

## Unpacking the Relationship between Religiosity and Conspiracy Beliefs in Australia

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**Abstract**

We examined the interrelation between religiosity, anti-intellectualism and political mistrust in predicting belief in conspiracy theories. Improving on previous psychological research on the link between religiosity and societal and political attitudes, we assessed the predictive power of religious self-categorization and the importance attached to one's own (non)religious worldview predicting belief in conspiracy theories separately. Applying quota sampling in a study in Australia (N = 515) the sample consisted of 48.9% believers (i.e., those who self-categorized as religious persons) and 51.1% non-believers (i.e., those who self-categorized as non-religious persons). The results showed that believers and non-believers did not differ in the belief in conspiracy theories. Unpacking this further though, we did find that the extent to which religious worldviews were endorsed predicted belief in conspiracy theories. Among believers, the importance attached to their religious worldview was directly associated with higher belief in conspiracy theories and this link was partly mediated by higher anti-intellectualism. Political trust, in turn, served as an inhibitor of the link between religiosity and conspiracy beliefs. Among non-believers, there was no direct association between the importance of non-religious worldview and belief in conspiracy theories. However, we found that higher trust in political institutions accounted for the negative association between non-religious worldview and lower belief in conspiracy theories. The results underline the importance of distinguishing religiosity as a self-categorization and religiosity as a worldview. We find that it is not the self-categorization as religious, but the extent to which religious worldviews are endorsed that could predict people's beliefs in conspiracy theories.

### **Unpacking the Relationship between Religiosity and Conspiracy Beliefs in Australia**

In recent years, the psychology of beliefs in conspiracy theories has attracted the attention of both the media and scholars (Mancosu, Vassallo, & Vezzoni, 2017; Swami,

Pietschnig, Tran, Nader, Stieger, & Voracek, 2013; Douglas, Sutton, & Cichocka, 2017; van Prooijen & Douglas, 2018). Conspiracy theories can be defined as a subset of false narratives in which the ultimate cause of an event is believed to be due to a malevolent plot by multiple actors working together (Swami et al., 2013; Swami & Furnham, 2014). In addition to research focusing on conspiracy beliefs as an individual characteristic (e.g., Imhoff & Bruder, 2014) whereby researchers focus on demographic and personality factors to explain who is most likely to believe in conspiracy beliefs (e.g., Marchlewska, Cichocka, & Kossowska, 2018), there has been growing attention for the study of these beliefs in relation to ideological attitudes and worldviews (e.g., Mashuri & Zaduqisti, 2014; Swami, 2012). Here, we examine the interrelation between religiosity, anti-intellectualism and political mistrust in predicting belief in conspiracy theories. While religiosity has been measured in a myriad of ways in previous work, here, in acknowledgement of the complexity of this concept, we distinguish self-categorizations as (non)religious from worldviews that are more or less determined by (non)religiosity. With this focus, we fill an important gap in social psychological research on conspiracy theories. Before unpacking our reasoning, we review past work on beliefs in conspiracy theories.

### **Belief in conspiracy theories**

Until very recently, research on belief in conspiracy beliefs has been dominated by Hofstadter's (1966) seminal work on "paranoid styles", where he describes "political personalities" in American politics that subscribe to right-wing conspiracy theories in clinical terms (ref. Swami et al., 2011, 2013). Given this tradition, it is not surprising that much previous research conducted in the Anglo-American context focused primarily on the role of individual, often personality-related, factors in predicting conspiracy beliefs. For example, in Britain, Swami, Chamorro-Premuzic, and Furnham (2010) examined individual and demographic predictors of beliefs in conspiracy theories concerning 9/11. They found that conspiracy beliefs were positively associated with beliefs in other conspiracy theories, degree of exposure to 9/11 conspiracy ideas, political cynicism, defiance of authority and individual differences in agreeableness. Swami and Furnham (2012) validated these results in their later examination of the British general public's beliefs about the disappearance of Earhart and Noonan. To explain who is most likely to endorse conspiracy beliefs, others have also focused on the need for uniqueness (Imhoff & Lamberty, 2017), need for cognitive closure (Marchlewska et al., 2018), authoritarianism (Grzesiak-Feldman, 2015; Imhoff & Bruder, 2014, Study 2), and paranoid ideation and schizotypy (Darwin, Neave, & Holmes, 2011; for a meta-analysis, see Imhoff & Lamberty,

2018). Still other researchers have suggested that Moscovici's (1987) "conspiracy mentality" forms a meaningful predictor—an individual-difference, which is assumed not to be reducible to the influence of demographic factors or personality traits (Imhoff & Bruder, 2014).

However, Radnitz (2012) and Swami et al. (2013) argued that the search for stable individual-level factors prevents us from identifying the mechanisms that underpin conspiratorial beliefs in current turbulent social and political realities. In an attempt to map out social psychological drivers of conspiracy beliefs, Swami (2012) examined correlates of belief in a Jewish conspiracy theory in Malaysia. Results of their first study showed that belief in this conspiracy theory was positively associated with anti-Israeli attitudes, modern racism directed at the Chinese, right-wing authoritarianism, and social dominance orientation. This work was followed by research by Mashuri and Zaduqisti (2014), who investigated among Indonesian Muslim students the effect of intergroup threat and social identity salience on the belief in terrorism conspiracy theories. Their results demonstrated that higher perceptions of intergroup threat triggered greater belief in conspiracy theories, particularly when Muslim identity was salient. They also found that collective angst mediated the effect of intergroup threat on belief in conspiracy theories. In sum, this work shows initial evidence that beliefs in conspiracy theories are related to not only individual but also social factors. Conspiracy beliefs need thus to be seen as a social phenomenon and they are interrelated with ones' social identity (i.e., the importance and value attached to a particular social group membership) (e.g., van Prooijen & Douglas, 2018).

