Do Agnostics Resemble Atheists or Religionists on Morality? Evidence from 33 European Countries of Different Religious Heritage

Moise Karim [1], Magali Clobert [2], and Vassilis Saroglou [1]

[1] Université catholique de Louvain, Belgium

[2] Université de Caen Normandie, France

This article is published at the *International Journal for the Psychology of Religion*.

For the published version, see https://doi.org/10.1080/10508619.2025.2594850

Author Note

Moise Karim https://orcid.org/0000-0002-9231-5493

moise.karim@uclouvain.be

Magali Clobert https://orcid.org/0000-0002-1891-3671

magali.clobert@unicaen.fr

Vassilis Saroglou https://orcid.org/0000-0002-8294-9142

vassilis.saroglou@uclouvain.be

This study is an extension and re-elaboration of initial analyses and work made for the doctoral dissertation of the first author under the supervision of the third author. All three authors were involved in the conceptualization of the study, data analysis, and writing the manuscript.

Correspondence should be addressed to Vassilis Saroglou, UCLouvain, Research Institute for Psychological Sciences, Pl. du Cardinal Mercier 10, B 1348, Louvain-la-Neuve, Belgium. Email: vassilis.saroglou@uclouvain.be

Abstract

The major moral differences between religious and nonreligious people comprise stronger endorsement of, primarily, traditional/restrictive morality regarding family, sexuality, and purity, and, secondarily, ingroup prosociality/cooperation. Research indicates that agnostics differ from atheists (and religionists) in personality and other characteristics. Does this extend to morality? We analyzed European Values Survey 2017 data from 33 countries of Protestant, Catholic, Orthodox, and Muslim heritage and compared, through multilevel analyses, agnostics to religionists and atheists in moral attitudes (total N = 35,560). The latter comprised traditional/restrictive morality (preservation of traditional family and natural life processes, "hygienic" morality, restrictive sexuality), civic morality (citizen's obligations), and death penalty. Across religious-cultural zones, and beyond differences between them, agnostics, in traditional morality, were midway between the "restrictive" religionists and the "permissive" atheists but resemble atheists in being more permissive than religionists on civic morality. The role of secularization and agnostics' personality in understanding the above findings is discussed.

Keywords: agnosticism, atheism, morality, secularization, cross-cultural/cross-religious comparisons

Do Agnostics Resemble Atheists or Religionists on Morality? Evidence from 33 European Countries of Different Religious Heritage

Religion and morality, at least specific domains of it, are perceived as being deeply interrelated, which colors the way we consider the relationship between morality and nonreligion. Given that there exist varieties of non-religious experiences (Lindeman et al., 2020; Schnell et al., 2023; Silver et al., 2014), the question arises whether, regarding morality, there is a global contrast between religion/belief and nonreligion/nonbelief, or whether different types of nonreligious people imply different moral attitudes. In the present work, we focus, for the first time in our knowledge, on the similarities and differences in various moral domains between agnostics and atheists. These two convictional categories typically cover the vast majority of the nonreligious, at least across Western, more or less secularized, societies (e.g., European Commission, 2019). Below, we first present a brief overview of the links between (ir)religion and morality. Second, we develop our rationale on why agnostics may differ from atheists (and religionists) on morality. Third, we present an overview of the present study.

Morality and (Ir)religion

Empirical research has clarified that religion does not *create* morality; the two are, at least partly, independent, already in childhood (Turiel & Neff, 2000). Furthermore, pan-cultural values and moral foundations are endorsed across societies and individuals, be they religious or nonreligious (Cieciuch et al., 2013; Doğruyol et al., 2019; but see Iurino & Saucier, 2020). However, religion shapes and orients morality by influencing religious individuals' (a) hierarchy between values, (b) (over)emphasis on some moral domains and issues, and (c) preference for a deontological over consequentialist perspective (Saroglou, 2019). These specific effects exist beyond a general association between religiosity and the importance of being moral in general, what may also create opportunities for moral inconsistencies (Abrams et al., 2021). They

characterize common religiosity, with moral rigidity and moralization, i.e., extension of moral evaluation to decisions in all life domains, being more typical of orthodox and fundamentalist religious forms (Nucci & Turiel, 1993; see also Buxant & Saroglou, 2008).

What is the content of the religious moral specifics? Across cultures of various religious heritage, there is a preferential association between religiosity and two major domains of morality (Saroglou, 2019; Shariff & Mercier, 2021). The first is "hygienic" and traditional family-related morality, i.e., one emphasizing the importance of (natural) family preservation and the ideals of self-control and purity. These imply depreciation of family instability, socio-sexual permissiveness, and unconventional sexuality, and the need for preservation of the naturalness of life processes. The above lead to moral disapproval of premarital and extramarital sex, homosexuality, divorce, abortion, and euthanasia, as well as moralization of substance abuse. The second domain is (pro)social morality, in favor of mostly ingroup prosociality and society's preservation. This implies valuing care for the ingroup members in need, condemnation of violence and killing, and moral disapproval of dishonesty and cheating as violating both self-respect and the obligations toward the community. Finally, as research indicates (Weeden & Kurzban, 2013; see also Saroglou & Craninx, 2021), when comparing the two domains, i.e., the "hygienic" and traditional family-oriented morality and the (pro)social morality, several indicators favor the idea that religion's emphasis is even stronger regarding the former.

With regard to these two moral domains, the difference between religious and nonreligious people mostly corresponds to the difference between the so-called conservative and liberal social attitudes and the difference between moral restrictiveness and moral permissiveness (Saroglou, 2019, for an extended review). The focus on the above two broad moral domains, possibly at the detriment of other ones (e.g., universal care and tolerance, fairness/justice, human rights), may, in our opinion, explain why in people's stereotypes, overall, atheists and

nonbelievers (as a generic term) tend to be perceived as less moral broadly speaking (Gervais et al., 2017). However, atheists and nonbelievers may (over)emphasize other moral domains that seem of lower importance for religionists. Convergent evidence across studies suggests that such values include individual autonomy, liberty in society, equal rights for all people, and trust in science, rationality, and democratic institutions (Norris & Inglehart, 2012; Ståhl et al., 2016; Uzarevic et al., 2020; see also Galen, 2023, and Zuckerman et al., 2016, for overviews of nonbelievers' and atheists' morality). Not surprisingly, nonbelievers value less than religious believers, if not depreciate, the collectivistic and traditional moral foundations of authority, group loyalty, and purity (Saroglou & Craninx, 2021).

Agnostics' Morality

Little if anything is known about agnostics' morality. Do agnostics, as one category of nonreligious/nonbelievers, resemble atheists in being permissive regarding the above two moral domains, i.e., primarily traditional family and hygienic morality and secondarily social/civic morality? Or, on the contrary, as not (yet) convinced nonbelievers/atheists, do agnostics resemble religious believers in being restrictive, possibly because they do not want to end up as permissive in morality as atheists? To say it differently, do agnostics resemble atheists by finding religious morality too restrictive and outdated, while non-necessarily rejecting other aspects of religion, or on the contrary do agnostics distance themselves from religionists on beliefs for cognitive motives (disbelief in religious beliefs) but are still attached to a traditional moral order?

Several recent studies, mostly in European secularized countries, provided evidence on the psychology of agnostics, in terms of beliefs, religious and spiritual attitudes, but also personality and self-concept. In several of the above constructs, agnostics are located midway between religionists and atheists. In other constructs, they are unique, distancing themselves from

both religionists and atheists; or they differ from atheists, with the position of religionists varying across cultural contexts.

Specifically, agnostics, at least in the context of European countries, are located midway between religionists (high) and atheists (low) not only in pro-religious attitudes, but also in spirituality, paranormal beliefs, intuitive (over analytic) thinking, and non-full trust of science (Lindeman et al., 2019, 2020; Pedersen et al., 2018; Schnell et al., 2023). However, as additional studies showed (Karim & Saroglou, 2023, 2024a, 2024b, 2025a), agnostics are distant from both atheists and (Christian) religionists by being more neurotic and indecisive, reporting lower well-being, self-identifying less strongly with their convictional status, and showing less self-enhancement. Furthermore, compared to atheists, agnostics are more prosocially oriented, less dogmatic, more open-minded, and more open to experience.

Taking the above evidence as a whole, we carried out the present study as mostly exploratory. Given the intermediate position of agnostics between religionists and atheists on several of the above constructs referring to traditional beliefs and perception of things in a global way (intuitive thinking), and taken also into account their higher, compared to atheists, other-oriented dispositions (prosociality and low self-enhancement), it is reasonable to conceive that agnostics should also be midway between (restrictive) religionists and (permissive) atheists in the two moral domains described above, i.e., (a) hygienic and family-oriented morality and (b) (pro)social morality. Nevertheless, given the highest levels of agnostics in uncertainty, open-mindedness, and lack of dogmatism, it is not in principle excluded that agnostics have less clear moral attitudes, diverge in their attitudes depending on the specific moral issue under consideration, or even are more liberal/more permissive than atheists.

Suggestive evidence in favor of the idea that agnostics, compared to atheists, may endorse to a higher degree (pro)social and personal and social order-oriented values comes from a study

in Denmark showing that agnostics consider to a higher degree than atheists that "social commitment" and "generativity" are a source of meaning, whereas atheists perceive more than agnostics that "individualism", "freedom", "fun", and "comfort" are sources of meaning (Pedersen et al., 2018). Similarly, in the U.S., atheists more than agnostics consider money, hobbies, and travel as sources of meaning (Pew Research Center, 2018). Finally, there is some evidence that people in the US stereotypically perceive agnostics, compared to atheists, as less immoral (Bergstrom et al., 2022; but see Bergstrom & Chasteen, 2024).

The Present Study

To examine the morality of agnostics, comparatively to the one of religionists and atheists, we used in the present study the large data of the European Values Survey, last wave 2017 (EVS, 2020), which totalizes more than 50,000 participants from more than 30 countries. This dataset includes, among many others, questions on moral attitudes toward various issues, as well as a question allowing researchers to identify participants who are religious, agnostic, or atheist.

Importantly, we also examined the role of individual socio-demographic variables and the potential moderating role of two key societal characteristics, i.e., a country's religious heritage and degree of secularity. The co-existence of individual-level and collective-level variables allowed us to compute multilevel analyses. The rationale for including these moderating variables is provided below.

Previous analyses of the same EVS data from countries of Christian heritage (Protestant, Catholic, Christian Orthodox), with as research question the between-group differences on subjective well-being, showed differences in age, gender, and education level between Christians, agnostics, and atheists (Karim & Saroglou, 2024b). Furthermore, accumulated evidence in recent years suggests that the secular versus religious character of countries importantly moderates the

links between individual religiosity and other psychological characteristics such as personality traits, prosociality, and various aspects of well-being (Gebauer & Sedikides, 2021). Finally, sociological work using the World Values Survey has confirmed the relevance of distinguishing between different, religious-cultural, civilizational zones, especially when it comes to values (Inglehart & Welzel, 2023). Recent cross-cultural psychological research indicates the importance of investigating similarities and differences in the psychological characteristics of individual religiosity and morality between cultures of different religious heritage (Saroglou, 2019, for an extensive review; see also Karim & Saroglou, 2024b; Saroglou et al., 2020). These studies show cross-cultural/religious similarities in the associations between religiosity and many aspects of morality, especially those related to family, sexuality, purity/self-control, and ingroup prosociality. But they also indicate cross-cultural/religious differences on (1) the size of these associations, (2) the presence or direction of religiosity's associations with other aspects of morality (e.g., those regarding economy and universalism—social justice and tolerance), and (3) mean levels of moral attitudes and behavior across societies, with religionists in secular countries overall becoming more liberal than religionists in traditional societies.

