly unfavourable light in moral terms. It seems that, in this instance, there is not a linear pattern between outgroup bias and the extent of outgroup differences, in which bias would increase as outgroup differences increased. The current results suggest that any prejudice at work is congruent prejudice, wherein outgroups are evaluated in an equally positive or negative light (Dudley & Mulvey, 2009). There are a several possible explanations for this phenomenon. First, it may simply be the case that

ideological prejudice cannot be explained using a model of linear associations between bias and morality; the most important factor could be that outgroup texts that are different from ingroup texts and it matters only that they *are* different, and not *how* different they are. Second, in the current study, average scores on religious fundamentalism were neutral to low, which may have affected all morality ratings. Although fundamentalism was not statistically controlled, because it is associated with a sense of superiority derived from the correctness of one's texts, it is possible that focusing on differences in fundamentalism highlight specific aspects of ideological prejudice that are more nuanced than differences between religious affiliations. Fundamentalism is predictive of discordant prejudice, in which outgroups are viewed in an unequally positive or negative manner (Dudley & Mulvey, 2009), and so the relative absence of participants who endorse fundamentalism may have reduced sensitivity to variation in similarity among outgroups. Finally, it is also possible that individuals who have a religious affiliation were taken off-guard by the very concept that moral writings could be associated with an atheist. Anti-atheist prejudice is, in part, based on the assertion that atheists do not have a basis for a moral worldview (Simpson at al., 2017), which means that many people simply assume that atheists do not engage with moral conundrums. Merely presenting participants with an atheist philosopher who writes about morality may have affected participant responses by challenging this assumption such that participant ratings of atheist clusters were slightly less negative.

Although I did not make specific predictions about the morality ratings of religious texts given by atheist participants, it is worthwhile to ponder why the Bible had the lowest ratings. First, atheists did not rate any of the textual clusters as having high morality; their highest average rating was for their own cluster at 6.49, but even that

rating was lower than any of the ratings given by participants with other religious affiliations, including those given to the atheist passages. These results could either indicate cynicism or, more charitably and contrary to popular belief, that atheists have high standards for what they consider to be a moral injunction. The lowest average rating given by any group was to the Christian cluster by the atheist participants, which could be a reaction to the general demonization leveled at atheists (Edgell et al., 2006; Gervais et al., 2011; Simpson & Rios, 2016; Simpson et al., 2016; Simpson et al., 2017). Most participants were either Canadian or American and therefore live in a country with a Christian majority, and thus any negative experiences that they have had because of their affiliation likely involved bias from Christians. If current atheist participants perceive discrimination from a Christian dominant society, they are unlikely to think that the Bible is a good source of moral teaching. Understandable as this reaction may be, this would nonetheless still qualify as a form of prejudice, as it is a negative assessment of another based purely on group membership; judging someone or something as guilty by association is prejudicial even when done by a persecuted group (Crandall et al., 2002).

Religious Fundamentalism and Prejudice: Ingroup Favouritism

I also assessed how religious fundamentalism impacted prejudicial attitudes in the context of texts from different affiliations and perspectives. To assess this, I correlated religious fundamentalism scores with moral ratings of one's own affiliation's passage cluster and the gap between the ratings of ingroup passages and ratings of the lowest-rated passages. Both of these correlations were statistically significant, $r = 0.15$, $p = .042$ and $r = 0.17$, $p = .021$, respectively. Although these correlations are small, it is important to note that the fundamentalism scores in the current sample were neutral to low; the possible range for scores on the RFS is -48 to 48, and the mean score for religious

believers in this sample was -1.95 (*SD* = 16.11). With atheists included the mean was -9.5 (*SD* = 18.93). Had the sample had a greater range of fundamentalism, these relationships would likely have been stronger.

Individuals with high fundamentalism scores gave higher ratings to their own texts than did individuals with lower levels of fundamentalism. Further, they also had a larger spread between their assessments of their own text's morality and the morality scores of the outgroup cluster that received the lowest rating. As the gulf was not the result of any actual difference in moral quality in these randomized passages, the correlation between gap size and fundamentalism can be interpreted as reflective of prejudice. If fundamentalism were only associated with increased ratings for one's own teachings, it could suggest a general tendency to assign moral value to theological pronouncements, which would not be indicative of prejudice. Nonetheless this positive correlation with ingroup ratings could indicate a possible explanation for how this prejudice manifests; a positive correlation with gap reveals that prejudice is taking place, and the presence or absence of a correlation with increased ingroup scores can suggest a route by which this prejudice manifests.

