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Agnosticism as a distinct type of nonbelief: The role of indecisiveness, maximization, and low self-enhancement

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Abstract

If agnostics are hesitant nonbelievers, are they characterized by (1) some emotional instability and indecisiveness, (2) a tendency to maximize in decision making, or (3) low self-enhancement preventing them from thinking they are better than others? Data were collected online (through Prolific) from 333 UK adults, self-identified as Christian, agnostic, or atheist. We measured neuroticism, positive and negative affect, indecisiveness, maximization (four facets), the better-than-average effect (four domains), and spirituality. Analyses included between-group comparisons, multiple regressions, and distinct by group correlations of the psychological variables with the strength of self-identification as Christian, agnostic, or atheist. Agnostics were the highest of the three groups in neuroticism, indecisiveness, and maximization as a search for life alternatives, whereas strong atheist identifiers were low on the latter two dimensions. Indecisiveness uniquely predicted being agnostic versus atheist or religionist, beyond the role of spiritual inclinations, religious socialization, gender, and age (Wald statistic = 4.52, p = .034). Finally, high Christian identifiers tended to self-enhance on prosociality and niceness and high atheist identifiers self-enhanced on cleverness, but high agnostic identifiers evaluated both themselves and others as nice. This work suggests that agnostics may have their own motives not to join atheists.

Keywords: agnosticism, atheism, indecisiveness, neuroticism, self-enhancement

Agnosticism as a distinct type of nonbelief: The role of indecisiveness, maximization, and low self-enhancement

Extensive research has investigated personality characteristics and other individual differences associated with, predicting or shaped by, religiousness and various forms of it, mainly open-minded (e.g., religion-as-quest) and closed-minded (e.g., fundamentalism) forms (Ashton & Lee, 2021; Saroglou, 2017). Beyond the varieties of religious experience (James, 1902), there also exist varieties of nonreligious experience (Lindeman et al., 2020; Schnell et al., 2023; Silver et al., 2014). Across studies, the two major forms of nonbelief seem to be atheism and agnosticism. Whereas atheists do not believe in the existence of God, agnostics avoid affirming the nonexistence or existence of God. Across surveys, self-identification as agnostic or atheist covers most nonbelievers (European Commission, 2019) and no other major category emerges when participants are offered, in a list of religious affiliations, the option “other”, in addition to “atheist” and “agnostic” (Uzarevic et al., 2017, 2021).

The number of nonbelievers is increasing. Atheists and agnostics represent 4% and 5% of the population in the US (Pew Research Center, 2019) and 17% and 20% of the “religious nones” who are themselves 28% of the adult population (Pew Research Centre, 2024). Their number is higher in Europe: atheists and agnostics represent 10% and 17% of the European population and may make up nearly 40% of the population in some countries (European Commission, 2019). Social cohesion may be challenged in secularized societies composed by groups of very divergent convictional statuses (Ribberink et al., 2018). It is thus of interest to examine whether, beyond epistemic differences between atheists and agnostics in affirming or not God’s nonexistence, these two types of nonbelievers also differ on deeper psychological characteristics.

Recent studies attempted to identify individual differences between various types of nonbelievers, including atheists and agnostics, by mostly focusing on ideological and

cognitive variables (Lindeman et al., 2019, 2020; Pedersen et al., 2018; Schnell et al., 2023). These studies, all in Western European secularized countries, showed that, compared to atheists, agnostics are more uncertain, ambivalent, and open to various kinds of beliefs (religious, spiritual, paranormal), and rely less heavily in science and analytic thinking.

Nevertheless, little is known on deeper characteristics like personality traits and other psychological individual differences between agnostics and atheists (but see Silver et al., 2014, for an exploratory study on six types of US nonbelievers). Are there deeper psychological tendencies that push many nonbelievers not to identify themselves as atheist but "only" as agnostic? Karim and Saroglou (2023) recently argued that agnostics may be: (1) marked by emotional instability leading them to be hesitant nonbelievers/closet atheists (*neurotic* agnosticism); (2) other-oriented by appreciating people of both religious and atheist tradition and by willing to have good relationships with both sides (*other-oriented* agnosticism); and (3) open-minded and curious, having more questions than answers (*intellectual explorative* agnosticism).

Across three studies, Karim and Saroglou (2023, 2024a, 2024b), respectively in Belgium, the UK, and 29 European countries, all of them marked by secularization, found evidence that most often confirms the above. Compared to atheists and Christian religionists, agnostics were indeed more neurotic, reported lower well-being, and self-identified less strongly with their convictional status. Compared to atheists, agnostics were in addition more prosocially oriented, less dogmatic/more open-minded, and more open to experience; they were also less opposing paranormal beliefs. Strong self-identifiers as atheist, but not as agnostic, were characterized by analytic thinking and emotional stability but also dogmatism. Finally, psychological characteristics, i.e., neuroticism, prosociality, and open-mindedness in one study (Karim & Saroglou, 2023), or agreeableness and paranormal belief in another study (Karim & Saroglou, 2024a), each predicted being agnostic versus atheist, uniquely and

additively to past religious (family) socialization and pro-spiritual attitudes. This suggests that the agnostics vs. atheists differences are not reducible to agnostics' higher religious socialization and spiritual inclinations.

The present study aims to further investigate the psychological characteristics of agnostics by extending, deepening, and nuancing the above knowledge. First, what, more specifically, does agnostics' neuroticism denote: global neurotic dispositions, negative affect/low positive affect, or specifically indecisiveness when making decisions in general across time and situations? Second, if agnostics are indecisive, is this indecisiveness accompanied by a willingness to maximize, i.e., optimize outcomes when making decisions? Third, by being less certain and dogmatic regarding their beliefs and worldviews and more open to others' worldviews, including contrasting ones, do agnostics differ from religionists and atheists by being "humbler", i.e., by needing less to self-enhance? We will detail below the rationale for each of the above questions and expectations.

