The Psychology of Nonbelievers

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Highlights

- Nonbelief ostensibly develops from mechanisms (e.g., open-minded and analytic thinking styles) that differ from those undergirding religious cognition, and likely interacts with cultural influences.
- Nonbelievers endorse a variety of beliefs and worldviews, such as rationalistic and humanistic ideologies that may serve compensatory functions.
- Nonbelievers report meaningful and healthy lives comparable to those of believers. The (non)religion-health curvilinear relationship is supported across several national, ethnic, and religious contexts.
- Nonbelievers can show prejudice toward ideological opponents, but its scope is contextual and limited.

Abstract

Contrary to some conceptualizations, nonbelievers are more than simply those scoring low on religiosity scales. They seem to be characterized by analytic, flexible, and open-minded social-cognitive attributes, although this may interact with sociocultural levels of religiosity. This paper demonstrates that nonbelief, at least in the West, tends to coincide with specific worldviews, namely valuing rationality and science, as well as humanistic and liberal values. Furthermore, nonbelievers seem to parallel believers in various indicators of health. Finally, as all ideologists, nonbelievers may hold prejudicial attitudes toward groups perceived as threatening their (secular) worldviews, although this has some limits. Global increases in secularity make the nascent psychological study of nonbelievers and nonreligious worldviews an important research programme.

Keywords: nonbelief, nonreligion, atheists, worldviews, prejudice, analytic thinking

The Psychology of Nonbelievers

1. Nonbelief: Is there anything to study?

Nonbelief in God in post-industrialized Western societies has been growing in the past decades, with some recent estimates suggesting that around a quarter of the U.S. population might not believe in God (when accounting for social desirability [1*]). Nevertheless, the study of nonbelievers has only recently started to attract psychologists' attention, the nascent research revealing several important trends. Specifically, as we demonstrate in the present paper, nonbelievers seem to be defined by more than a mere *lack* of religious belief -- they endorse specific attitudes, worldviews, and values [2; 3; 4; 5; 6**]. Not only do nonbelievers arguably reap the psychological benefits of such worldviews, but as any ideologists, they can also experience the downsides of ideology, such as prejudice toward ideological opponents.

Importantly, there is evidence showing important heterogeneity among different types of nonbelievers [e.g., 7; 8; 9*; 10]". However, more work needs to be done, and for the bulk of this paper, we will refer to them all as "nonbelievers" and return to the need for further research at the conclusion. The main aim of this paper is to offer a brief review of the current research focusing on antecedents, dispositions, and worldviews commonly associated with nonbelief in general, as well as possible consequences of nonbelief, in terms of health and outgroup attitudes.

2. How Does Nonbelief Develop?: Cognition and Culture

Current psychological perspectives on the development of nonreligion are rare and typically stem from theories of religious development [e.g., 11; 12; 13; 14; 15; for

exceptions, see 16 and 17**]. For example, the nascent scholarship assumes that normal social cognitive processes, such as mentalizing, are so theologically tumescent that atheism is (1) a psychological impossibility that Bering [18, p. 164; also see 11] describes as “more a verbal muzzling of God...than a true cognitive exorcism” and/or (2) a psychological deficit in normal mentalizing capabilities that Barrett [11, p. 203] describes as “analogous to not being able to walk.” Recent studies challenge both characterizations.

Firstly, the idea of widespread implicit supernatural beliefs in lifetime atheists [e.g., 19], religious skeptics, and other nonreligious individuals [20] is not supported by the data. Regardless, the putative measurement of “implicit supernatural beliefs” does not necessarily measure “belief”, but rather a representation’s accessibility [21*]. Secondly, the idea that nonbelief develops in part because of mentalizing deficits [e.g., 11; 18; 14] has been challenged by several studies failing to identify deficits in nonbelievers [e.g., 22; 23] or have found the deficits can be shared by nonbelievers *and* believers [e.g., 8]. Next, having already established nonbelief is a psychological possibility (i.e., no universal implicit theism) and that nonbelievers are not mentalizing impaired, we discuss cognitive mechanisms and cultural processes that do contribute to the development of (non)religiosity.