As discussed earlier, two vectors by which a person can treat members of their ingroup better than members of outgroups are ingroup favouritism, a tendency to actively treat ingroup members in an excessively positive manner, and outgroup discrimination, a deliberate endeavor to behave more negatively toward outgroup members than toward unaffiliated or ingroup targets (Schiller et al., 2014). Modified versions of these phenomena could explain prejudicial tendencies found in this study; significant gaps in the scores given to different affiliations could either be the result of inflated opinions of the morality of ingroup texts or of maliciously harsh judgements of the morality of

outgroup texts. Because individuals who had higher fundamentalism scores gave higher morality ratings to ingroup texts than individuals with lower fundamentalism scores, it seems likely that ingroup favoritism may have been a primary driver underlying the correlation with gap size; participants with higher levels of fundamentalism were inclined to appraise their own texts as morally higher, regardless of the actual content of the texts. Thus, in the current study, the prejudicial attitudes exhibited by individuals higher in fundamentalism are reflective of a bias toward a disproportionately positive view of ingroup ideas more so than an unduly negative evaluation of outgroups' teachings. Further research should be conducted to assess whether this is indeed the correct interpretation of fundamentalism's influence on prejudicial attitudes.

Other Religious Variables: Confidence and Service Attendance

The last two religious variables examined for links to prejudice were confidence in one's position on the existence of a god or gods and the frequency of religious service attendance. Believers' confidence that a god exists and atheists' confidence that no gods exist were both positively related with the size of the gap between the scores given to their ingroup passages and to that of their lowest rated passages. As discussed in relation to fundamentalism, this is consistent with higher degrees of confidence being associated with prejudicial attitudes toward religious outgroups. Confidence in the existence of a god/gods was not correlated with the ratings given to one's own cluster of passages, suggesting that it likely influences prejudice by driving down one's opinion of other groups instead of inflating the view of the ingroup. Although fundamentalism appears to enhance ingroup favouritism, confidence seems to strengthen outgroup discrimination. Thus, the more certain a person is regarding a god's existence, the more they may look down upon those who have reached a different conclusion. Follow-up studies could test

the more robust quality of dogmatism to see if this relationship is maintained in a context where participants are unjustifiably certain about more than just the existence of a deity.

Frequency of service attendance was positively associated with the ratings given to one's own cluster of passages *only* if atheists were included in the analysis. This is odd, as atheists do not have services of their own to attend, which means that if they attend the services of some other affiliation, as 36%-43% of atheists did, then they end up thinking more highly of their own group's teachings. Conversely, since attendance was not associated with morality when atheists were excluded, it appears that frequent religious service attendance is irrelevant to ratings of the morality of religious texts. It is possible that a different set of assessment criteria might yield a different conclusion, such as examining whether attendance predicts how factually correct participants believe a text to be. Nevertheless, it appears that attending a religious service has no impact on one's opinion of the morality of the scripture that the service is based on—unless one is not really a member of that congregation, in which case one might leave thinking more highly of an unrelated text. A subsequent analysis was conducted to see if service attendance was correlated with gap size, but this association was not statistically significant. More frequent attendance of religious services, then, does not seem to be linked to ideological prejudice.

Personality, Prejudice, and Religion

The final goal of this study was to explore how personality variables might impact prejudicial attitudes between religious groups. Although there is a great deal of research on personality and prejudice, there is a paucity of research that examines this relationship as it functions between religious groups. Most previous research has concluded that Agreeableness and Open-Mindedness are the personality traits with the strongest

relationships to prejudice (Sibley & Duckitt, 2008). Agreeableness has a consistently negative association with prejudicial attitudes while the relationship with Open-Mindedness appears to be more target-dependent; low Open-Mindedness is linked with prejudice toward liberal targets (homosexuals, racial minorities, etc.; Crawford & Brandt, 2019) while high Open-Mindedness has predicted prejudicial attitudes with more conservative targets (Christian fundamentalists, conservatives, Tea Party members, etc.; Crawford & Brandt 2019).