### **Religiosity and the belief in conspiracy theories**

Here, we focus on a specific and in social psychological studies quite rarely assessed factor that might define people's social identity and explain belief in conspiracy theories—religiosity. In our conceptualisation, we treat religiosity not only as self-categorisation (i.e., ranging from religious to non-religious), but most importantly as a worldview or ideology and it is akin to any other identity that helps people to position themselves in the world (Barreto, Cooper, Gonzalez, Parker, & Towler, 2011; Sunstein & Vermeule, 2009). In this view, (non)religiosity can trigger and make salient a shared group identity with all others who self-categorise as (non)religious. The content of this shared identity is informed by cultural values, attitudes and behaviours, including political behaviours (Esmer & Pettersson, 2007).

What then is the link between religiosity and the belief in conspiracy theories? It is clear that research evidence is not straightforward. On the one hand, there is indirect

evidence that religiosity is positively correlated with the belief in conspiracy theories. Broader beliefs that support conspiracy theories in general are assumed to underpin the tendency to believe in conspiracy theories (van Prooijen & Douglas, 2018). Beliefs in God that have been connected with perceiving the world as a place where everything is planned and controlled (Laurin, Kay, & Moscovitch, 2008) might well serve this function. Indeed, previous research has linked religiosity to higher conformity and security values (Schwartz & Huismans, 1995), stronger conservatism and traditionalism (Norris & Inglehart, 2004), and higher political conservatism (Esmer & Pettersson, 2007). As there is no room for coincidence, random events are threatening and seen as a consequence of secret actions performed by a group of malevolent people (Imhoff & Bruder, 2014), and so religious individuals with high religious identification may be more inclined to endorse conspiracy beliefs than non-religious individuals.

On the other hand, recent studies seem to suggest that both more conservative and religious and less conservative and non-religious individuals may adhere to conspiracy beliefs for different reasons (e.g., Farias, 2013). This notion represents the functional view on conspiracy beliefs and the so-called belief replacement hypothesis, according to which people are naturally predisposed to believe and that those who reject religion, intuitively choose something else to replace it with (e.g., Newheiser, Farias, & Tauch, 2011). Based on this view, atheists too, whether explicitly or implicitly, espouse various types of beliefs that are meaningful, help them to explain the world and, ultimately, can play a compensatory role in dealing with adverse circumstances. According to Newheiser and colleagues (2011), Existentialism, New Atheism, Humanism and Marxism are examples of such beliefs systems endorsed by atheists, but also less clearly structured beliefs, like conspiracy theories, can appeal to atheists.

In relation to factors explaining the association between (non)religious worldview and conspiracy beliefs, anti-intellectualism and political trust are critical. The search for scientific explanations has been found to be predicted by non-religious worldviews and atheism but not by religiosity (see Pigliucci, 2013), and there is initial evidence that religiosity is associated with anti-intellectualism (Laverghetta, Stewart, & Weinstein, 2007). Moreover, several studies showed that individuals who are more likely to adopt a scientifically sceptical attitude are more sceptical of logical fallacies presented in conspiracy theories (Swami et al., 2014). This is because analytical or rational thinking make people more attentive to the logical consequentiality or the lack of such in conspiracy theories (Berinsky, 2017; Swami, Voracek, Stieger, Tran, & Furnham, 2014; Wood,

Douglas, & Sutton, 2012). Swami and his colleagues (2011; Swami & Furnham, 2012) have also found that belief in conspiracy theories is associated with stronger paranormal beliefs, lower crystallized intelligence and lower self-assessed intelligence. This suggests that, compared to a non-religious worldview, stronger religious worldview should be related more strongly to anti-intellectualism, and this, in turn, may account for the observed positive link between religiosity and conspiracy beliefs.

There is also preliminary evidence suggesting a dual pathway whereby not only anti-intellectualism, but also political trust serves as a mediator in the relationship between religiosity and conspiracy beliefs. Devos, Spini, and Schwartz (2002) argued that because political institutions represent social order and stability in society, trust in institutions is more characteristic of people high in conservation and security values (e.g., religious) as opposed to those high in openness to change and self-direction values (e.g., non-religious). In their study among Swiss undergraduates, religious identification predicted trust in institutions, and this was due to prioritising conservative values (Devos et al., 2002). Similarly, higher religiosity predicted higher trust in the U.S. government (Cook & Gronke, 2005) and in the U.S. Supreme Court (Wisneski, Lytle, & Skitka, 2009). Religiosity has also been shown to be associated with higher trust in institutions in general, and political institutions in particular (e.g., Cook & Gronke, 2005). It has also been found that higher levels of political trust in civic and political institutions are associated with lower conspiracy beliefs (Einstein & Glic, 2015; Swami et al., 2010, 2011; but see Mancosu et al., 2017). This leads us to suggest that political trust should inhibit and suppress the effect of religiosity on conspiracy beliefs.

