

Lay People Deny Morality's Objectivity across Cultures (to somewhat Different Extents and in somewhat Different Ways)

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ABSTRACT: Philosophers have long assumed that lay people believe morality to be objective. Recent psychological research casts doubt on this assumption. However, this research has so far mostly been limited to the United States. Do people from other cultures dominantly reject objectivism as well? The present study investigates lay people's abstract beliefs about moral objectivity in Brazil, Germany, Indonesia, Japan and the United States. Our study suggests that results vary considerably with metaethical codings; that on most codings people in our target countries indeed dominantly reject morality's objectivity; that this denial takes somewhat different forms and appears to be somewhat more common in Japan and somewhat less common in Brazil; that a substantial proportion of folk metaethical beliefs do not fit traditional philosophical taxonomies; and that lay people's moral objectivity beliefs are weakly predicted by their religiosity and level of political conservatism.

KEY WORDS: folk metaethics, moral objectivism, experimental philosophy, moral psychology, cross-cultural psychology

Introduction

Philosophers have long assumed that lay people are moral objectivists, i.e., that they believe that facts about what is morally right, wrong, good, bad, etc. are independent from what anybody thinks about them (e.g., Brink 1989; Enoch 2017a, 2017b; Dancy 1986; McNaughton 1988; Mackie

1977).¹ This hypothesis has played an important role in a number of metaethical arguments (for overviews see Loeb 2007; Hopster 2019; Pölzler 2023). For example, several philosophers have claimed that the hypothesis grounds a *prima facie* reason to believe in moral objectivism (e.g., Brink 1989; McNaughton 1988; Shafer-Landau 2003), or that it supports the semantic claim that moral concepts purport to represent objective moral properties (e.g., Mackie 1977).²

But are philosophers right to assume that lay people are moral objectivists? Do these people really dominantly believe that moral facts are independent from what anybody thinks about them?

In the last two decades researchers have already conducted around 40 to 50 empirical studies in response to this question (e.g., Goodwin and Darley 2008; Nichols 2004; Sarkissian et al. 2011; Pölzler and Wright 2020). The interpretation of this empirical research has remained controversial. Among other things, several early studies have been criticized as lacking in construct validity, i.e., as not fully or exclusively measuring folk moral objectivism (for detailed criticisms see Beebe 2015; Bush 2022; Bush and Moss 2020; Cova 2024; Moss 2017; Pölzler 2018a, 2018b, 2023). It has also been argued that different measurement instruments have targeted somewhat different kinds of moral objectivity beliefs, e.g., beliefs that are either more implicit or more explicit, or more immediate or more reflective (Pölzler 2023; Zijlstra 2023).

That said, evidence has increasingly started to converge on the hypothesis that, contrary to what has been assumed by philosophers, lay people are *not* moral objectivists. On both more implicit and more explicit, as well as more immediate and more reflective levels, their metaethical beliefs rather seem to vary, with a strong tendency towards non-objectivism. That is, while the folk may regard a small number of moral statements as objective (e.g., the statement that it is wrong to rob a bank to pay for an expensive holiday), they believe that most of these statements (e.g., about abortion, euthanasia, cheating or the death penalty) are true or false only relative to particular

¹ The inclusion of Mackie in this list serves to illustrate that even philosophers who endorse moral non-objectivism (Mackie was one of the most famous proponents of 20th century non-objectivism) often accept that lay people tend towards objectivism.

² Some more recent folk metaethics-based arguments also appeal to the causes of these beliefs. In particular, it has been argued that lay people's beliefs about moral objectivism are typically caused by truth-insensitive factors and must hence be considered epistemically unjustified (e.g., Colebrook 2021).

³ Following Wright (2023), one may distinguish between three kinds of metaethical questions about moral claims: whether these claims are truth-apt (their status: cognitivism vs. non-cognitivism), whether their truth is independent from what anybody thinks about them (their source: objectivism vs. subjectivism), and whether they are true or false for everyone (their scope: universalism vs. relativism). Moral objectivism, which is the target of this paper, combines cognitivism with an objective source and also often, though contingently, postulates a universal scope.

individuals or cultures, or that they are not truth-apt at all (e.g., Beebe 2014; Collier-Spruel et al. 2019; Davis 2021; Pözlner and Wright 2020; Pözlner et al. 2024; Wright et al. 2013, 2014).

One important limitation of this research on folk moral objectivism is that so far it has mostly only investigated people from the United States. Only few studies have collected relevant data from other countries (e.g., Cova and Ravat 2008; Theisen 2024); of those studies only few have collected and compared data from several different countries (Beebe et al. 2015; Sarkissian et al. 2011; Yilmaz et al. 2020); and of those latter only one has collected data from more than two countries (Beebe et al. 2015). We hence do not yet have a good idea of how people outside of the United States — and outside of WEIRD (Western, Educated, Industrialized, Rich and Democratic) societies in particular (Henrich et al. 2010) — think about morality’s objectivity. Do non-US residents dominantly reject objectivism as well?

The present study is meant to address this gap in our understanding of folk metaethics. It investigates lay people’s beliefs about moral objectivity in five countries: Brazil, Germany, Indonesia, Japan and the United States.⁴ In what follows we will first provide a more detailed overview of existing cross-cultural research on this matter. Then we will present the hypotheses, samples and methods of our study as well as its results, including descriptive statistics that are based on three different metaethical codings of participants’ responses and models about what predicts these responses. Finally, we will discuss these results, consider potential objections and relate our findings back to the underlying philosophical debate.

In our understanding, our study supports that results vary considerably with metaethical codings; that on most codings people in our target countries indeed dominantly reject morality’s objectivity; that this denial takes somewhat different forms and appears to be somewhat more common in Japan and somewhat less common in Brazil; that a substantial proportion of folk

⁴ The study was pre-registered at the Open Science Framework (osf.io). An anonymized view-only version of the registration can be found at: https://osf.io/7wnj9/?view_only=371f18dd96d5491989382bd55f364245. An anonymized version of the project page that includes the full questionnaires, data and analysis results can be found at: https://osf.io/u8jnf/?view_only=1a2eea2ee2cf4ed99a6104e202e8cc68. In our preregistered analysis plan on the OSF we originally planned to use analysis of variance (ANOVA) for cross-cultural comparisons of choice probabilities, and structural equation modeling (SEM) to estimate the effects of cultural and individual differences. We actually used, however, more appropriate methods based on the actual distribution and the nature of the data. Because cross-cultural comparisons of choice behavior require testing for differences in proportions rather than mean differences, we employed Fisher’s exact tests instead of ANOVA. To account for multiple comparisons, p-values were adjusted using Holm’s method. Similarly, because the dependent variable (i.e., choice) is categorical and has more than three levels, we concluded that multinomial logistic regression was more appropriate than SEM and revised our plan accordingly.

metaethical beliefs do not fit traditional philosophical taxonomies; and that lay people's moral objectivity beliefs are weakly predicted by their religiosity and level of political conservatism.

1 Previous Research

As said, only few existing studies on folk moral objectivism have involved non-US participants. Some of the studies that have done so have only investigated residents of one particular non-US country, such as France (Cova and Ravat 2008) or Germany (Theisen 2024). Given that different measures of moral objectivism tend to differ in terms of their validity, reliability and target beliefs (e.g., implicit/explicit, immediate/reflective), it seems that these studies do not allow for robust conclusions about cross-cultural differences and similarities. In this section we will hence focus on studies that have used the same moral objectivism measures to investigate people from *different* countries.

So far, only three studies have attempted such cross-country comparisons, namely Sarkissian et al. (2011), Yilmaz et al. (2020), and Beebe et al. (2015).⁵

Sarkissian et al. (2011) used a disagreement measure of moral objectivity beliefs, i.e., they presented participants with cases of moral disagreement and asked them to interpret these cases. In four out of their five studies they investigated US-Americans (Total $N = 490$). In one study, they also compared these results to those of a sample from Singapore ($N = 151$). It turned out that just like for Americans, for Singaporeans, endorsement of the statement that at least one of the parties of the presented disagreements must be wrong varied across the studies' three experimental conditions. It was highest when the disagreeing parties were said to come from the same culture; lower when they were said to be from different cultures; and still lower if one of the parties was said to be an extraterrestrial: $F(2, 146) = 3.1, p = .05, \eta^2 = .04$.

Sarkissian et al. (2011) took this finding as evidence for the claim that Singaporeans, just like Americans, tend towards a non-objectivist — more specifically, culturally relativist — interpretation of morality. That said, even though the studied countries showed the same overall response trend, slight differences emerged as well. In particular, while Singaporean participants endorsed less than Americans the claim that at least one of the disagreeing parties must be wrong in the same-culture condition, they endorsed the claim somewhat more in the other-culture and

⁵ The presentation of these three studies roughly follows Pölzler et al. (under review).

extraterrestrial conditions. This means that Singaporeans could be somewhat less culturally relativist than US Americans.⁶

Yilmaz et al. (2020) took a different approach to measuring moral objectivity beliefs. They presented participants with a seven-point psychometric scale whose items were directly formulated in terms of moral objectivism/non-objectivism or in terms of the implications of these theories, e.g., “Since moral rules are not right or wrong in an absolute sense, moral arguments are always destined to remain futile” or “What is moral varies on the basis of context and society”. This scale was used to investigate 545 participants from Turkey (in Turkish) and 147 participants from the US (in English). Participants from both countries on average were located in the subjectivist — rather than objectivist — half of the scale. Again, however, there were also notable cross-country differences. In particular, participants from Turkey ($M = 4.97$) turned out to score higher, i.e., to be more subjectivist than participants from the US ($M = 4.31$): $t(692) = 5.57, p < .001$.

Finally, the most ambitious and wide-ranging attempt to study moral objectivity beliefs across cultures has so far been made by Beebe et al. (2015). This study applied translations of a disagreement measure (answer options: “It is possible for both of you to be correct” = non-objectivism, “At least one of you must be mistaken” = objectivism) to 414 participants from China, 299 participants from Poland, and 180 participants from Ecuador. For the moral domain, the researchers found a roughly equal split between objectivist and non-objectivist responses across countries but also a significant difference: $\chi^2(2, N = 2,074) = 22.597, p < .001$, Cramér’s $V = 0.10$. Participants from Ecuador were most likely to select the response that was coded as objectivist (63%). Participants from Poland were somewhat less likely to select this response (55%), and participants from China even less so (49%).⁷

Beebe et al. (2015) also investigated participants’ meta-beliefs about scientific statements and taste statements. They found that compared to morality, participants were roughly as likely to select the objectivism-coded response for matters of science (Ecuador: 58%, Poland: 63%, China: 55%) and they were considerably less likely to select this response for matters of taste (Ecuador: 40%, Poland: 19%, China: 28%).

⁶ Sarkissian et al. (2011) do not provide mean agreement values for the two studies and do not report whether the difference was significant.

⁷ For comparison, using the same measure of moral objectivism, Beebe and Sackris (2016) found that 47% of their US participants selected the objectivist response.

What can we learn from the above cross-cultural research on folk moral objectivism? In our view, this research is fascinating and highly informative. Still, it cannot yet ground very robust conclusions. The number of relevant studies (only three) is small, and these studies have only investigated a small number of cultures based on a small number of moral objectivity measures. There are also worries about the construct validity of Yilmaz et al.'s (2020) and Beebe et al.'s (2015) measures, some of which have been subsequently raised by the researchers themselves (Beebe 2015; see also Bush 2022; Bush and Moss 2020; Moss 2017; Pölzler 2018a, 2018b, 2023). Still, two preliminary hypotheses present themselves.