Neuroticism, Negative/Low Positive Affect, and Indecisiveness

Higher emotional instability among agnostics may denote *general neurotic dispositions* (as found in Karim & Saroglou, 2023) and/or specifically low *positive affect* and high *negative affect*. Compared to religionists and atheists, agnostics may be subject to two sources of low positive emotionality (or high negative emotionality). First, religiousness, compared to irreligion, seems to be often, though not necessarily, a source of positive emotionality or a buffer against negative emotionality (Diener et al., 2011). This is through specific religious dimensions: believing in transcendence giving meaning in life, bonding with transcendence and others through rituals that increase positive affect, and belonging to a supportive and supposedly prestigious and eternal community (Saroglou, 2021). All these are missing in the lives of nonbelievers. Second, both religious believers and atheists are rather certain about their (non)beliefs and worldviews, whereas agnostics are doubters, skeptics, and

uncertain. Certainty often predicts happiness, whereas uncertainty and doubt usually reflect low happiness and low life satisfaction (Napier & Jost, 2008). The above observations push for a hypothesized hierarchy on positive/low negative affect starting from religionists, combining belief and certainty, followed by atheists, characterized by certainty, and then agnostics, lacking both belief and certainty. Of interest though to note that, across European secularized countries, agnostics seem constantly the lowest in well-being, whereas the differences between religionists and atheists on well-being may vary in direction or may not exist, depending on the cultural context (Karim & Saroglou, 2024b).

Furthermore, one may suspect emotional instability (neuroticism, negative affect) to combine with cognitive processes in underlying agnostics' tendency not to decide which of the two types of (non)beliefs and worldviews are the best, i.e., whether God exists or not and whether religious values and practices are justified and right to follow or not. From an individual differences perspective, especially regarding the decision-making domain, this may denote a more general and deeper difficulty in decision making and not only a simple epistemic hesitation to answer some intellectual existential questions. In other words, agnostics should be higher, compared to religionists and atheists, in *indecisiveness*, i.e., difficulty in making decisions across time and situations (Frost & Shows, 1993). Indecisiveness is best predicted by neuroticism, among the big five personality traits (Germeijs & Verschueren, 2011b) and, though not reduced to trait anxiety (Germeijs & Verschueren, 2011a), it may reflect anxiety, worry, depression, and guilt/obsessionnality or perfectionism (Lauderdale et al., 2019; Piotrowski, 2019). Moreover, indecisiveness is associated with perceived cognitive failure and slightly low fluid intelligence (Di Fabio & Palazzeschi, 2013), implies the need for more information and more time when making decisions, and may lead to procrastination (Frost & Shows, 1993) and inertia in decision making (Sautua, 2017). Indecisiveness is also higher among people who view the world more

dialectically (Li et al., 2014). Of interest to note here is that people stereotypically perceive agnostics as indecisive (Bergstrom et al., 2022).

Maximization: Optimization in Decision Making

Though related to indecisiveness, a different disposition explaining individual differences in decision making is maximization, i.e., the tendency to optimize when making decisions (Schwartz et al., 2002). This construct includes mainly two partly distinct aspects: maximization as a goal, by choosing the best option and attaining high standards, and maximization as a strategy, by searching for many alternatives. Maximizers search extensively through many alternatives with the goal of making the best choice (Cheek & Schwartz, 2016). A third aspect is difficulty in making decisions, which is most strongly related to indecisiveness (Cheek & Goebel, 2020). Alternative search is also related to indecisiveness (Mikkelson & Ray, 2020).

Research shows that it is the search for alternatives and decision difficulty, but not the search for the best option and high standards, that reflect negative emotionality-like constructs (Vargová et al., 2020). Moreover, maximizers favor reversible over irreversible decisions (Shiner, 2015) and prefer retaining the possibility to revise choices, thus avoiding committing to their choices (Sparks et al., 2012). They engage in post-choice information search, with maximization in choosing the best option being related to seeking additional information in favor of the initial choice, but maximization as alternative search being related to seeking further information both in favor of and against the initial choice (Kim, 2022).

We hypothesized that agnostics should also be the highest, compared to atheists and religionists, in maximization. Agnostics seem to “chose” neutrality and equidistance as the best option with regard to believing in God’s (in)existence. It is possible that they explore and/or keep open, not irreversible, the possibilities of divergent answers to the big existential questions, avoid thus committing to either religious faith or atheism (or even too strongly to

agnosticism). It may also be that several agnostics continue seeking information in favor of and against faith, atheism, and agnosticism, as if they are still looking for the best option.

(Low) Self-Enhancement

A final possibility is that agnostics are "humbler", i.e., self-enhance less than atheists and religionists. Studies have shown that agnostics tend to be more prosocial and other-oriented than atheists (Karim & Saroglou, 2023, 2024a; Pedersen et al., 2018), and, compared to both believers and atheists, are the lowest in dogmatism and the most open-minded (Karim & Saroglou, 2023, 2024a; Schnell et al., 2023; Uzarevic et al., 2021). These features are known to facilitate humility and low self-centeredness (Van Tongeren et al., 2019). In contrast, a series of studies has shown that, despite a positive association between religiousness and self-reported humility, religious individuals tend to self-enhance, i.e., overestimate themselves in comparison to others (Sedikides & Gebauer, 2021). To our knowledge, atheists' self-enhancement has not yet been documented, but there is initial evidence showing that at least anti-theists score higher in self-reported narcissism compared to several other types of nonbelievers (Silver et al., 2014). We expected agnostics to be low in self-enhancement, or simply to self-enhance less than religionists and atheists, since they should be capable of appreciating others and view them positively.

In this study, we measured self-enhancement through the better-than-average effect, i.e., perceiving oneself as better compared to perceiving others on the same characteristics (Zell et al., 2020). It is important to specify that people tend to self-enhance more on characteristics that are important to their identity. For instance, religious people self-enhance more clearly on traits denoting religious and moral values, though it is not excluded that they self-enhance more generally (Sedikides & Gebauer, 2021). To examine agnostics' lower or no self-enhancement compared to Christians and atheists, we included traits conceptually relevant for religionists (prosociality and other-oriented traits; Saroglou, 2013), other traits

pertaining to atheists or nonbelievers in general (rationality-like traits; Lindeman et al., 2019; Schnell, 2023), and, finally, other traits that are more general and not associated with high or low religiousness (e.g., beauty and extraversion-like characteristics).

The Present Study

Like recent studies on the types of nonbelief mentioned above, we investigated the above questions in a Western European country marked by secularization (UK). In line with Karim and Saroglou (2023, 2024a) specifically comparing in Western European secularized countries (Belgium and the UK) agnostics and atheists on personality characteristics and other individual differences and including Christian religionists in the comparison to capture the faith vs. non-faith difference, we examined differences between these three groups in terms of both mean levels and associations with strength of convictional self-identification. Some of the hypothesized links may be better attested among those who strongly self-identify as agnostic, atheist, or Christian.

Based on the arguments developed in the Introduction, we expected agnostics, compared to the two groups holding firm worldviews, i.e., religionists and atheists, to be higher in neuroticism, negative affect (and low positive affect), indecisiveness, and maximization, and to be lower in self-enhancement. Finally, based on previous research mentioned above, we expected the psychological characteristics of agnostics compared to atheists to hold beyond the possible role of past (family) religious socialization and/or pro-spiritual attitudes—the two often being more present among agnostics than atheists.