However, there are also studies suggesting other, even reverse, associations between political trust and conspiracy beliefs. For example, in studies by Imhoff and Bruder's (2014), conspiracy beliefs were associated with a dislike of powerful groups, the tendency to see them as threatening, and low levels of trust in the ruling forces. Imhoff and Bruder (2014) suggest that on the one hand, conspiracy beliefs could be associated with conservatism and authoritarianism and so with less likelihood of engagement in actions to challenge existing power structures in society. On the other hand, they could also be related to political mistrust and behaviours aimed at challenging the status quo and its prevailing power relations. Therefore, in this study, we are open to the possibility that it is political mistrust and not political trust, which is associated with a lower belief in conspiracy theories. According to Catterberg and Moreno (2006), this might occur also when secular or an anti-religious orientation is an active choice reflecting a more critical

citizenship and a wish to confront conservative societal values and challenge authority. It thus seems that the consequences of political trust are unclear and both political trust and political mistrust may, for different reasons, be associated with higher belief in conspiracy theories among religious and non-religious individuals.

### **Religiosity as self-definition versus endorsement of a religious worldview**

To gain a better understanding of the pathways through which religiosity predicts the belief in conspiracy theories, it is instructive to provide greater clarity on the religiosity concept. In our conceptualisation, we draw on work by Esmer and Pettersson (2007), who have argued that there is a fundamental difference between being a devout and deeply committed member of a faith and belonging to it nominally. In a similar vein, one's non-religious affiliation may vary in the degree to which the non-religious worldview is central and important. Therefore (as is the case with many other social identities), not only the self-categorization as a member of a (non)religious group, but also the strength of, or the importance attached to, (non)religious orientation should be considered when studying potential differences between the devoted, the secular and those who are indifferent (Esmer & Pettersson, 2007). This is consistent with reasoning by Allport and Ross (1967) who suggested to differentiate between highly pro-religious and highly non-religious or anti-religious orientations and to assess their impact separately. Even though this suggested distinction has been found to be conceptually and empirically useful (see Hood, 1978), it has rarely been acted upon in empirical research. However, this distinction is important for our current purposes because it leaves open the possibility that religious and non-religious individuals may believe in conspiracy theories to the same extent (Farias, 2013), with differences in the predictive power of (non)religiosity emerging only after accounting for the strength of their (non)religious identifications.

Moreover, by distinguishing self-categorization from strength of endorsement of (non)religious worldviews, we are in a better position to examine the processes underlying the link between (non)religiosity and conspiracy beliefs. For example, it may be the case that rather than self-categorization as religious or non-religious, it is strength of the worldview that predicts belief in conspiracy theories. In other words, it may not be the case that religious self-categorisation should be as such related to higher belief in conspiracy theories but that higher belief in conspiracy theories is characteristic of those believers who place greater importance on their religious worldview, which, in turn, makes them more inclined to anti-intellectualism or political mistrust.

To assess the importance attached to (non)religious worldviews among both religious and non-religious individuals, we employ the framework of religious orientations developed by Allport and Ross (1967), in which they argued for the need to account for both intrinsic and extrinsic functions of one's worldview. They defined these orientations as "the extrinsically motivated person uses their religion, whereas the intrinsically motivated lives his/her religion" (p. 434). We also include the measurement of a third dimension of religiosity; the quest dimension of religiosity. This dimension was introduced by Batson and Schoenrade (1991) in an attempt to capture an individual's search for meaning which is implicitly present in every worldview, be it religious or non-religious.

### **The present research**

There are at least three limitations that characterise social psychologically oriented research on religiosity and conspiracy beliefs: (a) it typically approaches religiosity via religious (self)categorization only, (b) it neglects the role of non-religious worldview in predicting conspiracy beliefs, and (c) it looks for direct associations and has not yet explored the mechanisms explaining the link between (non)religious worldview and belief in conspiracy theories (see e.g., Swami et al., 2010). The present study aims to make a contribution to the fields of social and political psychology of religion by examining the relationship between religious and non-religious orientations and conspiracy beliefs.

First, we study whether there is a difference between religious and non-religious individuals (self-categorisation) on the degree they adhere to conspiracy beliefs (RQ1). We further suggest that it is not so much self-definition as religious or non-religious that predicts conspiracy beliefs, but the significance people attach to their (non)religious worldviews that may predict conspiracy beliefs (RQ2). In addition, we examine whether political (mis)trust and anti-intellectualism could explain the link between (non)religiosity and conspiracy beliefs (RQ3). The theoretical model of the study is presented in Figure 1. Due to the controversies in previous research on the link between religiosity and conspiracy beliefs discussed above, we do not make specific hypotheses, but rather explore whether anti-intellectualism and political (mis) trust mediate the link between (non)religiosity and conspiracy beliefs and whether they do so in different ways for believers and non-believers. Specifically, we will explore whether, for believers, strength of religious worldview is associated with higher anti-intellectualism and this predicts their higher belief in conspiracy theories, whereas, for non-believers, it is political (mis)trust that accounts for the association between their non-religious worldview and lower belief in conspiracy beliefs. However, considering the cross-sectional nature of the data of this



study and given previous research which has suggested that conspiracy mentality may function as an antecedent of political (mis)trust and ideological beliefs (e.g., Imhoff & Bruder, 2014), we also account for the reversed causality of the associations in the proposed model.

We examined predictions in a community sample in Australia. Australia is a rather secular country and in the 2016 census, only 52.1% of Australians declared to belong to a Christian faith group (22.6% Catholic, 13.3% Anglican, and 16.3% other Christian). In 2016, 30.1% of Australians indicated “no religion” and 9.6% chose not to answer the question. Australians with other faiths (e.g., Islam, Buddhism, Hinduisim) make up less than 10% of the population. We focused in our research on those with a Christian faith and we conducted our study among Australians who identified as being from Anglo-Saxon origin.