Nonbelief’s development is undergirded by evolved psychological mechanisms that support skeptical thinking and motivate critical reasoning (e.g., analytic cognitive style and openness to think flexibly), putatively reducing the plausibility of religious ideas [17**]. For example, (1) general intelligence is positively related to nonreligiosity, an effect that is partially mediated through analytic style [for meta-analysis, see 24**];

(2) nonbelievers demonstrate higher analytic thinking [for meta-analysis, see 25], higher general reasoning skills [26], are more open to values (a facet of openness to experience) [27], less dogmatic [28; 29], and are more likely to think flexibly [30*].

The above findings are persistent, but their generalizability is muddled by differences in the operationalization of analytic style, (non)religiosity, and by an almost exclusive focus on Western samples. Further research seeking to avoid one or more of these problems is necessary, because existing studies are rare and yield conflicting results [e.g., 31; 32**; 33**].

Country-wide and local cultural contexts can exert direct influence on the development of nonbelief in addition to interacting with its psychological antecedents. Firstly, learning from one's immediate care givers (viz. behavioral modelling) about the (non)importance of religion is a robust predictor of current nonbelief [19; 34; 23] and predicts an earlier age of deconversion among formally believing atheists [35**].

Secondly, the association between nonreligiosity on the one hand, and open-minded and analytic thinking on the other hand seemingly depends on the sociocultural level of religiosity. Specifically, the links between nonreligiosity and openness [for comprehensive multi-country research, see 36], as well as analytic thinking [32**] become more positive as the level of sociocultural religiosity increases. Furthermore, in a study in a secularized European context, nonbelievers were less open-minded in integrating and acknowledging alternative perspectives (albeit also less dogmatic in terms of belief certainty), than believers [37]. Although this idea requires further testing, the above suggests that, in highly religious contexts, nonbelief seems to reflect an open-minded and analytic mindset, which is arguably necessary to defy the

sociocultural mainstream. However, it is unclear to what extent this characterizes nonbelief in secularized contexts.

3. Nonbelief: Is it a Worldview?

Nonbelief in general, and atheism in particular, are not worldviews in the sense that they, by themselves, affirm a positive stance toward any particular idea or value. However, being a nonbeliever does overlap with certain ways of viewing the world, reflected in the recent methodological push to investigate not only what nonbelievers reject (i.e., gods), but also how they answer existential questions about what to believe, what to value, and how to act, for example [2; 3]; For a full description of the worldviews perspective, see [6**].

Firstly, at least in the West, nonbelievers tend to appreciate rationality in thinking and science. Indeed, nonbelievers in specific [38; 39**], or individuals low in religiosity (vs. high in religiosity) tend to not only show higher belief in science [40; 41] and to think that rationality is more important, but they also have a higher tendency to ascribe *morality* to being rational [42].¹

Furthermore, nonbelievers tend to endorse a variety of humanistic beliefs associated with egalitarian and liberal worldviews [38; 43**; 39**]. For example, using a nationally representative U.S. sample, the Pew Research Center [44], found that an overwhelming majority of atheists and agnostics support marriage equality and

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¹ Note that the relationship between nonbelief and endorsement of science might be limited to Western cultures; one study found that, among dominant religious groups, religiosity was positively related to distrust in science in the West, but the two were negatively related in East Asia [84]. See also [38] for divergence between East Asian and Western countries, and [48] for evidence that the negative link between religion and science is clear in the U.S., but inconsistent worldwide.

acceptance of abortion. Moreover, atheists and agnostics reported leaning toward the Democratic party, and supported governmental assistance to the poor. Further suggesting the overlap between nonbelievers' and liberal values, it seems that, similarly to liberals [45], nonbelievers tend to value moral foundations of care and fairness more than they value purity, loyalty, and authority [46].