In the current study, the affiliations that could be a potential target for prejudice were groups identified to participants as atheist, Christian, Hindu, or Muslim. Given that none of these larger groups were considered inherently "conservative", I predicted that prejudice, quantified as gap size, would be negatively correlated with both Agreeableness and Open-Mindedness. These hypotheses were not supported; both traits positively predicted gap size, implying individuals with higher levels of open-mindedness or agreeableness have more prejudiced attitudes than individuals with lower levels of these traits. Although these findings are at first counter-intuitive, some explanations can be posited which should offer compelling paths for future research to either verify or improve upon.

The relationship between prejudice and open-mindedness is perhaps the easier of the two to explain. As stated, researchers have reported positive associations between open-mindedness and prejudice directed at conservative groups. Thus, it is possible that the inverse relationship in the current study was a function of a perception of the part of the participants that they were dealing with targets that could be described as "conservative". For example, Christian fundamentalists are one example of a disliked conservative group, and it is easy to see how the passages used in the current study could

be closely associated with this group or with fundamentalists in other affiliations. Although Crawford and Brandt (2019) did not examine attitudes toward fundamentalists of non-Christian persuasion, because fundamentalism is partially defined as a close adherence to and veneration of texts, it makes sense that fundamentalists would most readily be brought to mind when presented with the texts of another affiliation. Altemeyer and Hunsberger (1992; 2004), the creators of the RFS, argued that religious fundamentalism could be thought of as simply the religious manifestation of right-wing authoritarianism. Participants could therefore have evaluated the presented texts as they would a conservative subject, resulting in the observed positive correlation between open-mindedness and gap size. A subsequent analysis was conducted to assess the correlation between open-mindedness and ratings provided to participants' ingroup cluster, which was not statistically significant, $r = .06$, $p = 0.24$, supporting the interpretation that open-mindedness's influence on gap size could be driven by outgroup discrimination.

When examining the facets that comprise open-mindedness—intellectual curiosity, aesthetic sensitivity, and creative imagination—only intellectual curiosity was significantly associated with gap size, $r = .29$, $p < .001$. This could mean that intellectually curious people dislike what they perceive as rigid thinking or rules that do not encourage independent thinking. Thus, the positive relationship between gap size and open-mindedness could have resulted because individuals with higher scores on intellectual curiosity may be resistant to authoritarian ways of thinking and associate moral rules derived from scripture-based argument with rigidity. Because participants, in their perception, were presented with a conservative way of thinking, they may have compared it to their own stance and judged it more harshly under the belief that their position is more valid.

The positive relationship between agreeableness and prejudice is more difficult to parse. Previous research has consistently found the opposite association, and even Crawford and Brandt's (2019) contrarian conclusions are in accord that the association between agreeableness and prejudicial attitudes should be negative. The most obvious explanation for the current finding is that this thesis is fundamentally mistaken, and gap size is not only not reflective of prejudice but is, in fact, associated with less prejudice. Although this remains a remote possibility, I feel safe in dismissing it both because it makes no sense on a theoretical level and because the results of other hypotheses suggest that gap size is a usable measure of prejudice. Turning to the facets of agreeableness, compassion, $r = .25$, $p < .001$, and respectfulness, $r = .18$, $p < .001$, were both significant predictors of gap size; the correlation with trust was not statistically significant, $r = .10$, $p = .052$. There is little here to explain the overall trend. One would think that high levels of compassion and respectfulness would decrease negative perceptions of others; however, subsequent analysis showed that agreeableness was not significantly correlated with ingroup ratings, $r = .08$, $p = .115$ which has thus far indicated outgroup discrimination, as in a harsh treatment of outgroup members.

Speculatively, it may be the case that what appears to be prejudice on the part of highly agreeable participants is instead a response to a perceived threat. Compared to individuals with low agreeableness, research indicates that individuals who have higher levels of agreeableness are more prone to high threat appraisal, which is the perception that a situation presents issues that may be beyond a person's ability to cope with them and that they also tend to view stressful events as more demanding (Tomaka & Magoc, 2021). It is possible that, in the current study, participants with high levels of agreeableness appraised the conflict presented by the teachings of outgroups as

threatening or stressful. This could have produced a negative emotion in these participants, resulting in the perception that this negative feeling was associated with the presented text, in turn resulting in a lower rating. This phenomenon would not be in line with the traditional view of what prejudice entails, as it is more of an in-the-moment reaction than a stable worldview, which is in keeping with Crawford and Brandt's (2019) assertion that the known associations between agreeableness and prejudicial attitudes may not be the result of actual prejudice. As a speculative explanation, this possibility will need replication and exploration in future research before it can be confidently advanced.