INSERT FIGURE 1 HERE

## Method

### Participants

The data was collected in 2017. In total, 515 Australians of European/Caucasian background took part in the study. Participation was voluntary and anonymous. The age of the participants ranged from 19 to 80 years ( $M = 43.47$ ,  $SD = 16.41$  years). There was an equal gender distribution in the sample (51.1% females). A quota sampling procedure was employed in order to obtain a similar number of those who self-categorized as religious as non-religious individuals. Respondents were asked to respond to four items measuring their religiosity: “I don’t believe in God now and I never had”, “I don’t believe in God now, but I used to”, “I believe in God now, but I didn’t use to”, and “I believe in God now and I always have”. Those respondents who answered positively (yes-no) to either of the two first items were classified as non-believers, whereas those who answered positively to either of the last two mentioned items, were classified as believers. Based on their response to this religious self-categorization question, participants were then presented with one of two different versions of the (non)religious orientations scale. In other words, the 48.9 % participants of the sample who identified themselves as believers (i.e., self-categorized as a religious person) answered questions assessing the importance of their religious worldview, while the 51.1% who self-categorized as non-believers (i.e., those who perceived themselves as spiritual but not religious) answered the same questions but considering the importance of their non-religious worldview. All other measures of the

survey were identical for both subgroups. The recruitment process lasted until we reached an equal number of religious and non-religious participants in our sample.

### Measures

**Conspiracy beliefs.** A single item was used to assess conspiracy beliefs among the respondents. This item was validated in French and English and its reliability and convergent, discriminant and predictive validity was established in 3 studies with a total of 555 participants (Lantian, Muller, Nurra, & Douglas, 2016). The item reads: “Some political and social events are debated (for example: 09/11 attacks, the death of Lady Diana, the assassination of John F. Kennedy). It is suggested that the “official version” of these events could be an attempt to hide the truth from the public. This “official version” could mask the fact that these events have been planned and secretly prepared by a covert alliance of powerful individuals or organizations (for example secret services or government). What do you think?” Participants were then asked to indicate to what extent the following sentence represents how you think about this: “I think that the official version of the events given by the authorities very often hides the truth”. Responses could range from “completely false” (1) to “completely true” (9).

**Importance of (non)religious worldview.** The short version (9 items) of the original Religious Orientation scale developed by Allport and Ross (1967) was modified and used to measure the importance of religious and non-religious worldviews among believers and non-believers respectively. The items covered extrinsic (e.g., “At times, I have to make compromises in convictional issues for social and economic reasons.”), intrinsic (e.g., “My world view is the basis for my whole attitude towards life.”) and quest (e.g., “In my worldview questions are more important than answers.”) contents of (non)religious orientation. Items were measured on a 7-point scale with 1 = strongly disagree, 7 = strongly agree. A summed score Importance of worldview was composed with higher values reflecting a stronger adherence to one’s own (non)religious worldview.

**Political Trust.** Five items adapted from the European Social Survey (2012) assessed participants’ trust in political institutions in Australia. One item assessed their trust in the UN. Sample items are: “I trust the government of Australia” and “I trust politicians in my country”. Items were measured on a 7-point scale with 1 = strongly disagree, 7 = strongly agree. A summed Trust score was composed with higher values reflecting a higher trust to political institutions.

**Anti-intellectualism.** Ten items were used to assess the adherence to anti-intellectualism thinking among respondents. The items were developed specifically for this study. The scale included the following statements (measured on a 7-point scale with 1 = strongly disagree, 7 = strongly agree) “Some people think highly of higher education, but I think it is more important to just go out and do things”, “Some people are too intellectual and therefore miss the obvious”, “The main problems in life require clear and direct answers, not intellectual theorizing”, “I am not interested in hearing experts’ opinions”, “Common sense and intuition are a good starting point to solve societies’ problems”, “I often feel angry towards people who claim to be experts”, “Experts are out of touch with the real world”, “Experts lose the ability to recognize society’s real problems”, “The world would be a better place if we relied on common sense rather than expert knowledge” and “It is common people who really understand the world.” A summed score Anti-intellectualism was composed with higher values reflecting a higher anti-intellectualism.

**Control variables.** We controlled for age and gender as these variables have been shown to have an effect on beliefs in conspiracy theories (e.g., Douglas, Sutton, Callan, Dawtry, & Harvey, 2016), political trust (e.g., Catterberg & Moreno, 2006), and on civic morality (i.e., the sense of civic responsibility for the public good) in general (e.g., Letki, 2006).

## Results

### Descriptive statistics and correlations

Descriptive statistics of the main constructs and controls by group (believers and non-believers) are displayed in Table 1. Believers attached more importance to their religious worldview than non-believers to their non-religious worldview ( $t(513) = -5.203, p < .001$ ). Believers also scored higher on trust to political institutions ( $t(513) = -5.055, p < .001$ ) and anti-intellectualism ( $t(513) = -3.807, p < .001$ ) than non-believers. In relations to our RQ1, on average, both groups showed the same endorsement of conspiracy beliefs ( $t(513) = -1.556, p = .120$ ).

INSERT TABLE 1 HERE

Pearson correlations were computed by using the variables’ summed scores for two subgroups separately (see Table 2).

INSERT TABLE 2 HERE

The correlations show that, among believers, conspiracy beliefs were significantly interrelated with more importance attached to religious worldview and higher anti-intellectualism. Among non-believers, there was no association between the importance of their non-religious worldview and conspiracy beliefs. Conspiracy beliefs among non-believers were, however, associated with less trust in political institutions and higher anti-intellectualism.