First, just as in the United States, people in the other investigated countries (Singapore, Turkey, China, Poland and Ecuador) seem to tend towards moral non-objectivism as well. At first this claim may only be thought to be supported by Sarkissian et al. (2011) and Yilmaz et al. (2020) but not by Beebe et al. (2015). However, as Beebe (2015) has acknowledged himself, their measure of moral objectivism probably considerably underrepresented the proportion of non-objectivist beliefs, since it did not account for non-cognitivist non-objectivism (which holds that one cannot be correct or mistaken about moral statements at all), and some of those who opted for “At least one of you must be mistaken” might actually have been non-objectivists of a cultural relativist sort (cultural relativism entails that at least one party of a moral disagreement must be mistaken if the disagreement is between people from the same culture, while both parties can be correct if the disagreement is between people from different cultures).⁸

The second hypothesis that seems to receive some preliminary support by the extant cross-cultural research on folk moral objectivism is that people's endorsement of moral objectivism varies across countries to at least some small extent. In other words, even though there appears to be a global tendency towards moral non-objectivism, residents of some countries (e.g., Ecuador and the United States) seem to be more willing to consider moral statements as objective than are those of others (e.g., Turkey and China).

⁸ These alternative explanations are supported by the fact that other studies found a considerable proportion of non-cognitivist and cultural relativist responses (e.g., Davis 2021; Pölzler and Wright 2020; Sarkissian et al. 2011; Wright 2018).

2 Hypotheses

In our study we attempted to test the above hypotheses for further countries and based on a different measure of moral objectivity beliefs (see *Methods*). That is, we set out to investigate the following two main hypotheses:

H1: Lay people’s beliefs about moral objectivity in all of our target countries generally tend towards non-objectivism (in line with Beebe et al. 2015; Sarkissian et al. 2011; Yilmaz et al. 2020).⁹

H2: Lay people’s beliefs about moral objectivity at least somewhat differ across the studied countries (in line with Beebe et al. 2015; Sarkissian et al. 2011; Yilmaz et al. 2020).

As explained above, Beebe et al. (2015) did not only test people’s objectivity attributions to moral statements but also to particular kinds of non-moral statements (scientific statements and taste statements). A number of intra-cultural studies (e.g., Goodwin and Darley 2008; Pölzler and Wright 2020; Theriault et al. 2017) have used non-moral domains as benchmarks as well. Most of these studies found that, compared to morality, objectivity ratings were higher for science (e.g., Zijlstra 2023; Wright and Pölzler 2022); while they were often — but not always — lower for taste, personal preferences or social conventions (see, e.g., Wright et al. 2013 vs. Pölzler et al. 2024).

In line with this common practice, we also included the domain of science as a point of reference, and hypothesized that our participants would regard this domain as more objective than the domain of morality.

H3: In all target countries, lay people consider morality to be less objective than science (in line with Goodwin and Darley 2008; Pölzler and Wright 2020; Theriault et al. 2017 and others, but contradicting Beebe et al. 2015).

Finally, we were also interested in what might predict potential cross-cultural differences in folk moral objectivism. Previous research has shown that moral objectivity beliefs correlate with a high

⁹ In contrast to our other hypotheses, H1 was not explicitly pre-registered. This happened by mistake. In fact, H1 was the hypothesis that has mainly motivated this research.

number of factors, such as beliefs about the amount of societal consensus (e.g., Beebe et al. 2015; Beebe 2014; Goodwin and Darley 2008, 2012; Wright et al. 2014) or strength of agreement (e.g., Beebe 2014; Beebe et al. 2015; Goodwin and Darley 2010, 2012; Pölzler and Wright 2020). In our study we investigated seven context variables: (1) religiosity, (2) age, (3) political conservatism, (4) individualism, (5) education, (6) income, and (7) gender.

Higher religiosity (e.g., Collier-Spruel et al. 2019; Sarkissian and Phelan 2019; Yilmaz and Bahçekapili 2015) and very young (up to around 12 years) as well as older (from around 30 years) age (Beebe and Sackris 2016) have been found to predict moral objectivism in previous research. We hence hypothesized that they would do so in our study as well.¹⁰ In contrast, previous studies have not found correlations to income and gender (e.g., Pölzler and Wright 2020; Wright and Pölzler 2022), which is why we adopted respective hypotheses as well.

With regard to political conservatism, researchers have found this trait to be associated with needs for certainty, structure and closure (Altemeyer 1998; Jost et al. 2003; Peterson et al. 2009), as well as with heightened religiosity (Malka et al. 2012; Reynolds et al. 2020). Since moral objectivism entails non-ambiguity in the sense of a single correct answer to moral questions (see *Traditional Coding*), and since it has previously been found to correlate with religiosity (see again, e.g., Collier-Spruel et al. 2019; Sarkissian and Phelan 2019; Yilmaz and Bahçekapili 2015), we hypothesized that political conservatism would predict moral objectivism in our study. We also hypothesized that individualism would predict objectivism. This hypothesis seems plausible because individualistic cultures such as Western, secular societies tend to promote universal human rights (e.g., Henrich et al. 2010), which most naturally fit an objectivist metaethics (even though consistent with particular forms of non-objectivism as well), while collectivist cultures are defined by an emphasis on conformity to communal and cultural rules (Haidt 2012), which most naturally fits non-objectivism of a culturally relativist kind (even though, again, being logically consistent with objectivism as well).

Finally, we hypothesized that education would not have any effect on participants' metaethical beliefs at all, since studies which compared student samples, samples of academic philosophers and samples of online participants so far have not found noteworthy differences between them (e.g., Sarkissian et al. 2011; Pölzler and Wright 2020; Pölzler et al. 2024).

¹⁰ Since we did not study children, our age-related hypothesis was restricted to higher objectivism at older age, especially above 30.

H4: Differences in moral objectivity beliefs across our target countries are explained by differing levels of (1) religiosity, (2) age, (3) conservatism and (4) individualism (in line with, e.g., Beebe and Sackris 2016; Collier-Spruel et al. 2019; Goodwin and Darley 2008; Sarkissian and Phelan 2019; Yilmaz and Bahçekapili 2015). The direction of the hypothesized effects is as follows: being more objectivist about morality correlates with being more religious, being of older age (above 30 years), being more conservative and being more individualistic.

H5: Differences in moral objectivity beliefs across the studied countries are not explained by differing (1) income, (2) education and (3) gender (in line with, e.g., Sarkissian et al. 2011; Pölzler and Wright 2020; Wright and Pölzler 2022).¹¹

3 Participants

In our studies we surveyed participants from five countries: Brazil, Germany, Indonesia, Japan and the United States. This section provides information on the sampling of these countries as well as on the sampling of the studies' individual participants.

In selecting our target countries, we followed both (1) systematic sampling and (2) sampling from cultural zones so as to maximize cultural distance to increase the likelihood of identifying potential cross-cultural differences in moral objectivity beliefs. With regard to systematic sampling, our target countries significantly differ in the context variables that we hypothesized might predict differences in moral objectivism and, with the exceptions of Germany and the United States, have so far not been included in research on folk moral objectivism. With regard to cultural zones sampling (Boehnke et al. 2011), according to several well-established maps, our target countries belong to different cultural zones (e.g., World Values Survey 2022; Schwartz 2008).¹²

We conducted two studies with identical methodologies, i.e., a study and its direct replication.¹³ According to a power analysis that was conducted with the software program G*Power 3.1 (Faul et al. 2007), .80 power to detect a small effect size of .25 at the standard .05

¹¹ In line with our preregistration, H4 and H5 are formulated as claims about what explains differences between countries. Since our predictor scales turned out not to be measurement invariant across countries (see *Results Modeling*), we could only test them in a weaker form, namely as claims about which variables predict moral objectivity beliefs within the pooled sample and within each country.

¹² This is explained in more detail in Pölzler et al. (under review).

alpha error probability, with correlations among repeated measures of .50 and non-sphericity correction of 1.0, required sample sizes of 164. Both studies were conducted online. As far as possible, participants were recruited via online crowdsourcing services and compensated at a rate above the minimum hourly wage of their respective countries. Due to the unavailability of online crowdsourcing services in Indonesia, and their limited availability in Brazil, recruitment in these countries proceeded (partly) via e-mails. We asked universities and professors in different regions to invite their students to participate in the studies (without compensation). These invitations were rarely answered. Hence, we did not reach the required sample sizes for Indonesia (Studies 1 and 2) and Brazil (Study 2); and exclusions of participants pushed the US sample for Study 1 below the threshold too, see Table 1. These facts, especially the low number of Indonesian participants and the variance of recruiting methods, clearly limit cross-country comparability and generalizability (see Limitations). They also led us to exclude Indonesia from our statistical modeling, i.e., from testing hypotheses H4 and H5.

In total, Study 1 was completed by 887 participants. 154 of these participants were excluded from analysis because they failed more than one of our four attention checks and 19 participants were excluded because they completed the study in less than 360 seconds. Among the remaining 714 participants, ages ranged from 18 to 74 ($M = 35.49$, $SD = 11.76$), and 56.30% were male, whereas 42.60% were female. Further demographic information is provided in Appendix A. Further information on the study's exclusion criteria is provided in Appendix B.

Study 2 was completed by 781 participants. 86 participants were excluded from analysis because they failed more than one of our four attention checks in the survey or gave inadequate ratings to more than one of five bogus items and 5 participants were excluded because they completed the study too fast.¹⁴ Among the remaining 690 participants, ages ranged from 18 to 75 ($M = 34.62$, $SD = 12.39$), and 46.10% were male whereas 52.60% were female. Again, further

¹³ Recruitment materials explicitly stated that participation in both studies was strictly prohibited and remuneration would be withheld upon detection. However, since we lacked a universal mechanism to detect duplicate participation across all studies, the possibility of overlap cannot be entirely ruled out. For the Japanese sample, the platform's specifications allowed tracking duplicate attempts. Only three such cases were identified, and their subsequent participation was precluded.

¹⁴ The exclusion criteria differ between the two datasets because they were embedded within distinct broader surveys administered simultaneously. Due to variations in the number and content of the questions, the two surveys inherently differed in overall completion times, the number of attention checks, and the cognitive load imposed on participants. Consequently, it was necessary to establish tailored exclusion criteria for each dataset to appropriately reflect these methodological differences.

demographic information is provided in Appendix A, and further information on the study's exclusion criteria is provided in Appendix B.¹⁵

Table 1

Sample sizes and recruitment methods for Study 1 and Study 2 across target countries

	Study 1	Study 2
Brazil	188 (240) Amazon Mechanical Turk https://www.mturk.com/	116 (164) Amazon Mechanical Turk https://www.mturk.com/ E-Mail Invitations
Germany	174 (180) Prolific Academic https://www.prolific.co/	180 (180) Prolific Academic https://www.prolific.co/
Indonesia	22 (76) E-Mail Invitations	35 (67) E-Mail Invitations
Japan	174 (203) CrowdWorks https://crowdworks.jp/	178 (184) CrowdWorks https://crowdworks.jp/
United States	156 (188) Prolific Academic https://www.prolific.co/	181 (186) Prolific Academic https://www.prolific.co/

Note. Values represent final sample sizes after data exclusion, followed by initial sample sizes prior to data exclusion in parentheses.

4 Methods

The data of both studies was collected as part of larger cross-cultural experimental philosophy studies that also tested participants' beliefs about the concept of basic needs (Pölzler et al. under review). In the first part of the studies participants were asked to complete tasks about this unrelated matter. Then they were presented with tasks that measured their beliefs about folk moral objectivism (as will be described below) as well as their levels of political conservatism (scale adapted from Everett 2013), individualism (scale adapted from Kitayama et al. 1990), and religiosity (scale adapted from Gervais et al. 2012). Finally, participants were asked to provide demographic information, including information about their gender, age, income and education.

¹⁵ This presentation of the studies' samples follows Pölzler et al. (under review).

Our studies involved several measures to reduce the risk of cultural biases. Among other things, English master-versions were translated into the local languages of the target countries and then translated back into English by independent translators, followed by discussions about potential divergences (“back-translation”, e.g., Brislin 1970); and the studies’ collaborators from each target country checked all materials and conducted pilot tests in each country to avoid stimuli that might be peculiar to particular cultures and give rise to questions or misunderstandings in others (e.g., Werner and Campbell 1970; see also van de Vijver and Leung 2021).

As mentioned above, how to best measure moral objectivism has been subject to much debate (e.g., Bush and Moss 2020; Cova 2024; Pölzler 2018a, 2018b, 2023). For our study we decided to use a disagreement measure that has been developed and refined by Pölzler and Wright over the course of several years and several studies. In particular, we adopted the latest version of this measure, as used in Wright and Pölzler (2022) and Wagner et al. (2023) — a measure that was also recently adopted by Theisen (2024).

