

suggested, however, that individuals' thinking about morality is *pluralistic*. That is, individuals appear to adopt different metaethical stances about different moral issues, for example, judging some moral issues to be objective and others relative (Goodwin & Darley, 2008, 2012; Heiphetz & Young, 2017; Pötzler & Wright, 2020; Wright et al., 2013), while different individuals also disagree about whether specific moral issues are objective or relative.² Moreover, a variety of different contextual factors, such as social distance (Sarkissian et al., 2011), perceived social consensus about the moral issue (Goodwin & Darley, 2012), whether the moral issue is controversial (Heiphetz & Young, 2017; Wainryb et al., 2004) and the cooperative or competitive nature of social interactions (Fisher et al., 2017) have been shown to influence whether individuals think about morality as objective or relative. Indeed, the multitude of apparent influences, which seem to have no rational connection to whether issues are objective or not, on people's judgments has led some philosophers to conclude that folk judgments about such metaethical questions are fundamentally "irrational" (Colebrook, 2021).

Why individuals appear to think that some moral statements are objectively true, while others are true only relative to particular perspectives, requires explanation. As a prelude to addressing this question, we might ask: what is the point of engaging in *metaethical* judgments at all? The human proclivity to make distinctively *moral* judgments has been theorized to be an evolutionary adaptation, increasing fitness by promoting cooperation and coordination (Greene, 2015; Kitcher, 2011). Judging certain norms to be distinctively *moral* has been posited to serve the function of giving these judgments additional "practical clout" (Joyce, 2007) by making such norms appear inescapable. Making 'first-order' moral judgments, that certain things are right or wrong, permitted or forbidden and so on, serves clear practical purposes, directing and coordinating action and cooperation (Curry, Jones Cheters, & Van Lissa, 2019; Curry, Mullins, & Whitehouse, 2019) and securing coalitions (DeScioli & Kurzban, 2009, 2013; Tooby & Cosmides, 2010). However, it is unclear what further function is served by taking a *metaethical* stance about the nature of these moral judgments, and whether they are true objectively or subjectively.

One argument could be that it is precisely their tendency to be seen as objective that makes moral judgments (in contrast to judgments about conventional norms or taste) distinctive, and that it is this perceived objectivity that explains their practical function (Stanford, 2018). On this view, viewing moral norms as objective aids and expands our capacity for cooperation and protects us against exploitation, by ensuring that we evaluate others according to the same moral norms we are motivated to follow. As such, there is no mystery as to *why* we make judgments about the objectivity of moral norms, since it is integral to their role that they are judged to be objective. However, this view is hard to reconcile with metaethical pluralism (Davis & Kelly, 2018). Indeed, recent research has tended to find that respondents more often judge moral issues to be relativistic than objectivistic (Pötzler & Wright, 2020; Wagner et al., 2021). As such, the question of why individuals engage in metaethical judgment and why they judge some moral issues to be relativistic and some objectivistic remains.

Our proposal is that the purpose of metaethical judgment and of metaethical judgment being pluralistic may be found in its social function. As noted above, individuals' metaethical judgments appear to be responsive to a variety of social factors. Our account proposes that taking objectivistic or relativistic metaethical stances serves an important social function by signaling an individual's stance on whether they

will tolerate disagreement about moral issues.³ Specifically, we theorize that taking a relativistic stance signals tolerance of disagreement, whereas taking an objectivistic stance signals a lack of tolerance of disagreement. As such, taking these meta-ethical stances may serve important social purposes, such as maintaining good social relations with those with whom we morally disagree or signaling to moral allies that we will steadfastly defend our shared moral values.

In consequence, we anticipate that taking different metaethical stances may have significant implications for how individuals are perceived socially. Those who take relativistic stances may be viewed as more tolerant and empathic, whereas objectivists may be viewed as more intolerant, but potentially as more committed to their moral beliefs, with implications for the desirability as social partners and their perceived moral character.⁴

However, we theorize that these social implications may vary dramatically, depending on the context in which individuals take a metaethical stance. One potentially significant factor, as we have alluded to above, might be whether the person taking the metaethical stance is someone who agrees or disagrees with the person evaluating them. In the context of someone who agrees with your moral views, being an objectivist may be seen as a boon, signaling that they will be a steadfast ally. Conversely, if someone who agrees with you signals that they tolerate disagreement about the views you share, this may raise concerns about their commitment to these views and suggest that they would not defend those views against those who disagree. Conversely, if someone disagrees with you about moral issues, then intolerance of moral disagreement may be seen as a direct threat, and tolerance of disagreement may be seen as a virtue.

A second important factor that we explore in this paper is the specific moral issue in question. Some moral issues have been shown to be overwhelmingly judged to be relativistic in nature, while others are predominantly judged to be objectivist (Goodwin & Darley, 2008, 2012; Pötzler & Wright, 2020). Individuals may therefore, plausibly, be evaluated differently for taking metaethical stances about different issues. For example, being an objectivist about the wrongness of premarital sex may seem a particularly hardline and intolerant stance, whereas not being an objectivist about the wrongness of genocide may seem peculiar and morally suspect. To examine whether and how these results extend across a range of moral issues we used a wide range of stimuli drawn systematically from a new pre-tested set of moral issues.

Our account can therefore explain why individuals express metaethical stances about their moral beliefs and why these stances might be expected to vary systematically in response to social factors. Taking a metaethical stance about morality performs an important social function by signaling one's tolerance or intolerance of moral disagreement. However, the desirability and the implications of signaling tolerance or

³ Objectivistic or relativistic stances could also be expressed about other domains, e.g. about factual or aesthetic matters (Beebe, 2015; Goodwin & Darley, 2008; Wright et al., 2013), however, in these studies, we focus only on metaethical objectivism and relativism.

⁴ Our theory is agnostic about the precise *seriality* of these evaluative implications, i.e. whether these distinct effects occur *simultaneously* and result directly as a consequence of the expression of a metaethical stance, or whether the effects unfold *sequentially*, with certain effects being downstream of others. That said, we find it plausible that certain of these traits, such as perceived tolerance, are relatively more direct consequences of taking objectivistic and relativistic stances, whereas others may be downstream of differences related to tolerance. This is because, on our account, signaling tolerance is integral to the function of metaethical judgment, whereas it is less clear a priori, why differences in partner preference should result directly from expressions of different metaethical stances. We also find it plausible that evaluations of moral character and desirability as a social partner are more holistic evaluations, which are influenced by evaluations on a number of other traits. However, testing this empirically is beyond the scope of this paper (see Green et al., (2010) for the difficulties of studying mediation).