### Mediation analyses

Multiple regression analyses were employed to assess the relationship between the importance of worldview (religious and non-religious) and conspiracy beliefs in the two subsamples of believers and non-believers (RQ2) and whether it is mediated by trust in political institutions and anti-intellectualism (RQ3). This was first done by two separate multiple mediation analyses for both subsamples using PROCESS 3.0 Macro for SPSS Statistics (Hayes, 2018). We regressed conspiracy beliefs (Model 4) on the importance of worldview accounting for the role of gender and age. To investigate the indirect effects of the importance of (non)religious worldview on conspiracy beliefs via trust to political institutions and anti-intellectualism, a bootstrap of 5000 was conducted to establish estimates of the standard errors. In order for the indirect effects to be considered significant, zero cannot fall in between a 95% bias confidence interval (Preacher & Hayes, 2008).

First, the regression model for believers ( $n = 248$ ) was significant ( $F(5, 254) = 5.410, p < .001$ ). A further examination of the model displayed in Figure 2 showed that both the independent variable (the importance of religious worldview) and both mediators were directly associated with conspiracy beliefs. Whereas the importance of religious worldview ( $p = .026$ ) and anti-intellectualism ( $p < .001$ ) were both positively associated, trust in political institutions was negatively ( $p = .009$ ) associated with conspiracy beliefs among believers. None of the control variables was significantly associated with conspiracy beliefs among believers. In relation to the assumed indirect effects, the importance of religious worldview was directly and positively associated with both anti-intellectualism ( $p = .001$ ) and trust in political institutions ( $p = .019$ ), and both anti-intellectualism (95% CI [.019, .175]) and trust in political institutions (95% CI [-.121, -.004]) mediated the effect of religious worldview on conspiracy beliefs. The total effect of the importance of religious worldview on conspiracy beliefs among believers was .29 ( $p =$

.010). The results for believers suggest that religious worldview is associated with higher beliefs in conspiracy theories and that this effect has a dual pathway: whereas trust in political institutions alleviates conspiracy beliefs, religious worldview is related to higher anti-intellectualism, which, in turn is associated with higher beliefs in conspiracy theories among believers.

INSERT FIGURE 2 HERE

Next, we estimated the similar model for non-believers ( $n = 260$ ). The regression model was again significant ( $F(5, 254) = 18.347, p < .001$ ). A further examination of the model displayed in Figure 3 showed that, consistent with the observed correlations, only hypothesized mediators but not the importance of non-religious worldview were directly associated with conspiracy beliefs. As in the sub-sample of believers, whereas anti-intellectualism was positively associated ( $p < .001$ ), trust in political institutions was negatively associated ( $p = .003$ ) with conspiracy beliefs among non-believers. While age was unrelated to conspiracy beliefs, females were more likely to endorse conspiracy beliefs ( $p = .003$ ). In relation to the assumed indirect effects, the importance of non-religious worldview was significantly and positively associated with more trust in political institutions ( $p = .011$ ), which, in turn, mediated the link between non-religious worldviews and conspiracy beliefs (indirect effect: 95% CI  $[-.103, -.006]$ ). However, the indirect effect of the importance of non-religious worldview via anti-intellectualism was not significant (indirect effect: 95% CI  $[-.097, .099]$ ). The total effect of the importance of non-religious worldview on conspiracy beliefs among non-believers was  $.09$  ( $p = .317$ ). The results thus suggest that while anti-intellectualism as such also fuels conspiracy beliefs among non-believers, their stronger non-religious worldview is related to more trust to politics and institutions, which, in turn, inhibits believing in conspiracy theories.

INSERT FIGURE 3 HERE

Finally, to corroborate the group differences obtained in the separate mediation models reported above, we ran a moderated multiple mediation model (Model 59), in which we tested whether the effects of the importance of (non)religious worldview on conspiracy beliefs via anti-intellectualism and trust to political institutions differ between (moderated by) the two subgroups studied (believers vs non-believers). At this point it is important to acknowledge that our interest was only in moderation and not in direct or mediating effects as the independent variable—importance of (non)religious worldview—is assessed differently and has a different meaning in the two subgroups studied. The results generally confirmed our previous findings. The model was significant

( $F(7, 500) = 15.011, p < .001$ ) and accounted for 17 % of the variance of conspiracy beliefs in the whole sample. The importance of one's worldview was directly and positively associated with more conspiracy beliefs only among believers (conditional direct effect: 95% CI [.041, .467]). In other words, the more importance religious participants attached to their religious worldviews, the more inclined they were to endorse conspiracy beliefs.

In addition, among believers, the effect of the strength of religious worldview on conspiracy beliefs was mediated by both anti-intellectualism (indirect effect: 95% CI [.019, .179]) and political trust (indirect effect: 95% CI [-.131, -.010]): while anti-intellectualism accounted for the link between religiosity and conspiracy beliefs, more trust in political institutions counterbalanced the effect of religiosity on conspiracy beliefs. However, in contrast to the results of the separate model, no indirect effect of non-religious worldview via trust was obtained for non-believers in this combined model. Finally, partly due to the relatively small sample size, the overall indices for moderated mediation effects (via trust -.021 and via anti-intellectualism .056) and pairwise contrast between conditional indirect effects did not reach statistical significance.