Disagreement measures can test participants’ interpretation of disagreements about either specific moral statements, such as about murder, abortion or climate change (concrete versions), or about morality in general (abstract version). So far, cross-cultural studies that used disagreement measures (Beebe et al. 2015; Sarkissian et al. 2011) have exclusively used concrete versions. There is reason to believe that people’s responses to concrete and abstract moral objectivity measures differ (e.g., Pölzler et al. 2024; Pölzler and Wright 2020; see also *Discussion*).¹⁶ In this study we hence decided to test, for the first time, how people from different countries think about moral disagreements, and by implication moral objectivity, when these moral disagreements are described abstractly, i.e., without specifying any particular moral issue that they are about.

Our abstract disagreement measure of moral objectivity, just as our analogous abstract disagreement measure of scientific objectivity, required responses to two disagreement scenarios, one intra-cultural and one cross-cultural. This two-scenarios structure is necessary because, as mentioned above, beliefs in cultural relativism entail that one disagreeing party must be incorrect in cases of intra-cultural disagreements (in line with objectivism) but not in cases of cross-cultural disagreements (not in line with objectivism), and hence can only be identified if responses to both kinds of scenarios are prompted.

¹⁶ This is likely an instance of a more general effect in philosophical intuitions, labelled the “abstract/concrete effect” (e.g., Nichols and Knobe 2007; Struchiner et al. 2020).

In sum, participants were asked to interpret four disagreement cases, which were presented in the below order and wording, all on one page.

Morality Intra-Cultural

Consider the following situation. Two people who are members of the same culture discuss whether an action is morally wrong. One person says that the action is morally wrong. The other person says that the action is not morally wrong.

Which interpretation of this disagreement seems most appropriate to you?

- (A1) One of these two people is correct and the other one incorrect
- (A2) Both people are correct
- (A3) Neither person is correct nor incorrect

Science Intra-Cultural

Consider the following situation. Two people who are members of the same culture discuss whether a scientific hypothesis is true. One person says that the hypothesis is true. The other person says that the hypothesis is not true.

Which interpretation of this disagreement seems most appropriate to you?

- (A1) One of these two people is correct and the other one incorrect
- (A2) Both people are correct
- (A3) Neither person is correct nor incorrect

Morality Cross-Cultural

Consider the following situation. Two people who are members of different cultures discuss whether an action is morally wrong. Each of their judgements conforms to the dominant view within their culture. The person who says that the action is morally wrong lives in a culture in which most people believe that the action is wrong. The person who says that action is not morally wrong lives in a culture in which most people believe that the action is not morally wrong.

Which interpretation of this disagreement seems most appropriate to you?

- (B1) One of these two people is correct and the other one incorrect
- (B2) Both people are correct

(B3) Neither person is correct nor incorrect

Science Cross-Cultural

Consider the following situation. Two people who are members of different cultures discuss whether a scientific hypothesis is true. Each of their judgements conforms to the dominant view within their culture. The person who says that the hypothesis is true lives in a culture in which most people believe that the hypothesis is true. The person who says that the hypothesis is not true lives in a culture in which most people believe that the hypothesis is not true.

Which interpretation of this disagreement seems most appropriate to you?

(B1) One of these two people is correct and the other one incorrect

(B2) Both people are correct

(B3) Neither person is correct nor incorrect

The coding of our data, i.e., which response combinations should be interpreted as being indicative of objectivist beliefs, and which ones of non-objectivist beliefs, can be a matter of philosophical debate. It will hence be explained in detail in the following sections, alongside the descriptive statistics and analyses of our study.

To simplify our discussion we decided to merge the data sets from Study 1 and Study 2. This is supported by two reasons. First, a series of two-way proportion tests (see Appendix D: Table S4-1) showed that there were no statistically significant differences between the percentages of participants' responses across the two studies. The proportion of objectivists and non-objectivists did not significantly differ on any of our codings across the studies. Second, the Intra-class Correlation Coefficient of the studies is below 0.1, which indicates high agreement between their samples (Cicchetti 1994). The unmerged results can be found in Tables 2 to 4.

5 Results with Traditional Coding

We begin by presenting our data on the basis of the coding that is, in our assessment, most in line with traditional metaethical taxonomies. We call this "Traditional Coding" (TC).

Metaethicists distinguish between several variants of objectivism (most importantly, naturalism and non-naturalism) as well as several variants of non-objectivism (most importantly,

subjectivism, non-cognitivism and error theory) (e.g., Huemer 2005; Joyce 2021; Pölzler 2018a). All variants of objectivism (e.g., Brink 1989; Enoch 2011; Huemer 2005) have the same basic implications for how to interpret moral disagreements. Since they all hold that moral statements are true if and only if they correctly represent facts that do not vary with the mental states of subjects, they all entail that, in both intra- as well as cross-cultural disagreements, one of the disagreeing parties must affirm a false moral statement, i.e., must be incorrect.

In contrast, different variants of non-objectivism differ in their implications for interpretations of moral disagreement. Previous research has shown that only very few lay people tend towards error theory but many tend towards different distinct versions of subjectivism, namely individual subjectivism and cultural relativism (e.g., Davis 2021; Pölzler and Wright 2020; Wagner et al. 2023). For the sake of methodological simplicity and feasibility, our measure of moral objectivism assumes that this trend holds globally, and attempts to investigate responses in favor of the following three variants of non-objectivism: (1) non-cognitivism, (2) individual subjectivism and (3) cultural relativism.

According to non-cognitivism (e.g., Ayer 1936/1952; Gibbard 1990; Blackburn 1998), moral statements are not truth-apt, which means that there is no such thing as being correct or incorrect in moral disagreements, whether intra- or cross-cultural, at all.¹⁷ According to individual subjectivism (e.g., Sartre [1946] 1973), a moral statement is true if and only if it is believed by the individual making that statement, which means that in each case of disagreement, whether intra- or cross-cultural, both disagreement parties are right. And according to cultural relativism (e.g., Harman 1975; Wong 2006), a moral statement is true if and only if it is dominantly believed within the culture in which the statement is made, which means that one party must be incorrect in intra-cultural but both can be correct in cross-cultural disagreements (see *Previous Research*).¹⁸

Finally, there are also potential response combinations across the intra-cultural and cross-cultural tasks that are not reflected by any of the above traditional metaethical theories. These combinations may be classified as “non-standard” and will be further discussed below (see

¹⁷ Some contemporary non-cognitivists have claimed that moral statements can be true or false in a sense that does not require them to correspond to moral facts, e.g., in a “deflationary” sense, according to which to say of a moral statement that it is true is just to reaffirm this statement (Blackburn 1998).

¹⁸ Both individual subjectivism and cultural relativism are here introduced and discussed in their “appraiser” variants. In addition, they have also been held in “agent” variants, according to which the truth of a person’s moral beliefs is determined by the moral beliefs of the agent who performs the evaluated action or by this agent’s culture (Gowans 2021).

Discussion). In sum, then, assuming a traditional taxonomy of metaethics seems to require the following coding of our data (which is the same coding that has been used by Wagner et al. 2023 and Wright and Pölzler 2022).

A = Intra-Cultural

B = Cross-Cultural

1 = One of these two people is correct and the other one incorrect

2 = Both people are correct

3 = Neither person is correct nor incorrect

Objectivism: A1&B1

Non-Objectivism:

Cultural Relativism: A1&B2

Individual Subjectivism: A2&B2

Non-Cognitivism: A3&B3

Non-Standard: A1&B3, A2&B1, A2&B3, A3&B1, A3&B2

It might be objected that identifying non-cognitivism with “neither person is correct nor incorrect” replies is doubtful. Instead of a general denial of the truth-aptness of moral statements, these replies could also express uncertainty, indeterminacy or vagueness (truth-value gaps) and other views. We agree that our design cannot fully rule out such unintended interpretations. That said, we deliberately avoided epistemic vocabulary such as “know”, “certain” or “surely” in both the scenarios and the response options to reduce the likelihood of some of these unintended interpretations; and using the label “non-cognitivism” for “neither person is correct nor incorrect” responses also preserves comparability with previous studies that used identical or analogous measures of moral objectivism (e.g., Pölzler and Wright 2020; Wagner et al. 2023).

Based on the above “traditional” coding, we found that across all of our target countries, and across both of our studies, participants clearly rejected moral objectivism. The global proportion of those who rejected objectivism was 92.1%, with non-objectivist responses making up 55.6% of the total and non-standard responses making up 36.5%. Within non-objectivism, non-cognitivism turned out to be the most popular theory (globally, 30.7% of all responses), followed by individual

subjectivism and cultural relativism, which were endorsed to roughly equal extents. These global trends held for all of our target countries. As shown in Figure 1, all countries exhibited at least 85% rejection rates of moral objectivism and a particular preference for non-cognitivist non-objectivism.

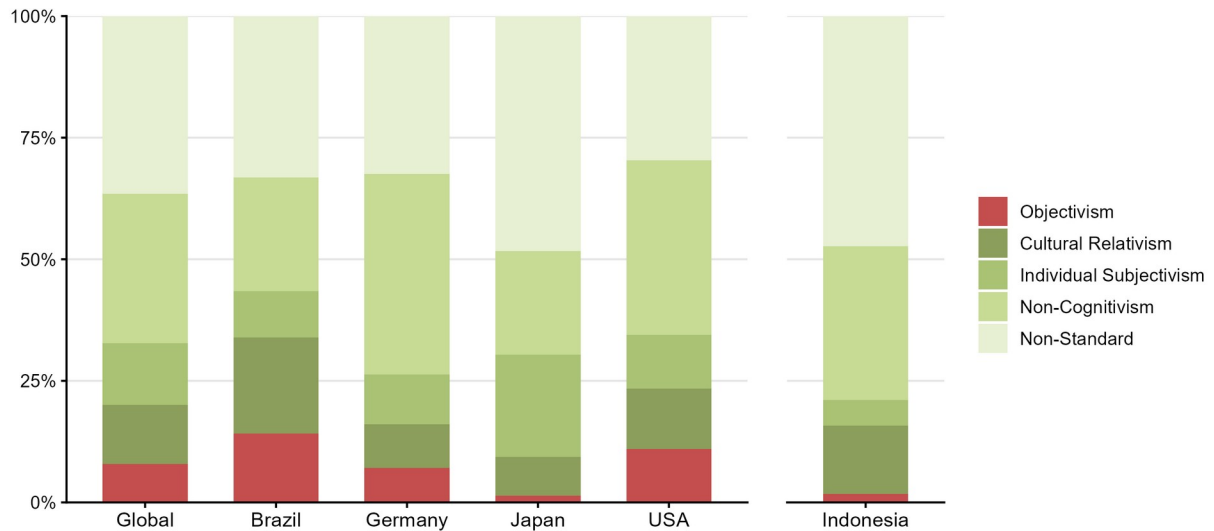


Figure 1 Proportion of responses in favor of moral objectivism, moral non-objectivism (non-cognitivism, individual subjectivism, cultural relativism) and non-standard theories, based on Traditional Coding. Indonesian results are shown separately because they are based on a considerably smaller sample ($n = 57$; Study 1: $n = 22$; Study 2: $n = 35$).

In addition to the above similarities, we also found some slight differences across countries. Most importantly, participants from Japan were less likely to select the objectivist responses (1.4%; vs. Brazil, $p < .001$; vs. Germany, $p = .002$; and vs. USA, $p < .001$) and were more likely to select individual subjectivist responses (21.0%; vs. Brazil, $p = .006$; vs. Germany, $p = .006$; and vs. USA, $p = .023$) than participants from most other countries. The proportion of objectivists was also particularly low in Indonesia (1.8%). However, the small sample size for this country prevented us from finding statistically significant differences to the others.