Method

Participants

We used data from the European Values Survey, last (fifth) wave of 2017 (EVS, 2020), coming from 33 countries of all regions, i.e., Northern, Western, Eastern, Central, and Southern Europe. In the total sample, age varied from 18 to 82 years (mean age = 49.66, *SD* = 17.72). There were slightly more women (55.3%) than men (44.7%). While 20.9% of participants reported a lower education level, 45.3% and 33.0% respectively reported a medium and higher educational level.

The EVS data does not propose an explicit self-identification regarding religious affiliation that includes the term "agnostic". However, a classic EVS question distinguishes between four attitudes regarding the existence of God/transcendence. In answering the question "Which of these statements is closest to your beliefs?", participants are asked to choose one of four options: (1) "There is a personal God, (2) There is some kind of spirit or life force, (3) I don't really know what to think, or (4) I don't really think there is any kind of spirit, God, or life force". Option 1 corresponds in fact to religious believers of monotheistic (for Europe) religions; option 3 corresponds to agnosticism; and option 4 to atheism/clear nonbelief (being nonreligious and nonspiritual—i.e., excluding any transcendence). (Option 2 corresponds to being spiritual, not religious, a dimension that was not part of the present study's investigation). These four options cover well participants' attitudes, since only 3.4% of additional respondents chose not to answer. Furthermore, these options 1, 3, and 4 in answering the EVS question on belief in God/transcendence have been found to correspond to an important degree to self-identification as, respectively, being religionist, agnostic, and atheist (Karim & Saroglou, 2024a; see also the last subsection of Results below). Therefore, we retained for the analyses religious believers (N = 21,253), agnostics (7,141), and atheists (7,166), what makes a total N = 35,560 (mean age = 49.32; women = 53.6%).

Measures

Moral Attitudes

EVS includes 15 items measuring moral disapproval versus tolerance regarding various (moral) issues. These include: "*Claiming state benefits which you are not entitled to; Cheating on tax if you have the chance; Taking the drugs marijuana or hashish; , Someone accepting a bribe in the course of their duties; , Homosexuality; Abortion; Divorce; Euthanasia (terminating the life of the incurably sick); Suicide; Having casual sex; Avoiding fare on public transport;*

Prostitution; Artificial insemination and in-vitro fertilization, Political violence; and *Death penalty"*. For each item, participants were asked to rate whether they could justify the behavior on a scale varying from 1 = *never* to 10 = *always*. Higher versus lower scores indicate thus more permissive/tolerant versus more restrictive/disapproving attitudes toward these moral issues. For the purposes of the present study, we carried out factor analyses (see the Results section) to find underlying, distinct in content and fewer in number, moral domains, what would also facilitate the economy of analyses and presentation of results.

Religious Heritage

Following Inglehart and Welzel's World Civilizational Map (2023), we considered four broad religious-cultural civilizational zones. The first was composed of nine countries of *Protestant heritage*, either unique one, i.e., Denmark, Finland, Great Britain (Anglican heritage), Iceland, Norway, and Sweden, or in common with Catholic heritage, i.e., Germany, Switzerland, and the Netherlands (total $N = 18{,}037$). The second was composed by 12 countries of *Catholic heritage*, i.e., Austria, Croatia, Czech Republic, France, Hungary, Italy, Lithuania, Poland, Portugal, Slovakia, Slovenia, and Spain, covering Western, Southern, and Central Europe (total $N = 18{,}334$). The third civilizational zone was composed by nine Eastern European countries of *Christian Orthodox heritage*, i.e., Armenia, Belarus, Bulgaria, Georgia, Montenegro, North Macedonia, Romania, Russia, and Serbia (total $N = 13{,}857$). The fourth civilizational zone included three Eastern European countries of *Muslim heritage*, i.e., Albania, Azerbaijan, and Bosnia and Herzegovina (total $N = 4{,}959$). We did not include Estonia, since this country seems rather atypical with respect to religious heritage—mostly atheism and then a mixture of Orthodoxy with some Protestantism.

Secularity

The country's mean level of secularity was computed by averaging within each country participants' answers to the following EVS question: "Are you a religious person?" (1 = religious, 2 = not religious, 3 = convinced atheist). Each participant within the same country received the same mean score.

Demographics

We included in the analyses the following personal variables as measured in the EVS: age, gender (men = 1, women = 2), and education level (1 = lower, 2 = medium, 3 = higher).

Results

Preliminary Analyses

Between-Group Differences in Demographics

One-way ANOVA analyses, distinctly by religious-cultural zone, revealed significant differences on age, gender, and education level (see Supplementary Material Table S1, for detailed descriptive statistics). The effects were mostly modest in size, with partial η^2 typically varying from .002 to .018 across variables and cultural zones and being higher only for gender in countries of Western Christian heritage, partial $\eta^2 = .034$.

Subsequently post-hoc analyses (see also Supplementary Material Table S1) showed that, consistently across religious-cultural zones, religious believers tended to be older compared to both agnostics and atheists (only to agnostics in the Muslim countries). Also consistently across religious-cultural zones, there were more women among religious believers, less among agnostics, and lesser among atheists (in the Muslim countries, there were more women among both religious believers and agnostics compared to atheists). Furthermore, atheists tended to be more educated, compared to agnostics (Protestant countries) or religious believers (Catholic and

Muslim countries); or both agnostics and atheists were more educated than religious believers (Orthodox countries).

Proportions of Convictional Statuses Across Religious-Cultural Zones

The proportion of religious believers, agnostics, and atheists varied importantly across the four religious-cultural zones. Religious believers were a minority in countries of Protestant heritage (34.2%), with atheists being more present in these countries (37.2%) than agnostics (28.5%). In the countries of Catholic heritage, about half were religious believers (54%), with agnostics and atheists sharing almost equally (24.4% and 21.7%) the remaining proportion. Most people in countries of Orthodox heritage were religious (77.6%) and the agnostics and atheists constituted respectively 13.6% and 8.7%. Finally, almost all people in Muslim countries were religious (93.8%), with agnostics and atheists being only 4% and 2.1%, what corresponds to low numbers of people, i.e., respectively 180 and 95. Therefore, results on Muslim countries regarding differences between agnostics and atheists must be taken with precaution.

Factorial Structure of the Moral Attitudes Items

An exploratory factor analysis with varimax rotation on the 15 items measuring moral attitudes on various issues suggested the existence of four factors (see Table 1). The total variance explained was 45%. Applying the typical criteria (eigenvalues > .1, first loading > .40, no other loading > .32) allowed us to first retain three clear factors distinctly composed by 11 out of the 15 items.

The first factor included four items: *abortion*, *divorce*, *artificial insemination or in-vitro fertilization*, and *euthanasia* ($\alpha = .82$). This factor denotes moral concerns for the preservation of traditional/natural family and life. We called this factor "family preservation morality". The second factor included five items: *unjustly claiming state benefits*, *accepting bribes*, *cheating on*

taxes, *avoiding paying fares on public transport*, and *political violence* ($\alpha = .73$). This factor denotes moral concerns for reciprocity, honesty, loyalty, and harmony in society. We called this factor "civic morality". The third factor included *taking soft drugs* and *prostitution*. We called this factor "hygienic morality" ($r = .44$, $p < .001$).

Beyond these 11 items clearly and distinctly gathered into three factors, two other items, i.e., *homosexuality* and *casual sex,* were similar in having high loadings in two factors, i.e., both the family preservation morality and the hygienic morality (see Table 1). This was meaningful since both homosexuality and casual sex transgress family preservation- and fertility-oriented restrictive (hetero)sexuality. We thus gathered these two items into one sub-score that we called "sexual morality" ($r = .50$, $p < .001$). Furthermore, we kept *death penalty* as an independent item in subsequent analyses given the above factorial analysis. Indeed, the relationship between religiosity and attitudes toward death penalty is a complex moral issue: punitiveness and underlying authoritarian dispositions, usually associated with high religiosity, may be countered by the moral ideal of not killing, also promoted in religious morality (McCarthy & Brunton-Smith, 2024). Finally, we did not include in further analyses *suicide*, because even if this item behaved similarly to homosexuality and casual sex (it had loadings to the same two factors), suicide is conceptually very different from homosexuality and casual sex. In addition, suicide today in Western (secularized) societies is considered as a mental health issue rather than a moral issue, even if negative moral connotations seem to persist (Yampolsky & Kushner, 2025).

Multi-group confirmatory factor analyses of the three-factor structure solution (family preservation, hygienic, and civic moralities) found in the above-described exploratory factor analysis confirmed cross-cultural equivalence, i.e., dimensional invariance (three factors) and configural invariance (items' correspondence with the appropriate factor) across both the four

civilizational zones and the three convictional groups. Furthermore, a comparison of the three-factor structure with the one-factor solution showed that the former structure describes the data better than the one-factor solution (see Supplementary Material).

In sum, we used for the subsequent analyses five indicators of respectively five moral domains: family preservation morality, hygienic morality, sexual morality, civic morality, and death penalty. When computing intercorrelations between the five indicators of the respective moral domains, it turned out that restrictive sexual morality was importantly related to hygienic morality (r = .61) and family morality (.71), the two latter being also considerably interrelated (.47). Civic morality was weakly related to family morality (.09) and sexual morality (.14) and moderately related to the hygienic one (.36), which includes acts that may be illegal in some contexts. Death penalty was weakly related to the other four types of morality (*rs* varying from .07 to .21). It thus appeared that family, hygienic, and sexual moralities are conceptually close: they represent traditional, survival- and purity-oriented morality, one that is distinct from cooperation-oriented morality, here civic morality.

Main Analyses: Predictors of Moral Attitudes

Means and standard deviations of the different moral attitudes, distinctly by convictional group and by civilizational (religious-cultural) zone are provided in Table 2. As noted earlier, higher scores denote permissiveness/tolerance.

Multi-Level Modeling

To account for the nested structure of the dataset, multi-level modeling (with Restricted Maximum Likelihood estimations) was adopted using SPSS 29.0. In all the tested models, the intercept, as well as the slopes (for continuous variables only) of the predictors had a random component. As usual in multi-level modeling, effect sizes, represented by the percentage of explained variance, are separately calculated for individual- and group-level. We therefore

compared the explained variance of our models including predictors to a null model (Nezlek, 2011). For each moral domain as outcome, we tested three models. The first model included individual-level predictors, i.e., convictional status, age, gender, and education. The second model included these individual-level predictors, one country-level predictor (civilizational zone/religious heritage), and the cross-level interaction term between convictional status and civilizational zone. The third model included the same individual-level predictors, two country-level predictors (civilizational zone and country-level secularity), and the two cross-level interactions, i.e., the ones of convictional status with civilizational zone and with secularity. Therefore, in total, 15 (five moral domains × three models) models were estimated.