Method

Participants and Procedure

Participants were 334 adults (19-82 years, M = 40.64, SD = 13.44), residents of the UK, recruited via the crowdsourcing platform Prolific Academic. They identified themselves as Christian (102), agnostic (105), atheist (126), and one as Buddhist--not included in our

analyses. The percentage of women was 50.2% (51%, 53.3%, 46,7%, respectively for Christians, agnostics, and atheists); two participants reported “other” for gender. An a priori power analysis was conducted using G*Power version 3.1.9.7 for sample size estimation. We took a medium sized effect (0.25), considered to be small using Cohen’s (1998) criterion. An 80% power of detecting such an effect required a sample of about 159 participants.

In Prolific Academic, respondents can be selected based on pre-registered socio-demographic information. We selected at least 100 respondents per convictional group, in line with previous studies (Karim & Saroglou, 2023; Uzarevic et al., 2017, 2021). Only seven participants pre-registered as believers identified themselves in this study as atheists, and 19 participants initially pre-registered as agnostics identified themselves as atheists and one as Buddhist. We thus recruited on Prolific Academic additional participants to guarantee the planned number of participants (at least 100 by group). The study was advertised as a survey on “personality and decision-making”. The study was approved by the Research Ethics Committee of the Research Institute of the authors’ University and participants were provided informed consent prior to participation in the study.

Measures

We report all measures and exclusions in this study. Data and other material of the study are available at https://osf.io/r7dw4/?view_only=a6e4f5c641ad462c93c6de65b4ef0e0d.

Neuroticism and Positive and Negative Affect

We measured neuroticism through the eight items of the Big Five Inventory (John et al., 2008; 5-point Likert scales; α in the present data = .87). Two sample items are: “I see myself as someone who ... ‘Gets nervous easily’ and ‘Is emotionally stable, not easily upset’ (reversed)”. Participants were also administered the 20 items (2 × 10) of the Positive and Negative Affect Schedule (Watson et al., 1988; 5-point Likert scales). Reliabilities were satisfactory, with αs = .89, and .91, for positive and negative emotions, respectively.

Indecisiveness

Participants were administered the 15-item Indecisiveness scale (Frost & Shows, 1993) that measures the difficulty to make decisions in a timely manner across situations and domains. Sample items are: "When ordering from a menu, I usually find it difficult to decide what to get" and "After I have chosen or decided something, I often believe I've made the wrong choice or decision" (5-point Likert scales). Cronbach's alpha was .91.

Maximization

We administered to participants the Maximization scale of Schwartz et al. (2002; 13 items) that measures individual differences in the dispositional tendency to optimize when making decisions. We did not retain two items we considered as outdated since they referred to (1) selecting the best videos when *renting* them and (2) writing *letters* to friends. Later work by Nenkov et al. (2008) in the above scale identified three factors (in a total of nine items) behind the global tendency to maximize in decisions. These were: (1) *alternative search*, i.e., the tendency to seek possible better options, (2) *decision difficulty*, i.e., the difficulty associated with choosing and making decisions, and (3) *high standards*, i.e., decision makers' tendency to hold high standards for themselves and things in general.

An exploratory factor analysis (principal component analysis with varimax rotation) on the 11 items in the present data revealed four factors that were empirically distinct (no loading >.30 in another factor, except in one out of 33 cases), conceptually meaningful, and explained 60% of the total variance. These factors denoted (1) search for *high/the best standards* (three items), (2) *life alternative search* (three items), (3) *leisure alternative search* (three items), and (4) *shopping difficulty decision* (two items). Respective sample items are: (1) "No matter what I do, I have the highest standards for myself", (2) "I often fantasize about living in ways that are quite different from my actual life", (3) "When I watch TV, I channel surf, often scanning through the available options even while attempting to watch one

program", and (4) "When shopping, I have a hard time finding clothing that I really love". Respective Cronbach's alphas were .60, .57, .58, and .62. We subsequently computed four scores by participant, by aggregating the scores in the respective items.

Better-Than-Average Effect

We measured the inclination to think of oneself as superior to others, i.e., self-enhancement, by using the strategy of self vs. others comparative social judgment (Zell et al., 2020). We used the indirect, more sensitive, technique consisting of asking individuals to make two distinct and independent evaluations, i.e., to first evaluate "people in general" on a series of socially desirable characteristics, and later to evaluate themselves on the same characteristics. To avoid participants becoming (too) aware of our comparative purpose, the self-evaluation items were provided to participants not immediately after the evaluation of the "others" items but later in the protocol, i.e., after the maximization measures. The two instructions were as follows: "On a scale of 1 (*not really*) to 7 (*totally*), how would you rate most people around you on each of the following? On average, most people around me are …." (others), and "On a scale from 1 (*not really*) to 7 (*totally*) how would you rate yourself on each of the following? On average, I am …" (self).

Given the importance of the specific content of characteristics when measuring strategies of self-enhancement among ideological groups (Sedikides & Gebauer, 2021), we selected ten characteristics that can be considered relevant to the self-perception, values, and identities of non-believers or believers or that are not specific to them. These included (1) qualifications denoting intellectual, cognitive skills, valued by nonbelievers (Lindeman et al., 2019; Schnell et al., 2023): *rational, intelligent, competent,* and *open-minded*; (2) prosociality-related characteristics, known to be associated with religiosity (Saroglou, 2013): *empathetic* and *altruistic*; and (3) other characteristics that are socially desirable but not

necessarily, conceptually or empirically, associated with belief or nonbelief: *of good company*, *funny/having good sense of humor*, *assertive,* and *beautiful/handsome*.