Moving on to the domain of science, based on TC, the proportion of scientific objectivists in our studies was considerably greater than the proportion of moral objectivists. 42.9% of participants selected the response combination that was coded as scientific objectivism. Objectivism again proved somewhat less widespread in Indonesia and Japan than in some of the

other countries (Indonesia vs. Germany, $p = .015$; Japan vs. Germany, $p < .001$; Japan vs. USA, $p = .005$). This is shown in Figure 2, and for the full results see Table 2.

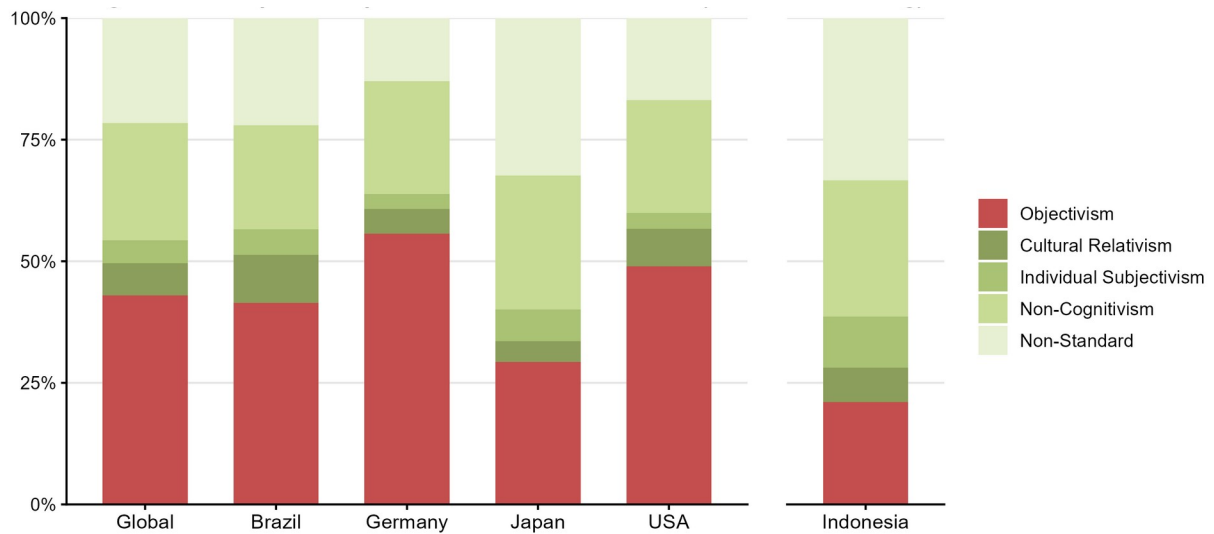


Figure 2 Proportion of responses in favor of scientific objectivism, scientific non-objectivism (non-cognitivism, individual subjectivism, cultural relativism) and non-standard theories, based on Traditional Coding. Indonesian results are shown separately because they are based on a considerably smaller sample ($n = 57$; Study 1: $n = 22$; Study 2: $n = 35$).

Table 2

Frequencies and proportions of meta-beliefs about morality and science under Traditional Coding (TC) across five countries and two samples

Traditional Coding	Global		Brazil		Germany		Japan		USA		Indonesia	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Study 1: Morality												
Objectivism	60	(8.4%) ^A	27	(14.4%) ^a	16	(9.2%) ^a	2	(1.1%) ^b	14	(9.0%) ^a	1	(4.5%) ^{ab}
Cultural Relativism	97	(13.6%) ^B	40	(21.3%) ^a	14	(8.0%) ^b	16	(9.2%) ^b	24	(15.4%) ^{ab}	3	(13.6%) ^{ab}
Individual Subjectivism	87	(12.2%) ^{AB}	14	(7.4%) ^a	21	(12.1%) ^{ab}	35	(20.1%) ^b	16	(10.3%) ^{ab}	1	(4.5%) ^{ab}
Non-Cognitivism	215	(30.1%) ^C	42	(22.3%) ^a	71	(40.8%) ^b	41	(23.6%) ^a	54	(34.6%) ^{ab}	7	(31.8%) ^{ab}
Non-Standard	255	(35.7%) ^C	65	(34.6%) ^{ab}	52	(29.9%) ^a	80	(46.0%) ^b	48	(30.8%) ^a	10	(45.5%) ^{ab}
Study 2: Morality												
Objectivism	51	(7.4%) ^A	16	(13.8%) ^a	9	(5.0%) ^{ab}	3	(1.7%) ^b	23	(12.7%) ^a	0	(0.0%) ^{ab}
Cultural Relativism	73	(10.6%) ^{AB}	20	(17.2%) ^a	18	(10.0%) ^a	12	(6.7%) ^a	18	(9.9%) ^a	5	(14.3%) ^a
Individual Subjectivism	92	(13.3%) ^B	15	(12.9%) ^{ab}	15	(8.3%) ^a	39	(21.9%) ^b	21	(11.6%) ^{ab}	2	(5.7%) ^{ab}
Non-Cognitivism	216	(31.3%) ^C	29	(25.0%) ^{ab}	75	(41.7%) ^c	34	(19.1%) ^a	67	(37.0%) ^{bc}	11	(31.4%) ^{abc}
Non-Standard	258	(37.4%) ^C	36	(31.0%) ^a	63	(35.0%) ^a	90	(50.6%) ^b	52	(28.7%) ^a	17	(48.6%) ^{ab}
Study 1: Science												
Objectivism	289	(40.5%) ^A	72	(38.3%) ^{ab}	98	(56.3%) ^c	44	(25.3%) ^a	70	(44.9%) ^{bc}	5	(22.7%) ^{ab}
Cultural Relativism	44	(6.2%) ^B	18	(9.6%) ^a	6	(3.4%) ^a	5	(2.9%) ^a	13	(8.3%) ^a	2	(9.1%) ^a
Individual Subjectivism	35	(4.9%) ^B	11	(5.9%) ^{ab}	9	(5.2%) ^{ab}	10	(5.7%) ^{ab}	1	(0.6%) ^b	4	(18.2%) ^a
Non-Cognitivism	184	(25.8%) ^C	47	(25.0%) ^a	37	(21.3%) ^a	54	(31.0%) ^a	40	(25.6%) ^a	6	(27.3%) ^a
Non-Standard	162	(22.7%) ^C	40	(21.3%) ^a	24	(13.8%) ^a	61	(35.1%) ^b	32	(20.5%) ^a	5	(22.7%) ^{ab}
Study 2: Science												
Objectivism	314	(45.5%) ^A	54	(46.6%) ^{ab}	99	(55.0%) ^a	59	(33.1%) ^{bc}	95	(52.5%) ^a	7	(20.0%) ^c
Cultural Relativism	49	(7.1%) ^B	12	(10.3%) ^a	12	(6.7%) ^a	10	(5.6%) ^a	13	(7.2%) ^a	2	(5.7%) ^a
Individual Subjectivism	32	(4.6%) ^B	5	(4.3%) ^{ab}	2	(1.1%) ^a	13	(7.3%) ^b	10	(5.5%) ^{ab}	2	(5.7%) ^{ab}
Non-Cognitivism	154	(22.3%) ^C	18	(15.5%) ^a	45	(25.0%) ^a	43	(24.2%) ^a	38	(21.0%) ^a	10	(28.6%) ^a
Non-Standard	141	(20.4%) ^C	27	(23.3%) ^{ab}	22	(12.2%) ^a	53	(29.8%) ^b	25	(13.8%) ^a	14	(40.0%) ^b

Note. Values represent cell counts followed by percentages in parentheses. Uppercase letters (A–E) in the “Global” column denote vertical, within-column pairwise comparisons among the five metaethical standpoints based on post-hoc tests with Holm’s adjustment; proportions sharing different uppercase letters within that column are significantly different at $p < .05$. Lowercase letters (a–e) across the country columns denote horizontal, within-row pairwise comparisons among the five target nations for that specific standpoint, based on Fisher’s exact tests with Holm’s adjustment; proportions within the same row sharing different lowercase letters are significantly different at $p < .05$. Indonesian results (shaded) are based on considerably smaller samples (Study 1: $n = 22$; Study 2: $n = 35$) and should be interpreted with caution.

6 Results with Alternative Coding 1

TC-based findings are probably the most relevant from a philosophical perspective. Still, we also decided to explore the implications of two alternative codings of our data that might also seem appropriate or even superior to at least some philosophers.

One potential objection against TC is that it is too rigid. The content of lay people's beliefs about moral objectivity may sometimes be so coarse-grained or indeterminate or otherwise unusual that they do not precisely map onto the distinctions drawn by metaethicists (e.g., Bush and Moss 2020; Joyce 2021; Pölzler 2023; Sinclair 2012). On TC such beliefs most likely show up as "non-standard". However, the objection goes, some non-standard response combinations still indicate beliefs that are clearly objectivist or non-objectivist "in spirit", and should hence be interpreted as such.

In consideration of this objection Alternative Coding 1 (AC1) attempts to code those non-standard responses that clearly endorse objectivism or non-objectivism in non-standard ways as objectivist or non-objectivist, not non-standard. In our view only two response combinations fit this description, namely A2&B3 and A3&B2, both of which indicate commitment to some form of non-objectivism. In particular, participants who opted for these answers seem to endorse some combination of subjectivism and non-cognitivism which, though non-standard, is clearly non-objectivist in a more liberal sense of the term.

AC1 hence diverges from TC by interpreting A2&B3 and A3&B2 as non-objectivist; in particular, as non-standard versions of non-objectivism.

A = Intra-Cultural

B = Cross-Cultural

1 = One of these two people is correct and the other one incorrect

2 = Both people are correct

3 = Neither person is correct nor incorrect

Objectivism: A1&B1

Non-Objectivism:

Cultural Relativism: A1&B2

Individual Subjectivism: A2&B2

Non-Cognitivism: A3&B3

Non-Standard Non-Objectivism: A2&B3, A3&B2

Indeterminate: A1&B3, A2&B1, A3&B1

This coding leaves the proportion of objectivist responses in our study just as it turned out on the basis of TC. However, it means that many more participants are classified as non-objectivists rather than as proponents of some non-standard metaethical theory. More precisely, AC1 raises the global aggregate values of non-objectivist responses to 79.8% (from 55.6%). On a global level non-standard non-objectivism is now the second most popular variant of non-objectivism, following non-cognitivism. It is particularly widespread in Japan (41.2%; vs. Brazil, $p < .001$; vs. Germany, $p < .001$; vs. USA, $p < .001$), where its total values are even higher than those for non-cognitivism (non-standard vs. non-cognitivism, $p < .001$). These findings are illustrated by Figure 3.

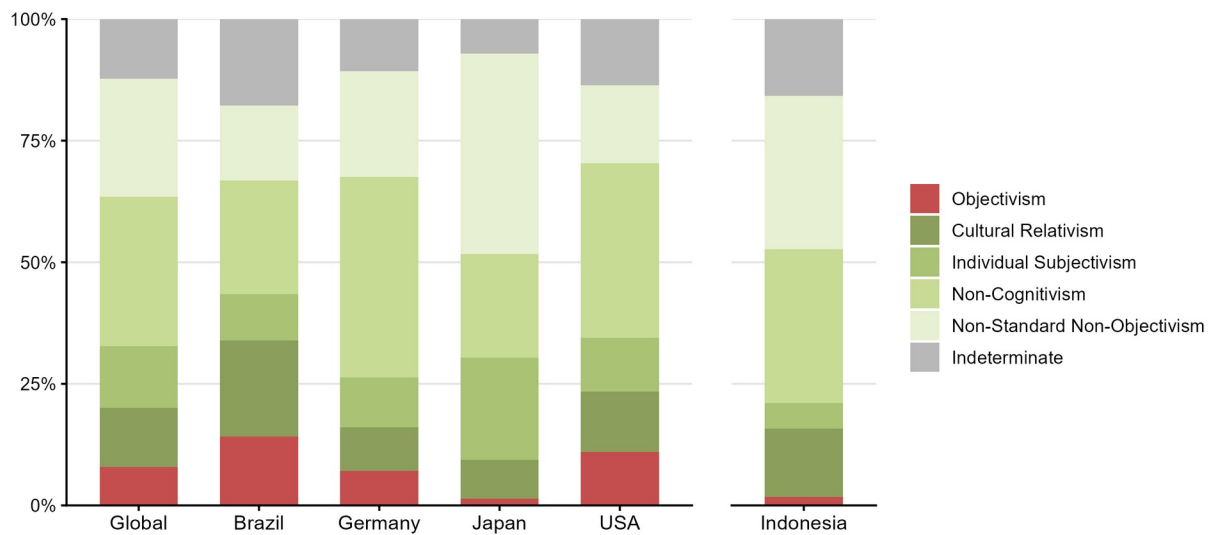


Figure 3 Proportion of responses in favor of moral objectivism, moral non-objectivism (non-standard non-objectivism, non-cognitivism, individual subjectivism, cultural relativism) and non-standard theories, based on Alternative Coding 1. Indonesian results are shown separately because they are based on a considerably smaller sample ($n = 57$; Study 1: $n = 22$; Study 2: $n = 35$).