² In the terminology of (Gill, 2009), these represent *intrapersonal* and *interpersonal* metaethical variability respectively.

intolerance of disagreement may vary dramatically in different social contexts and for different moral issues. As such, the pluralistic tendency to endorse different metaethical stances in different contexts and about different moral issues serves as a means to handle the social implications of taking moral positions in different circumstances.

1.1. Social influences on objectivism and relativism

As noted above, a wide variety of social factors have been found to influence ascriptions of objectivism or relativism. Many of these findings have been explained piecemeal, rather than in terms of a cohesive account explaining why metaethical judgments should be influenced by social factors. We argue that considering the social implications of taking different metaethical stances in different contexts can offer a unifying explanation of prior findings about the factors that influence metaethical judgments. In this section, we outline the research suggesting a connection between social factors and metaethical judgment, and explain how our own theory can account for these findings.

One early finding suggesting a strong social influence on metaethical judgment, was that individuals' judgments that a statement were objectively true or false were extremely highly correlated with their perceptions of the degree of social consensus about an issue, i.e. the extent to which they perceive people in their society to agree about that issue (Goodwin & Darley, 2012).⁵ Likewise, manipulating the level of perceived consensus about a moral issue was shown to influence whether the issue is judged to be objectivistic or relativistic, with higher perceived consensus leading to more objectivistic judgments (Goodwin & Darley, 2012).

On the face of it, it is not clear why the proportion of people who agree about a moral issue should have any relevance to whether or not it is true objectively or relatively. For example, one might think that whether or not everyone agrees that it is wrong to murder does not make any difference to whether murder is objectively wrong or merely wrong relative to different perspectives. Importantly, even if one is a moral relativist, who believes that whether murder is wrong depends on whether people agree that murder is wrong, this does not entail the further belief that whether murder being wrong is true objectively or relatively depends on how many people agree that murder is wrong. Likewise, it might seem counter-intuitive that a moral issue could change from being objectively true to being only true relative to particular perspectives (or vice versa), depending on whether people agree or disagree about whether or not it is true. As such, this relationship between an individual believing that many others agree about the truth of a moral statement and them judging that the statement is true objectively requires explanation.

One explanation that has been offered is that perceived consensus is a *diagnostic cue* that an issue is objectivistic in nature (Ayars & Nichols, 2020; Goodwin & Darley, 2012). That is to say, if there is widespread agreement that something is true, people infer that it is true objectively, whereas if there is widespread disagreement about something, people infer that there is no objective truth of the matter.⁶

However, an alternative explanation, in line with our account, is that individuals are more likely to express objectivistic stances in conditions of widespread agreement (where many people agree with them), due to the differential reputational implications of expressing such stances in

⁵ Though note that perceived consensus was also strongly correlated with the strength of individuals' own agreement with the moral statement in question, and agreement was itself correlated with perceived objectivity. In a regression with both perceived consensus (Goodwin & Darley, 2012) found that perceived consensus independently predicted perceived objectivity, over and above agreement.

⁶ Ayars and Nichols (2020) caveat this somewhat, as they suggest that certain issues are so "patently relativistic" or "clearly universal" that no level of consensus would shift people's views about their objectivity (p. 8).

these cases. In situations of high social consensus there may be increased incentive to signal one's intolerance of disagreement. In such cases, there will be many people sharing an individual's belief to whom one can signal one's commitment.⁷ Conversely, there will be fewer people who disagree, thus potentially reducing the social costs of expressing intolerance of disagreement. At the same time, there may be other factors which make one more disposed to signal intolerance of disagreement in cases where there is high social consensus: opposing points of view may seem particularly implausible due to having few defenders.

Further evidence of social influence on metaethical judgments is offered by the finding that individuals are less objectivist following cooperative interactions than competitive interactions (Fisher et al., 2017). The authors argue that people are objectivists by default (at least when considering controversial moral issues of the kind used in their study) and cooperative interactions decrease this objectivism.⁸ The authors attribute this to the effect of competitive 'argue to win' or open 'argue to learn' mindsets elicited by these styles of social interaction, rather than different social considerations in these different interactions influencing the metaethical positions which people endorsed. One problem for this theory is that it is not clear, theoretically, that relativism should be associated with a greater openness to learn from those with whom we disagree. In fact, if there is no objective fact of the matter about whether something is true, then it plausibly makes less sense to engage in trying to learn the truth about the issue, because there is no objective truth to learn.

Our account offers an alternative explanation. If taking objectivist and relativistic stances signals one's tolerance or intolerance of disagreement, and this leads to different social implications depending on the social context, then the competitive or cooperative nature of a social interaction would be expected to change whether or not one is incentivised to express an objectivist or relativistic stance. If one is in a more cooperative, and perhaps more friendly, interaction then one may be more inclined to express tolerance of disagreement. Conversely, if one is in a more competitive interaction, then one may be more inclined to express intolerance of disagreement.

Evidence has also suggested that individuals are more inclined to give relativist responses when considering disagreements with distant or alien cultures (traditional warrior tribespeople or aliens whose only value is creating pentagonal shapes), in contrast to people from their own culture (Sarkissian et al., 2011).⁹ Sarkissian et al. (2011) explain this pattern of results by suggesting that individuals are relatively unthinking objectivists by default, and then sometimes switch to relativism in cases which prompt "active engagement with radically different perspectives and ways of life" (p. 501).¹⁰ Our account offers an

⁷ This assumes, of course, that the individual in question shares the consensus belief, rather than disagreeing with the majority. However, by definition most individuals share the consensus belief, so this will be the case more often than not.

⁸ The overall pattern may, in fact, be more complicated. Participants' views are not measured *before* the interactions and compared to their views *after* the interactions. Instead 'baseline' levels of objectivity are taken from *separate* studies, on different samples and mean scores for each moral issue are compared to these. This makes it impossible to directly assess whether individuals' scores are increasing or decreasing following the social interactions.

⁹ Sarkissian et al.'s prompts do not distinguish different possible aspects of social or psychological distance nor do they offer a wide or representative sample of different groups (a fictional pre-industrial warrior tribe and an alien species), so it is unclear exactly what the relevant factors are here or whether they generalize.