For each moral domain, null models (without any predictor) were systematically compared to the three models. The random effects from the null models are reported in Supplementary Material Table S2. We found significant variability both at the individual (residual) and country (intercept) levels in the different types of morality scores. Compared to the null models, the models including all our predictors (Model 3: individual-level predictors, two country-level predictors, and two cross-level interactions) explained between 2.0% and 22.0% of the individual-level variance and between 1.0% and 80.0% of the country-level variance in morality scores. As results were consistent across models, we hereby only detail results for the most comprehensive model, i.e., Model 3. The results are detailed in Table 3.

Individual Predictors: Age, Gender, Education, and Convictional Status

The multi-level modeling showed that age, gender, and education were significant predictors of moral attitudes (see Table 3). Age was found to negatively predict moral permissiveness in all domains, *bs* = [-.01, -.03], *SEs* = [.001, .003], *ts* = [-2.70, -12.54], *ps* < .011. Men were more permissive than women for civic and hygienic moralities as well as death

penalty, *Mdiffs* = [.11, .58], *SEs* = [.014, .031], *ps* < .001, but were less permissive than women regarding family preservation morality, *Mdiff* = -.25, *SE* = .023, *p* < .001. Regarding family, sexual, and hygienic morality, individuals with lower level of education were less permissive than individuals with medium level of education, *Mdiffs* = [-.10, -.47], *SEs* = [.027, .031], *ps* < .001, who were less permissive than individuals with higher level of education, *Mdiffs* = [-.26, -.54], *SEs* = [.023, .028], *ps* < .001. On the contrary, regarding civic morality, individuals with lower level of education were found to be more permissive than individuals with medium level of education, *Mdiff* = .11, *SE* = .019, *p* < .001, who were more permissive than individuals with higher level of education, *Mdiff* = .09, *SE* = .016, p < .001. Finally, individuals with lower and medium level of education justified death penalty more than individual with high level of education, *Mdiffs* = [.42, .47], *SEs* = [.037, .046], *ps* < .001. In sum, older people were stricter in all moral domains; men were stricter in family morality and less strict in civic and hygienic moralities; and highly educated people were stricter in citizen morality, whereas less educated people endorsed more family, sexual, and hygienic moralities and death penalty.

As also detailed in Table 3, differences in all moral attitudes were also found as a function of convictional status. Means and between-group comparisons are reported in Supplementary Material Table S3. For the three traditional morality domains (family, hygienic, sexual) and death penalty, agnostics were systematically found to be more permissive than religious individuals, *Mdiffs* = [0.50, 0.97], *SEs* = [.041, .060], *ps* < .001, but less permissive than atheists, *Mdiffs* = [-0.77, -0.45], *SEs* = [.063, .092], *ps* < .001. For civic morality, there was no difference between agnostics and atheists, and religious individuals were less permissive compared to both agnostics and atheists, *Mdiffs* = [-0.19, -0.21], *SEs* = [.029, .037], *ps* < .001. For death penalty, agnostics were less permissive than atheists, *Mdiff* = -0.77, *SE* = .092, *p* < .001, but more permissive than religious believers, *Mdiff* = 0.86, *SE* = .060, *p* < .001.

Country-Level Predictors: Religious Heritage and Mean Secularity

Furthermore, a main effect of (religious-cultural) civilization zone was found for the three domains of traditional morality (family, hygienic, sexuality), but not for civic morality and death penalty (see Table 2 for descriptive statistics, Table 3 for the results of multi-level analyses, and Supplementary Material Table S4 for post-hoc analyses). Countries with a Protestant and Catholic heritage were found to be more permissive regarding family and hygienic morality than countries with Orthodox and Muslim heritage, *Mdiffs* = [1.08, 1.81], *SEs* = [.250, .444], *ps* < .032. Regarding sexual morality, Protestant countries were found to be more permissive than Catholic countries, *Mdiff* = 1.18, *SE* = .336, *p* = .009, both being more permissive than Orthodox and Muslim countries, *Mdiffs* = [1.65, 2.98], *SEs* = [.321, .568], *ps* < .005. Finally, as also shown in Table 3, country's higher mean level of secularity predicted stronger moral permissiveness on family preservation morality and restrictive sexuality morality, *b*s = [1.90, 2.00], *SE*s = [.55, .70], *t*s = [3.43, 2.85], *ps* < .008, but not on the other domains of morality.

Interactions Between Convictional Status and Country-Level Predictors

Except for death penalty, we found significant interactions between convictional group and civilizational zone for all types of morality (see Table 3 for the significant interactions, Table 4 for the results of post-hoc analyses, and Figure 1 for a visual inspection of means by convictional group, moral domain, and religious-cultural zone). Three slightly different patterns emerged. First, for *family* and *sexual moralities*, agnostics were more permissive than religious individuals, *Mdiffs* = [0.31, 1.28], *SEs* = [.053, .071], *ps* < .001, but less permissive than atheists, *Mdiffs* = [-0.81, -0.52], *SEs* = [.064, .095], *ps* < .001, in countries with a Protestant, Catholic, and Orthodox heritage. This pattern was not the same in Muslim countries, where the difference was between the (restrictive) religious believers and the (permissive) nonbelievers, agnostics and atheists alike. Second, regarding *hygienic morality*, agnostics tended again to be more permissive

than religious individuals, *Mdiffs* = [0.59, 0.93], *SEs* = [.045, .060], *ps* < .001, but less permissive than atheists, Mdiffs = [-0.58, -0.53], SEs = [.055, .060], *ps* < .001, in countries with a Protestant and Catholic heritage, whereas both agnostics and religious individuals were less permissive than atheists in Orthodox countries, *Mdiffs* = [-0.60, -0.41], *SEs* = [.070, .081], *ps* < .001. Again, in the Muslim countries, the contrast seemed to be between the (restrictive) religious believers and the (permissive) nonbelievers.

Furthermore, for *civic morality*, agnostics were more permissive than religious individuals in Protestant and Muslim countries, *Mdiffs* = [0.42, 0.14], *SEs* = [.041, .100], *ps* < .036, whereas religious individuals were less permissive than both agnostics and atheists in Catholic countries, *Mdiffs* = [-0.18, -0.15], *SEs* = [.031, .034], *ps* < .001. In Orthodox countries, religious individuals were found to be less permissive than atheists, *Mdiff* = -0.23, *SE* = .049, *p* < .001. Finally, even if the interaction between convictional status and cultural zone was not significant for *death penalty*, we investigated, for exploratory reasons, the between-group differences by cultural zone. In all cultural zones of Christian heritage (Protestant, Catholic, Orthodox), religious believers were less permissive than both agnostics and atheists, *Mdiffs* = [-0.36, -0.49], *SEs* = [.094, .079], *ps* < .042, but there were no differences between the latter two groups.

Significant cross-level interactions between religious affiliation and country-level secularity were additionally found for family preservation morality, hygienic morality and sexual morality (see Table 3). Simple effects (with JAMOVI 2.4.14) were subsequently examined with reverse Helmert contrasts for religious affiliations to decompose the interactions (see Supplementary Material Table S5). We found that, in highly secular countries, the contrast between agnostics and atheists was a weaker negative predictor of family and sexual moralities (*bs* = -0.35, -0.58; *SEs* = .09, .09; *ps* = <.001), relative to the religious-agnostics contrast (*bs* = -1.19, -0.90; *SEs* = .07, .07; *ps* < .001), *ts*(7,907 and 7,569) = 7.91 and 2.81, *ps* < .005. For

countries with lower level of secularity, the religious-agnostics contrast (*bs* = -0.75, -0.64; *SEs* = .06, .06; *ps* <.001) and the agnostics-atheists contrast (*bs* = -0.55, -0.74; *SE*s = .09, .09; *ps* <.001) were comparable, *ts*(10,977 and 10,685) = 1.85, 0.92, *ps* = .064, .355. In other words (see also Figure 6, the restrictiveness-permissiveness continuum goes equally progressively from religious believers to agnostics and then to atheists in less secular countries, whereas, in highly secular countries, the difference is important between restrictive religious believers and permissive agnostics who approach the slightly more permissive atheists. Also, the contrast between religious and agnostics was a stronger negative predictor of permissive hygienic morality in lower, *b* = -0.59, *SE* = .06, *p* <.001, compared to higher, *b* = -0.40, *SE* = .06, *p* <.001, secular countries, *t* (13,493) = 2.24, *p* = .025. As illustrated in Figure 2, religious individuals seem to become a little bit more permissive as secularization increases, and this in all three types of traditional morality.

Stricter Categorization of the Convictional Groups

It may be argued that: believing in God does not, strictly speaking, imply being religious; believing there exists neither God nor spirit/force does not necessarily imply being atheist; and agnostics ("I do not know") may show some heterogeneity (Galen, this special issue), at least a higher one compared to religious believers and atheists. To examine this possibility, we crossed the present categorization with the answers participants gave in another EVS question when choosing between "I am a religious person", "I am not a religious person", and "I am a convinced atheist". It turned out that the overlap between believing in a personal God and being a religious person was particularly high (93.6%), as was the one between believing there is no God or spirit/force and either not being a religious person or being a convinced atheist (90.7%). Agnostics self-identified in majority as being a non-religious person (55.1%; we call them below "non-religious agnostics"), but a non-negligible group self-identified as a religious person (36.3;

we call them below "the agnostics religiously open"), and a very small group as a convinced atheist (8.6%).

Subsequently, we considered four more strictly defined convictional groups, i.e., (1) the religionists, (2) the agnostics religiously open, (3) the non-religious agnostics, and (4) the atheists, and computed between-group comparisons in the moral attitudes, distinctly for the countries of Protestant, Catholic, and Orthodox heritage (see descriptive statistics and *Ns* in Supplementary Material Table S6). (The *Ns* of the "convinced atheist" agnostic, and, for Muslim countries, the *Ns* of the subgroups of agnostics were small and thus we did not retain these groups for the analyses). One-way analyses and post-hoc (Bonferroni) comparisons confirmed, across all three religious-cultural zones, a linear progress from higher restrictiveness to lower restrictiveness/higher permissiveness in all moral domains except death penalty (see also Supplementary Material Figure 1).

Discussion

In this study, using European Values Survey 2017 (EVS, 2020) data from 33 countries, we compared agnostics to atheists and religious believers on various moral attitudes organized, following our factor analyses, into broad moral domains. These moral attitudes, as measured in the EVS, consisted of high versus low permissiveness (justification, acceptability), or inversely, low versus high restrictiveness. We compared these three convictional groups in the whole sample as well as distinctly by civilizational, religious-cultural, zones marked by Protestant, Catholic, Christian Orthodox or Muslim heritage. We controlled for the role of age, gender, and education and we also examined the moderating role of a country's mean secularity, i.e., low mean religiosity.

Agnostics' Morality Comparatively to Believers and Atheists

The major trend of the findings is that, overall, agnostics are most often located midway between the less permissive religionists and the more permissive atheists. This major finding confirms the idea that, at least at the ideological, broad existential sphere, agnostics should be assimilated neither to clear atheists nor to religious believers but stand uniquely, often at the middle. The present study extends previous research documenting the intermediate position of agnostics located between religious believers and atheists not only on religious attitudes but also on spirituality, paranormal belief, and intuitive thinking (studies in European countries: Lindeman et al., 2019, 2020; Pedersen et al., 2018; Schnell et al., 2023). It does so by demonstrating that this intermediate position also includes the moral sphere. This is also in line with a recent study showing that, stereotypically, agnostics are perceived as less immoral than atheists (Bergstrom et al., 2022), who are perceived as lower in morality compared to religious believers (Gervais et al., 2017).