Next, the reversed moderated mediation model was tested to check whether the associations studied could also refer to a reversed causality (i.e., conspiracy beliefs' effect on the importance of worldview via anti-intellectualism and political trust moderated by group). The model was significant ( $F(7, 500) = 7.973, p < .001$ ) and accounted for 10 % of the variance of the importance of (non)religious worldview. The results resembled the associations found in the previous model: conspiracy beliefs was associated with religious worldview among believers and both political trust and anti-intellectualism accounted for that association. However, again, the overall indices for moderated mediation effects (via trust .005 and via anti-intellectualism .021) did not reach statistical significance. Finally, the reversed mediation effect was tested, i.e., whether anti-intellectualism and political trust are associated with conspiracy beliefs via increased importance of ones' worldview. The results showed support for this model for believers: higher anti-intellectualism (moderated mediation index = .058, 95% CI [.005, .149]) and higher political trust (moderated mediation index = .014, 95% CI [-.032, -.064]) were associated with more importance of religious worldview, which in turn was associated with more conspiracy beliefs among believers.

In sum, our results suggest that even though both groups, believers and non-believers adhere to conspiracy beliefs to the same extent conspiracy beliefs are associated

with political trust and anti-intellectualism, and it is these associations which differ for believers and non-believers. While higher anti-intellectualism accounts for the link between conspiracy beliefs and religious worldview, higher political trust acts as an inhibitor of conspiracy beliefs in both groups. As we will elaborate in the next section, another important result relates to the finding that these associations were reciprocal.

### Discussion

Even though previous research has proposed that religiosity may be positively associated with conspiracy beliefs and that anti-intellectualism and political trust may account for this association (see e.g., Laverghetta et al, 2007; Swami et al., 2010, 2011, 2013, 2014), this previous work has failed to empirically assess the role of these factors in predicting belief in conspiracy theories simultaneously. In their focus on religiosity, researchers have also overlooked non-religious individuals and the extent to which they may similarly adhere to conspiracy beliefs, albeit for different reasons. Moreover, the issue of whether it is (non)religious group membership (which is often intersectional with other social, ethnic and political categories) or the strength of and/or importance attached to one's (non)religious worldview that predicts belief in conspiracy theories has until now remained unexplored.

This study aimed to overcome these theoretical and methodological shortcomings by disentangling the predictive power in the adherence to conspiracy beliefs of (non)religious self-categorization from that of the importance attached to (non)religious worldview. In a nation-wide sample of adult Australians of Anglo-Saxon descent, we explored the role of two mediators (anti-intellectualism and political trust) that may account for the link between religiosity and belief in conspiracy theories in a Christian population in a Western society.

To begin with, our results showed that, on average, both believers and non-believers adhered to the same extent to conspiracy theories. This finding is important for two reasons. First, it suggests that we need to be careful when attributing belief in conspiracy theories to religious segments of society only. Second, our follow-up analyses confirm that there are more complex psychological dynamics that explain belief in conspiracy theories among both religious and non-religious individuals and that a more nuanced analysis is required to uncover these patterns.

Specifically, when looking more closely at the association between the (non)religious worldview and belief in conspiracy theories, the results suggest that the more importance believers attached to their religious worldview, the more they adhered to

conspiracy beliefs. However, for non-believers, there was no direct association between the strength of their non-religious worldview and belief in conspiracy theories. This suggests that it is not religious self-categorisation as such, but the importance attached to one's religious group identity which matters when explaining belief in conspiracy theories.

In explaining the link between (non)religious identification and belief in conspiracies, we tested the mediating role of two factors: anti-intellectualism and political (mis)trust. We found evidence that both played a role in accounting for this relationship. While anti-intellectualism fueled belief in conspiracy theories, trust in political institutions clearly inhibited conspiracy beliefs. Our results for the two groups separately also showed that while it was anti-intellectualism which accounted for the effect of religious worldview on conspiracy beliefs among believers, among non-believers, it was trust in political institutions, which mediated the effect of non-religious worldview, whereby lower trust predicted a greater belief in conspiracy theories. The results thus provide empirical evidence that these two factors may have different roles in explaining the associations between (non)religious worldviews and belief in conspiracy theories among believers and non-believers. It seems that stronger religious worldview is associated with higher anti-intellectualism and therefore also with less attention for the logical inconsistencies inherent in conspiracy theories. In addition, while political trust alleviated the association between religious worldview and believing in conspiracy theories among believers, political mistrust may create such association among those with a stronger non-religious worldview.

Our results thus sheds some light on two debated issues: (1) whether it is religious or non-religious worldview which is associated with more political trust and (2) whether it is political trust or mistrust which is associated with higher belief in conspiracies. In relation to the first issue, our results corroborate previous findings showing higher levels of political trust among religious people and higher levels of political mistrust among non-religious individuals (see e.g., Cook & Gronke, 2005). However, the results also suggest that political trust inhibits belief in conspiracy theories among both religious and non-religious individuals. While political trust counterbalances the positive link between the religious worldview on belief in conspiracy theories, it is also responsible for a reduced impact of non-religious worldview on conspiracy beliefs among non-believers. Our results also suggest that the link between conspiracy beliefs and political mistrust is most probably reciprocal and, in this regard, results support previous studies showing the mobilizing role of conspiracy mentality and its potential to increase willingness to engage in societal struggle via political mistrust (e.g., Imhoff & Bruder, 2004).