In contrast, AC1 has less significant implications (in comparison to TC) when it comes to scientific objectivism. Here it only raises the total proportion of non-objectivism to 44.8% (from 35.5%), as visualized by Figure 4. For the full results under this coding see Table 3.

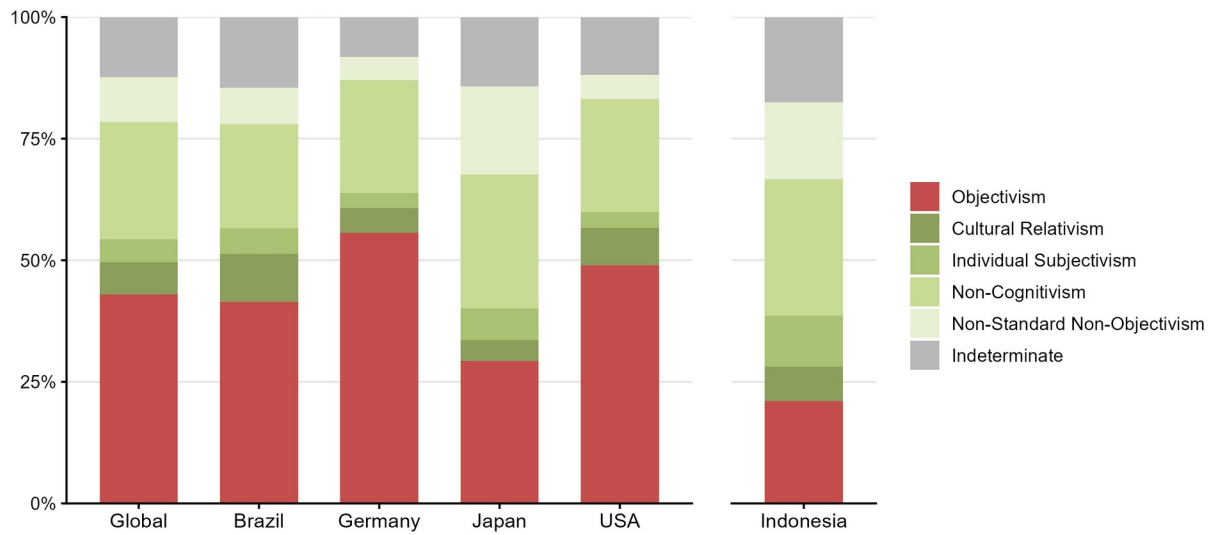


Figure 4 Proportion of responses in favor of scientific objectivism, scientific non-objectivism (non-standard non-objectivism, non-cognitivism, individual subjectivism, cultural relativism) and non-standard theories, based on Alternative Coding 1. Indonesian results are shown separately because they are based on a considerably smaller sample ($n = 57$; Study 1: $n = 22$; Study 2: $n = 35$).

Table 3

Frequencies and proportions of meta-beliefs about morality and science under Alternative Coding (AC1) across five countries and two samples

Alternative Coding 1	Global		Brazil		Germany		Japan		USA		Indonesia	
	n	%	n	%	n	%	n	%	n	%	n	%
Study 1: Morality												
Objectivism	60	(8.4%) ^A	27	(14.4%) ^a	16	(9.2%) ^a	2	(1.1%) ^b	14	(9.0%) ^a	1	(4.5%) ^{ab}
Cultural Relativism	97	(13.6%) ^B	40	(21.3%) ^a	14	(8.0%) ^b	16	(9.2%) ^b	24	(15.4%) ^{ab}	3	(13.6%) ^{ab}
Individual Subjectivism	87	(12.2%) ^{AB}	14	(7.4%) ^a	21	(12.1%) ^{ab}	35	(20.1%) ^b	16	(10.3%) ^{ab}	1	(4.5%) ^{ab}
Non-Cognitivism	215	(30.1%) ^C	42	(22.3%) ^a	71	(40.8%) ^b	41	(23.6%) ^a	54	(34.6%) ^{ab}	7	(31.8%) ^{ab}
Non-Standard	164	(23.0%) ^C	26	(13.8%) ^a	36	(20.7%) ^a	64	(36.8%) ^b	30	(19.2%) ^a	8	(36.4%) ^{ab}
Indeterminate	91	(12.7%) ^{AB}	39	(20.7%) ^a	16	(9.2%) ^b	16	(9.2%) ^b	18	(11.5%) ^{ab}	2	(9.1%) ^{ab}
Study 2: Morality												
Objectivism	51	(7.4%) ^A	16	(13.8%) ^a	9	(5.0%) ^{ab}	3	(1.7%) ^b	23	(12.7%) ^a	0	(0.0%) ^{ab}
Cultural Relativism	73	(10.6%) ^{AB}	20	(17.2%) ^a	18	(10.0%) ^a	12	(6.7%) ^a	18	(9.9%) ^a	5	(14.3%) ^a
Individual Subjectivism	92	(13.3%) ^B	15	(12.9%) ^{ab}	15	(8.3%) ^a	39	(21.9%) ^b	21	(11.6%) ^{ab}	2	(5.7%) ^{ab}
Non-Cognitivism	216	(31.3%) ^C	29	(25.0%) ^{ab}	75	(41.7%) ^c	34	(19.1%) ^a	67	(37.0%) ^{bc}	11	(31.4%) ^{abc}
Non-Standard	177	(25.7%) ^C	21	(18.1%) ^a	41	(22.8%) ^a	81	(45.5%) ^b	24	(13.3%) ^a	10	(28.6%) ^{ab}
Indeterminate	81	(11.7%) ^{AB}	15	(12.9%) ^{ab}	22	(12.2%) ^{ab}	9	(5.1%) ^a	28	(15.5%) ^b	7	(20.0%) ^{ab}
Study 1: Science												
Objectivism	289	(40.5%) ^A	72	(38.3%) ^{ab}	98	(56.3%) ^c	44	(25.3%) ^a	70	(44.9%) ^{bc}	5	(22.7%) ^{ab}
Cultural Relativism	44	(6.2%) ^B	18	(9.6%) ^a	6	(3.4%) ^a	5	(2.9%) ^a	13	(8.3%) ^a	2	(9.1%) ^a
Individual Subjectivism	35	(4.9%) ^B	11	(5.9%) ^{ab}	9	(5.2%) ^{ab}	10	(5.7%) ^{ab}	1	(0.6%) ^b	4	(18.2%) ^a
Non-Cognitivism	184	(25.8%) ^C	47	(25.0%) ^a	37	(21.3%) ^a	54	(31.0%) ^a	40	(25.6%) ^a	6	(27.3%) ^a
Non-Standard	71	(9.9%) ^D	14	(7.4%) ^a	9	(5.2%) ^a	34	(19.5%) ^b	11	(7.1%) ^a	3	(13.6%) ^{ab}
Indeterminate	91	(12.7%) ^D	26	(13.8%) ^a	15	(8.6%) ^a	27	(15.5%) ^a	21	(13.5%) ^a	2	(9.1%) ^a
Study 2: Science												
Objectivism	314	(45.5%) ^A	54	(46.6%) ^{ab}	99	(55.0%) ^a	59	(33.1%) ^{bc}	95	(52.5%) ^a	7	(20.0%) ^c
Cultural Relativism	49	(7.1%) ^{BC}	12	(10.3%) ^a	12	(6.7%) ^a	10	(5.6%) ^a	13	(7.2%) ^a	2	(5.7%) ^a
Individual Subjectivism	32	(4.6%) ^B	5	(4.3%) ^{ab}	2	(1.1%) ^a	13	(7.3%) ^b	10	(5.5%) ^{ab}	2	(5.7%) ^{ab}
Non-Cognitivism	154	(22.3%) ^D	18	(15.5%) ^a	45	(25.0%) ^a	43	(24.2%) ^a	38	(21.0%) ^a	10	(28.6%) ^a
Non-Standard	59	(8.6%) ^{CE}	9	(7.8%) ^{abc}	8	(4.4%) ^{ab}	30	(16.9%) ^c	6	(3.3%) ^b	6	(17.1%) ^{ac}
Indeterminate	82	(11.9%) ^E	18	(15.5%) ^a	14	(7.8%) ^a	23	(12.9%) ^a	19	(10.5%) ^a	8	(22.9%) ^a

Note. Values represent cell counts followed by percentages in parentheses. Uppercase letters (A–E) in the “Global” column denote vertical, within-column pairwise comparisons among the five metaethical standpoints based on post-hoc tests with Holm’s adjustment; proportions sharing different uppercase letters within that column are significantly different at $p < .05$. Lowercase letters (a–e) across the country columns denote horizontal, within-row pairwise comparisons among the five target nations for that specific standpoint, based on Fisher’s exact tests with Holm’s adjustment; proportions within the same row sharing different lowercase letters are significantly different at $p < .05$. Indonesian results (shaded) are based on considerably smaller samples (Study 1: $n = 22$; Study 2: $n = 35$) and should be interpreted with caution.

7 Results with Alternative Coding 2

Both on the basis of TC and on the basis of AC1 our data clearly contradicts philosophers’ hypothesis that lay people tend towards moral objectivism. In all studied countries only a small

fraction of participants responded accordingly. However, philosophers who have subscribed to the dominance of folk moral objectivism may object that the above codings are biased against their hypothesis, i.e., they unduly inflate the proportion of non-objectivists.

First, it may be pointed out that with both codings, the number of response combinations that is coded as objectivist (TC: 1, AC1: 1) is considerably lower than the number of combinations that is coded as non-objectivist (TC: 3, AC1: 5). To the extent that participants answered randomly or exhibited high degrees of uncertainty — tendencies that our rigorous insufficient effort checks (see *Participants*) likely reduced but cannot fully rule out — they were thus much more likely to come out as non-objectivists than as objectivists on these codings (for discussion of this problem see Pölzler 2023).

Second, it may also be objected that some of the purportedly non-standard or non-objectivist response combinations of TC and AC1 are actually indicative of or at least compatible with objectivism, namely A1&B2 (above coded as cultural relativism), A1&B3 (non-standard), A2&B1 (non-standard) and A3&B1 (non-standard). Participants who opted in favor of any of these combinations may believe that the truth about morality's objectivity varies across intra- versus cross-cultural contexts (in some contexts objectivism is correct, in others non-objectivism; in line with Gill 2009; Wright 2018) or that objectivism and non-objectivism are both equally true (on some interpretations objectivism is correct, on others non-objectivism; Gill 2009; Joyce 2012). Such beliefs would entail a commitment to the existence of objective moral truths in at least some contexts or on at least some interpretations. Hence, the argument goes, they should be coded as objectivist.

It is unclear whether participants who reply in the above ways (A1&B2, A1&B3, A2&B1 and A3&B1) really meant to endorse the existence of objective moral truths in some contexts or on some interpretations. It is also unclear whether such endorsements would suffice to make them objectivists (at least some philosophers have argued otherwise, e.g., Gill 2009; Pölzler 2023). However, for the sake of the argument we will accept this point. To alleviate the above two potential concerns we will thus explore the implications of one more coding which assigns all of A1&B2, A1&B3, A2&B1 and A3&B1 to objectivism, instead of to the non-objectivism or non-standard categories, and thus also makes for a distribution of response options that is more even and in fact, even gives a slight advantage to objectivism (5 vs. 4).