Strengths and Limitations of the Current Study

There were positive aspects associated with the sampling strategy used in this study. Many of the study's participants were recruited online, which resulted in a sample that did not rely on a university population. With 55.3% of the study identifying as women, this study had a much more even gender split than is typical in studies that use university samples. Also, the mean age of 29.86 years of age (*SD* =11.72) was higher than most university studies.

I recruited a much larger proportion of atheists than most studies on religion and morality. By implementing a direct belief question and avoiding over-reliance on self-report, I report an easy way of capturing atheism in participants while evading the aforementioned social desirability problems associated with the term *atheism* (Gervais & Najle, 2018; Kosmin & Keysar, 2009). Asking a separate question about confidence also allowed for variation among atheists. This should help future research accurately measure how many atheists have actually been gathered, aiding in inquiries on their characteristics.

The limitations of the design of this study primarily revolve around the information provided by the religious passage ratings and to whom that information can be generalized. First and foremost, I am by no means an expert scholar of the Bible, the Quran, or any other religious text. It is entirely possible, indeed almost certain, that there exist passages that would be more appropriate for the current experimental paradigm than those included in this study. Second, the selection of Bertrand Russell to represent atheist moral writing is, although informed, somewhat arbitrary. Further, Russell's work does not stand in relation to atheism as the Bible does to Christianity or the Quran does to Islam, in that a person could be an atheist while vehemently disagreeing with nearly every word that Russell ever wrote. Still, a representative atheist text had to be chosen, and these criticisms could have been made of any other atheist writer. Finally, both the passage ratings and the measure of religious fundamentalism (RFS-R) assume that a religion has a text that it considers sacred, from which it gleans a moral worldview. For many religions outside the Abrahamic family, this is simply not the case (Oxtoby & Segal, 2007). It therefore cannot be assumed that any results found using these measures can be applied to members of religions that do not hold their texts in the same light or that rely on some other method of transmission, be it oral or mystic. Future researchers looking to replicate or expand upon present findings in such populations will have to adapt the methodology to accommodate these differing structures.

This study had several weaknesses in its sample. There were, unfortunately, only enough participants to reach statistical power for analyses of atheist, Catholic, and non-Catholic Christian groups; it would have been preferable to have been able to include a broader range of affiliations, such as Muslims, or sufficient representation of Christian denominations aside from Catholicism so that those sects could be examined individually

and simply classified as “non-Catholics”. As has been discussed, the sample’s levels of religious fundamentalism were notably low, to the point that it may have impacted the strength of results that did not directly involve RFS scores; a sample that included more fundamentalist participants may have had stronger results. Most (74.9%) participants identified as white, and although this is not as stark a majority as in some studies, the sample is nonetheless lacking in ethnic diversity. Finally, the data was collected toward the end of the COVID-19 pandemic, and although the effects of that crisis were waning, it still may have impacted recruitment and participants’ responses.

Directions for Future Research

Future researchers interested in replicating, expanding, or improving upon the results in the current study may benefit from keeping a few of the following suggestions in mind. The findings related to personality are novel, and, in the case of agreeableness, are somewhat perplexing. I would suggest that further explorations into the effects of personality should be conducted to ensure the current findings are generalizable. In particular, the possibility that the open-mindedness results may be the product of a perception that the target affiliations are conservative can be tested by examining the associations that intellectually curious participants make between conservatism or authoritarianism and a variety of religious affiliations or terminology. Although the current sample size was large, some groups were underrepresented, resulting in low statistical power for some statistical tests. Future researchers should seek to obtain a broader sample in order to compare text-centric affiliations, such as Lutheranism, hierarchical affiliations, such as Orthodox Christianity, and affiliations that lack a centralized text, such as folk or Indigenous religions. Researchers who focus on the atheist experience may wish to explore whether the current finding that atheists think of

the Bible as the least moral text is more broadly true, and, if it is, to explore reasons underlying this finding.