Exploratory factor analyses (principal component analysis with varimax rotation, after asking for the extraction of three or four factors), on the ten evaluative items confirmed, for eight items, in both self- and other-evaluation, the existence of, and distinctiveness between, these three factors with their respective items (total variance explained varied from 62% to 74%). Only *open-mindedness* and *assertiveness* had inconsistent loadings across evaluations or constituted unique factors. Given the conceptual distinction of open-mindedness (a personality trait) from prosociality, but also, strictly speaking, from rationality/intelligence (mental abilities), we subsequently kept this item separate. Finally, we did not retain *assertiveness* in further analyses given its polysemy as conceptually contributing to both niceness/extraversion and competence (but note that results of the subsequent analyses were similar if assertiveness was included in its hypothesized factor). Therefore, we computed, for both self-evaluations and others-evaluations, aggregate scores for *cleverness* (rational, intelligent, competent; respective αs = .74 and .79), *prosociality* (empathetic, altruistic; αs = .62 and .61), and general positivity (we label it *nice person*), i.e., items denoting popular characteristics of extraverted and attractive people (with good humor, of good company, handsome; αs = .70 and .77). The four characteristics, i.e., cleverness, prosociality, open-mindedness, and nice person, were moderately interrelated, with *rs* varying between .32 and .48 in self-evaluations and slightly more strongly in others-evaluations, *rs* from 54 to .61. Subsequently, we computed four distinct indicators of the better-than-average effect by subtracting, for each of the four characteristics, the score of the self-evaluation from the score of others-evaluation. The four better-than-average effects were moderately interrelated, with *rs* varying from .22 to .51.

Religion and Spirituality

We measured individual religiosity, importance of spirituality in life, religious affiliation/conviction and its strength, and religious trajectory. *Religiosity* was measured through a widely used index of three items measuring the importance of God and the importance of religion in one's own life, as well as the frequency of prayer (7-point scales; Cronbach's α: .93). We in addition included a one-item index of the importance of *spirituality* in life.

Following these questions, participants reported their *religious affiliation/conviction*, by answering the question: "In terms of religious convictions, which of the following best defines you?". The list included different religious affiliations as well as "agnostic", "atheist", and "other". Immediately after this, we measured participants' strength of *convictional self-identification* with the following question: "You have just made a choice among a series of identifications […], could you specify to what extent you endorse it or identify yourself as such?". Proposed answers ranged from 1 = *not at all* to 5 = *very much*.

We finally measured religious trajectory by having participants select one of four propositions (Saroglou et al., 2020): (1) "I grew up in a family that gave me a religious education, and today I believe in God," (2) "I grew up in a family that gave me a religious education, but today I do not believe in God," (3) "I did not grow up in a family with religious education, but today I believe in God," and (4) "I did not grow up in a family with religious education, and today I do not believe in God." This allowed us to create a dichotomous variable of irreligious (0) or *religious* (1) *socialization*.[1]

Results

We first compared the three convictional groups on mean levels of variables (omnibus ANOVAs and post-hoc comparisons). We also tested contrasts favoring the idea of a hierarchy in emotional instability-like variables, going from Christians (low), through atheists, to agnostics (high). Second, in multiple regressions, we tested whether the key psychological

characteristic of agnosticism found in the study still predicts being agnostic versus atheist (or versus holding firm worldviews, i.e., being Christian or atheist) after controlling for religious socialization, spirituality, age, and gender. Third, distinctly by each convictional group, we computed correlations between the strength of self-identification with one's own convictional group and the psychological variables under investigation.

Between-Group Differences on Mean Levels

Means and standards deviations of all variables, distinctly by convictional group, are detailed in Table 1, which also presents the results of the ANOVA analyses, with Tukey post-hoc tests when significant differences across groups were found. The ANOVA analyses showed that between-group differences existed for *neuroticism*, *positive affect*, and the maximization facet of *life alternative search*, as well as *religiosity*, *spirituality*, and strength of identification with the convictional group (hereafter, for simplicity, *convictional strength*). Controlling for gender did not change the significance of these results for these seven variables. (Note that women were higher than men in neuroticism, $Fs(1,331) = 16.44$, $p < .001$, indecisiveness, 5.22, $p = .023$, and spirituality, 4.90, $p = .028$, and lower in search for life alternatives, 5.22, $p = .023$). Controlling for age did not change the significance of the results for five variables but the overall ANOVA results were no more significant for neuroticism and maximization in life alternatives. (Christians were significantly older than agnostics and atheists, respective *Ms* = 45.20, 36.78, and 40.17, the difference between the latter two groups being nonsignificant; and neuroticism and maximization in life alternatives were higher among younger adults, *rs* with age = -.27 and -.33).

Post-hoc comparisons (see Table 1) showed that: agnostics were more neurotic than Christians (with atheists being in the middle), higher in indecisiveness compared to the two other groups, lower than Christians in positive affect, and higher than Christians in maximizing life alternatives (with atheists being again in the middle). A clear hierarchy was

observed on religiosity and spirituality, with agnostics being midway between Christians and atheists, but the opposite hierarchy was observed for convictional strength, with atheists being higher than agnostics, and Christians being the lowest.

No differences were observed between the three groups on *negative affect*, the other *three facets of maximization*, and the four *better-than-average effects*. The same was the case for the self- and the others-evaluations, which were used to compute the better-than-average effects. However, repeating these analyses distinctly for men and women revealed between-group differences among men on self-evaluation as prosocial, others-evaluation as open-minded, and better-than-average effect on open-mindedness, *F*s(2,165) = 3.98, 3.27, and 3.06, all *ps* > .05. Post-hoc comparisons (Tukey) indicated that, among men, Christians (*M* = 4.93, *SD* = 0.96) considered themselves as more prosocial, compared to atheists (*M* = 4.38, *SD* = 1.04), agnostics being midway (*M* = 4.75, *SD* = 1.24). Also among men, atheists (*M* = 4.64, *SD* = 1.45), compared to agnostics (*M* = 5.27, *SD* = 1.08), evaluated others lower in open-mindedness; thus atheists (*M* = 0.94, *SD* = 1.51), compared to agnostics (*M* = 0.31, *SD* = 1.23), had a higher better-than-average effect on open-mindedness. Christians were in the middle on the latter two variables (*Ms* = 4.96, 0.66, *SDs* = 1.29, 1.29).

Furthermore, based on the idea (Karim & Saroglou, 2023) that agnostics have two sources of emotional instability, i.e., irreligion and uncertainty in convictions, whereas atheists possibly have only one (irreligion), we computed linear contrasts between Christians (-1), atheists (0), and agnostics (1) on the neuroticism-like variables, i.e., neuroticism, positive affect, negative affect, indecisiveness, and the maximization facet of search for life alternatives. As detailed in Table 2, these contrasts turned out to be significant, and 0 was not included in the respective 95% confidence intervals, regarding neuroticism, positive affect, indecisiveness, and maximization in terms of life alternatives search. (The effect sizes though decreased when we controlled for age, with the results being marginally significant). Overall,

these findings indicate decreasing emotional stability and increasing indecisiveness when moving from Christians to atheists and then to agnostics (see also Figure 1). To be certain that these contrasts reflect this hierarchy and not a hierarchy from faith to non-faith, we also computed similar contrasts for the four variables between Christians (-1), agnostics (0), and atheists (1). The contrasts for neuroticism, indecisiveness, and negative affect were nonsignificant, *Fs*(2,331) = 3.02, 0.23, and 0.75, and the effects of the contrasts for positive affect and maximization (life alternatives) diminished in size, *Fs*(2,331) = 5.34, *p* = .021, and 5.42, *p* = .020. Thus, the hierarchy going from Christians to atheists and then to agnostics was the only significant one or the one fitting best the data.