Importantly, our analysis showed that this major trend of agnostics' moral intermediate position is not an artefact of (1) age differences between the three groups, older people being more religious and less permissive, (2) gender differences, men being less religious and differing from women on several moral attitudes, or (3) education, with more educated people being more atheist and more liberal in morality. Also, when this moral hierarchy, from religionists to agnostics and then to atheists, was clearly present, our work showed that this holds across cultural zones of various religious traditions, at least in the study context, i.e., Europe. Furthermore, our additional analyses using stricter definitions of religious believers (i.e., those who self-identified as "religious") and atheists (i.e., those self-identifying as "convinced atheists") and taking into account some heterogeneity of agnostics (the majority being indeed non-religious agnostics but a second group being agnostics religiously open) confirmed this linear moral hierarchy, with the religiously open agnostics being located between the religionists and the non-religious agnostics.

Beyond this major trend, results were more nuanced when focusing on specific moral domains and when considering mean differences between religious-cultural zones. To facilitate the discussion of results, it is interesting to note that, given the median of the EVS scales (from 1 to 10) on the morality items, some moral attitudes can be considered as rather permissive (> 5.5) and others as rather restrictive (< 5.5; see Table 2 and Figure 1).

It turned out first that the moral position of agnostics located midway between restrictive believers and permissive atheists was clearly present regarding traditional morality, i.e., (1) natural/traditional family and life preservation morality including permissiveness or not on the classic religious moral issues of divorce, abortion, euthanasia, and in vitro fertilization, (2) hygienic morality disapproving drugs and prostitution, and (3) sexual morality regarding permissiveness or not of unconventional, extra-marital and non-heterosexual, sexuality. However, agnostics rather resembled atheists in being less restrictive, compared to religionists, on (4) civic morality, i.e., citizen's honesty, ingroup loyalty, and non-violence, be it for preservation of social order or crime's punitiveness (death penalty). Religionists', compared to nonbelievers', higher disapproval of dishonesty and ingroup disloyalty, at least in self-reports, is well evidenced (Saroglou, 2019). Similarly, religionists' higher disapproval of death penalty can be understood given that religion's prohibition of killing holds here within the European context (see McCarthy & Brunton-Smith, 2024) and that the effect was found after socio-demographics, including education level, were controlled for. (Nevertheless, note that neither agnostics nor atheists were, strictly speaking, permissive in civic morality—all means of all groups were < 4.5).

The fact that agnostics were located midway in traditional, family- and purity-oriented morality, but not really in the social, more universal, morality, may suggest that in moral issues heavily colored by traditional religious teachings, agnostics are indecisive (see Karim & Saroglou, 2025a, for agnostics' general indecisiveness). They seem reluctant to go "too far" by

fully abandoning traditional moral positions that characterize, if not define, the gap between traditional religion and secularity. Similarly, it may also be that agnostics distance themselves from religion for cognitive or emotional reasons and thus want to "throw out the baby" (religion), but do not want to become like clear atheists by also throwing out the moral "bathwater" (some values, some aspects of spirituality) associated with religion. The faith vs. non-faith gap regarding civic/social morality is much weaker than the same gap in traditional family- and sexuality-oriented morality (Weeden & Kurzban, 2013; see also Saroglou, 2019, for an extended review). Thus, in the civic/social morality we documented religionists' higher restrictiveness compared to nonbelievers in general, atheists and agnostics alike, possibly because of a broader association between religiosity and moral identity (Ward & King, 2018), rather than a thorough gradual moral hierarchy between the three groups.

Second, additional results of the present study consolidate the idea that the differences between agnostics and atheists—and not nonbelievers in general—found mainly on the traditional, family and sexual moralities denote the moral conflict between traditional religion and secularity. Indeed, the effect of the country's mean level of secularity on making people more permissive was observed for family morality and sexual morality, but not for the other three kinds of morality. In addition, European countries of Protestant and Catholic heritage, typically more secularized, were more permissive than European countries of Orthodox and Muslim heritage, typically more religious, on traditional morality (family preservation, hygienic, and sexual), but not on civic morality and death penalty. In sexual morality, Protestant countries were even more permissive than Catholic countries. Finally, the interactions found between a country's mean secularity and convictional status in predicting moral attitudes showed that, in these three domains of traditional morality, agnostics tended to be equally distant from restrictive religionists and permissive atheists in religious countries but came closer to atheists in secular cultures.

In sum, on the one hand, agnostics' distinct, intermediate, moral position between believers and atheists is evidenced rather in moral issues where the conflict between religion and nonreligion is strong. In these issues—abortion, euthanasia, divorce, non-normative sexuality, the major underlying conflict is not between selfishness and prosociality, but between individual autonomy and support of traditional collectivistic values (Deak & Saroglou, 2015, 2017). On the other hand, secularization deepens the religion vs. irreligion conflict in traditional morality favoring preservation of traditional stable families, avoidance of extramarital and unconventional sexuality, and non-intervention in natural life processes. Thus, increased secularization may decrease the moral distance between the two types of nonbelievers, i.e., agnostics and atheists. (Note that even the proportion of agnostics among nonbelievers seems to decrease in favor of the one of atheists as a function of increased secularization; Karim & Saroglou, 2025b).

Limitations, Generalizability Issues, and Further Questions

An obvious limitation of the present study in answering the research questions is the self-reported character of moral attitudes as measured in the EVS, what asks for future behavioral confirmation of the findings. Furthermore, the cross-sectional character of the present data does not allow for strict confirmation of the effects of societal changes, here a country's mean level of secularity, on differences between the three convictional groups. In addition, prosocial morality, in particular in interpersonal relations, is not really measured through the EVS morality items and thus nothing can be inferred on this important moral domain regarding agnostics. Another limitation is that the wording used in the EVS to measure these moral attitudes does not allow us to make the distinction between moral acceptability for others or in society in general and acceptability for oneself, a critical distinction if one needs to distinguish between moral inflexibility and moral integrity, in particular among groups of various convictional statuses. Finally, even if agnostics and atheists constitute the two broad, mostly studied, subgroups of the

nonreligious/nonbelievers, there may exist higher variability among the nonreligious-nonbelievers, in general and across specific cultures.

Despite the above limitations, the findings were rather clear and consistent across cultural zones of (1) different religious heritage—and respective different historical and political backgrounds like the ones between Western and Central/Eastern Europe—as well as (2) different levels of mean religiosity/secularity, even if these two factors played some moderating role. Nevertheless, the results are limited in the cultural context of European countries, which, among others, are marked by more or less strong secularization and coexistence between secularity and religion. It is thus unclear whether the present findings are necessarily generalizable to other cultural, especially, traditionally religious, contexts, where the convictional status of agnosticism may not denote the same psychological characteristics. Note also that most psychological recent evidence on agnosticism comes from European countries (see studies cited in the Introduction).

Another question for future research is whether the major trend of the present results, i.e., agnostics being midway between atheists and religionists, generalize to all domains of morality. In fact, the moral domains investigated as such in the EVS and being part of the present work are classic ones for which there has been significant concern within religious traditions across centuries. What would be the case regarding other moral issues? For instance, when it comes to pro-environmental attitudes, which can be considered as a more modern moral domain, it turns out that, based on the same EVS data used in the preset work, there is a gap between atheists, on the one hand, who are higher pro-environmentalists, and religionists and agnostics, on the other hand, who are equally lower in pro-environmental concerns, and this across European countries of Protestant, Catholic, and Muslim heritage (Saroglou et al., 2025).

Finally, there is an avenue open for future research if it is to further investigate, from a psychological perspective, the morality of agnostics. Previous studies suggested several

psychological characteristics that may, together or distinctively, underline and motivate agnosticism. Agnosticism may reflect: (1) neuroticism and indecisiveness (2) open-mindedness and humility; (3) prosociality and social curiosity; (4) spiritual inclinations, intuitive thinking, and not strong opposition to uncommon beliefs; and/or (5) simply previous religious socialization (Karim & Saroglou, 2023, 2024a, 2025a). Therefore, several mechanisms may explain agnostics' specific moral position in being midway between restrictive religionists and permissive atheists, and this in several but not all moral domains. Agnostics may thus hesitate or be unwilling to go "too far" and fully join atheists in morality simply as a religious residue or because of fear and indecisiveness, flexibility and openness to both sides', believers and atheists', values and their respective pros and cons, and/or respect and care for both traditional and secular moral wisdoms.

Data Availability Statement

The data and the protocol of the study are available at

https://search.gesis.org/research_data/ZA7500

References

Abrams, S., Jackson, J. C., & Gray, K. (2021). The new trinity of religious moral character: The cooperator, the crusader, and the complicit. *Current Opinion in Psychology, 40*, 99-105. https://doi.org/10.1016/J.COPSYC.2020.09.001

Bergstrom V. N. Z., Chasteen A. L. (2024). Are agnostics associated with immorality to the same degree as atheists? *Psychology of Religion and Spirituality*, *16*(2), 214-222. https://doi.org/10.1037/rel0000491

Bergstrom, V. N. Z., Plaks, J. E., & Chasteen, A. L. (2022). To believe or not to believe: Stereotypes about agnostics. *Psychology of Religion and Spirituality, 14*(1), 21-30. https://doi.org/10.1037/rel0000419

Buxant, C., & Saroglou, V. (2008). Feeling good, but lacking autonomy: Closed-mindedness on social and moral issues in New Religious Movements. *Journal of Religion and Health, 47*(1), 17-31. https://doi.org/10.1007/s10943-007-9142-1

Cieciuch, J., Schwartz, S. H., & Vecchione, M. (2013). Applying the refined values theory to past data: What can researchers gain? *Journal of Cross-Cultural Psychology, 44*(8), 1215-1234. https://doi.org/10.1177/0022022113487076

Deak, C., & Saroglou, V. (2015). Opposing abortion, gay adoption, euthanasia, and suicide: Compassionate openness or self-centered moral rigorism? *Archive for the Psychology of Religion, 37*(3), 267-294. https://doi.org/10.1163/15736121-12341309

Deak, C., & Saroglou, V. (2017). Terminating a child's life? Religious, moral, cognitive, and emotional factors underlying non-acceptance of child euthanasia. *Psychologica Belgica, 57*(1), 59-76. https://doi.org/10.5334/pb.341

Doğruyol, B., Alper, S., & Yilmaz, O. (2019). The five-factor model of the moral foundations theory is stable across WEIRD and non-WEIRD cultures. *Personality and Individual Differences, 151*, Article 109547. https://doi.org/10.1016/j.paid.2019.109547

EVS (2020). European Values Study 2017: Integrated Dataset (EVS 2017)—Matrix Design Data. *GESIS Data Archive, Cologne. ZA7502 Data file Version 2.0.0.* https://doi:10.4232/1.13561

European Commission. (2019, October). *Special Eurobarometer, 493: Discrimination in the EU*. https://europa.eu/eurobarometer/api/deliverable/download/file?deliverableId=70436

Galen, L. W. (2023). *Social cognition perspective of the psychology of religion: "Why God thinks like you"*. Bloomsbury Academic.