Correspondingly to the groundedness of their worldviews, atheists, compared to believers, more frequently find meaning in "here-and-now resources," such as finances, as well as activities and hobbies (e.g., creative activities or traveling) [47]. Moreover, atheists are also more likely to report philosophical traditions (e.g., humanism) and political views as important influences on their worldviews [49].

Nonbelievers do more than passively observe the world — they take stands for the issues they deem important. In the U.S., for example, nonreligiosity is *positively* associated with the Humanism Scale (a construct operationalizing specific concern for positive human-centered values and welfare; cf. [43**]), atheists report that the top two aims of organized secular groups should be charity and social justice activism [50], and many atheists view activism as central to their identity [10]. Further challenging the idea that nonbelievers are less likely than believers to show involvement in their communities, in a study on a nationally representative U.S. sample [7] atheists and agnostics overall showed a level of interest and engagement in politics and community similar to that of religious believers. Moreover, atheists in particular showed higher levels of civic engagement in some fields, specifically in hobby or other interest-based groups.

All of this suggests that nonbelievers, while rejecting religious beliefs, are not without their own beliefs and values. These shared beliefs and attitudes may facilitate a salient social identity [50; 4; 51]. Correspondingly, atheists' social identity may play a role similar to other social identities. Indeed, the strength of identification among atheists showed a positive association with well-being and played a possible role in mitigating the adverse effects of perceived discrimination on atheists' well-being [52]. Similarly, ingroup-related aspects of atheist identification were associated with higher physical and mental well-being among atheists [53].

4. Nonbelief and Health: Does Nonbelief Harm Psychological Wellbeing?

One common misunderstanding given the established link between religiosity and health is that nonreligion is “a health liability” [54, p. 370; see also, 55, and 56]. In part, this stereotype persists due to a failure to appreciate that the processes of believing and belonging, and not religion's supernatural content, drive the religion-health relationship [cf. 57*; 58*]. Although the previously mentioned worldviews likely support nonbelievers' wellbeing, more research is needed to identify specific believing and belonging mechanisms, operationalize these for measurement, and link with health outcomes (for a review of existing nonreligious measures, see [43**]). In any event, one of the most important developments in the psychology of nonreligion has been the identification of a curvilinear relationship between (non)religiosity and health.

The curvilinear relationship, first identified in 2011 [59], is now supported by a corpus of research measuring (non)religiosity as a continuous variable (see Figure 1.) that finds nonreligious individuals experience similar levels of wellbeing as the religious [57*; 58*]. In other words, increases in nonreligiosity are associated with overall

increases in general wellbeing, measured by constructs such as life satisfaction, positive/negative affect, and subjective happiness. This relationship is cross-culturally robust and has been identified in several national, ethnic, and religious contexts, ranging from the *United States* [29], *East Germany* [60], *Turkey* [61], and *Israel* [62], for example.

Figure 1

Example of the (non)religion-health curvilinear relationship

In contrast to measuring (non)religiosity on a continuum, a complementary line of research has disaggregated samples based on their worldview grouping (e.g., atheist, theist, nonreligious, etc.). The emerging portrait from these studies is characterized by a lack of significant differences, which suggests there is no wellbeing-related penalty associated with a lack of belief. For example, in a field study of 360 individuals from 29 countries who were walking the Camino de Santiago in Spain, atheists and theists did not differ in positive/negative affect nor self-reported mental health problems [63]. Furthermore, in two different nationally representative American samples, Baker, Stroope, and Walker [64], and Speed and Hwang [65] found similar results comparing

atheists and religious individuals on self-rated mental and physical health, happiness, and anxiety. Although more research is necessary, the view that nonreligiosity is a “health liability” lacks support.