A = Intra-Cultural

B = Cross-Cultural

1 = One of these two people is correct and the other one incorrect

2 = Both people are correct

3 = Neither person is correct nor incorrect

Objectivism: A1&B1, A1&B2, A1&B3, A2&B1, A3&B1

Non-objectivism: A2&B2, A3&B3, A2&B3, A3&B2

In our view, this coding is the friendliest one can get towards the hypothesis that lay people are moral objectivists without completely sacrificing the philosophical plausibility of one's codings. So is the hypothesis at least supported on the basis of this coding?

Based on Alternative Coding 2 (AC2), we found that globally, participants still clearly favored non-objectivism, with endorsements of 67.7%. That said, the coding brings out potential metaethical differences across countries more clearly. In particular, we now find that Brazil leads the field in terms of its commitment to moral objectivism (Brazil vs. Germany, $p < .001$; vs. Indonesia, $p = .024$; vs. Japan, $p < .001$; vs. USA, $p = .002$). This option was favored by the majority of participants there (51.6%). Moreover, Japan is now more non-objectivist than Indonesia ($p = .029$), and continues to be clearly more non-objectivist than the other countries (vs. Brazil, $p < .001$; vs. Germany, $p = .006$; vs. USA, $p < .001$). This is illustrated by Figure 5.

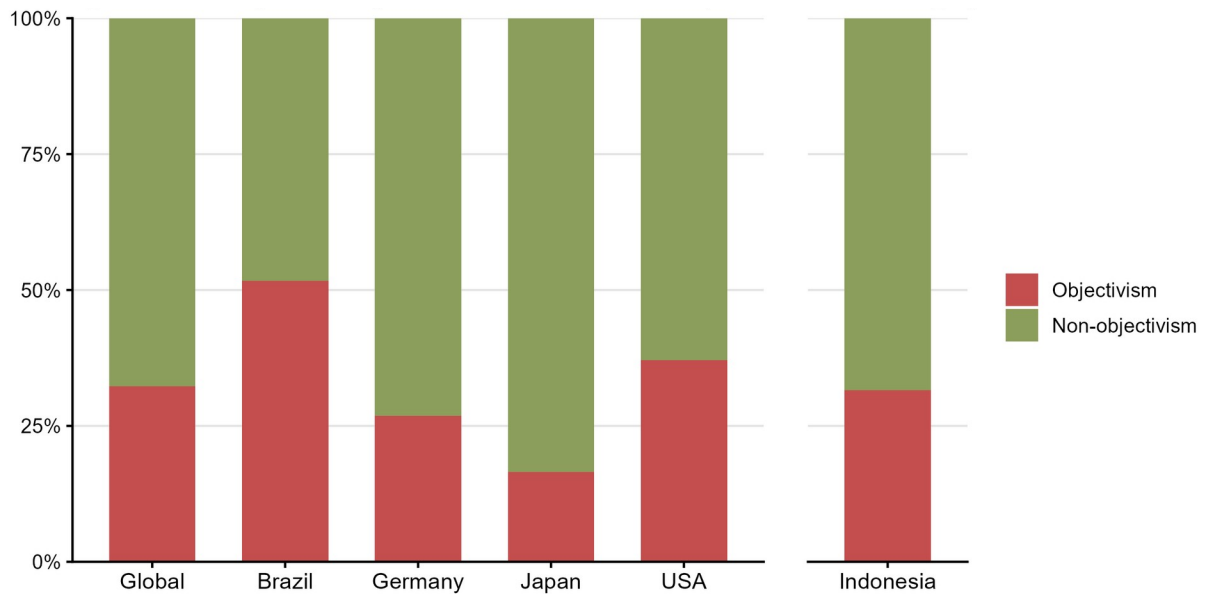


Figure 5 Proportion of responses in favor of moral objectivism and moral non-objectivism, based on Alternative Coding 2. Indonesian results are shown separately because they are based on a considerably smaller sample ($n = 57$; Study 1: $n = 22$; Study 2: $n = 35$).

With regard to scientific objectivism, AC2 implies that for the first time, the overall proportion of objectivists (61.9%) exceeds that of all other options combined. This result is mostly driven by Brazil, Germany and the United States. As before, even on this coding participants in Indonesia and Japan must be interpreted as being less inclined to think that there are scientific facts that are independent from what anybody thinks about them than participants from some other countries. These findings are shown in Figure 6; the full details for this coding are provided in Table 4.

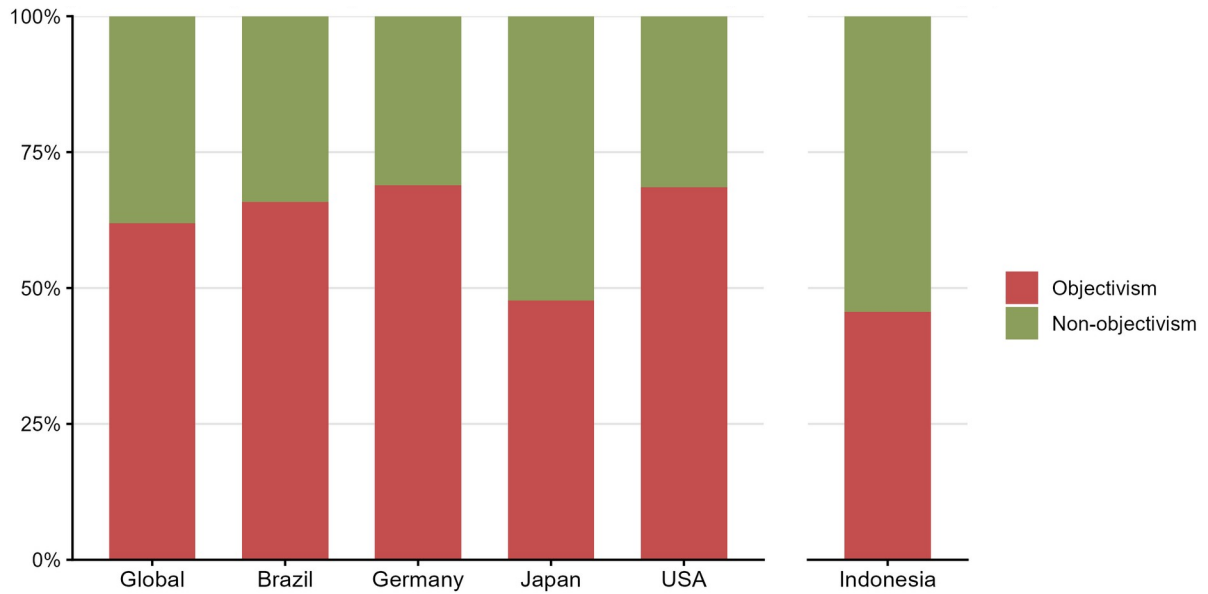


Figure 6 Proportion of responses in favor of scientific objectivism and scientific non-objectivism in Studies 1 and 2, based on Alternative Coding 2. Indonesian results are shown separately because they are based on a considerably smaller sample ($n = 57$; Study 1: $n = 22$; Study 2: $n = 35$).

Table 4

Frequencies and proportions of meta-beliefs about morality and science under Alternative Coding (AC2) across five countries and two samples

Alternative Coding 2	Global		Brazil		Germany		Japan		USA		Indonesia	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Study 1: Morality												
Objectivism	248	(34.7%) ^A	106	(56.4%) ^a	46	(26.4%) ^{bc}	34	(19.5%) ^b	56	(35.9%) ^c	6	(27.3%) ^{abc}
Non-objectivism	466	(65.3%) ^B	82	(43.6%) ^a	128	(73.6%) ^{bc}	140	(80.5%) ^b	100	(64.1%) ^c	16	(72.7%) ^{abc}
Study 2: Morality												
Objectivism	205	(29.7%) ^A	51	(44.0%) ^a	49	(27.2%) ^b	24	(13.5%) ^c	69	(38.1%) ^{ab}	12	(34.3%) ^{ab}
Non-objectivism	485	(70.3%) ^B	65	(56.0%) ^a	131	(72.8%) ^b	154	(86.5%) ^c	112	(61.9%) ^{ab}	23	(65.7%) ^{ab}
Study 1: Science												
Objectivism	424	(59.4%) ^A	116	(61.7%) ^a	119	(68.4%) ^a	76	(43.7%) ^b	104	(66.7%) ^a	9	(40.9%) ^{ab}
Non-objectivism	290	(40.6%) ^B	72	(38.3%) ^a	55	(31.6%) ^a	98	(56.3%) ^b	52	(33.3%) ^a	13	(59.1%) ^{ab}
Study 2: Science												
Objectivism	445	(64.5%) ^A	84	(72.4%) ^a	125	(69.4%) ^a	92	(51.7%) ^b	127	(70.2%) ^a	17	(48.6%) ^{ab}
Non-objectivism	245	(35.5%) ^B	32	(27.6%) ^a	55	(30.6%) ^a	86	(48.3%) ^b	54	(29.8%) ^a	18	(51.4%) ^{ab}

Note. Values represent cell counts followed by percentages in parentheses. Uppercase letters (A–E) in the “Global” column denote vertical, within-column pairwise comparisons among the five metaethical standpoints based on post-hoc tests with Holm’s adjustment; proportions sharing different uppercase letters within that column are significantly different at $p < .05$. Lowercase letters (a–e) across the country columns denote horizontal, within-row pairwise comparisons among the five target nations for that specific standpoint, based on Fisher’s exact tests with Holm’s adjustment; proportions within the same row sharing different lowercase letters are significantly different at $p < .05$. Indonesian results (shaded) are based on considerably smaller samples (Study 1: $n = 22$; Study 2: $n = 35$) and should be interpreted with caution.

8 Results Modeling

Our study suggests that lay people across our target countries by and large converge in their metaethical beliefs: they dominantly reject morality’s objectivity. But we have also uncovered some slight differences. Most importantly, people in Brazil seem to be somewhat more inclined towards believing that objective moral facts exist; and people in Japan seem to be somewhat less inclined to hold such a belief. Which individual-level variables predict moral objectivity beliefs within the pooled sample and within each country?

To investigate this question, we engaged in predictive modeling by running a series of independent hierarchical multinomial logistic regressions across five distinct datasets: the pooled Global sample (excluding nationality dummies to maintain structural parsimony) and four individual country sub-samples: Brazil, Germany, Japan, and the USA. In each dataset, we tested three sequential models to balance explanatory power and parsimony, addressing the predictions in H4 and H5.

Model 1 contained only the study sample as a baseline control. Model 2 included the predictors of H4, i.e., age, individualism, political conservatism, and religiosity. Model 3 additionally included the predictors of H5: income, education, and gender.¹⁹

¹⁹ While country-specific internal consistencies were acceptable—with McDonald’s α for all translated scales well around or above the .70 threshold across studies (e.g., Japanese = .78 for religiosity, .71 for conservatism, and .86 for individualism)—multigroup confirmatory factor analyses (MGCFAs) revealed that metric invariance was not supported across the five nations (CFIs ; see Appendix C: Table S3). Crucially, this lack of measurement invariance directly justifies our analytical pivot away from running a single pooled model with country dummy interactions. By running independent country-specific multinomial logistic regressions rather than a monolithic model, we evaluate how these socio-psychological constructs function within each respective cultural context using their localized factor structures. While this approach precludes direct cross-national parametric comparison of specific coefficient magnitudes, it remains entirely valid for comparing the qualitatively distinct *patterns* of significant predictors operating within each society.

To systematically test the claimed null-effect of the predictors in H5, we conducted hierarchical likelihood ratio tests (LRT) comparing Model 2 and Model 3. Under the Traditional Coding (TC) framework, adding income, education and gender failed to significantly improve model fit for both the Global sample — Moral: ; Science: — and the Japanese sample — Moral: ; Science: . This lack of unique explanatory power was consistently replicated across Brazil, Germany, and the USA (), and also held robustly under AC1 (except for Brazil). Some further deviations emerged under AC2. In general, however, the parametric evidence seems to support the hypothesis that variation in lay people’s metaethical beliefs is not predicted by income, education, and gender. This led us to reject Model 3 (to avoid overfitting) and to establish Model 2 as our definitive best-fitting final model (e.g., Final TC Global fit — Moral: McFadden’s ; Science: McFadden’s ; see Appendix E: Tables S5-1 to S5-5 for full parametric details).