¹⁰ According to their view, thinking about morality is like thinking about the seasons (which differ according to geography). Ordinarily, they suggest, people unthinkingly assume a single perspective (e.g., that of where they are currently located), but when prompted to think about another hemisphere, people will acknowledge that the claim "It's summer" may be true in one location and not in another.

alternative explanation, which is that individuals may be more inclined to express relativistic stances towards people who disagree with them from very distant or alien cultures, rather than from their own culture, because they are more inclined to be tolerant or to want to signal tolerance in these cases.¹¹ More recent research by Sousa et al. (2021) has since convincingly called into question Sarkissian et al.'s earlier results, by suggesting that participants assume that individuals from distant cultures simply fail to fully understand the moral acts in question, and so their responses reflect this assumption, rather than genuine objectivism.¹² If so, this removes an experimental result which could be accommodated by our theory, but Sousa et al.'s (2021) results do not in themselves conflict with our theory.

Sarkissian et al. also link their explanation to earlier findings, which suggest that relativists are higher in openness to experience (Feltz & Cokely, 2008), higher in disjunctive reasoning (i.e. the tendency to unpack alternative possibilities (Goodwin & Darley, 2010)) and more inclined to explain why others might disagree with them (Goodwin & Darley, 2010). They take these findings to collectively suggest that those most inclined towards relativism are those who are most open to other perspectives. As such, they argue these individuals are most likely to be able to switch out of the 'default' objectivist view, and see moral statements as true only to different perspectives.

However, these findings are readily accommodated by our own account. The association between more readily considering other perspectives and endorsing relativism could simply be explained by an association between considering other perspectives and greater *tolerance* for different perspectives. If, as our account suggests, relativism signals tolerance, then those who are more tolerant of other perspectives would be expected to be more likely to express relativism. Indeed, this may offer a simpler explanation, for we do not need to assume that people are, by default, objectivists (which, as we note above, the evidence for which has since been called into question), nor that being more inclined to consider different perspectives leads people to be more likely to conclude that morality is only true relative to different perspectives.¹³ In addition, our explanation seems to comport more neatly with the observation that relativism is closely associated with tolerance, discussed in the section below.

¹¹ There are a variety of reasons why it seems plausible that people would be more willing to express tolerance towards disagreement from people who are from radically alien distant cultures, than from people in their own culture. For one, being a member of such a culture may offer an exculpatory reason for moral disagreement that would be unthinkable in someone from our own culture. Likewise, one might judge that even if you strongly disagree about the issue in question the *individual* is not personally blameworthy, due to their stance having been determined by their very different culture, which might likewise lead one to be more inclined to express tolerance of disagreement. Alternatively, considering disagreement with someone from a distant culture may reduce the salience and negative emotional response associated with the disagreement and thereby increase tolerance. These effects might also be explained by increased psychological distance or abstract construal level decreasing negative or increasing positive affect (Williams et al., 2014). In addition, in many social contexts, tolerance for different cultures is explicitly held and promoted as a virtue (Mendleson et al., 1997; Witenberg, 2019), which may incline individuals towards expressing tolerance when disagreement involves other groups.

¹² Our thanks to Reviewer 1 for drawing attention to this study.

¹³ We are broadly agnostic about the cause of the association between a greater tendency to consider other perspectives and greater tolerance of other perspectives, but we think this could plausibly be explained either by a causal relationship between considering other perspectives and becoming more tolerant of different perspectives, or a third cause associated with both, or being more tolerant of perspectives with which one disagrees and being more open to considering them. As these explanations need not be mutually exclusive, the explanation may involve some combination of these factors.

1.2. Tolerance and relativism

In the previous section, we detailed various findings suggesting social influences on metaethical judgments. This is supportive of our account that metaethical judgments perform a social function. These findings were also, in different ways, suggestive of our specific thesis, that such judgments serve the function of signaling differing levels of tolerance for disagreement, with relativistic stances signaling tolerance and objectivistic judgments signaling a lack of tolerance.

However, there is also evidence directly suggesting a connection between relativism and tolerance (and, conversely, objectivism and intolerance). Measures of relativism and tolerance have been shown to be highly correlated (Collier-Spruel et al., 2019). In prior research, relativists have been found to be more tolerant of differing perspectives (Wright et al., 2013). Moreover, perceiving a moral issue to be objective in nature has been shown to be very strongly correlated with level of discomfort with someone who disagrees about that moral issue, and to predict disagreement above and beyond the strength of one's agreement with a moral statement (Goodwin & Darley, 2012). Furthermore, higher levels of inter-group tolerance have been shown to be negatively associated with perceiving morality as objective, and manipulating inter-group tolerance has been shown to decrease objective morality (Yilmaz et al., 2020).

Taken together, these results suggest a close relationship between relativism and tolerance. Indeed, researchers have noted the two have often been conflated or confused, both in popular discussion and prior research (Collier-Spruel et al., 2019; Wainryb et al., 2004). Such a relationship has also previously been postulated by philosophers (Beebe, 2010). This is well accommodated by our theory that expressing metaethical relativism serves to signal tolerance of disagreement about morality.

While we think it plausible that expressions of metaethical relativism, in fact, serve to signal tolerance of disagreement, given the observed association between relativism and higher tolerance, this view requires that other individuals actually tend to perceive relativists as more tolerant of disagreement (Sperber & Baumard, 2012), which has not been demonstrated in prior research. As such, in this paper we aim to demonstrate that individuals do perceive individuals expressing relativistic or objectivist metaethical stances as more or less tolerant, and perceive them more or less positively in terms of other related traits.

1.3. The social role of metaethics

One existing theory, that also offers an explanation of metaethical pluralism by theorizing a social role for metaethical judgment, is Wright's theory that relativism and objectivism serve a social function by modulating the "level of permissible choice and dialogue about moral issues" (Wright, 2018, 2021; Wright et al., 2013, 2014).

While a full discussion is beyond the scope of our paper, it is worth highlighting the differences between this account and ours. The core point of disagreement concerns the function that relativistic stances are posited to serve. On Wright's view, judging the truth of an issue to be objective "removes it from the realm of legitimate personal/social negotiation" meaning that it is unacceptable to attempt to condone or promote it and, at the same time, censorship or prohibition of such attempts is permissible, whereas viewing the truth of the issue as merely relative "maintain[s] room for open and respectful dialogue and debate" (Wright, 2018, p. 141).

We see two main challenges for this view. The first, as noted above, is that it is not clear why metaethical relativism should maintain room for respectful dialogue. Relativism has often been held, in the philosophical literature, to be incompatible with genuine disagreement, though this is a matter of ongoing debate (Baghramian & Carter, 2022; Dreier, 2009), and it has therefore been suggested that objectivists may be more open to debate (Goodwin & Darley, 2012). If moral facts are true only relative to different perspectives, interlocutors are not disagreeing about

objective fact, but merely asserting two distinct claims which are to be evaluated according to different standards.¹⁴ While we cannot do justice to this debate here, it seems clear that the view that relativism functions to maintain room for dialogue faces additional challenges to explain why and how relativism would serve this purpose.