Gebauer, J. E., & Sedikides, C. (2021). Cultural religiosity: A neglected but powerful dimension of culture. *Current Opinion in Psychology, 40*, 73-78. https://doi.org/10.1016/j.copsyc.2020.08.027

Gervais, W. M., Xygalatas, D., McKay, R. T., Van Elk, M., Buchtel, E. E., Aveyard, M., Schiavone, S. R., Dar-Nimrod, I., Svedholm-Häkkinen, A. M., Riekki, T., Klocová, E. K., Ramsay, J. E., & Bulbulia, J. (2017). Global evidence of extreme intuitive moral prejudice against atheists. *Nature Human Behaviour, 1*(8), 1-5. https://doi.org/10.1038/s41562-017-0151

Inglehart, R. F., & Welzel, C. (2023). The Inglehart-Welzel world cultural map: World Values Survey 7. https://www.worldvaluessurvey.org/WVSContents.jsp?CMSID=Findings

Iurino, K., & Saucier, G. (2020). Testing measurement invariance of the Moral Foundations questionnaire across 27 countries. *Assessment, 27*(2), 365-372. https://doi.org/10.1177/1073191118817916

Karim, M., & Saroglou, V. (2023). Being agnostic, not atheist: Personality, cognitive, and ideological differences. *Psychology of Religion and Spirituality, 15*(1), 118-127. https://doi.org/10.1037/rel0000461

Karim, M., & Saroglou, V. (2024a). "I am agnostic, not atheist": The role of open-minded, prosocial, and believing dispositions. *Self and Identity, 23*(3-4), 248-267. https://doi.org/10.1080/15298868.2024.2357845

Karim, M., & Saroglou, V. (2024b). Agnostics' well-being compared to believers and atheists: A study in Europe's religious-cultural zones of Christian heritage. *Religions, 15*(12), 1502. https://doi.org/10.3390/rel15121502

Karim, M., & Saroglou, V. (2025a). Agnosticism as a distinct type of nonbelief: The role of indecisiveness, maximization, and low self-enhancement. *Self and Identity, 24*(3), 232-252. https://doi.org/10.1080/15298868.2025.2467733

Karim, M., & Saroglou, V. (2025b). Does agnosticism precede atheism? Investigating the question in the context of Western European countries. *Social Compass, 37*(1), 127-141. https://doi.org/10.1177/00377686241311832

Lindeman, M., Marin, P., Schjoedt, U., & van Elk, M. (2020). Nonreligious identity in three Western European countries: A closer look at nonbelievers' self-identifications and attitudes towards religion. *The International Journal for the Psychology of Religion, 30*(4), 288-303. https://doi.org/10.1080/10508619.2020.1746984

Lindeman, M., van Elk, M., Lipsanen, J., Marin, P., & Schjoedt, U. (2019). Religious unbelief in three Western European countries: Identifying and characterizing unbeliever types using latent class analysis. *The International Journal for the Psychology of Religion*, *29*(3), 18-203. https://doi.org/10. 1080/10508619.2019.1591140

McCarthy, D., & Brunton-Smith, I. (2024). Attitudes towards the death penalty: An assessment of individual and country-level differences. *European Journal of Criminology, 21*(1), 116-139. https://doi.org/10.1177/14773708221097670

Nezlek, J. B. (2011). Multi-level modeling and cross-cultural research. In D. Matsumoto & F. J. R. van de Vijver (Eds.), *Cross-cultural research methods in psychology* (pp. 299-345). Cambridge University Press.

Norris, P., & Inglehart, R. (2012). *Sacred and secular: Religion and politics worldwide* (2nd ed.). Cambridge University Press.

Nucci, L., & Turiel, E. (1993). God's word, religious rules, and their relation to Christian and Jewish children's concepts of morality. *Child Development, 64*(5), 1475-1491. https://doi.org/10.1111/j.1467-8624.1993.tb02965.x

Pedersen, H. F., Birkeland, M. H., Jensen, J. S., Schnell, T., Hvidt, N. C., Sørensen, T., & la Cour, P. (2018). What brings meaning to life in a highly secular society? A study on sources of meaning among Danes. *Scandinavian Journal of Psychology, 59*(6), 678-690. https://doi.org/10.1111/sjop.12495

Pew Research Center. (2018, November 20). Where Americans find meaning in life. https://www.pewforum.org/2018/11/20/where-americans-find-meaning-in-life

Saroglou, V. (2019). Religion and related morality across cultures. In D. Matsumoto & H. C. Hwang (Eds.), *The handbook of culture and psychology* (2nd ed., pp. 724-785). Oxford University Press.

Saroglou, V., Clobert, M., Cohen, A. B., Johnson, K. A., Ladd, K. L., Van Pachterbeke, M., Adamovova, L., Brandt, P.-Y., Çukur, C. S., Hwang, K.-K., Miglietta, A., Motti-Stefanidi, F., Muñoz-García, A., Murken, S., Roussiau, N., & Tapia Valladares, J. (2020). Believing, bonding, behaving, and belonging: The cognitive, emotional, moral, and social

dimensions of religiousness across cultures. *Journal of Cross-Cultural Psychology, 51*(7-8), 551-575. https://doi.org/10.1177/0022022120946488

Saroglou, V., & Craninx, M. (2021). Religious moral righteousness over care: A review and a meta-analysis. *Current Opinion in Psychology, 40*, 79-85. https://doi.org/10.1016/j.copsyc.2020.09.002

Saroglou, V., El Marsni, K., & Benaicha, I. (2025). Pro-environmental attitudes and behavior: The role of religion and spirituality in secularized Europe beyond relevant individual differences. *Journal of Environmental Psychology, 107,* Article 102799.

Schnell, T., de Boer, E., & Alma, H. (2023). Worlds apart? Atheist, agnostic, and humanist worldviews in three European countries. *Psychology of Religion and Spirituality, 15*(1), 83-93. https://doi.org/10.1037/rel0000446

Shariff, A. F., & Mercier, B. (2021). The evolution of religion and morality. In J. R. Liddle & T. K. Shackelford (Eds.), *The Oxford handbook of evolutionary psychology and religion* (pp. 246–264). Oxford University Press.

Silver, C. F., Coleman, T. J., III, Hood, R. W., Jr., & Holcombe, J. M. (2014). The six types of nonbelief: A qualitative and quantitative study of type and narrative. *Mental Health, Religion & Culture, 17*(10), 990-1001. https://doi.org/10.1080/13674676.2014.987743

Ståhl, T., Zaal, M. P., & Skitka, L. J. (2016). Moralized rationality: Relying on logic and evidence in the formation and evaluation of belief can be seen as a moral issue. *PLoS One, 11*(11), e0166332. https://doi.org/10.1371/journal.pone.0166332

Turiel, E., & Neff, K. (2000). Religion, culture, and beliefs about reality in moral reasoning. In K. S. Rosengren, C. N. Johnson, & P. L. Harris (Eds.), *Imagining the impossible: Magical, scientific, and religious thinking in children* (pp. 269-304). Cambridge, UK: Cambridge University Press.

Uzarevic, F., Saroglou, V., & Pichon, I. (2020). Rejecting opposite ideologies without discriminating against ideological opponents? Understanding nonbelievers' outgroup attitudes. *Basic and Applied Social Psychology, 42*(1), 62-77. https://doi.org/10.1080/01973533.2019.1689980

Ward, S. J., & King, L. A. (2018). Moral self-regulation, moral identity, and religiosity. *Journal of Personality and Social Psychology, 115*(3), 495–525. https://doi.org/10.1037/pspp0000207

Weeden, J., & Kurzban, R. (2013). What predicts religiosity? A multinational analysis of reproductive and cooperative morals. *Evolution and Human Behavior, 34,* 440-445. https://doi.org/10.1016/j.evolhumbehav.2013.08.006

Yampolsky, E., & Kushner, H. I. (2025). Morality, mental illness and the prevention of suicide. In K. Jaworski & I. Marsh (Eds.), *Reframing suicide: The development of critical suicide studies* (pp. 7-17). Routledge.

Zuckerman, P., Galen, L. W., & Pasquale, F. L. (2016). *The nonreligious: Understanding secular people and societies*. Oxford University Press.

Table 1

Factor Loadings of the Morality Items

Moral attitudes: "Do you justify … ?"	Factor 1	Factor 2	Factor 3	Factor 4
Claiming undue state benefits	-.018	**.630**	.022	-.012
Taking soft drugs	.270	.290	**.531**	-.079
Accepting a bribe	-.022	**.639**	.168	.095
Cheating on taxes	-.035	**.708**	.004	.009
Homosexuality	**.650**	-.066	**.441**	-.129
Abortion	**.788**	.004	.274	-.003
Divorce	**.831**	.004	.195	.005
Suicide	**.368**	.125	**.563**	.074
Having casual sex	**.515**	.164	**.473**	.003
Avoiding fare on transport	.124	**.547**	.147	.091
Prostitution	**.315**	.195	**.581**	.085
Artificial insemination	**.608**	-.034	.054	.132
Political violence	-.036	**.452**	.231	.205
Euthanasia	**.602**	.015	**.315**	.225
Death penalty	.109	.167	.008	**.656**

Notes. $N = 29{,}961$. In bold: loadings > .30. Eigenvalues for Factors 1-4 are, respectively, 4.82, 2.57, 1.10, and 0.91.

Table 2

Descriptive Statistics of Moral Permissiveness in Five Domains, by Convictional Group and Religious-Cultural Zone

	R. believers		Agnostics		Atheists		Total	
Countries' heritage	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Protestant								
Family morality	6.06	2.35	7.65	1.82	8.23	1.64	7.32	2.17
Hygienic morality	2.61	1.94	3.62	2.25	4.22	2.42	3.50	2.32
Sexual morality	5.37	2.69	6.90	2.50	7.64	2.31	6.66	2.68
Civic morality	1.71	1.05	1.87	1.11	1.79	1.03	1.79	1.06
Death penalty	2.72	2.64	3.18	2.78	3.13	2.91	3.01	2.79
Catholic								
Family morality	4.95	2.42	6.57	2.32	7.21	2.30	5.83	2.56
Hygienic morality	2.29	1.85	3.03	2.23	3.58	2.45	2.75	2.15
Sexual morality	3.66	2.51	5.17	2.74	5.82	2.84	4.49	2.80
Civic morality	2.02	1.46	2.32	1.51	2.33	1.55	2.16	1.50
Death penalty	3.32	2.96	4.18	3.15	4.18	3.23	3.71	3.10
Orthodox								
Family morality	3.94	2.24	5.29	2.45	5.79	2.65	4.28	2.40
Hygienic morality	1.73	1.43	2.28	1.91	2.71	2.20	1.89	1.61
Sexual morality	2.21	1.81	3.09	2.26	3.84	2.61	2.47	2.03
Civic morality	2.16	1.44	2.63	1.69	2.74	1.84	2.27	1.53
Death penalty	2.76	2.78	4.09	3.20	4.11	3.20	3.05	2.93
Muslim								
Family morality	4.10	2.23	4.76	2.34	4.94	2.85	4.14	2.25
Hygienic morality	1.43	1.12	1.86	1.79	2.35	2.13	1.47	1.19
Sexual morality	1.76	1.54	2.47	2.12	3.22	2.79	1.82	1.63
Civic morality	1.82	1.20	2.06	1.56	2.07	1.53	1.83	1.22
Death penalty	3.16	3.02	3.37	3.28	4.02	3.35	3.18	3.04

Note. *Ns* for religious believers, agnostics, and atheists are, respectively, 3482, 2904, 3788 (Protestant countries), 6061, 2735, 2435 (Catholic countries), 7538, 1322, 848 (Christian Orthodox countries), 4172, 180, 95 (Muslim countries), 21253, 7141, and 7166 (Total sample).