Examining the parameters of our final model, with objectivism fixed as the reference category, we found several patterns that lend some initial partial support to H4. To ensure that multicollinearity among predictors (e.g., religiosity, conservatism, and individualism) did not distort these estimations, variance inflation factors (*VIF*) were evaluated. All *VIF* values remained well below standard thresholds (Global *VIF* 1.55; individual country *VIF*s 1.70), confirming low multicollinearity.

In the moral domain, political conservatism partly conformed to our hypothesis’ directional expectation, predicting $OR < 1.0$, which denotes a higher probability of endorsing the reference category of objectivism. In the Global TC model, higher religiosity significantly predicted a lower probability of moving away from objectivism toward individual subjectivism ($OR = 0.70, p = .020$) and non-cognitivism ($OR = 0.70, p = .009$), while higher political conservatism reduced the likelihood of non-cognitivist answers ($OR = 0.64, p < .001$). However, this conservative-religious affinity with moral objectivism was only sporadically observed within specific nations. Specifically, higher conservatism reduced non-cognitivism in Brazil (TC: $OR = 0.37, p < .001$; AC1: $OR = 0.37, p < .001$; AC2: $OR = 0.56, p < .001$) and higher religiosity reduced non-cognitivism in both the USA (AC2: $OR = 0.63, p = .003$) and Japan (TC: $OR = 0.41, p = .046$; AC1: $OR = 0.40, p = .041$). Because the above associations did not uniformly show across all sub-samples and were countered by structural reversals, it is important to note that the political conservatism and religiosity predictions of H4 were only *partly* supported in the moral domain.

Our prediction with regard to individualism turned out to receive even less support. Under both AC1 and AC2, stronger endorsement of individualism significantly predicted an increased probability of rejecting objectivism in favor of individual subjectivism globally (AC1: $OR = 1.34, p = .023$; AC2: $OR = 1.21, p = .002$) and within Brazil (AC2: $OR = 1.38, p = .011$). Finally, age yielded different patterns across codings. In the Global models, under TC and AC1, age had no significant effect on any positions (TC: $1.21 \geq ORs \geq 0.83, ps \geq .104$; AC1: $1.21 \geq ORs \geq 0.83, ps \geq .104$), with the sole exception that older age predicted lower odds of choosing indeterminate responses under AC1 ($OR = 0.75, p = .029$). Under AC2, in contrast, older age predicted endorsing non-objectivism globally ($OR = 1.16, p = .016$). When examining country samples, this age effect vanished, i.e., age did not significantly predict metaethical beliefs under TC and AC1 (all ORs between 0.71 and 1.35, $ps \geq .172$), nor under AC2 (ORs between 1.02 and 1.14, $ps \geq .317$). The overall evidence thus suggests that the association between conservative-religious beliefs and objectivism is highly context-dependent, while contrary to our prediction in H4, individualists tend toward subjectivism in specific codings.²⁰

In the scientific domain, all significant predictors pushed participants away from scientific objectivism (i.e., $OR > 1.0$). Globally, higher political conservatism increased the odds of choosing cultural relativism ($OR = 1.44, = .010$) and non-cognitivism ($OR = 1.38, < .001$), higher religiosity promoted cultural relativism ($OR = 1.56, = .002$), and older age promoted individual subjectivism ($OR = 1.55, < .001$). Comparing individual country models, the rejection of scientific objectivism was driven by age predicting individual subjectivism in Germany ($OR = 2.22, = .002$) and political conservatism predicting non-cognitivism in the USA ($OR = 1.54, = .022$). In Japan, however, religiosity was the sole predictor, increasing the odds of non-cognitivism ($OR = 1.43, = .020$) and non-standard views ($OR = 1.42, = .018$).

All of the above findings across coding frameworks and domains are comprehensively visualized in the final forest plots (Figure 7; see also Appendix E for alternative codings and secondary domain figures).

²⁰ One exception was Germany, where conservatism predicted indeterminate standpoints under AC1 ($OR = 1.83, p = .043$).

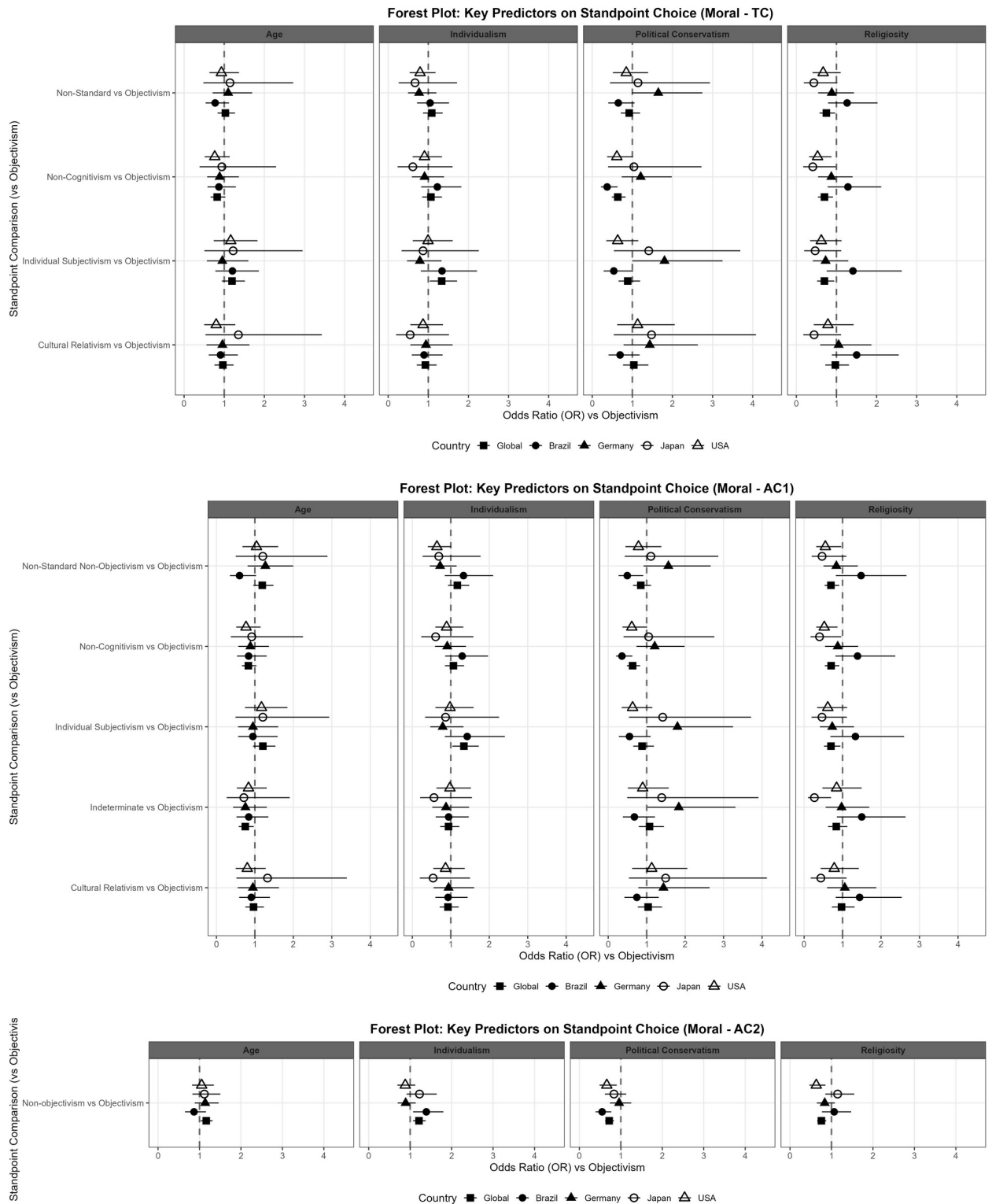


Figure 7 Forest plots of odds ratios for H4 predictors of folk moral objectivism, based on multinomial logistic regression

Note. Plots display the estimated odds ratios (OR) and 95% confidence intervals (CI) from Model 2, with Objectivism fixed as the reference category. Values of OR < 1.0 denote a lower probability of choosing the alternative standpoint over objectivism, whereas values of OR > 1.0 denote a higher probability. Data are shown in grayscale across the pooled Global sample and the four individual country sub-samples (Brazil, Germany, Japan, and the USA).

9 Discussion

This research tested five hypotheses about how people in different countries (Brazil, Germany, Indonesia, Japan and the United States) think about morality's objectivity. The hypotheses were mostly, but not completely confirmed.

First, and most importantly, in accordance with H1, our studies provide further cross-cultural evidence against lay people favoring moral objectivism. Participants from all of our target countries dominantly tended towards non-objectivism or non-standard metaethical theories on the coding that is most in line with how academic philosophers have defined objectivism and non-objectivism (TC). With one minor exception to be mentioned below, they also dominantly rejected moral objectivism on two alternative codings (AC1 and AC2), including one that is as favorable to the hypothesis of folk moral objectivism as can possibly be philosophically defended (and perhaps even more so).

At the same time, our consideration of different codings demonstrated that most more specific claims about the prevalence and potential causes of folk moral objectivism considerably depend on the data's subsequent metaethical interpretations. Not only did the specific proportions of objectivist and non-objectivist folk beliefs in each target country vary across the three codings that were discussed; on the most objectivist-friendly of these codings (AC2) one country, namely Brazil, even showed a slight dominance of objectivist beliefs (51.6%). This means that the precise extent to which our data supports the hypothesis that lay people deny moral objectivism in our target countries remains philosophically contested and can be decreased by providing ex post arguments in favor of particular metaethical interpretations (such as AC2).

The high proportion of folk metaethical beliefs that turned out as "non-standard" (TC: 36.5% globally) or "indeterminate" (AC1: 12.3% globally) on particular codings deserves consideration as well. Table 5 provides a detailed overview of these responses for all target countries. Their prevalence may be taken to reinforce some commentators' suspicion that many lay people's moral

objectivity beliefs may not exactly fit traditional metaethical taxonomies. For example, lay people may believe different metaethical theories to be true in different contexts (Gill 2009; Wright 2018) or may believe different metaethical theories to be equally true across all contexts (Gill 2009; Joyce 2012). Another possible explanation of this finding is that participants were uncertain about their responses or do not have particularly robust beliefs about morality’s objectivity at all (Bengson 2013; Bush and Moss 2020). In any case, we encourage further investigation of these “mixed” and “indeterminate” response combinations on both empirical and conceptual levels in future research.

Table 5

Frequencies and proportions of all nine response combinations in the moral domain across five countries (Studies 1 and 2 combined)

Response	Category (TC)	Global	Brazil	Germany	Japan	USA	Indonesia
A1&B1	Objectivism	111 (7.9%)	43 (14.1%)	25 (7.1%)	5 (1.4%)	37 (11.0%)	1 (1.8%)
A1&B2	Cultural Relativism	170 (12.1%)	60 (19.7%)	32 (9.0%)	28 (8.0%)	42 (12.5%)	8 (14.0%)
A2&B2	Individual Subjectivism	179 (12.7%)	29 (9.5%)	36 (10.2%)	74 (21.0%)	37 (11.0%)	3 (5.3%)
A3&B3	Non-Cognitivism	431 (30.7%)	71 (23.4%)	146 (41.2%)	75 (21.3%)	121 (35.9%)	18 (31.6%)
A1&B3	Non-Standard	122 (8.7%)	45 (14.8%)	30 (8.5%)	8 (2.3%)	32 (9.5%)	7 (12.3%)
A2&B1	Non-Standard	21 (1.5%)	5 (1.6%)	2 (0.6%)	7 (2.0%)	7 (2.1%)	0 (0.0%)
A2&B3	Non-Standard	57 (4.1%)	10 (3.3%)	15 (4.2%)	24 (6.8%)	4 (1.2%)	4 (7.0%)
A3&B1	Non-Standard	29 (2.1%)	4 (1.3%)	6 (1.7%)	10 (2.8%)	7 (2.1%)	2 (3.5%)
A3&B2	Non-Standard	284 (20.2%)	37 (12.2%)	62 (17.5%)	121 (34.4%)	50 (14.8%)	14 (24.6%)
Total		1404	304	354	352	337	57

Note. Values represent cell counts followed by column percentages in parentheses. A = intra-cultural disagreement, B = cross-cultural disagreement; 1 = one person correct and the other incorrect, 2 = both people correct, 3 = neither person correct nor incorrect. Under AC1, A2&B3 and A3&B2 are coded as non-standard non-objectivism, and A1&B3, A2&B1 and A3&B1 as indeterminate. Indonesian results (shaded) are based on a considerably smaller sample and should be interpreted with caution.