A second challenge for Wright's theory, in our view, is that it serves to posit a *societal* function for metaethical pluralism, but does not offer an adequate *psychological* explanation for why individuals would take metaethical stances and take different stances towards different moral issues. Even if it would be beneficial for society if some moral issues to be treated as relativistic and others as objectivistic, in order to balance discussion, disagreement and exploration of moral issues, this does not explain why individuals would be disposed to make judgments in this way.

In contrast, our theory seems to avoid these problems. Positing that relativism signals tolerance towards disagreement, avoids the difficulty that relativism, while associated with higher tolerance, *also* may preclude meaningful discussion. Indeed, on our view, a relativistic stance may convey tolerance *because* it forecloses on discussion. Where two people with different views about an issue might otherwise argue about which view is correct, a relativist stance, can prevent such arguments by ruling out the possibility of meaningful disagreement, promoting tolerance by allowing the two would-be interlocutors to each accept that they hold different but incommensurable views.¹⁵ Indeed, this dynamic seems common in other domains. When two people express contrary views about whether a type of food or piece of art is good, disagreement can be headed off, or halted, by stating that taste is subjective.

Our account also offers a clear explanation of *why* individuals would engage in making pluralistic metaethical judgments. Signaling tolerance or intolerance of disagreement may be desirable or undesirable in different situations, regarding different moral issues. In some cases, expressing intolerance of disagreement may make one seem intolerant or unempathetic. In others, *not* expressing intolerance of disagreement about an issue may make others doubt your commitment regarding this issue. Since individuals potentially face different balances of costs and benefits for expressing tolerance or intolerance in different scenarios, they have clear social incentives to appropriately calibrate the degree of tolerance or intolerance they signal.

Although, as noted, the theoretical background underlying our studies differs from Wright's, we do not aim to provide evidence that would adjudicate between our respective theories in this paper. Instead, we merely aim to offer evidence for the core element of our theory, that objectivism and relativism serve to signal tolerance or intolerance of disagreement, by demonstrating that relativists are, in fact, perceived as more tolerant than objectivists, and that there are social implications for these different stances. It is possible that Wright's account and ours will ultimately prove to be largely compatible. For example, it could be that relativistic metaethical stances *do* serve to signal tolerance of

¹⁴ This assumes, of course, that the interlocutors' claims are being relativised to distinct standards. If they are not, then they can disagree just as under objectivism, but then it is unclear how relativism maintains room for respectful dialogue more than objectivism.

¹⁵ One could reasonably question whether this promotes tolerance in the long-run and at a broader societal level. The argument could be made that an attitude of vigorous disagreement and contestation (which might be promoted by the belief that there is an objective fact of the matter to be discovered), in the long run, leads to better understanding of different perspectives and of the issues in question, and that this ultimately leads to more tolerance overall. This stands in contrast to the view that tolerance is promoted by a 'live and let live' attitude, which permits multiple different views to coexist without challenge to each other. We do not seek to take a stance on this debate, and merely claim that, at least in the short term, at least within the context of a particular interaction, taking the relativistic stance that neither party need be mistaken, rules out the possibility of (potentially fractious) disagreement and so promotes tolerance.

disagreement, but that they also promote dialogue, because individuals are more inclined to discuss matters when they feel disagreement is tolerated. Nevertheless, such possibilities are beyond the scope of our paper.

1.4. Overview of current research

In the present paper, we examined how participants evaluated individuals expressing objectivist or relativist stances about morality, in terms of attributes including tolerance, empathy, moral character, and moral seriousness, as well as desirability as a social partner. In Studies 1 and 2, we examined how participants evaluate individuals who express relativistic or objectivistic stances towards moral disagreement in the abstract, that is, without reference to specific moral issues. In Study 1, we used a between-participants design, whereas in Study 2 we used a within-participants design.¹⁶

We also theorized that the effects of metaethical stance would depend on whether the person taking that stance agreed or disagreed morally with the participant. As such, in Study 3, we examined participants' evaluation of individuals who express objectivistic or relativistic stances towards particular moral issues, while agreeing or disagreeing with the participant about those substantive issues.

We also anticipated that these results would depend on the specific moral issues in question. We saw a number of theoretical reasons to expect that individuals would be perceived differently for taking different metaethical stances, in different situations, based on the particular moral issue at hand. For example, objectivistic and relativistic stances might be seen as more or less appropriate or unusual regarding different issues. This seems likely in light of the observation that individuals tend to give very different metaethical responses to different moral issues (Goodwin & Darley, 2012; Wright et al., 2013). As such, taking these stances in different cases might send different or stronger signals about the character of the person taking these stances. In Study 3, we therefore employed stimuli selected from a database of 44 moral items which we created with the intent for them to vary along the dimensions of severity, perceived objectivity, and moral foundation (Graham et al., 2011). In so doing, we sought to address a limitation of prior research, which has largely been based on a limited subset of statements which were not created systematically.

In Study 4, we examine whether the stance participants would take varies in conditions where they want to be positively evaluated by a person who agrees or disagrees with them about a concrete moral issue.

Finally, in Study 5, aim to assess whether participants' metaethical stances vary when told they will be evaluated by a person who agrees or disagrees with them morally about a concrete moral issue.

2. Transparency and openness

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the studies (Simmons et al., 2012). All studies were pre-registered on AsPredicted, and the data, code, materials, preregistrations, and supplemental materials are available on ResearchBox: <https://researchbox.org/1494> (use code DHAEMC).

3. Study 1

Study 1 examined how people perceive individuals who express objectivist or relativist stances towards morality. In this first study, we

¹⁶ It is possible that evaluating both the objectivist and the relativist together in the same study would elicit different modes of judgment, with the contrast between objectivists and relativists being more salient with a within-participants design. Thus, we judged it valuable to replicate our results using both designs.

examined evaluations of people who expressed an abstract metaethical stance concerning morality. An abstract metaethical stance would be, for example, “Morality is relative”, while a concrete metaethical stance would be “Whether murder is wrong is relative.” While most previous studies have examined individuals’ metaethical responses to concrete issues, a number have asked individuals about their metaethical stances towards morality in the abstract (Collier-Spruel et al., 2019; Pötzler & Wright, 2020; Trainer, 1983; Yilmaz & Bahçekapılı, 2018).¹⁷ We began with abstract expressions of metaethical stances concerning moral issues as a whole, as we judged this to offer a relatively simpler paradigm, without involving the additional factors of which specific moral issue was in question, and whether the participant agreed with the person expressing the metaethical stance about this issue, both of which we would expect to influence results.