Finally, we examined whether the presence or absence of religious socialization may moderate psychological differences between agnostics and atheists. Indeed, 56.2% of the agnostics were socialized irreligiously, and the other 43.8% of agnostics were socialized religiously. Atheists were more likely to be socialized irreligiously (65.1%) than religiously (34.9%) in comparison. Computing a MANOVA with all 17 variables (as in Table 1) as outcomes, and with religious socialization (vs. not) and convictional status (agnostic vs. atheist) as predictors revealed only one interaction between these two factors, and this was on negative affect, *F*(3,227) = 3.99, *p* = .047. The notable difference was between deconverted agnostics and deconverted atheists, being respectively the highest, *M* = 2.13, *SD* = 0.11, and the lowest, *M* = 1.76, *SD* = 0.12, in negative affect, with the socialized irreligious, be they agnostics or atheists, being in the middle, *Ms* = 1.91, 1.99, *SDs* = 0.10, 0.09.

Predicting Agnosticism

In a next analysis, we investigated whether being agnostic versus atheist can be predicted uniquely and additively by distinct individual differences: neuroticism-like constructs, pro-spiritual dispositions, and religious socialization. The neuroticism-like variables found here to characterize agnostics, i.e., neuroticism, indecisiveness, and

maximization of life alternatives, were interrelated, with *rs* ranging from .22 to .63. We thus first computed a logistic regression of the convictional status (agnostic vs. atheist) on these three variables and found that indecisiveness remained the unique significant predictor. We then included indecisiveness, spirituality, and religious socialization as predictors in a new logistic regression; and added age and gender in the next step of the analysis. As detailed in Table 3, being agnostic, not atheist, was uniquely and additively predicted by indecisiveness, spirituality, and religious socialization (Step 1: Cox & Snell R^2 = .144, Nagelkerke R^2 = .193), and these effects seemed to hold beyond the role of gender and age (Step 2: Cox & Snell R^2 = .193, Nagelkerke R^2 = .207).

A similar logistic regression of being agnostic versus holding firm worldviews (atheists and religionists taken together) confirmed the role of indecisiveness (Wald statistic = 8.93, p = .003), and this role remained significant after adding as predictors religious socialization and spirituality (Wald statistic = 8.81, p = .003), and also after including additionally age and gender (Wald statistic = 4.52, p = .034). In this regression, spirituality and religious socialization had no more a predicting role.

Correlates of Convictional Strength, Distinctly by Group

In a next step, we investigated the correlates of the strength of identification as Christian, agnostic, or atheist. As detailed in Table 4, Christians' convictional strength, beyond the intuitive association with religiosity and spirituality, was associated with emotional stability (low neuroticism). Atheists' convictional strength, beyond the intuitive association with low religiosity and spirituality, was associated with indicators of certainty and stability: low negative affect and indecisiveness and low maximization defined as search for alternatives, be it for life issues or leisure. Agnostics' convictional strength was unrelated to all variables.

Table 5 focuses on correlational results, distinctly by convictional group and by psychological construct (prosocial, clever, nice person, and open-minded), between convictional strength, on the one hand, and self-evaluations, others-evaluations, and better-than average effects, on the other hand. Figure 2 allows for a better visualization of the correlations between convictional strength and self- and others-evaluations, distinctly by group, target (self vs. others), and evaluative psychological construct.

Strong Christian identifiers tended to evaluate themselves as prosocial and nice in general, but this was not extended to their evaluation of others. Strong agnostic identifiers seemed to show a general tendency for positive evaluations of both self and others, and this was significantly the case for the self-evaluation and others-evaluation as being nice. Strong atheist identifiers tended to consider themselves as clever and even as being more clever than others (a clear better-than-average effect), and to consider others as not being nice. Finally, age or gender did not impact the significance of the above results.

Discussion

Beyond the varieties of religious experience (James, 1902), there seem to exist varieties of nonreligious experience (Lindeman et al., 2020; Silver et al., 2014). The most important distinction among nonbelievers is that between atheists and agnostics. Initial evidence indicates that agnostics, beyond their intermediate positions between religionists and atheists on pro-spiritual attitudes and other beliefs, tend to be marked by higher neuroticism and lower well-being compared to these two groups with clear convictions, and differ from atheists by their higher openness and prosocial dispositions (Karim & Saroglou, 2023, 2024a, 2024b; Lindeman et al., 2020; Uzarevic et al., 2017). In the present work, we extended, deepened, and nuanced this knowledge. We investigated whether agnostics are hesitant nonbelievers because of (1) general neurotic disposition, (2) negative affect/low positive affect, (3) a tendency to be indecisive in general, (4) a tendency to maximize when taking

decisions, i.e., seeking the best option through examination of many alternatives, and/or (5) lower self-enhancement compared to those that are very certain of their convictions, i.e., religionists and atheists.

We examined these questions through a cross-sectional study of UK adults who self-identified as Christian, agnostic, and atheist. Except for negative/low positive affect, the above expectations were confirmed fully or to some extent, through some of the aspects of the respective constructs.

Agnostics as Hesitant Nonbelievers

As in previous research (Karim & Saroglou, 2023; Lindeman et al., 2020; Uzarevic et al., 2017), agnostics were located midway on religiosity and spirituality, between religionists and atheists. Furthermore, we found a hierarchy, starting from Christians, who were more emotionally stable and marked by positive affect, followed by atheists, and ending with agnostics being the highest in neuroticism. Very likely, agnostics combine two sources of emotional instability: nonreligion, often implying less positive emotionality (Diener et al., 2011; Ramsay et al., 2019; Van Cappellen et al., 2016), and uncertainty, unlike those certain of their worldviews, be they religious or atheist. The present study replicates, for neuroticism, a previous study, also in a Western European context (Belgium: Karim & Saroglou, 2023). The significance of the difference in neuroticism between agnostics and atheists, even if not strictly confirmed in this study, appears when data of the present study are combined with the ones from two previous studies having used the same research design (Karim & Saroglou, 2023, 2024a): agnostics (M = 3.04, SD = 0.85, N = 395), are slightly more neurotic than atheists (M = 2.91, SD = 0.90, N = 574), $F(1,967) = 5.25$, $p = 0.022$, $\eta^2 = 0.005$—and they are also more neurotic compared to Christians (M = 2.87, SD = 0.86, N = 452), $F(1,845) = 7.81$, $p = 0.005$, $\eta^2 = 0.009$.