Our findings also challenge the proposition that anti-religious orientation and political mistrust represent critical citizenship and make belief in conspiracy theories less attractive. In fact, political mistrust may reflect corruption permissiveness, political radicalism and post-materialism, rather than a more critical citizenship as such; and so accompany both growing post-materialistic and secular but also religious worldviews and predispose both believers and non-believers to greater belief in conspiracy theories (see e.g., Cattenberg & Moreno, 2005; Rohrschneider & Schmitt-Beck, 2002). Future research should explore the role of trust in the relationship between (non)religious worldviews and belief in conspiracy theories further and focus for example, on whether political trust is beneficial for both worldviews (religious and non-religious) but for different reasons. While in non-religious worldviews, with political trust individuals may demand more responsibility of social and political structures, in religious worldviews, political trust may be a way to show adherence to power values and to attribute a good will to those responsible for our social lives.

Finally, our results suggest that the initially observed lack of group differences in the belief in conspiracy theories between believers and non-believers is more obviously due to the dual effects of (non)religious worldviews on belief in conspiracy theories. Even though, in comparison to non-religious worldview, religious worldviews predispose people to higher anti-intellectualism, it is also associated with more political trust, inhibiting the negative effects of anti-intellectualism. The opposite is true for non-religious worldview: even though, in comparison to religious worldview, it predisposes people to lower anti-intellectualism, it is also associated with less political trust, counterbalancing the positive effects of low anti-intellectualism.

This study is not without limitations. First and foremost, the cross-sectional design of the study prevents us from making any causal conclusions related to the link between (non)religiosity and belief in conspiracy theories and the mediation effects of anti-intellectualism and political trust. For example, in our tests of reversed causality, it was evident that both conspiracy beliefs and anti-intellectualism could also fuel higher religious identification. Most probably, there is a reciprocal relationship in the link between religiosity and the belief in conspiracy theories, which should be explored in greater detail in future studies. Furthermore, there may be other social psychological factors that may explain the link between religiosity and belief in conspiracy theories, such as political and social participation, socio-economic deprivation and perceived intergroup threats and these should be explored in future models attesting the link between religiosity and belief in

conspiracy theories. For example, in this study, political orientation was ( $r = .16^*$ ) associated with political trust so that more conservative participants showed more political trust, and so political and religious conservatism could have an additive affect of beliefs in conspiracy theories. Finally, there might also be other moderators of the association studied. Namely, the relationship between religious worldview and political trust may depend on the whether political leaders are seen as ingroup or outgroup members (see Haslam, Reicher, & Platow, 2010).

Despite these limitations, this study is amongst the first to uncover the link between religiosity and conspiracy beliefs in current secularized western societies. It not only questions the greater adherence to belief in conspiracy theories in religious populations, but also shows factors accounting for this complex association. The finding that non-believers are as prone to conspiracy beliefs as believers deserves perhaps a special note here. New atheism has been alleged to expand the definition of science to encompass “anything that deals with “facts,” loosely conceived” (Pigliucci, 2013, p. 151). Considering the prevalence, spread, and the impact of misinformation and fake news in media and online today (e.g., Lazer et al., 2018), it has become increasingly difficult to evaluate the sources of information and to separate facts from “facts” also for those who believe in and practice scientific thinking. Moreover, the correction of false information and misperception by the presentation of true, factual information is challenging, and the attempts may sometimes even increase misperceptions, especially among ideological groups (see e.g., Nyhan & Reifler, 2010). This calls for more efforts to detect and correct misinformation, but also to challenge individuals and communities to take more responsibility for their attitudes and ideological standings.

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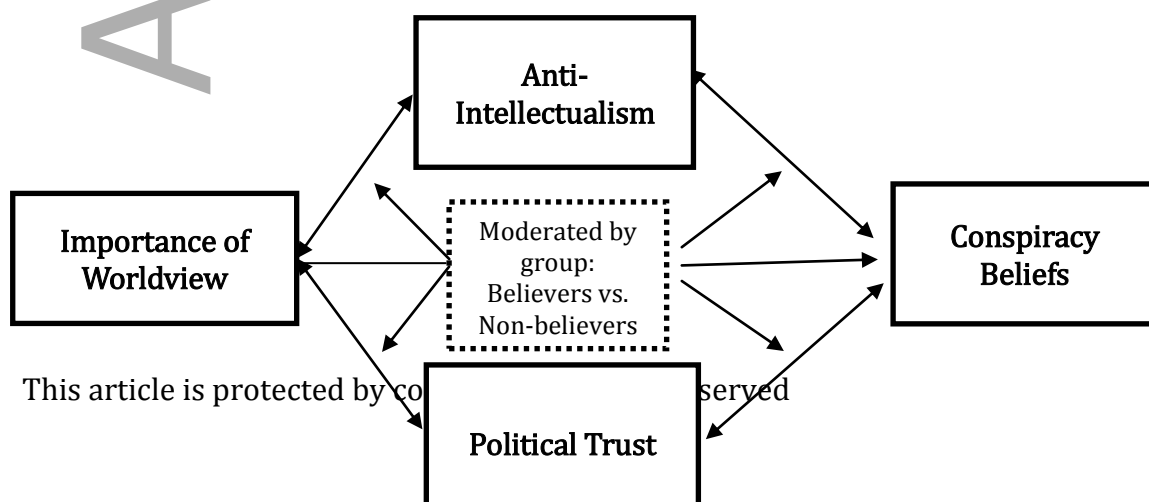
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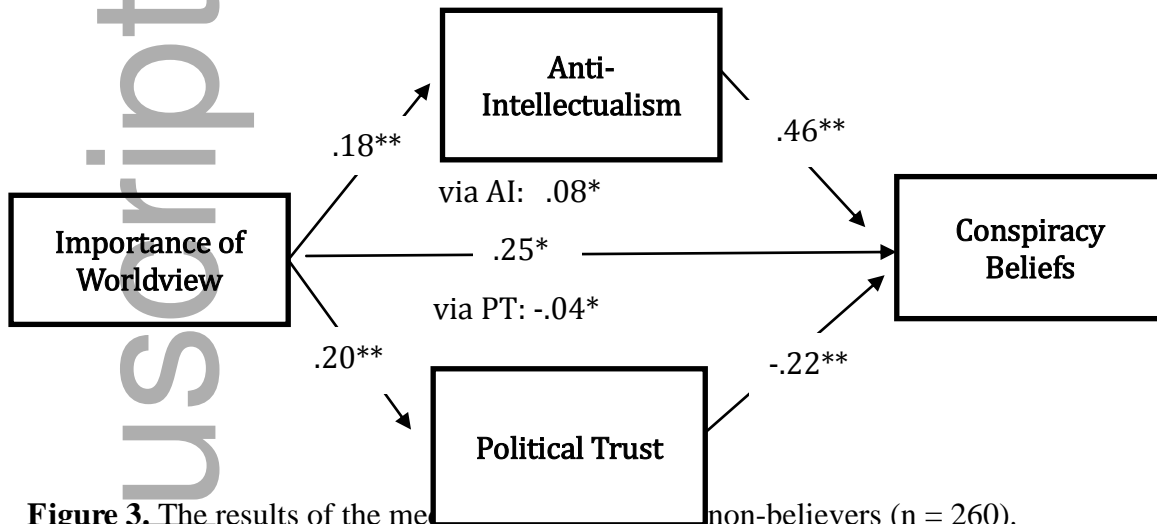
**Figure 1.** The proposed conceptual model accounting for the relationship between importance of worldview and conspiracy beliefs.