In line with our theory that relativism signals tolerance of disagreement, we predicted that participants would rate the person who takes a relativist metaethical stance (i.e., the relativist) higher in tolerance, compared to someone who takes an objectivist metaethical stance (i.e., the objectivist). We also predicted that participants would rate the relativist higher in empathy, and would prefer them as social partners. Conversely, we predicted that participants would perceive the moral character of the objectivist more negatively, although we predicted that participants would rate them as more morally serious. In addition, we predicted that participants would perceive those who take an objectivist stance as more conservative and religious. We also expected that participants would show greater agreement with metaethical relativism.

3.1. Method

We preregistered our predictions, design, and analyses at AsPredicted (https://aspredicted.org/FLY_ABK).

3.2. Participants

We aimed to recruit 210 participants. 210 US Amazon Mechanical Turk participants completed our survey (96 Male, 114 Female, $M_{age} = 35.17$, $SD_{age} = 10.72$, age range = 20–70). See Table S1 in Supplemental Materials for participant recruitment details for each study. 102 and 108 participants evaluated a person who held an objectivist and relativist stance, respectively. 98 % of participants passed the attention check, and 95 % of participants passed the comprehension check. We deviated from the preregistered exclusion criteria and only excluded participants who did not complete the survey (an exclusion criterion we followed throughout the rest of our studies), although as we show later, our results are not affected by this decision.¹⁸

3.3. Procedure

We adapted a paradigm from Goodwin and Darley (2008), where respondents were informed that they would be presented with responses that had been given to a previous survey, which asked individuals about their views about morality. In actuality, the responses they were shown were statements designed to express objectivism and relativism

respectively, based on the operationalisations of objectivism and relativism that were employed in Goodwin and Darley (2008). Participants were informed that they would subsequently be asked a series of questions about the respondent. Participants were informed that the name of the respondent had been changed to ensure their anonymity and they were referred to as “John” in both conditions. Participants were randomly assigned either to the objectivist or relativist condition, using a between-participants design. Participants in both conditions were told that they would be presented with a survey response given in response to the question “When two people disagree about a moral issue, do you think they can both be correct, or must at least one of them be incorrect?”. In the objectivist condition they were told that the respondent answered, “When people disagree about a particular moral issue there can be at most only one correct answer”, and in the relativist condition “When people disagree about a particular moral issue each can be correct according to their own moral standards.” These prompts were based on what remains the most commonly used approach to operationalizing objectivism and relativism, which has come to be referred to as the ‘disagreement paradigm’ (Beebe, 2021; Bush & Moss, 2020; Zhao, 2022).¹⁹

3.4. Measures

After being presented with a survey response evincing objectivism or relativism, participants were asked to evaluate the respondent in terms of moral character, empathy, tolerance, moral seriousness, and desirability as a social partner. As a measure of perceived moral character, participants were asked to rate the respondent on a 12-item scale that included positive (moral, altruistic, sincere, pure, good, and nice) and negative items (immoral, selfish, insincere, impure, bad, and mean), with negative items reverse-coded (1 = *Not at all*, 7 = *Extremely*; $\alpha = 0.92$) (Barasch et al., 2014). Participants were also asked to rate the following traits of the person: empathy (caring, warm, and empathic; $\alpha = 0.90$) and tolerance (respectful, intolerant, closed-minded, and judgmental; $\alpha = 0.92$), with the last three tolerance items reverse-coded (1 = *Not at all*, 7 = *Extremely*). To measure moral seriousness participants were asked to evaluate whether the person “takes morality seriously” and is “committed to his values” (1 = *Not at all*, 7 = *Extremely*; $\alpha = 0.77$). To measure desirability as a social partner, participants were asked to rate the extent to which somebody like the person would be a good person to have as a co-worker, neighbor, roommate, close friend, and romantic partner (1 = *Not at all*, 7 = *Extremely*; $\alpha = 0.94$). We also included some additional measures. To measure perceived political ideology and religiosity, we asked participants to select the choice that best represents what they thought the “political views/orientation of John” (1 = *Extremely Liberal*, 7 = *Extremely Conservative*) and the “views/ orientation of John about religion” (1 = *Extremely unreligious*, 7 = *Extremely religious*) were, respectively. To measure the participants’ own agreement with objectivism/relativism, participants were asked to rate their agreement with the metaethical stance expressed by the person (1 = *Strongly Disagree*, 7 = *Strongly Agree*). We calculated a composite score for each variable that had more than one item by averaging the corresponding group of items.

We also included a few extra questions. We asked participants to

¹⁷ It is also worth noting that, while a majority of prior studies examined metaethical stances about concrete moral issues, it is not clear that this is the most common form of metaethical judgment in real world scenarios, rather than statements that morality as a whole is relative or objective.

¹⁸ In the preregistration, we said we would exclude: 1) participants who respond to less than 75 % of the survey, 2) participants who respond with the same option to every question, and 3) participants who fail the attention check. We deviated from these exclusion criteria since we wanted to be consistent with the exclusion criteria used in our later studies and we also did not want to exclude participants based on a measure presented after the manipulation to avoid compromising random assignment (Montgomery et al., 2018).

¹⁹ There has since been significant criticism of the disagreement paradigm as a method for measuring folk metaethical judgments (Beebe, 2021; Bush & Moss, 2020; Pötzler, 2018). A core concern is that respondents may misunderstand the disagreement paradigm when it is posed to them and so their responses may not indicate their metaethical judgments. We think these criticisms are worth taking seriously. However, we believe that these concerns are at least somewhat attenuated when using responses of this kind as a prompt, where our interest is in how participants respond to others making characteristic expressions of objectivism or relativism, rather than as a survey item where we are interested in discerning the participants’ own metaethical positions.

explain what they think the “survey response” means, and we asked them if the question and response were realistic. We included an attention check which asked participants to select 2 if they are paying attention, and a comprehension check that asked participants which of two options corresponds to what the survey responder thinks. At the end of the survey, we asked participants for demographic information (age, gender, race, education, political ideology, religiosity) and we asked them a few open questions about their perception of the survey.