The findings are in line with the idea of a U-shape association between well-being and certainty in beliefs for religionists and atheists (being high, at the two ends), with the weakly religious and weakly irreligious being low, in the middle (Baker et al., 2018; Galen & Kloet, 2011). Given the well-known role of neuroticism in predicting low well-being, the findings of the present study may explain the fact that, in European countries of Catholic and Protestant heritage, agnostics are the lowest in well-being compared to religionists and atheists (Karim & Saroglou, 2024b).

The same hierarchy was found for indecisiveness, with agnostics being the highest of the three convictional groups in having a global difficulty to make decisions in a timely manner across domains and situations—thus, not only on existential issues and worldviews. Moreover, this decision-making-related characteristic turned out to be the strongest psychological predictor of being agnostic versus atheist and conserved its predictive role uniquely and additively to the role of spiritual inclinations and past (family) religious socialization. (There were slightly more deconverted agnostics than deconverted atheists, the remaining agnostics and atheists being socialized as nonreligious). Since indecisiveness includes, beyond emotional features, cognitive aspects, such as low need for cognition and also high dialectic thinking (Li et al., 2014; Ng & Hynie, 2014), it may be that the indecisiveness of agnostics reflects a more global thinking style that pushes them not to endorse worldviews providing firm answers to the big existential enigmas.

Furthermore, agnostics, compared to atheists and believers, were not characterized by a higher tendency for global maximation, i.e., optimization when making decisions by searching for the best options and highest standards, or all alternatives, across domains and situations. However, such a tendency was found in one, out of the four, facets of maximation: agnostics were the highest, with Christians being the lowest and atheists midway, in search for alternatives that have some importance for life in general (e.g., job, way of living). This

finding suggests a motivational dimension underlying agnosticism, i.e., searching for alternatives regarding important life issues, a dimension that can be added to those at the emotional (neuroticism) and the cognitive (dialecticism in indecisiveness) levels. This finding is also meaningful because agnostics seem to be higher in intuitive thinking than atheists (Lindeman et al., 2019). In fact, there is evidence that alternative search is characteristic of persons with intuitive thinking, whereas choosing the best can characterize either analytic or intuitive thinkers (Mikkelson & Ray, 2020). Moreover, the fact that agnostics were characterized by indecisiveness and maximization in life alternatives but not maximization in high standards may suggest that agnostics have perfectionistic *concerns*, i.e., evaluative concerns perfectionism based on fear of mistakes and negative evaluation, rather than perfectionistic *strivings*, i.e., self-oriented striving for perfection and high personal standards of performance. Indeed, indecisiveness has been found to partly explain the association between perfectionist concerns and difficulties with identity formation—perfectionist strivings on the contrary facilitate the development of identity formation (Piotrowski, 2019). Of interest also to note that, in our data, neuroticism and negative affect were most strongly related to the facet of maximization in life alternatives, rs = .31 and .26, $p < .001$, whereas these associations were weaker with the facets of maximization in leisure alternatives and shopping decisions (rs varying from .13 to .23) and were even at the opposite direction with the facet of maximization of high standards, rs = -.17, p = .002, and -.13, p = .015).

Importantly, all the above three effects regarding neuroticism, indecisiveness, and maximization as search for life alternatives also hold after controlling for gender, indicating that these effects were not an artefact of the slightly higher percentage of women among agnostics compared to atheists, or of gender differences in some constructs. Furthermore, the trends behind the above effects were confirmed by additional results. Strong atheist identifiers showed the opposite pattern from that of agnostics: they tended to be low in negative affect,

indecisiveness, and maximizing in search for alternatives, be it for life decisions or simply for leisure.

Agnostics as Unpretentious Nonbelievers

Our last expectation was also confirmed to some extent. At a first glance, there were no mean differences between the three groups on the four investigated better-than-average effects regarding being prosocial, nice, clever, and openminded. However, strong identifiers of the three groups tended to differ in a meaningful way.

Strong Christians tended to self-enhance in dimensions relevant for their identity, i.e., evaluated themselves as prosocial and nice—but only themselves, not other people. This is in line with research showing a positive association of religiosity with perceiving oneself as being prosocial (Saroglou, 2013), self-enhancement on religious and moral aspects (Sedikides & Gebauer, 2021), and grandiose narcissism (Daghigh et al., 2019; see also Yustisia et al., 2020, for the links of fundamentalism with collective narcissism). In parallel, we found that strong atheists also self-enhanced and showed a better-than-average effect, but on another domain, relevant for them in terms of their ideology and values (Lindeman et al., 2019; Schnell et al., 2023): they perceived themselves to be clever and more clever than others. This is in line with initial evidence showing that strong atheists (“anti-theists”) tended to score highly on narcissism (Silver et al., 2014). Interestingly, and as expected, in contrast with the strongly convinced Christians and atheists, participants who self-identified strongly as agnostic self-enhanced less or not at all: they tended to evaluate both themselves and others positively, and this was clearly significant for the dimension “nice person”.

These results suggest clear tendencies for feeling superior to others among believers and atheists with respect to some domains of self-perception, and the absence of such tendencies among agnostics. Given the distinction between communal narcissists, who overestimate communal traits such as prosociality and warmth, and agentic narcissists, who

overestimate agentic traits such as intellectual skills (Gebauer & Sedikides, 2018), our results suggest that strong Christians and atheists tend to be, respectively, communal and agentic narcissists. The fact that strong agnostic identifiers tended not to show any better-than-average effect, and in addition tended to perceive both themselves and others in a globally positive way, indicates that agnostics dispose of some equilibrium between healthy pride and healthy humility, of which a critical component is the propensity to appreciate others' qualities (Tangney, 2002). Furthermore, the present findings on agnostics' less self-enhancement consolidate and extend previous evidence on agnostics' higher prosocial, other-oriented dispositions compared to atheists (Karim & Saroglou, 2023, 2024a).