This study found evidence that both ingroup favouritism and outgroup discrimination are involved in ideological prejudice. Future researchers could seek to identify additional drivers of these vectors. Finally, the incorporation of dogmatism would be a robust expansion on the present findings about confidence, and it would be valuable to compare dogmatism to religious fundamentalism. If dogmatism follows the same trend as confidence, then it acts on ideological prejudice by increasing outgroup discrimination. If that is true, since religious fundamentalism operates via ingroup favouritism, it is likely that the people who most strongly engage in this form of prejudice are those with high levels of both dogmatism and fundamentalism, with one trait elevating the opinion of the ingroup while the other supressing opinions of outgroups. This situation would result in a gap between ingroup and outgroup evaluations beyond that produced by either characteristic alone. Future research focused on this gap would elucidate these complex relationships.

Implications and Conclusions

There are several important implications to the design of this study. First, it offers a methodology, in the form of the passage ratings, that is more suited to detecting prejudicial attitudes between groups that differ on an ideological basis than the methods used in the study of ethnic biases. For example, Uzarevic and Saroglou (2019) examined possible prejudicial attitudes among atheists by asking how comfortable they were with members of certain groups as political representatives, neighbours, or spouses. Answers to these questions can obviously be reflective of prejudice when asked of ethnic outgroups. In the case of ideological outgroups, that is not necessarily true; it is rational to

want to be represented by, to live next to, or to live with people who share similar values. Therefore, those traditional questions are not necessarily uncovering prejudicial attitudes, as there are plausible, good reasons for the lessened comfort levels that are not being examined. The passage ratings used in the current study, conversely, do measure potential prejudicial biases, as there is no clear alternative explanation for why the ratings should track with the attributed source of the passages; the attributed source is incorrect, and so any response bias is not based on correct information or valid conclusions. By examining the gap between ingroup and outgroup scores and the differences in ingroup ratings, the use of passage clusters offered a straightforward, less ambiguous, and modular method of establishing prejudicial attitudes Another advantage of the passage rating format is that it is also quite versatile, in that it can easily be adapted to issues other than morality. This is, to my knowledge, the first study on religiously motivated prejudice to incorporate personality variables, as odd as that may seem. Thus, the findings in this regard constitute a novel contribution in need of replication.

Perhaps most importantly, this study has provided evidence that religious prejudice can be directed at ideas and not just people. Although the current design cannot support any claim that this ideological prejudice supersedes or supplants that which targets people, it does, however, provide the necessary first step of demonstrating that such a prejudice can exist in the first place. From this view, the distrust or disdain held toward members of a religious outgroup may be a proximate phenomenon, sprouting from the ultimate phenomenon of value or idea-based prejudice. Unfamiliar things can be viewed as unpredictable and therefore potentially threatening (Miller et al., 2010), regardless of whether the content, behaviour, or products of the thing would merit such distrust when properly understood (Grove et al., 2020). If such a prejudicial attitude is

held toward an idea or value, it is natural that it would extend to people who are perceived as endorsing that construct (Simpson & Rios, 2016).

If religious prejudice is ideologically targeted, then the problem of prejudice becomes much more solvable. Prejudice can be partially explained as resulting from a threatening perception of an outgroup, resulting from unfamiliarity (Miller et al., 2010) or lack of contact (Zezelj et al., 2020). It follows that if a perception of threat or competition with an outgroup can be replaced with a sense of cooperation or familiarity, attitudes toward different groups should soften (Dovidio et al., 2003; Sherif et al., 1961), particularly if they can be categorized as sharing membership within a group (Moyer-Guse et al., 2019; Scroggins et al., 2016). An obstacle to this process in the case of person-oriented attitudes is assumes prolonged physical proximity of the targeted group. Aside from not always being possible to orchestrate, this requirement may actually put members of the targeted group in harm's way. If, on the other hand, the prejudice is aimed at ideas, then familiarity can be achieved simply through education about the outgroup's values, thereby reducing prejudicial attitudes without endangering anyone or requiring their presence. This study provides the early evidence that this may be an appropriate goal for such efforts.