One component of psychological health, the perception of meaning in life, has been so intertwined with religious worldviews that some researchers claim global increases in secularity have left behind a meaning gap [e.g., 66; 67]. According to these perspectives, nonbelievers might be expected to report less meaning in life and more struggles with life meaning compared to believers. In contrast, there is evidence the relative contribution of (non)religious belief to meaning related outcomes may be exaggerated. For example, in one study identification as either atheist or theist explained relatively little variance in meaning variables (e.g., 9% for the personal need for meaning, 4% for meaning in life, 3% for purpose in life, and 1% for crises of meaning) [68].

In another study [69] atheists did not significantly differ from theists on 9 out of 13 possible sources of meaning in life (e.g., hobbies, nature) but atheists were slightly ($r = -.13$) more likely to state that their life lacked meaning, and reported more diverse sources of meaning than fit the researchers’ coding scheme. Although some studies show that atheists as an undifferentiated group report lower presence of meaning in life [e.g., 69; 70], atheists also report less of a “need for meaning” [69], and they do not differ from theists in experiences of “crises of meaning” [70] or struggles with ultimate meaning and purpose [71]. When atheists are disaggregated into different worldview “types,” some types closely resemble the religious [70]. Moreover, in a nationally representative U.S. sample using self-reported fatalistic and nihilistic attitudes to

indicate the lack of personalized meaning, Speed, Coleman, and Langston [72] found no differences between self-identified believers and nonbelievers or being raised in a religious vs. a nonreligious household. Although further research is necessary to untangle the hows, whens, and whys the nonreligious and religious may differ on meaning in life, the research reviewed above challenges the idea that nonreligiosity entails a “meaning gap” or that the meaning in life experienced by nonbelievers qualitatively differs from that experienced by believers.

5. Prejudice toward Ideological Opponents: Are Nonbelievers Unprejudiced?

As we have demonstrated previously, nonbelievers tend to endorse rationalistic and liberal, egalitarian worldviews. Do nonbelievers’ outgroup attitudes reflect the related ideals of inclusiveness and open-mindedness, or are nonbelievers, as arguably all ideologists, prone to prejudice toward their ideological outgroups?

Previous research investigating the relationship between religion and prejudice mainly focused on targets perceived as threatening religious/conservative ideologies (e.g., gay persons). From that perspective, nonbelievers (or at least those low in religiosity) showed less prejudice than religious individuals [e.g., 73; 74].

However, recent research paints a more complex picture: Seemingly, nonbelievers display prejudicial tendencies toward *those who threaten their respective worldviews*. Specifically, studies conducted with American or European samples, conceptualizing nonbelief as low fundamentalism or high antireligious attitudes (external critique; [75]), suggest that nonbelief predicts prejudice toward mainstream religious groups, such as Christians/Catholics, conservatives, and non-liberal groups such as religious fundamentalists or anti-abortionists [76; 77; 78; 79**].

Furthermore, categorical conceptualizations of nonbelief yield similar results: Two recent studies [78; 79**] investigated European atheists' and agnostics' attitudes toward various groups, the results showing a hierarchy among atheists and agnostics, with them (1) liking an ethnic outgroup (the Chinese), (2) showing some reservation toward Christians, by liking them less than the "neutral" groups (the Chinese and Buddhists), and (3) showing a dislike of non-liberal groups (fundamentalists and antigay activists). Finally, beyond self-reports, a study using a behavioral measure of exclusion additionally revealed bias against Christians among American nonbelievers [85**]

Other research offers tentative insight into the possible mechanisms of nonbelievers' prejudice toward ideological opponents. Additionally to nonbelievers' high perceived threat by the ideological outgroups playing a role in prejudice [76; 77], the link between antireligious sentiments and prejudice seems to be partly explained by high importance of being rational, as well as low belief in the benevolence of the world and low empathy [79**]. Furthermore, the differences between nonbeliever subtypes in prejudice toward Christians might be partly due to differences in belief superiority, distrust, and fear of contamination by unpalatable ideas [85**].