3.5. Results

To examine differences between the conditions, we ran unequal variances *t*-tests (which we fitted using generalized least-squares by allowing the error variance to depend on the condition). Fig. 1 shows the mean differences for each measure (See Fig. S1 and Table S2 in Supplemental Materials for means depending on the metaethical stance for each measure).

Overall, we found support for all of our predictions, except the predicted effect on moral seriousness (all of our results are similar if we use the pre-registered exclusion criteria and if we also exclude participants who failed the comprehension check). As expected, respondents holding a relativist metaethical stance were rated higher in moral character compared to respondents holding an objectivist metaethical stance, $t(207) = 6.35, p < .001$. In addition, relativist respondents were rated as more empathetic, $t(187) = 7.07, p < .001$, and more tolerant, $t(196) = 13.26, p < .001$. Against our expectation, we failed to find differences regarding moral seriousness, $t(202) = -1.64, p = .103$, though this result is also consistent with a lack of power to detect an effect that is smaller than the others (see confidence interval in Fig. 1). Moreover, we found that relativists were rated as more desirable as social partners, $t(199) = 6.77, p < .001$, and participants agreed more with relativism, $t(197) = 6.91, p < .001$. Finally, relativist respondents were seen as less politically conservative, $t(206) = -8.65, p < .001$, and less religious, $t(206) = -7.85, p < .001$.

3.6. Discussion

These results provided support for all the predicted positive effects of taking a relativistic metaethical stance. Relativists were rated as having a superior moral character, as being more tolerant, empathetic, and as being more desirable as social partners overall, compared to those taking an objectivist stance. However, we failed to find support for our prediction that relativists would be viewed as less morally serious than objectivists, though, as we note, our results cannot rule out smaller effects in this direction.

These results may seem contrary to what some theoretical accounts of metaethics would seem to suggest. On these views, viewing morality as objective should be expected to serve as a strong signal of the seriousness with which one views morality, and as a signal that an agent will cooperate by adhering to moral norms (Stanford, 2018). In virtue of this, one might expect that taking an objectivistic stance would have salutary effects for how one is perceived, in particular in terms of one’s moral character and potentially one’s desirability as a social partner. One might expect positive reputational implications in these respects even if objectivists are viewed less positively in other respects, i.e. while viewed as taking morality more seriously, they may also be viewed as less tolerant and empathetic. Our results did not support that view.

4. Study 2

Study 2 aimed to replicate the findings of Study 1 using a within-participants, rather than a between-participants design. It is possible

that evaluating both the objectivist and the relativist together in the same study would elicit different judgments than in the between-participants design, where each respondent only evaluated either the objectivist or the relativist (Li & Hsee, 2019). For example, if respondents would not reflectively endorse differential evaluation of objectivists and relativists, then when evaluating one immediately after the other, differences in responses may be attenuated or they may disappear (Bartels et al., 2015). Alternatively, evaluating the relativist or objectivist immediately after the other may make the contrast more salient, thus bolstering the effect. Thus, we judged it valuable to replicate our results using both designs to ensure the generalizability of our results across modes of evaluation.

Our predictions are identical to Study 1, except for the fact that we included some additional measures. Namely, we also predicted that participants would evaluate relativists higher in willingness to change their mind and would rate objectivists as being more likely to reproach them for moral disagreement.

4.1. Method

We preregistered our predictions, design, and analyses at AsPredicted (https://aspredicted.org/CTS_KAE).

4.2. Participants

We aimed to recruit 200 participants. 200 US Amazon Mechanical Turk participants completed our survey (125 Male, 73 Female, 2 Other, $M_{age} = 37.26, SD_{age} = 10.21$, age range = 22–71). All participants evaluated two respondents, one who held an objectivist metaethical stance and one who held a relativist metaethical stance. We randomized the order in which respondents were presented and evaluated within the same screen: 104 evaluated the objectivist first, and 96 evaluated the relativist first.

4.3. Procedure

We used the procedure of Study 1, with some changes. To facilitate the evaluation of both an objectivist and relativist respondent, we informed participants that they would be presented with the responses of two people who responded to a previous survey. In order to avoid any possible differences resulting from the use of different names for the relativist and objectivist, we informed participants that the names would not be presented in order to preserve anonymity. The respondents were simply referred to as “Respondent 1” and “Respondent 2” respectively. After being shown the question that the respondents to the previous survey were said to have answered, on the next page participants were shown the responses of both Respondent 1 and Respondent 2, with the question and putative responses being the same as in Study 1. To avoid order effects, participants were randomly assigned to see either that Respondent 1 had given the objectivist response and Respondent 2 the relativist response or that Respondent 1 had given the relativist response and Respondent 2 the objectivist response. Participants then evaluated the respondents on each measure, first evaluating Respondent 1 and then Respondent 2, on the same page.

4.4. Measures

All of the measures were identical to the ones used in Study 1,²⁰

²⁰ The following measures were identical: moral character 12-item (relativist: $\alpha = 0.92$, objectivist: $\alpha = 0.92$), empathy (relativist: $\alpha = 0.91$, objectivist: $\alpha = 0.94$), tolerance (relativist: $\alpha = 0.80$, objectivist: $\alpha = 0.85$), desirability as a social partner (relativist: $\alpha = 0.95$, objectivist: $\alpha = 0.94$), agreement, perceived politics, and perceived religiosity. There were some minor wording changes to the last two measures.