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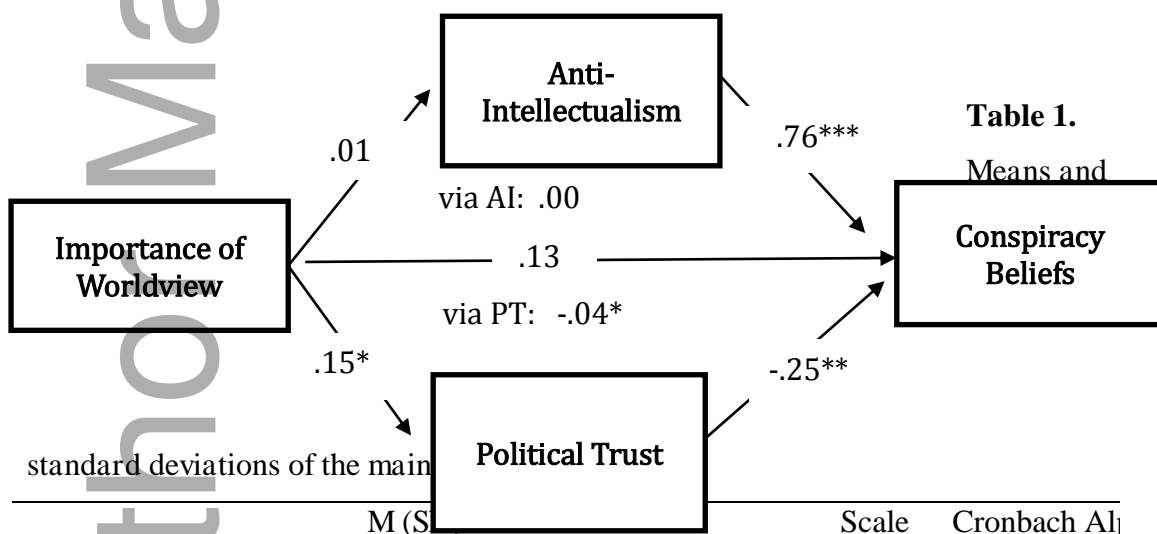
**Figure 2.** The results of the mediation model among believers (n = 248).

\*p < .05, \*\*p < .01, \*\*\*p < .001.



**Figure 3.** The results of the mediation model among non-believers (n = 260).

\*p < .05, \*\*p < .01, \*\*\*p < .001.



**Table 1.**

Means and  
Cronbach Alphas

	M (SD)	Scale	Cronbach Alpha
	Believers	Non-believers	
Worldview importance	4.79 (1.12)	4.21 (1.38)	1-7 .89 <sub>b</sub> ; .93 <sub>nb</sub>
Anti-intellectualism	4.68 (.95)	4.31 (1.23)	1-7 .91
Trust	3.66 (1.53)	3.01 (1.36)	1-7 .93
Conspiracy beliefs	6.32 (1.95)	6.04 (2.05)	1-9 Single item

Note. Cronbach alphas for the importance of worldview are reported separately for believers (<sub>b</sub>) and non-believers (<sub>nb</sub>).

**Table 2.** Correlations between the main constructs by group.

	Believers				Non-believers			
	1	2	3	4	1	2	3	4
1. Worldview	1				1			
2. Trust	.185**	1			.108	1		
3. Anti-intellect	.209**	.021	1		.045	.096	1	
4. Conspiracy	.163*	-.122	.238**	1	.062	-.176**	.459**	1

Note. \* $p < .05$ , \*\* $p < .01$ ; two-tailed.

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