Importantly, nonbelievers' prejudice might be of a smaller extent compared to religious believers' prejudice toward their respective outgroups [76] or may at times even not occur [80; 81]. Relatedly, nonbelievers' prejudice seems to be limited, depending on the behavior of the target. In an experiment conducted on UK and French samples [82**], nonbelievers offered less help to a Christian (vs. neutral) target, but only when the Christian requested help proselytizing; a value-threatening cause from a secular perspective. In contrast, when the target asked help for a neutral cause (printing

course materials), nonbelievers generally were *similarly likely* to help a Christian compared to a neutral target. Thus, nonbelievers' intolerance of religious believers seems to primarily reflect opposition to value-threatening *ideas and behaviors*, rather than discrimination of religious *individuals* simply due to belonging to the "wrong" group.

6. Conclusion

The present paper suggests that nonbelief, broadly speaking, is more than a lack of religious belief: At least in the West, nonbelief seems to be accompanied by scientific and liberal worldviews, arguably reflecting analytic and open-minded dispositions. Furthermore, being a nonbeliever coincides with positive aspects of ideological thinking, i.e., wellbeing benefits, often paralleling that of believers. However, nonbelievers can also portray the negative aspects of ideology, such as outgroup prejudice.

Further research is necessary to investigate the universality of these trends: It is unclear to what extent nonbelief in non-Western cultures reflects the above-mentioned worldviews, beliefs, and well-being-related correlates, and how sociocultural levels of religiosity affect these links. Furthermore, emerging research on the heterogeneity among nonbelievers suggests that nonbelievers might vary in important variables, such as well-being [10; 83], variables reflecting societal inclusion [e.g., 7], disclosure of nonbelieving identity [86] or prejudice [85**, 87]. Thus, future research should investigate the commonalities among, as well as the differences between, different types of nonreligious worldviews.

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The aim of the research was to investigate the number of atheists in the U.S., assuming that the number was underestimated in previous surveys due to social undesirability of being an atheist. Using the unmatched count technique to control for social desirability, on representative samples of U.S. participants, the authors estimate that around 26% of the U.S. population may be atheist.

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This method and theory article outlines a positive construal of nonbelief by focusing on how nonbelievers (and believers) confront “big questions” about life (e.g., What is good and bad?). This approach allows for (1) the creation and organization of many new research questions and (2) gives scientists and humanists a more neutral lexicon for comparing nonbelievers with believers than is typically embodied by psychologists and scholars of religion.

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Using latent class analysis, this study defines three types of nonbelievers: analytic atheists, spiritual but not religious, and uncertain nonbelievers. The paper is an empirically robust attempt to offer a classification of nonbelievers.

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This book chapter draws on a wide range of academic and scientific literature to rethink and review the phylogeny and ontogeny of atheism. The authors build and extend arguments that (1) atheism and theism are encouraged by different sets of evolved psychological mechanisms, (2) atheist worldviews can be functionally adaptive, (3) and that this can result in secularization.

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This is a theory and method article that discusses how different nonreligious beliefs and ideologies may serve to protect against death anxiety in atheists. Moreover, the article provides a critical assessment on the use and interpretation of the supernatural belief implicit association test and concept of “belief” in the psychology of religion.

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This article is a large meta-analysis of the relationship between (non)religiosity and intelligence. It shows that religiosity is negatively correlated with intelligence and that this relationship is partially mediated by analytic cognitive style. In other words, one interpretation is that more intelligent individuals are more likely to engage an analytic cognitive style and this leads in-part to their nonreligiosity.

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In this study, nonbelievers scored higher than religious believers in different behavioral measures of cognitive flexibility. Furthermore, the participants' current affiliation as a

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An investigation of the ubiquity of analytic atheism, i.e., the negative link between religiousness and analytic thinking (measured using the cognitive reflection task), in 13 culturally diverse countries. While the study found evidence for analytic atheism in the aggregate sample, this was more prominent in more religious settings.

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In a two country study using larger samples than Gervais et al., [32], this research replicates the negative link between religiousness and analytic thinking in India, and in contrast to Gervais et al. [32], they also identified this link in the United Kingdom.

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