Table 3

Fixed Effects of Multilevel Modeling for the Five Domains of Morality

		Family morality		Hygienic morality		Sexual morality		Civic morality		Death penalty	
Predictors	*df*	*F*	*p*	*F*	*p*	*F*	*p*	*F*	*p*	*F*	*p*
Model 1											
Individual-level											
Convictional group	2	1458.98	<.001	741.48	<.001	1116.07	<.001	34.21	<.001	457.36	<.001
Age	1	73.13	<.001	151.19	<.001	159.93	<.001	111.69	<.001	5.09	.031
Gender (women)	1	117.60	<.001	549.86	<.001	0.01	.939	73.31	<.001	152.33	<.001
Education	3	196.78	<.001	60.53	<.001	301.93	<.001	34.79	<.001	51.78	<.001
Model 2											
Individual-level											
Convictional group	2	416.49	<.001	222.05	<.001	362.37	<.001	36.22	<.001	22.85	<.001
Age	1	73.89	<.001	148.89	<.001	157.89	<.001	103.48	<.001	7.10	.012
Gender (women)	1	121.56	<.001	524.52	<.001	0.01	.934	69.39	<.001	138.40	<.001
Education	3	189.88	<.001	61.86	<.001	297.75	<.001	33.64	<.001	52.89	<.001
Country-level											
Religious heritage	3	32.54	<.001	16.45	<.001	36.94	<.001	1.82	.165	1.79	.171
Cross-level interaction											
Conv. group * Rel. heritage	6	31.23	<.001	19.28	<.001	29.56	<.001	6.06	<.001	1.47	.185
Model 3											
Individual-level											
Convictional group	2	6.36	<.001	30.20	<.001	9.61	<.001	5.85	.003	4.77	.009
Age	1	73.44	<.001	149.16	<.001	157.31	<.001	103.93	<.001	7.30	.011
Gender (women)	1	120.77	<.001	523.84	<.001	0.00	.953	69.28	<.001	138.03	<.001
Education	3	189.85	<.001	61.77	<.001	297.62	<.001	33.65	<.001	53.07	<.001
Country-level											
Religious heritage	3	11.75	<.001	8.89	<.001	17.01	<.001	2.67	.066	2.76	.060
Secularity	1	12.20	.002	0.26	.616	8.75	.006	2.31	.140	3.50	.072
Cross-level interaction											
Conv. group * Rel. heritage	6	13.84	<.001	19.26	<.001	15.14	<.001	3.67	.001	1.00	.421
Conv. group * Secularity	2	12.66	<.001	7.33	<.001	4.45	.012	1.94	.144	1.84	.159

Table 4

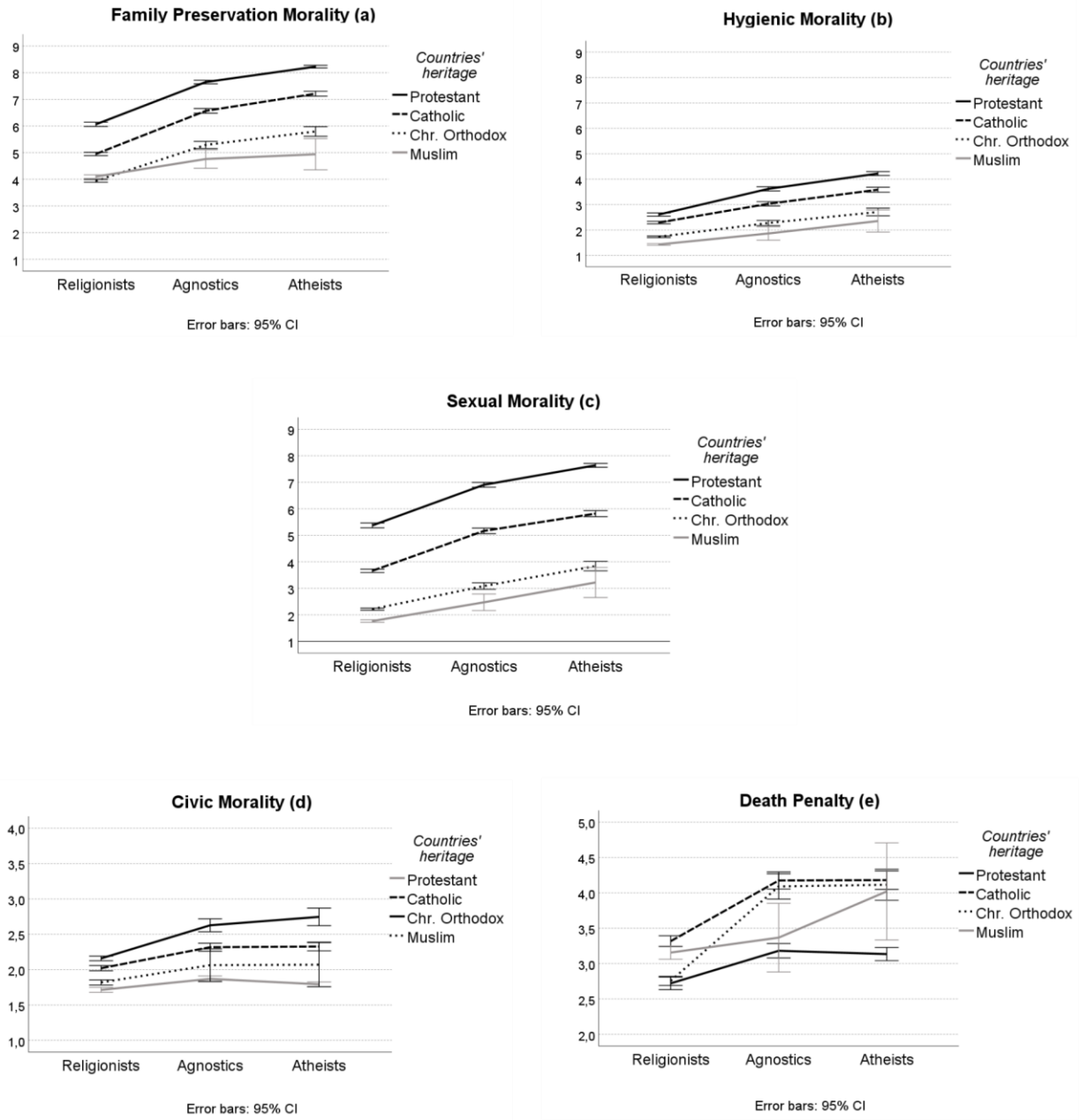
Mean Differences Between Convictional Groups in Moral Permissiveness, Distinctly by Moral Domain and Religious-Cultural Zone

		Mdiff	*SE*	*z*	$p_{bonferroni}$
Family morality					
Protestant countries	religious - agnostics	-1.278	0.069	.18.446	<.001
	agnostics - atheists	-0.598	0.070	-8.492	<.001
	religious - atheists	-1.876	0.069	-27.162	<.001
Catholic countries	religious - agnostics	-1.252	0.053	-23.737	<.001
	agnostics - atheists	-0.605	0.064	-9.424	<.001
	religious - atheists	-1.857	0.058	-32.203	<.001
Orthodox countries	religious - agnostics	-0.690	0.071	-9.754	<.001
	agnostics - atheists	-0.516	0.095	-5.416	<.001
	religious - atheists	-1.206	0.082	-14.626	<.001
Muslim countries	religious - agnostics	-0.667	0.167	-3.894	.004
	agnostics - atheists	-0.093	0.273	-0.342	1.000
	religious - atheists	-0.760	0.225	-3.382	.048
Hygienic morality					
Protestant countries	religious - agnostics	-0.930	0.060	-15.751	< .001
	agnostics - atheists	-0.577	0.060	-9.633	< .001
	religious - atheists	-1.508	0.059	-25.621	< .001
Catholic countries	religious - agnostics	-0.576	0.045	-12.822	< .001
	agnostics - atheists	-0.526	0.055	-9.623	< .001
	religious - atheists	-1.102	0.049	-22.432	< .001
Orthodox countries	religious - agnostics	-0.189	0.060	-3.151	0.107
	agnostics - atheists	-0.407	0.081	-5.038	< .001
	religious - atheists	-0.597	0.070	-8.520	< .001
Muslim countries	religious - agnostics	-0.293	0.142	-2.065	0.011
	agnostics - atheists	-0.324	0.231	-1.401	1.000
	religious - atheists	-0.616	0.190	-3.237	0.080
Sexual morality					
Protestant countries	religious - agnostics	-1.167	0.069	-16.829	<.001
	agnostics - atheists	-0.672	0.070	-9.562	<.001
	religious - atheists	-1.839	0.069	-26.604	<.001
Catholic countries	religious - agnostics	-0.976	0.053	-18.481	<.001
	agnostics - atheists	-0.524	0.064	-8.167	<.001
	religious - atheists	-1.500	0.058	-25.990	<.001
Orthodox countries	religious - agnostics	-0.311	0.071	-4.401	<.001
	agnostics - atheists	-0.814	0.095	-8.577	<.001
	religious - atheists	-1.126	0.082	-13.699	<.001

Muslim countries	religious - agnostics	-0.634	0.166	-3.809	.009
	agnostics - atheists	-0.642	0.270	-2.373	1.000
	religious - atheists	-1.276	0.223	-5.724	<.001
Civic morality					
Protestant countries	religious - agnostics	-0.143	0.041	-3.456	0.036
	agnostics - atheists	0.064	0.042	1.533	1.000
	religious - atheists	-0.079	0.041	-1.908	1.000
Catholic countries	religious - agnostics	-0.148	0.031	-4.702	< .001
	agnostics - atheists	-0.029	0.038	-0.766	1.000
	religious - atheists	-0.177	0.034	-5.156	< .001
Orthodox countries	religious - agnostics	-0.064	0.042	-1.510	1.000
	agnostics - atheists	-0.165	0.057	-2.919	0.232
	religious - atheists	-0.229	0.049	-4.666	< .001
Muslim countries	religious - agnostics	-0.424	0.100	-4.250	0.001
	agnostics - atheists	0.078	0.162	0.481	1.000
	religious - atheists	-0.345	0.134	-2.542	0.648
Death penalty					
Protestant countries	religious - agnostics	-0.356	0.094	-3.785	0.010
	agnostics - atheists	-0.036	0.095	-0.377	1.000
	religious - atheists	-0.392	0.094	-4.190	0.002
Catholic countries	religious - agnostics	-0.475	0.072	-6.564	< .001
	agnostics - atheists	-0.019	0.088	-0.212	1.000
	religious - atheists	-0.494	0.079	-6.272	< .001
Orthodox countries	religious - agnostics	-0.375	0.097	-3.850	0.008
	agnostics - atheists	-0.007	0.130	-0.058	1.000
	religious - atheists	-0.383	0.112	-3.413	0.042
Muslim countries	religious - agnostics	0.040	0.226	0.175	1.000
	agnostics - atheists	-0.559	0.367	-1.525	1.000
	religious - atheists	-0.505	0.498	-1.013	1.000