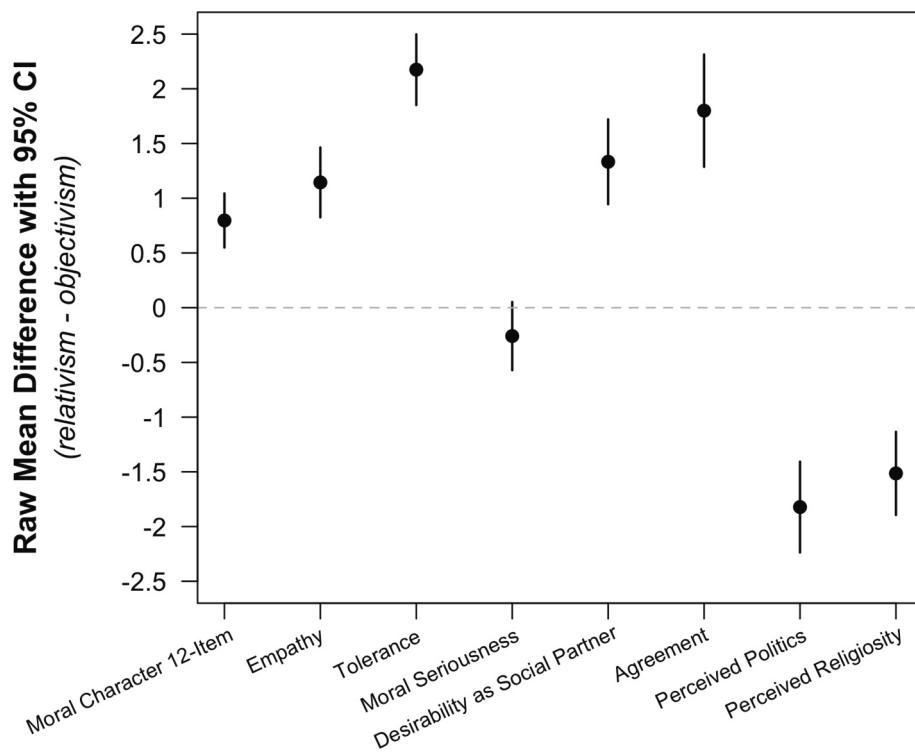


Fig. 1. Study 1 Results: Unstandardized mean differences between objectivism and relativism for each measure in Study 1, including 95 % confidence intervals. Positive scores indicate higher scores for relativism than objectivism, and negative scores indicate higher scores for objectivism than relativism. Higher perceived politics scores indicate higher conservatism scores, and higher perceived religiosity scores indicate higher religiosity scores.

except that we included some additional measures and edited some of the previously used measures. We included a single item measure of moral character asking how morally good of a person each respondent was (1 = *Very morally bad*, 7 = *Very morally good*),²¹ a single item measure of open-mindedness asking how open they thought each response would be to changing their mind (1 = *Not at all*, 7 = *Extremely*), and a single item measure of anticipated reproach asking how likely they thought the respondent was to think they are a bad person if they disagreed with them about a moral issue (1 = *Not at all*, 7 = *Extremely*). We also modified a measure of moral seriousness asking to what extent each respondent “takes morality seriously”, is “committed to their values”, “strongly believes in their moral values”, and to what extent “their moral beliefs guide their behavior” (1 = *Not at all*, 7 = *Extremely*; relativist: $\alpha = 0.93$, objectivist: $\alpha = 0.90$). We added the latter two items to the moral seriousness scale with the goal of increasing the sensitivity of our measure. Apart from these changes, all of the measures were identical. We calculated a composite score for each variable that has more than one item by averaging the corresponding group of items.

At the end of the survey, we asked participants to explain what they thought each “survey response” means and asked for demographic information (age, gender, political ideology).

4.5. Results

We examined differences in the evaluation of the objectivist and the relativist respondents using paired sample *t*-tests (which we fitted using a repeated-measures ANOVA). We conducted classic null hypothesis significance tests, followed by equivalence tests to provide evidence for the absence of effects. The equivalence bounds (in raw mean differences: -0.3 and 0.3) were determined based on resource constraints (Lakens et al., 2018). Fig. 2 shows the mean differences for each measure (See Fig. S2 and Table S3 in Supplemental Materials for means depending on the metaethical stance for each measure).

Overall, we found support for all of our predictions and none of our effects were practically equivalent to zero (all equivalence test p s $> .91$). We found that relativists were rated higher in moral character compared to objectivists using the single-item measure, $t(199) = 4.74$, $p < .001$, and the 12-item measure, $t(199) = 6.84$, $p < .001$. We also found that relativist respondents were rated as more empathic, $t(199) = 11.51$, $p < .001$, more tolerant, $t(199) = 15.44$, $p < .001$, and more open minded, $t(199) = 17.40$, $p < .001$. Conversely, objectivist respondents were rated as more morally serious, $t(199) = -3.91$, $p < .001$. In addition, relativist respondents were rated as more desirable as social partners, $t(199) = 10.22$, $p < .001$, and participants agreed more with relativism, $t(199) = 9.53$, $p < .001$. Additionally, relativist respondents were rated as less politically conservative, $t(199) = -9.31$, $p < .001$, and less religious, $t(199) = -9.30$, $p < .001$. Finally, objectivists were rated as more likely to reproach in situations of moral disagreement, $t(199) = -16.52$, $p < .001$.

4.6. Discussion

This study found support for all our predictions, with relativists rated higher in moral character, as well as more empathic, more tolerant, more open-minded, more desirable as social partners, and less likely to

²¹ This was motivated by a desire to confirm our findings for moral character using a simpler measure that relies on people’s folk notion of moral character (rather than on the evaluation of specific traits), as well as due to anticipating that we would need a shorter, single item measure for a later study. Additionally, this measure addresses one potential shortcoming with the 12-item measure: that it could conflate warmth with moral character (Goodwin et al., 2014).

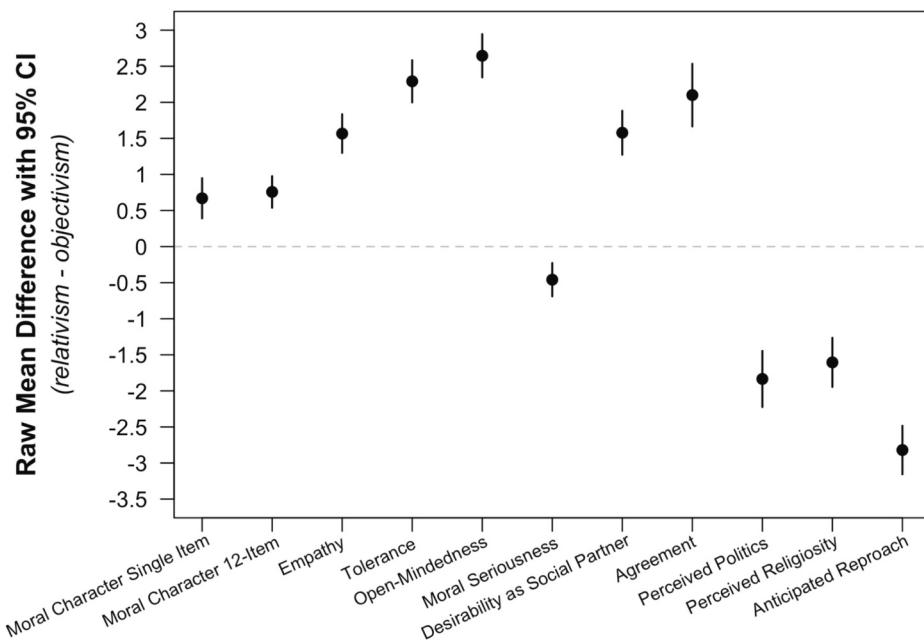


Fig. 2. Study 2 Results: Unstandardized mean differences between objectivism and relativism for each measure in Study 2, including 95 % confidence intervals. Positive scores indicate higher scores for relativism than objectivism, and negative scores indicate higher scores for objectivism than relativism. Higher perceived politics scores indicate higher conservatism scores, and higher perceived religiosity scores indicate higher religiosity scores.

reproach a person for disagreement, compared to objectivists. In addition, we found support for our prediction that objectivists would be viewed as more morally serious than relativists. We also found that objectivists were perceived to be more conservative and religious than relativists. It is worth noting that many of these effects are very large, showing dramatic differences in how individuals are perceived based on expressing an objectivist or relativist stance.