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Appendix A: Religious Passages

Biblical Passages

1. All of you listen, and try to understand. It is not what goes into your body that defiles you; you are defiled by what comes from your heart." (Mark 7:14-15)
2. That is why I tell you not to worry about everyday life—whether you have enough food to eat or enough clothes to wear. For life is more than food, and your body more than clothing. (Luke 12:22-23)
3. Of course, I do not mean your giving should make life easy for others and hard for yourselves. I only mean that there should be some equality. Right now, you have plenty and can help those who are in need. Later, they will have plenty and can share with you when you need it. In this way, things will be equal. (2 Corinthians 8:13-14)
4. Do not forget to show hospitality to strangers, for some who have done this have entertained their betters without realizing it! Remember those in prison, as if you were there yourself. Remember also those being mistreated, as if you felt their pain in your own bodies. (Hebrews 13:2-3)

Quranic Passages

1. Give orphans their properties, and do not substitute the bad for the good. And do not consume their properties by combining them with yours, for that would be a serious crime. (4.2)

2. Those of you who have affluence and means should not refuse to give to relatives, and the needy, and the emigrants. And let them pardon and let them overlook. (24.22)

3. Tell the women to restrain their looks, and to guard their privates, and not display their beauty except what is apparent thereof, and to draw their coverings over their breasts. And they should not strike their feet to draw attention to their hidden beauty. (24.31)
4. No people should ridicule other people, for they may be better than they. Nor should any women ridicule other women, for they may be better than they. Nor should you slander one another, not shall you insult one another with names. (49.11)

Bhagavad Gita Passages

1. He whose mind is untroubled by any misfortune, whose craving for pleasures has disappeared, who is free from greed, fear, anger, who is unattached to all things, who neither grieves nor rejoices if good or if bad things happen—that man is a man of firm wisdom. (2.56-57)
2. The mature man, fulfilled in wisdom, resolute, looks with equal detachment at a lump of dirt, a rock, or a piece of pure gold. He looks impartially on all: those who love him or hate him, his kinsmen, his enemies, his friends, the good, and also the wicked. (6.8-9)
3. This is the soul-destroying threefold entrance to wickedness: desire, anger, and greed. Every man should avoid them. The man who refuses to enter these three gates into darkness does what is best for himself and attains the ultimate goal. But the man who rejects these teachings, chasing his own desires, cannot attain the goal of true joy or true success. Therefore, guided by these teachings, know what to do and not do; first understand their injunctions, then act uprightly in the world. (16.21-24)

4. It is better to do your own duty badly than to perfectly do another's: when you do your duty, you are naturally free from corruption. No one should relinquish his duty, even though it is flawed; all actions are enveloped by flaws as fire is enveloped by smoke. (18.47-48)

Bertrand Russell Passages

1. Self-sacrifice I suppose means the performance of an action from which we expect more pain than pleasure to ourselves: and although so long as evil exists such actions will be necessary, it is difficult to see how in itself self-sacrifice can be anything but an evil. (31, p209-210)
2. A good will has worth in itself and apart from the from the consequences of the act willed. (33, p 216)
3. Our duty will consist in self-realization, but self-realization may of course be best attained by what is commonly called self-sacrifice: and so long as we live in a society, our own development must be closely connected with that of the society we live in. (36, p228)
4. A man is free when he is unimpeded in his activity, that is, when his desires are such as can be progressively realized by his own actions. But his activity is unimpeded in proportion as he is in harmony with the universe as a whole. Hence a man will attain to the satisfaction of his desires in proportion as he is in harmony with the world. (37, p239)

Appendix B: Measures and Demographics

Demographics

Do you believe in a god (check one)?

- Yes
- No
- I don't know
- Refuse to answer

Age:

Sex:

- Male
- Female
- Intersex

Gender (check all that apply):

- Man
- Woman
- Queer
- Nonbinary
- Identity not listed (please specify: _____)
- Prefer not to answer
- Do not know

Race:

Nationality:

You said that you (do not) believe in a god or gods. How confident are you that god(s) (do not) exist?

Religious stance (check all that apply):

- Christian (Denomination:_____)
- Muslim (Denomination:_____)
- Jewish (Denomination:_____)
- Hindu (Denomination:_____)
- I believe in a higher power, but I do not associate with any particular religion
- Atheist
- Agnostic
- Other:_____ (Denomination:_____)

Why do you affiliate with the above group(s)? Please rate the importance of each statement.

- I believe my affiliation is factually true
- I believe my affiliation is morally superior
- I was raised with this affiliation and have seen no reason to leave
- I converted for the sake of a loved one
- I find comfort in my religious community

How important is religion in your life?