Figure 1

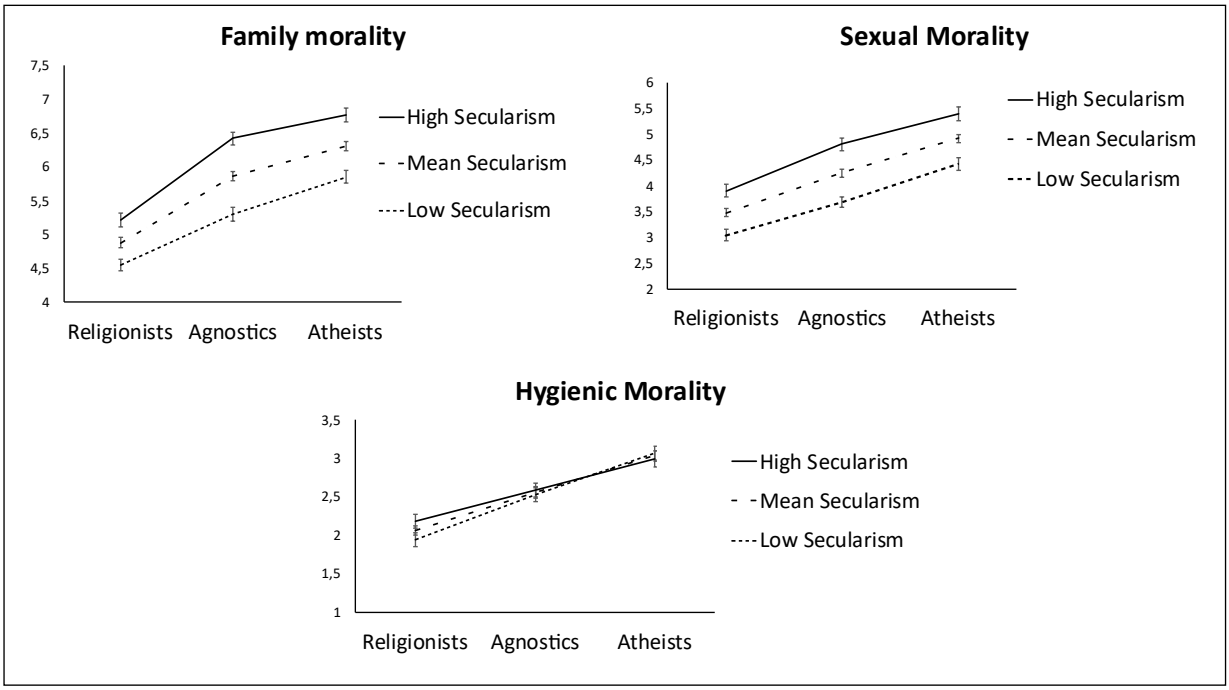
Means of Moral Permissiveness, by Convictional Group and by Religious-Cultural Zone, Distinctly by Moral Domain (a – e).



Note. Figures 1d and 1e reduce the scale of axis y, not to exaggerate the size effects, but to facilitate the visibility of the mean scores.

Figure 2

Significant Cross-Level Interactions Between Convictional Group and Country's Mean Level of Secularity in Predicting Moral Permissiveness, Distinctly by Moral Domain



Supplementary Material

Factorial Structure of the Moral Attitudes Items

Exploratory factor analysis using principal axis factoring (with varimax rotation) was used to identify potential dimensions underlying the 15 items of morality included in the EVS. Based on the examination of the eigenvalues (>.1) and the visual scree plot (VSP), three factors appeared explaining 45% of the variance. Subsequently, we followed the .40 .30 .20 rule (see Howard, 2016) while examining the factor loadings of the fifteen items and did not retain items that presented loadings lower than .40 on a principal factor, cross-loadings higher than .30 with another factor, and a gap of at least .20 between the loadings on the principal factor and another one (factor loadings are reported in Table 1). This procedure initially leaves out five items, i.e. *homosexuality*, *casual sex*, *suicide*, *euthanasia*, and *prostitution*. Nevertheless, given that the cross-loadings of *euthanasia* and *prostitution* (.315) did not exceed the less conservative threshold of .32, we decided to keep these two items. Therefore, these analyses revealed three dimensions of morality measured in the EVS corresponding to (1) "family" morality, i.e., *abortion*, *divorce*, *euthanasia*, and *in-vitro fecundation*, (2) "civic" morality, i.e., *state benefits*, *cheating on tax*, *accepting a bribe*, *avoid fare*, and *political violence*, and (3) "hygienic" morality, i.e., *drugs* and *prostitution*.

To confirm the distinctiveness of the three-factor solution, two confirmatory factor analyses (CFAs) that compared the fit of two nested models were conducted using AMOS, version 20. The first model was a single factor model in which all items measuring morality contributed to a single underlying factor. The second model was a three-factor model corresponding to the three dimensions of morality: "family", "civic", and "hygienic". Parameters were estimated by using maximum likelihood. To account for the nested structure of the data, we run multi-group CFAs (unconstrained model). Finally, we conducted a chi-square difference test and compared the Akaike information criterion (AIC) values (Bollen, 1989) to determine whether the two models were significantly different.

The three-factor model (Figure 1) provided a good fit (RMSEA = .033, CFI = .933, IFI = .933, NFI = .932), while the one-factor solution presented a clear poor fit to the data, according to the usual indices (RMSEA = .082, CFI = .567, IFI = .567, NFI = .566). A significant difference between the chi-square for each model indicated that the three-factor model was significantly better than the one-factor model: three-factor model, χ^2 (164, N = 55187) = 10225.064; one-factor model, χ^2 (176, N

= 55187) = 65235.631; $\Delta\chi^2$ = 55010.567, Δdf = 12, $p < .001$. The three-factor model also had a much smaller AIC value (10513.064) than the one-factor model (65499.631). Thus, overall, the three-factor model provided a better fit for the data than the single factor solution suggesting that the items available in the EVS measured three dimensions of morality.

Cross-Cultural and Cross-Convictional Measurement Equivalence

To ensure that the model described above was equivalent across civilizational zones and individuals' religious affiliations, multi-group Confirmatory Factor Analyses (CFAs) using AMOS v. 20, were conducted. We followed the analytical strategy described by Cheung and Rensvold (2002) and compared between an unconstrained model and a model constrained to present equal structural weights: (1) across the four civilizational zones, i.e. countries of Protestant, Catholic, Christian Orthodox, and Muslim heritage; and (2) across convictional statuses of participants, i.e., religious, agnostics, and atheists.

The multigroup CFAs for the civilizational zones showed that the fit indices for the unconstrained model, χ^2 = 10225.06, *df* = 164, $p < .001$; CFI = .933, RMSEA = .033, McDonald's NCI = .913, Gamma Hat = .986, were overall comparable to those obtained for the model constrained to present equal structural weights, χ^2 = 11896.94, *df* = 188, $p < .001$; CFI = .922, RMSEA = .034, McDonald's NCI = .899, Gamma Hat = .983. The difference between the constrained and unconstrained model was not significant according to most indexes [ΔCFI = -.01 (difference $\leq$ -.01), ΔRMSEA = .001 (difference < .01), ΔMcDonald's NCI = -.014 (difference < -.02), ΔGamma Hat = -.003 (difference < -.005], except for the Chisquare test ($\Delta\chi^2$ = 1671.88, Δdf = 24, $p < .001$). Therefore, this three-factor structure of morality shows dimensional invariance (three factors) and configural invariance (items' correspondence with the appropriate factor) across the four civilizational zones.

The multi-group CFAs for the different convictional affiliations of participants showed that the fit indices for the unconstrained model, χ^2 = 6396.40, *df* = 123, p < .001; CFI = .937, RMSEA = .038, McDonald's NCI = .917, Gamma Hat = .986, and for the model constrained to present equal structural weights, χ^2 = 6686.50, *df* = 139, p < .001; CFI = .935, RMSEA = .036, McDonald's NCI = .913, Gamma Hat = .986, were quite similar. The difference between the constrained and unconstrained model was not significant: ΔCFI = -.002 (difference < .01), ΔRMSEA = -.002 (difference < .01), ΔMcDonald's NCI = -.004 (difference < -.02), ΔGamma Hat = .000 (difference < -

.005), except for the Chi-square difference ($\Delta\chi^2 = 290.10$, $\Delta df = 16$, $p < .001$). Multi-group CFA analyses therefore showed the structural (dimensional and configural) equivalence of the three dimensions of morality across convictional groups.

References

Bollen, K. A. (1989). *Structural equation models with latent variables*. John Wiley & Sons.

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling, 9*(2), 233-255. https://doi.org/10.1207/S15328007SEM0902_5

Howard, M. C. (2016). A review of exploratory factor analysis decisions and overview of current practices: what we are doing and how can we improve? *International Journal of Human-Computer Interaction, 32*(1), 51-62. https://doi.org/10.1080/10447318.2015.1087664

Supplementary Material Table S1

Descriptive Statistics of Demographic Variables, by Convictional Group and by Religious-Cultural Zone

Countries'	Religionists (1)		Agnostics (2)		Atheists (3)		Comparisons	
heritage	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	Post-hoc
Protestant								
Age	54.00	17.79	49.31	18.82	48.94	17.44	85.02***	1 > 2, 3 ***
Gender (women)	1.58	0.49	1.50	0.50	1.36	0.48	179.11***	1 > 2 > 3 ***
Education level	2.44	4.29	2.32	3.65	2.58	3.95	3.40*	2 < 3 +
Catholic								
Age	53.95	18.22	49.23	17.63	48.84	17.95	103.38***	1 > 2, 3 ***
Gender (women)	1.64	0.48	1.51	0.50	1.41	0.49	195.66***	1 > 2 > 3 ***
Education level	1.91	2.30	2.00	1.86	2.12	1.45	9.70***	1 < 3 ***
Orthodox								
Age	47.92	17.51	45.66	16.80	45.82	17.75	13.23***	1 > 2, 3 ***
Gender (women)	1.59	0.49	1.51	0.50	1.38	0.49	75.79***	1 > 2 > 3 ***
Education level	2.17	0.69	2.28	0.72	2.35	0.68	36.37***	1, 2 < 3 ***
Muslim								
Age	44.21	16.21	40.78	18.07	44.37	19.20	3.81*	1 > 2 *
Gender (women)	1.57	0.49	1.56	0.50	1.37	0.48	7.90***	1, 2 > 3 **
Education level	1.90	0.62	1.93	0.63	2.08	0.63	4.36*	1 < 3 *

Supplementary Material Table S2

Random Effects of Multilevel Modeling for the Five Domains of Morality

	Variance	*SE*	*Wald Z*	*p*	95% CI	
					Low	High
Family morality						
Null Model						
Residual	4.893	.029	167.363	<.001	4.836	4.950
Intercept	1.866	.447	4.176	<.001	1.167	2.984
Model 1						
Residual	4.437	.033	133.150	<.001	4.372	4.503
Intercept	1.624	.409	3.969	<.001	0.991	2.661
Model 2						
Residual	4.404	.033	132.059	<.001	4.339	4.470
Intercept	0.755	.202	3.738	<.001	0.447	1.275
Model 3						
Residual	4.401	.033	132.055	<.001	4.336	4.467
Intercept	0.670	.181	3.708	<.001	0.395	1.136
Hygienic morality						
Null Model						
Residual	3.633	.027	132.174	<.001	3.579	3.687
Intercept	0.706	.177	3.983	<.001	0.431	1.154
Model 1						
Residual	3.190	.024	133.181	<.001	3.143	3.237
Intercept	0.967	.245	3.951	<.001	0.589	1.588
Model 2						
Residual	3.189	.024	132.089	<.001	3.142	3.237
Intercept	0.371	.122	3.037	.002	0.194	.707
Model 3						
Residual	3.188	.024	132.086	<.001	3.141	3.236
Intercept	0.357	.120	2.971	.003	0.185	.690
Sexual morality						
Null Model						
Residual	5.598	.034	166.826	<.001	5.533	5.664
Intercept	3.572	.855	4.179	<.001	2.235	5.709
Model 1						
Residual	4.388	.033	132.757	<.001	4.324	4.453
Intercept	4.971	1.231	4.039	<.001	3.060	8.076
Model 2						
Residual	4.366	.033	131.673	<.001	4.301	4.431