These results on self-/others-evaluations and better-than-average effects, combined with those regarding the neuroticism-like constructs, converge to confirm the specificity, in terms of psychological individual differences, of agnostics with respect to both religious believers and atheists, and in particular their distinctiveness from the latter. Atheists, especially those who strongly identify as such, are certain of their decisions, feel good, are not looking for alternatives, and perceive themselves to be more clever than the average person; in other words, they seem to be characterized by ideological self-sufficiency. Christian believers may not strongly identify with their Christian identity, but are emotionally stable, certain of their decisions, and do not look for alternatives; and the strong religionists among them are convinced that they are prosocial and nice, what they do not seem to think for others. Christians thus seem to be characterized by convictional/moral and personal self-sufficiency. Agnostics are indecisive, look for life alternatives, and perceive positive aspects broadly, in both themselves and the others.

Generalizability, Limitations, and Further Questions

Following emerging research (Karim & Saroglou, 2023, 2024a; see also Bergstrom et al., 2022; Schnell et al., 2023), this work provides original evidence, from a personality,

decision-making, and other individual differences perspective, on the psychology of agnosticism, especially in comparison to the psychology of atheism. It does so in the context of a Western European secularized society of Christian tradition (UK). Are the results of the present study generalizable across genders, ages, and cultures? This work showed no moderating effects of gender but suggested some role of age, as agnostics tended to be younger and Christians older, and as younger people tended to be higher in emotional instability-like variables. Age thus was partly responsible for between-group differences on neuroticism and maximization of life alternatives, but the predicting role of indecisiveness remained significant beyond the role of age. In addition, age did not impact self-enhancement tendencies across the three groups. Further research should investigate whether, in being nonreligious, younger people may have partly different psychological motives from older people. Furthermore, to form the three convictional groups, we used in this study self-identification as agnostic, atheist, or Christian. Though people seemed to feel at ease with the list of religious affiliations/convictions surveys typically provide (for instance, no important alternative emerged when participants chose and specified “other”), it remains an open question whether agnosticism is a homogeneous convictional category or encompasses more diverse in beliefs subgroups (Galen, 2023).

Behind possible age differences there can also be cohort differences, which, interestingly, may parallel cultural differences. Older generations were born in societies that were predominantly religious, whereas younger generations are born in more secularized societies, at least in the West. As societies become more secular, do atheists become predominant among nonbelievers because it is more socially accepted to be an atheist, or do agnostics become predominant among nonbelievers because there exists less need to oppose and fully reject religion? A recent study, at least in the context of the secularized Western European countries, provides evidence in favor of the former idea (Karim & Saroglou, 2025).

It may also be that, independently from the numeric importance of each nonbeliever type, the motives and the psychological characteristics of atheism and agnosticism partly vary as a function of society's mean level of secularism/religiosity as well as of society's Christian versus other religious heritage.

The study should be considered as exploratory, especially regarding the findings on maximization. Replication is thus welcome to guarantee these findings. The maximization scale used presents some conceptual and psychometric weaknesses (Cheek & Schwartz, 2016; Dalal et al., 2015). Nevertheless, it is still today the most widely used scale to measure this construct and the findings with a specific maximization facet, i.e., search for life alternatives, were meaningful.

The preponderant role of indecisiveness in predicting agnosticism instead of atheism in the present study is worthy of being further investigated. Are agnostics characterized by aversive or avoidant indecisiveness? Aversive indecisiveness, represented by the anticipation of negative consequences as a result of decision-making, is associated with behavioral inhibition and anticipated regret about decisional choices. Avoidant indecisiveness, represented by a preference for decisional delay and avoidance, is associated with a withdrawal from reinforcement (Lauderdale et al., 2019). It may be that answers and decisions on existential issues are not a matter of urgency and thus agnostics simply delay, postpone, and avoid selecting between faith and non-faith. Or it may be that agnostics perceive the consequences of becoming a convinced atheist or a convinced religionist as negative and thus as a threat.

The above observations also welcome future longitudinal studies. It would be of particular interest to examine whether agnosticism is a stable ideological position, or at least equally stable to religiousness or non-faith, or may rather be a transient state, evolving as a function of personality and other individual differences, personality development, and

contextual and larger environmental influences. Finally, in the case that the increase of secularization includes the risk for societies to become highly polarized between strongly convinced atheists and strongly convinced religionists (Ribberink et al., 2018), agnostics may turn out to play a precious role in being in interaction with both sides.

Footnote

[1] We also asked participants, through a typical question of the European Values Study, to choose between four options regarding belief in God: (1) "There is a personal God, (2) There is some sort of spirit or life force, (3) I do not really think there is any sort of spirit, God or life force, or (4) I do not really know what to think." We do not present results here since, among the nonreligious, options 3 and 4 partly overlap with being atheist versus agnostic, and comparisons between the two options on the personality variables provided similar results to those distinguishing agnostics and atheists presented below. Finally, the protocol also included a retrospective measure of the attachment to the father and the mother. For each parent, three paragraphs describing secure, anxious/ambivalent, and avoidant attachment were used (Hazan & Shaver, 1987). No differences between the three convictional groups were found, but distinct by gender comparisons, for exploratory reasons, indicated, for men, higher anxious/ambivalent attachment to the father among agnostics, $M = 3.02$, $SD = 1.45$, compared to atheists, $M = 2.48$, $SD = 1.24$, $t(2,107) = 2.11$, $p = .037$, 95% CIs [0.03/1.06].

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Competing Interests

We have no competing interests.

Data availability statement

The data that support the findings of this study are openly available in OSF at

https://osf.io/r7dw4/?view_only=a6e4f5c641ad462c93c6de65b4ef0e0d

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Table 1

Descriptive Statistics of All Variables by Convictional Group and Between-Group Comparisons

	Christians (1)	Agnostics (2)	Atheists (3)	Comparisons		
	M (SD)	*M (SD)*	*M (SD)*	*F*	η^2	Post-hoc
Neuroticism	2.79 (0.87)	3.12 (0.76)	2.98 (0.87)	4.21*	0.025	2>1*
Positive affect	3.36 (0.74)	3.12 (0.69)	3.14 (0.69)	3.78*	0.022	1>(2*, 3†)
Negative affect	1.83 (0.76)	2.00 (0.71)	1.92 (0.83)	1.34	0.008	
Indecisiveness	2.55 (0.81)	2.85 (0.70)	2.60 (O.76)	4.79**	0.028	2>(1*, 3*)
Maximization						
Best standards	4.73 (1.03)	4.55 (0.93)	4.53 (1.06)	1.25	0.008	
Life alternatives	3.78 (1.44)	4.36 (1.22)	4.18 (1.23)	5.46**	0.032	1<(2*, 3†)
Leisure alternatives	3.19 (1.30)	3.25 (1.37)	3.24 (1.31)	0.06	0.000	
Diff. decis. (shop.)	4.51 (1.46)	4.37 (1.58)	4.45 (1.55)	0.24	0.001	
Better-than-average						
Prosocial	0.27 (1.00)	0.18 (1.03)	0.08 (1.13)	0.92	0.006	
Clever	0.46 (0.98)	0.17 (1.16)	0.19 (1.07)	0.58	0.004	
Nice person	-0.36 (1.07)	-0.30 (1.02)	-0.43 (0.96)	0.50	0.003	
Open-minded	0.57 (1.29)	0.59 (1.17)	0.85 (1.40)	1.07	0.010	
Religiosity	3.80 (1.81)	1.63 (0.81)	1.20 (0.45)	162.18***	0.496	1>2***>3*
Spirituality	4.37 (1.82)	3.05 (1.82)	1.84 (1.39)	64.60***	0.281	1>2>3 ***
Identificat. strength	2.81 (1.16)	3.44 (1.13)	3.94 (1.29)	24.88***	0.131	3>2**>1***