- It is not important at all to me
- It is not very important to me
- It is somewhat important to me
- It is very important to me

- It is the most important thing to me

In general, would you say your physical health is…?

In general, would you say your psychological health is…?

Has the COVID-19 pandemic affected your (check all that apply):

- Mental wellbeing
- Emotional wellbeing
- Physical wellbeing

Prior to the COVID-19 pandemic, how frequently did you attend a religious service (check one)?

- More than once a week
- Once a week
- Once or twice a month
- A few times a year
- Never

If you attended religious services prior to the COVID-19 pandemic, please state why. Please rate the importance of each option.

- These services are important to my beliefs
- It is important to observe religious holidays
- I go to be with my family
- I go because it feels nice to be a part of the community
- I go out of habit

Since the beginning of the COVID-19 pandemic, how frequently have you attended a religious service (check one)?

- More than once a week
- Once a week
- Once or twice a month
- A few times a year
- Never

If you have attended religious services since the beginning of the COVID-19 pandemic, please state why. Please rate the importance of each option.

- These services are important to my beliefs
- It is important to observe religious holidays
- I go to be with my family
- I go because it feels nice to be a part of the community
- I go out of habit

If you do not attend, or rarely attend religious services, please state why. Please rate the importance of each option.

- I am not a member of a religion
- I do not think that such services are necessary for my belief system
- The services are boring or uninteresting
- There is nowhere locally for me to go

Please rate how well you feel you understand the written teachings of each of the following traditions.

- Christianity
- Islam
- Hinduism

- Atheism

Manipulation Check

Was there anything about the passages that you read that you felt was odd or that did not fit in with your understanding of the teachings of the group that it was associated with?

The Revised 12-Item Religious Fundamentalism Scale

1. God has given humanity a complete, unfailing guide to happiness and salvation, which must be totally followed.
2. No single book of religious teachings contains all the intrinsic, fundamental truths about life.
3. The basic cause of evil in this world is Satan, who is still constantly and ferociously fighting against God.
4. It is more important to be a good person than to believe in God and the right religion.
5. There is a particular set of religious teachings in this world that are so true, you can't go any "deeper" because they are the basic, bedrock message that God has given humanity.
6. When you get right down to it, there are basically only two kinds of people in the world: the Righteous, who will be rewarded by God; and the rest, who will not.
7. Scriptures may contain general truths, but they should NOT be considered completely, literally true from beginning to end.
8. To lead the best, most meaningful life, one must belong to the one, fundamentally true religion.
9. "Satan" is just the name people give to their own bad impulses. There really is *no such thing* as a diabolical "Prince of Darkness" who tempts us.
10. Whenever science and sacred scripture conflict, *science* is probably right.
11. The fundamentals of God's religion should never be tampered with or compromised with others' beliefs.

12. *All* of the religions in the world have flaws and wrong teachings. There is *no* perfectly true, right religion.

Note: If a participant identified themselves as Muslim, all instances of "God" were changed to "Allah".

The Big Five Inventory–2 (BFI-2)

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others?* Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

I am some who…

Is outgoing, sociable.	Is sometimes shy, introverted.
Is compassionate, has a soft heart.	Is helpful and unselfish with others.
Tends to be disorganized.	Keeps things neat and tidy.
Is relaxed, handles stress well.	Worries a lot.
Has few artistic interests.	Values art and beauty.
Has an assertive personality.	Finds it hard to influence people.
Is respectful, treats others with respect.	Is sometimes rude to others.
Tends to be lazy.	Is efficient, gets things done.
Stays optimistic after experiencing a setback.	Often feels sad.
Is curious about many different things.	Is complex, a deep thinker.
Rarely feels excited or eager.	Is full of energy.
Tends to find fault with others.	Is suspicious of others' intentions.
Is dependable, steady.	Is reliable, can always be counted on.