Moving on to H2, we found that lay people’s beliefs about moral objectivity at least somewhat differed across our target countries. There is reason to believe that Brazilians are somewhat more objectivist than people from the other countries, and that Japanese are less so. Japanese participants were also more likely to select response combinations that go beyond traditional metaethical theories, as shown again in Table 5. These slight differences are consistent with previous cross-cultural research on folk moral objectivism (see *Previous Research*); and in particular with Beebe et al.’s (2015) study, which also had a South American country top the ranking in terms of endorsement of moral objectivism (Ecuador), and an East Asian country coming out last (China).

H3 predicted that lay people consider morality to be less objective than science. This hypothesis is clearly supported by our results. Based on all codings, in all target countries beliefs in scientific objectivism were significantly more widespread than beliefs in moral objectivism. The gap across codings was around 30 to 35%.

What predicts lay people's belief in moral objectivism? Our results suggest that H4 and H5 do not provide a full or correct answer to this question. While it was confirmed that moral objectivity beliefs are not predicted by (1) income, (2) education and (3) gender, the hypothesis that belief in moral objectivity increases with (1) religiosity, (2) age, (3) conservatism and (4) individualism received only partial support, if at all. In particular, under the assumption of TC, political conservatism and religiosity predicted endorsement of moral objectivity globally, but when examined on a country-by-country basis, this trend was only statistically significant in some cases. Moreover, since our predictor scales were not measurement invariant across countries, these analyses leave open what explains the differences between countries.

With regard to religiosity and age, our modeling results are in tension with some previous folk metaethics research which suggests that religiosity predicts higher levels of objectivism more strongly and that age does so as well (e.g., Beebe and Sackris 2016; Collier-Spruel et al. 2019; Pözlner and Wright 2020; Sarkissian and Phelan 2019; Yilmaz and Bahçekapili 2015). In fact, under certain codings (such as AC2), we found that older age unexpectedly predicts a higher likelihood of endorsing non-objectivism. A plausible explanation for this negative association is that older adults may develop greater tolerance for diverse perspectives or a heightened awareness of the nuanced complexity of real-world moral contexts, leading them away from rigid metaethical objectivism.

With regard to individualism, our findings were similarly nuanced and yielded only partial support for H4. While individualism was associated with non-objectivism in some cases, this effect was not statistically significant across codings and target countries. One potential explanation for the finding that individualism occasionally predicted non-objectivism is that individualism sometimes involves skepticism toward traditional collective societal norms and values (e.g., Triandis 1995), making adherents more receptive to cultural relativism or individual subjectivism.

Additionally, the failure of some of our predictions could also be related to the small number of objectivists in the TC and AC1 codings of our study. The estimates for this reference category rested on relatively few observations, making them particularly sensitive to coding differences, while also limiting statistical power to detect significant effects. And finally, our mixed finding

about religiosity's influence on metaethical beliefs could to some extent be due to the fact that we measured religiosity in a different way than some of the previous studies did (e.g., in a different way than Collier-Spruel et al. 2019 and Sarkissian and Phelan 2019). In particular, while we formulated our measure without explicit reference to God (in light of the prevalence of non-theist religion in Japan), Sarkissian and Phelan's (2019) research suggests that what predicts the rejection of relativist moral non-objectivism is not religiosity per se, but rather belief in God's punishing characteristics. In contrast to Pölzler and Wright (2019), our research also did not account for specifically theist versions of objectivism, which means that during our metaethical tasks there was nothing that drew participants' attention toward God.

10 Limitations

Needless to say, our above findings are provisional and need to be confirmed and expanded by future cross-cultural research. Six limitations appear to be particularly noteworthy, relating to (1) sample size/composition, (2) measure contingency, (3) scientific non-objectivism, (4) external reliability, (5) the abstractness of study materials, and (6) order effects.

The main limitation arises from our sample size and composition. In *Participants* we emphasized that despite our best efforts, the sample size for Indonesia remained too small, and to some lesser extent also for Brazil and the US. Moreover, none of the samples were nationally representative and while most participants were recruited via online crowdsourcing platforms, all Indonesian participants and some participants in the second study from Brazil were e-mail recruited students, which means that they differed from the participants of other countries in terms of several demographic characteristics, such as age and education. Any differences between these countries and the others could hence be explained in terms of these demographic differences rather than cultural ones. (The worry is significantly less pronounced for Brazil, though, since Study 2 replicated Study 1 very well.)

Another important limitation concerns our measure of moral objectivity beliefs. We do not purport to undermine the claim that lay people believe in moral objectivism in any sense of the term "belief", but only according to what our abstract disagreement measure can reasonably be claimed to measure. These metaethical beliefs are abstract, implicit and, presumably, rather non-reflective. For example, lay people in our target countries may well endorse the existence of objective moral

truths when they are presented with particular concrete actions, when they are asked about these truths explicitly or when they reflect more thoroughly.

Each measure of moral objectivism also has particular methodological strengths and weaknesses (see, e.g., Pölzler 2023). For example, it may be objected that in comparison to other measures, our abstract disagreement measure exaggerates the proportion of non-cognitivists or fares worse in ruling out unintended epistemic interpretations (e.g., Bush and Moss 2020).²¹ This may indeed be the case. However, in our view, such concerns do not necessarily reduce our study's value or significance but just mean that to achieve a comprehensive and fully valid picture of folk metaethics in our target countries, further studies with different measures should be conducted.

Third, based on our abstract disagreement measure of objectivism, many people in our target countries reject scientific objectivism, i.e., that there are scientific facts which are independent from what anybody thinks about them (TC: 57.1%; AC1: 57.1%; AC2: 38.1%). This outcome might be deemed unrealistic and hence problematic. It might be claimed to cast doubt on the validity of either our objectivity measure in general or at least of our TC and AC1 codings. We agree that this matter deserves further consideration.²² That said, it is also possible that lay people's relatively widespread rejection of scientific objectivism is genuine. This would be in line with several previous studies which, even though sometimes considerably underrepresenting the proportion of objectivists, found rejection rates for scientific objectivism in the ranges of 40% to 60% as well (e.g., Beebe and Sackris 2016; Beebe et al. 2015; Pölzler et al. 2024).

Fourth, as pointed out in *Methods*, Wagner et al. (2023) and Wright and Pölzler (2022) used the very same disagreement measure that was used in this study for the United States, and Theisen (2024) used the measure for Germany. But these studies' results, based on TC, showed much higher levels of moral objectivism than found here, both globally and for the respective target countries. In Wagner et al. (2023) the objectivist response combination was selected by 45% of participants across different item statements, in Wright and Pölzler (2022) by 62% of participants across

²¹ In line with the worry about non-cognitivism, studies that used other measures of folk moral objectivism usually found lower proportions of non-cognitivism in their data than we did (e.g., Davis 2021; Pölzler and Wright 2020).

²² Part of the explanation of our high rejection rate of scientific objectivism could be our use of the term "scientific hypothesis", which might generally be associated with uncertainty or underdetermination by lay people.

different statements, and in Theisen (2024) by around 50%.²³ This apparent lack of test-retest reliability may be thought to cast doubt on our studies as well.

We believe, however, that the above worry is unfounded. Not only did Study 2 replicate Study 1 remarkably well; there is also a natural explanation for why our results differ from those of the above-mentioned other studies. While we applied our measure of moral objectivism to morality in general (abstract version), Wagner et al. (2023), Wright and Pölzler (2022), and Theisen (2024) applied it to particular item statements (concrete version). Most of the moral objectivism that was found in these studies was driven by a small proportion of item statements. For example, in Wagner et al. (2023) participants dominantly responded as non-objectivists to “Was Martin Luther King admirably brave?” and “Do we have a moral duty to help the needy?”. It was only “Is raping a woman wrong?” that clearly came out on the objectivist side (80% of responses).²⁴

Finally, as mentioned in *Methods*, our investigations of folk moral objectivism were part of larger studies. One may worry that prior tasks in these studies may have unduly influenced participants’ responses to our objectivism tasks. This possibility indeed cannot be ruled out. However, we would like to stress that our studies first involved tasks about the concept of basic needs, which is typically seen as an especially *objective* potential foundation of moral theorizing. To the extent that these tasks had an effect on participants’ moral objectivism responses we would hence expect that the direction of this effect would be such that it led to an exaggeration of objectivist responses (rather than non-objectivist or non-standard responses) — which would leave our main conclusions unscathed.

²³ Study 1 and Study 3 of Wright and Pölzler (2022) used different disagreement measures of moral objectivism. The above result pertains to Study 2, which used the same measure that we used in this study. Theisen (2024) does not provide exact values for levels of moral objectivism. Judging from provided visualizations, however, the proportion of objectivists appears to be close to 50%.

²⁴ Does this mean that our study would have yielded higher proportions of moral objectivism as well if we had used a concrete measure? Given that the results of concrete measurement studies on folk moral objectivism are heavily contingent on the particular content of the employed statements, this is not clear. The statements’ content could also easily be such that it leads participants towards moral non-objectivism. For example, in both Pölzler and Wright (2020) and Pölzler et al. (2024), participants were less likely to respond as objectivists if they were asked about particular moral statements rather than about morality in the abstract. Our abstract design to some extent avoids the risk of item selection bias, yet it is a question for future research to what extent abstract, compared to concrete, beliefs about moral objectivity are psychologically and philosophically interesting.

Conclusion

Are lay people moral objectivists? Many philosophers have assumed so. This assumption has played an important role in several of their arguments, mostly in arguments in favor of objectivism. However, our research suggests that in addition to people from the United States, people in many other countries actually may not find objectivism very appealing at all. This is in line with other recent studies on this matter, both intra-cultural and cross-cultural ones.

Given that several notable arguments for moral objectivism have appealed to the hypothesis that most people believe in moral objectivism, it might seem as if our results could have straightforward philosophical implications. In particular, it might be suggested that they weaken objectivism's evidentiary basis. However, we caution against any direct inferences of this kind. Folk-based philosophical arguments, such as the presumptive and semantic arguments mentioned in *Introduction*, often only involve claims about specific kinds of metaethical beliefs (e.g., reflective rather than immediate beliefs) by specific kinds of lay people (e.g., lay people with certain degrees of conceptual competency) or they do not make direct claims about these beliefs at all. The extent to which our findings can potentially contribute to undermining such arguments therefore depends on the specifics of these arguments and needs to be examined on a case-by-case basis.

To illustrate, Brink's (1989) version of the presumptive argument holds that moral realism, and with it objectivism, should be our metaethical starting point, since it best explains ordinary moral practice, including the ways in which we deliberate, argue and disagree about moral questions. This is presented as a claim about what moral practice presupposes, not as a prediction about how lay people would respond when asked survey questions. People who interpret abstract disagreements in surveys in non-objectivist ways could still engage in moral practice in ways that presuppose objectivism. Thus, our findings likely fail to directly undermine Brink's argument. They rather only pose a challenge to the argument, requiring proponents to explain why moral practice should presuppose objectivism even though people do not seem to interpret moral disagreements in objectivist ways when they consider them in the abstract.

Again, then, the philosophical implications of our research must be examined more closely than we can do here. Our contribution in this paper should rather be seen as concerning the

psychology of metaethics — and we hope that it motivates similar empirical investigations in additional countries.

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