Intercept	1.486	.480	3.095	.002	0.789	2.800
Model 3						
Residual	4.365	.033	131.669	<.001	4.300	4.430
Intercept	1.117	.378	2.957	.003	0.576	2.167
Civic morality						
Null Model						
Residual	1.641	.012	132.358	<.001	1.616	1.665
Intercept	0.257	.065	3.975	<.001	0.157	.421
Model 1						
Residual	1.569	.012	133.372	<.001	1.546	1.592
Intercept	0.357	.091	3.912	<.001	0.216	.590
Model 2						
Residual	1.574	.012	132.273	<.001	1.551	1.597
Intercept	0.348	.096	3.623	<.001	0.202	.597
Model 3						
Residual	1.574	.012	132.269	<.001	1.551	1.597
Intercept	0.312	.089	3.517	<.001	0.179	.545
Death penalty						
Null Model						
Residual	8.097	.062	130.325	<.001	7.976	8.220
Intercept	0.742	.187	3.959	<.001	0.452	1.217
Model 1						
Residual	7.964	.061	131.300	<.001	7.846	8.083
Intercept	0.662	.179	3.706	<.001	0.390	1.123
Model 2						
Residual	7.937	.061	130.242	<.001	7.818	8.057
Intercept	0.608	.179	3.393	<.001	0.341	1.083
Model 3						
Residual	7.937	.061	130.236	<.001	7.818	8.057
Intercept	0.632	.197	3.208	.001	0.343	1.163

Supplementary Material Table S3

Mean Differences Between Convictional Groups in Moral Permissiveness, by Moral Domains

Comparisons		*M(SE)*	*Mdiff*	*SE*	*df*	$P_{Bonferroni}$	95% *CI*
Family							
religious							
	agnostics	4.89(.14)	-0.972	.048	34919.108	<.001	[-1.09, -0.86]
	atheists	5.86(.14)	-1.425	.062	34909.937	<.001	[-1.57, -1.28]
agnostics	atheists	6.31(.15)	-0.453	.074	34908.238	<.001	[-0.63, -0.27]
Hygienic morality							
religious							
	agnostics	2.07(.13)	-0.497	.041	34924.900	<.001	[-0.59, -0.40]
	atheists	2.56(.13)	-0.956	.053	34915.408	<.001	[-1.08, -0.83]
agnostics	atheists	3.02(.14)	-0.459	.063	34915.983	<.001	[-0.61, -0.31]
Sexual morality							
religious							
	agnostics	3.47(.16)	-0.772	.048	34704.037	<.001	[-0.89, -0.66]
	atheists	4.24(.16)	-1.435	.061	34689.096	<.001	[-1.58, -1.29]
agnostics	atheists	4.91(.17)	-0.663	.074	34687.239	<.001	[-0.84, -0.49]
Civic morality							
religious							
	agnostics	2.01(.11)	-0.195	.029	35026.487	<.001	[-0.26, -0.13]
	atheists	2.20(.11)	-0.208	.037	35008.546	<.001	[-0.30, -0.12]
agnostics	atheists	2.22(.11)	-0.013	.044	35009.883	1.000	[-0.12, 0.09]
Death penalty							
religious							
	agnostics	3.28(.18)	-0.859	.060	33882.690	<.001	[-1.00, -0.71]
	atheists	3.57(.19)	-1.625	.077	33866.813	<.001	[-1.81, -1.44]
agnostics	atheists	3.72(.20)	-0.766	.092	33862.240	<.001	[-0.99, -0.54]

Supplementary Material Table S4

Mean Differences Between Civilizational Zones in Moral Permissiveness, by Moral Domain

Comparisons		*Mdiff*	*SE*	*df*	$P_{Bonferroni}$	95% *CI*
Family morality						
Protestant	Catholic	0.661	.260	27.978	.101	[-0.08, 1.40]
	Orthodox	1.818	.325	28.692	<.001	[0.90, 2.74]
	Muslim	1.789	.444	30.466	.002	[0.54, 3.04]
Catholic	Orthodox	1.158	.250	29.416	<.001	[0.45, 1.87]
	Muslim	1.128	.377	31.681	.032	[0.07, 2.19]
Orthodox	Muslim	-0.030	.365	32.207	1.000	[-1.06, 1.00]
Hygienic morality						
Protestant	Catholic	0.250	.263	27.964	1.000	[-0.49, 0.99]
	Orthodox	1.328	.326	28.055	.002	[0.40, 2.25]
	Muslim	1.640	.444	29.123	.005	[0.38, 2.90]
Catholic	Orthodox	1.078	.251	28.334	.001	[0.37, 1.79]
	Muslim	1.390	.375	29.692	.005	[0.33, 2.45]
Orthodox	Muslim	0.312	.362	29.884	1.000	[-0.71, 1.34]
Sexual morality						
Protestant	Catholic	1.184	.336	27.978	.009	[0.23, 2.14]
	Orthodox	2.832	.418	28.196	<.001	[1.65, 4.02]
	Muslim	2.981	.568	29.285	<.001	[1.37, 4.59]
Catholic	Orthodox	1.649	.321	28.493	<.001	[0.74, 2.56]
	Muslim	1.797	.480	29.887	.005	[0.44, 3.15]
Orthodox	Muslim	0.148	.464	30.154	1.000	[-1.16, 1.46]
Civic morality						
Protestant	Catholic	-0.555	.236	28.037	.155	[-1.22, 0.11]
	Orthodox	-0.774	.293	28.122	.080	[-1.60, 0.06]
	Muslim	-0.500	.397	28.875	1.000	[-1.62, 0.62]
Catholic	Orthodox	-0.219	.225	28.302	1.000	[-0.86, 0.42]
	Muslim	0.055	.335	29.265	1.000	[-0.89, 1.00]
Orthodox	Muslim	0.274	.324	29.423	1.000	[-0.64, 1.19]
Death penalty						
Protestant	Catholic	-1.023	.364	28.210	.054	[-2.06, 0.01]
	Orthodox	-0.872	.453	28.346	.387	[-2.16, 0.41]
	Muslim	-0.649	.617	29.650	1.000	[-2.39, 1.09]
Catholic	Orthodox	0.151	.348	28.734	1.000	[-0.84, 1.14]
	Muslim	0.374	.522	30.384	1.000	[-1.10, 1.85]
Orthodox	Muslim	0.222	.505	30.606	1.000	[-1.20, 1.65]

Supplementary Material Table S5

Simple Effects of Convictional Group by Country-Levels of Secularism for Family, Hygienic, and Sexual Moralities

		b	*SE*	*df*	*p*	95% *CI*
Family morality						
High secular	Religious - Agnostics	-1.19	.07	3692	<.001	[-1.33, -1.07]
	Agnostics - Atheists	-0.35	.09	4219	<.001	[-0.52, -0.18]
Low secular	Religious - Agnostics	-0.75	.06	9745	<.001	[-0.87, -0.62]
	Agnostics - Atheists	-0.55	.09	1236	<.001	[-0.73, -0.38]
Hygienic morality						
High secular	Religious - Agnostics	-0.40	.06	3706	<.001	[-0.51, -0.29]
	Agnostics - Atheists	-0.40	.07	4236	<.001	[-0.55, -0.26]
Low secular	Religious - Agnostics	-0.59	.06	9789	<.001	[-0.70, -0.48]
	Agnostics - Atheists	-0.53	.08	1248	<.001	[-0.69, -0.38]
Sexual morality						
High secular	Religious - Agnostics	-0.90	.07	3526	<.001	[-1.03, -0.77]
	Agnostics - Atheists	-0.58	.09	4047	<.001	[-0.75, -0.41]
Low secular	Religious - Agnostics	-0.64	.06	9486	<.001	[-0.77, -0.51]
	Agnostics - Atheists	-0.74	.09	1203	<.001	[-0.92, -0.57]

Supplementary Material Table S6

Descriptive Statistics of Moral Permissiveness in Five Domains, by Convictional Group Defined by Both Belief Regarding Transcendence and Self-Identification, and by Religious-Cultural Zone

	Religionists		Agnostics religiously open		Non-religious agnostics		Atheists	
Countries' heritage	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Protestant								
Family morality	5.98	2.33	7.23	2.02	7.77	1.74	8.28	1.60
Hygienic morality	2.53	1.89	2.96	1.90	3.82	2.30	4.34	2.42
Sexual morality	5.27	2.66	5.95	2.58	7.23	2.34	7.78	2.25
Civic morality	1.68	1.02	1.70	1.13	1.90	1.07	1.81	1.03
Death penalty	2.64	2.59	2.92	2.69	3.29	2.78	3.13	2.89
Catholic								
Family morality	4.86	2.39	5.92	2.32	6.95	2.23	7.40	2.24
Hygienic morality	2.23	1.80	2.46	1.92	3.36	2.27	3.74	2.47
Sexual morality	3.55	2.44	4.17	2.49	5.77	2.68	6.09	2.78
Civic morality	2.00	1.44	2.18	1.37	2.38	1.58	2.35	1.57
Death penalty	3.30	2.96	4.12	3.23	4.26	3.10	4.20	3.24
Orthodox								
Family morality	3.91	2.23	5.00	2.41	5.60	2.37	6.23	2.46
Hygienic morality	1.71	1.40	2.05	1.71	2.39	1.96	2.85	2.25
Sexual morality	2.17	1.78	2.79	2.02	3.32	2.38	4.15	2.63
Civic morality	2.13	1.42	2.46	1.66	2.69	1.71	2.84	1.86
Death penalty	2.72	2.78	4.01	3.22	4.17	3.19	4.34	3.19

Note. *Ns* for religionists, agnostics religiously open, non-religious agnostics, and atheists are, respectively, 3112, 795, 1811, 3473 (Protestant countries), 5638, 989, 1229, 2119 (Catholic countries), and 7036, 587, 503, 688 (Christian Orthodox countries). *Ns* of agnostics' subgroups were low in Muslim countries (70, 77). Religionists = believing in a personal God *and* self-identifying as a religious person; Agnostics religiously open = do not knowing what to think about God/transcendence but self-defining as a religious person; Non-religious agnostics = do not knowing what to think about God/transcendence and self-defining as a non-religious person; Atheists = believing there is no God/transcendence and self-defining as a non-religious person or convinced atheist.

Supplementary Material Figure S1

Means of Moral Permissiveness, by Convictional Group Strictly Defined (see Table S6) and by Religious-Cultural Zone, Distinctly by Moral Domain (a – e).