Is moody, has up and down mood swings.	Keeps their emotions under control.
Is inventive, finds clever ways to do things.	Has difficulty imagining things.
Tends to be quiet.	Is talkative.
Feels little sympathy for others.	Can be cold and uncaring.
Is systematic, likes to keep things in order.	Leaves a mess, doesn't clean up.
Can be tense.	Rarely feels anxious or afraid.
Is fascinated by art, music, or literature.	Thinks poetry and plays are boring.
Is dominant, acts as a leader.	Prefers to have others take charge.
Starts arguments with others.	Is polite, courteous to others.
Has difficulty getting started on tasks.	Is persistent, works until the task is finished.
Feels secure, comfortable with self.	Tends to feel depressed, blue.
Avoids intellectual, philosophical discussions.	Has little interest in abstract ideas.
Is less active than other people.	Shows a lot of enthusiasm.
Has a forgiving nature.	Assumes the best about people.
Can be somewhat careless.	Sometimes behaves irresponsibly.
Is emotionally stable, not easily upset.	Is temperamental, gets emotional easily.

Has little creativity.	Is original, comes up with new ideas.

Satisfaction with Life Scale

Instructions: Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

____ In most ways my life is close to my ideal.

____ The conditions of my life are excellent.

____ I am satisfied with my life.

____ So far, I have gotten the important things I want in life.

____ If I could live my life over, I would change almost nothing

Curriculum Vitae

Rory McPhee

Education

MA: Experimental and Applied Psychology, The University of New Brunswick, Saint John

- Thesis: *Ideological Prejudice Among Religious Fundamentalists and Atheists*
- Completed: Graduating May 2025

BA: Psychology, 1st Class Honours, The University of New Brunswick, Saint John

- Thesis: *Cognition and Religiosity: Does an Induced Cognitive Style Influence Fundamentalist Religious Beliefs?*
- Criminal Justice Minor
- Graduated Spring 2016

Research Projects

Technology Use: The Influence of Psychological Variables

- Presented at the *International Psychological Applications and Trends* conference in Budapest, Hungary

Use of Scientific Inscriptions in Library Sciences: An Empirical Study of Publication Practices

Detecting Deceit from Idiosyncratic Deception Clues

Exploring the Relationship Between Cannabis Use and Baseline Reported Health Considerations in Canadian Spine Surgery Patients

Exploring the Impact of the COVID-19 Pandemic/Lockdown on Spine Surgery Patients in Canada

How Does the Outcome of Spinal Surgery Affect Psychological Factors such as Kinesiophobia, Chronic Pain, Pain Catastrophizing, Social Support, and General Mental Health in Patients?

- Winner, "Best paper by a medical student, resident, or fellow" at the National 2021 Canadian Spine Society Meeting
- Winner, 1st place "Poster Presentation Award for Undergraduate, Medical and Master Student" at the 2021 Health Research Week for the New Brunswick Health Research Foundation

Effects of Intraoperative Ropivacaine Epidural Injection on Post-Operative Outcomes Following Elective Lumbar Fusion

Predicting Health-Related Quality of Life Outcomes Following Major Scoliosis Surgery in Adolescents: A Group-Based Trajectory Analysis

Enhanced Recovery after Surgery

Assessing the Medical Experiences of High Acuity Patients Living in Homelessness in Saint John, New Brunswick: Part 1: Retrospective Analysis of Patients Living with Homelessness Health Care Utilization

Predicting Health-Related Quality of Life Outcomes Following Major Scoliosis Surgery in Adolescents: A Latent Class Growth Analysis

The Effects of Preoperative Carbohydrate Loading on Elderly Patients Undergoing Orthopaedic Spine Surgery – A CSORN Study

A Prospective, Multi-center, Randomized Controlled Study to Evaluate the Safety and Efficacy of ARCR Augmented with REGENTETEN Bioinductive Implant System in Full-Thickness Tears (Large or Massive) Repair Versus ARCR Alone

Exploring the Relationship between Cannabis and Narcotic Use on Pre-Operative Health Considerations in Canadian Thoracolumbar Patients: A CSORN Study

Minimally Invasive vs. Open Thoracolumbar Surgery for Patients who have Lumbar Spinal Stenosis and an ASA Score of Greater than 2—A CSORN Study

The Impact of Cardiovascular Health as Measured with the Alberta Heart Disease Risk Calculator on the Outcomes of Lumbar Fusion Surgery

Impact of Undergoing Thoracolumbar Spin Surgery on Patient Psychosocial Profiles

Relation Between Subjective and Physical Well-Being and Mindfulness

Awards

- Henry J. Marquis Prize, 2015-2016
- 1st place "Poster Presentation Award for Undergraduate, Medical and Master Student", NBHRF's Health Research Week 2021