Note. *Ns* = 102, 105, 126, respectively for Christians, agnostics, and atheists.

* $p < .05$. ** $p < .01$. *** $p < .001$. † $p < .10$ (two-tailed).

Table 2

Linear Contrasts Between Christians (-1), Atheists (0), and Agnostics (1) on Neuroticism-like Variables

Variables	*F*	*p*	η^2	95% CIs
Neuroticism	8.37	.004	0.025	[0.001/0.063]
Positive affect	6.19	.013	0.022	[0.000/0.059]
Negative affect	2.69	.102	0.008	[0.000/0.033]
Indecisiveness	8.11	.005	0.028	[0.002/0.028]
Maximization: Life alternatives	10.39	.001	0.032	[0.003/0.074]

Table 3

Logistic Regression of Being Agnostic versus Atheist on relevant Predicting Individual Differences

	Step 1		Step 2	
Predictors	Wald	*p*	Wald	*p*
Indecisiveness	4.98	.026	3.57	.059
Spirituality	23.65	<.001	22.64	<.001
Religious socialization	2.11	.146	2.90	.088
Gender			0.07	.785
Age			2.71	.100

Table 4

Coefficients of Correlations of Convictional Strength with Personality and Other Individual Differences, Distinctly by Convictional Group

	Convictional Strength		
	Christians	Agnostics	Atheists
Neuroticism	-.19*	-.07	-.13
Positive affect	.00	.19	.02
Negative affect	-.10	.11	-.23**
Indecisiveness	-.05	-.06	-.21**
Maximization			
Best standards	.08	.04	-.01
Life alternatives	-.02	.09	-.22*
Leisure alternatives	-.15	-.03	-.18*
Difficult in decision (shop.)	.06	-.08	.02
Religiosity	.84**	-.01	-.41**
Spirituality	.74**	-.01	-.25**

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5

Coefficients of Correlations of Convictional Strength with Evaluations of Self and Others and the Difference Between the Two, Distinctly by Convictional Group

	Convictional Strength		
	Christians	Agnostics	Atheists
Self-evaluation			
Prosocial	.20*	.16	-.01
Clever	.05	.12	.22*
Nice person	.23*	.22*	-.09
Open-minded	.09	.09	.08
Others-evaluation			
Prosocial	.08	.14	-.00
Clever	.08	.16	-.12
Nice person	.06	.21*	-.21*
Open-minded	.06	.08	.06
Better than average effect			
Prosocial	.13	.03	-.01
Clever	-.02	-.05	.28***
Nice person	.18	-.01	.13
Open-minded	.02	.01	.00

* $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 1

Mean Levels on Neuroticism-Like Variables, Distinctly by Convictional Group

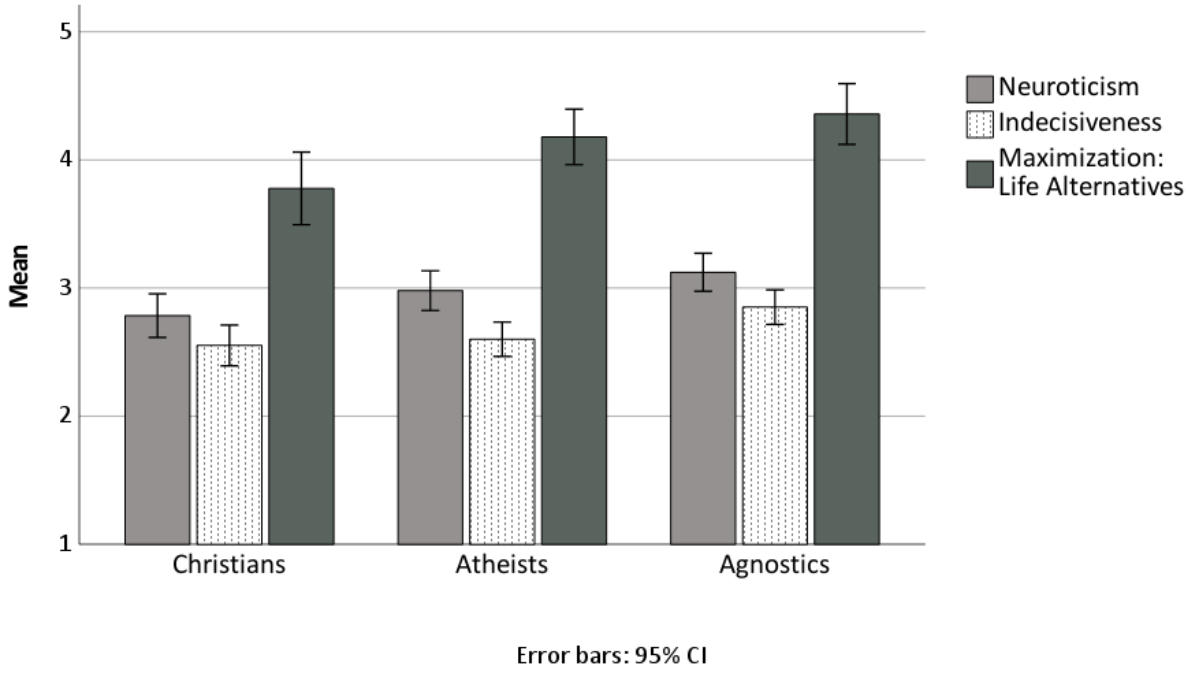

Figure 2

Coefficients of Correlations Between Convictional Strength and Evaluations of Self and Others, Distinctly by Convictional Group and Personality Characteristics