In addition, this study provided support for our predictions using a within-participants design. The use of a within-participants design, where each participant evaluated both an objectivist and relativist target, may make the comparison between objectivists and relativists more salient to participants, so it is notable that the effects we found in Study 1 generalized to this design. This suggests that participants will evaluate objectivists and relativists differently even in cases where they can make an explicit comparison between the two.

It is also of note that, in this study, we found support for our prediction that objectivists were viewed as more morally serious than relativists, given that we did not find support for this in Study 1, although it is important to note that our results in Study 1 could not rule out the presence of a small effect. This difference could be explained in part by the within-subject design being better powered to detect small effects, or by a difference in individuals' judgments given the greater salience of the contrast between the objectivist and relativist or, alternatively, due to demand effects being made salient in virtue of the juxtaposition of the two positions.

Nevertheless, it is worth highlighting that although objectivists were viewed as more morally serious, relativists continued to be rated as having better moral character and to be preferred as social partners. This suggests that even when objectivists are viewed as being more morally serious, this is not sufficient to *generally* translate into positive reputational effects overall. It is possible that taking one's moral views seriously is not generally or unambiguously seen as a virtue or as a desirable trait in a social partner and may vary in different circumstances.

One limitation of both this and the previous study is that participants only evaluated individuals expressing metaethical stances about morality in the abstract rather than about specific moral issues.

We had previously suggested above that using abstract metaethical stances might offer a simpler way to examine evaluations of objectivists and relativists than examining metaethical stances about particular moral issues, because evaluations of metaethical stances might vary depending on the particular moral issue and whether the participant and target agree or disagree about that moral issue. However, an alternative possibility is that examining abstract metaethical stances, where no moral issue is specified, introduces more additional complications and potential confounds. This might be so if, despite the target not directing their metaethical stance towards any particular moral issue, participants imagine that they believe their stance only to apply to certain issues. If so, then the results could be influenced by the participants imagining that the target believed their stance only applied to particular moral issues.²²

To test for this possibility, we ran an additional study (Study S1 in the Supplemental Materials), replicating the design of Study 2, with the target expressing the metaethical stance now explicitly stating that they believed their metaethical stance applied to all moral issues. We also included a comprehension check, testing whether participants believed that the prior respondent believed their stance applied to all moral issues, after both the objectivist and relativist response. This study found

²² A broader consideration is that participants might have themselves had a narrower conception of morality than we as researchers might. Prior work has established that large minorities of individuals do not classify as "moral", issues such as abortion, robbing a bank, or opening gunfire on a crowd (Wright et al., 2013) (see also Turiel et al., 1991). We thank Reviewer 1 for pressing this point. As such, when respondents are told that a person expresses objectivism or relativism about morality, they may take that person to refer to a particular narrow set of issues. This does not itself pose a challenge to our study. If participants construe morality to refer to a narrower set of issues than we, as researchers, might, this need not be a concern for our studies. Our results would then simply reflect how people respond to others expressing metaethical stances about morality in the abstract. However, it would be important to note that these results may not generalize to how individuals would respond to expressions of metaethical stances about other moral issues.

support for all our predictions, including after the exclusion of all participants who failed either of the attention checks. One notable finding of this study, however, was that a large proportion of participants (42 %) indicated that, despite the explicit statements to the contrary, they believed that the respondent believed their stance only applied to some, not all, moral issues, for at least one of the conditions. While our results remained unchanged after excluding all participants who failed this check, it suggests that in Studies 1 and 2, a large proportion of participants may likewise have been imagining that the respondent they were evaluating believed their metaethical stance only to apply to some moral issues. This potentially changes the interpretation of these studies as it suggests that, while the results of these studies still show us how abstract expressions of metaethical objectivism and relativism are evaluated, these evaluations may be based on further inferences about the person's beliefs.

In our next study, we examine concrete metaethical stances, taken towards particular moral issues. This allows us to assess whether the implications of taking metaethical stances vary across different moral issues, and it also allows us to assess whether these effects are influenced by whether a participant agrees or disagrees with the person expressing the metaethical stance about the moral issue in question.

5. Study 3

In contrast to the previous two studies, in Study 3, we examined perceptions of individuals who expressed objectivistic or relativistic stances about specific, concrete moral issues, rather than about morality in the abstract. Metaethical judgments about morality in the abstract may be judged differently from judgments about specific moral issues. Prior work has shown differences in individuals' judgments about morality in abstract and concrete cases (Pötzler & Wright, 2020). Moreover, there are specific reasons why individuals' judgments about those making metaethical judgments would be expected to vary depending on the specific moral issue in question. As noted, different moral issues vary enormously in terms of whether individuals evaluate them as objective or relative (Beebe & Sackris, 2016; Goodwin & Darley, 2008; Wright et al., 2013). For example, Goodwin and Darley (2008) report that only 17 % of respondents give an objectivist response about the wrongness of euthanasia, whereas 83 % of respondents give objectivist responses about the moral status of robbery. Taking an objectivistic or relativistic stance about an issue which would ordinarily not be judged to be objectivist or relativist may serve as a particularly strong signal about the individual. If an individual judges an issue which few people would consider to be objectivistic or relativistic to be so, then this may suggest that they are particularly strongly inclined to judge things in an objectivistic or relativistic manner.

While prior studies have also employed a variety of different moral issues as items when examining individuals' metaethical judgment (Goodwin & Darley, 2008, 2012; Pötzler et al., 2022; Pötzler & Wright, 2020), for the most part, these studies have not systematically developed selections of items which vary across a set of different dimensions. For this reason, we created a database of 44 items with the a priori intent, based on our theoretical judgment, to vary along the dimensions of severity (low, medium, high), perceived objectivity (low, medium, high), and moral foundation (harm, fairness, authority, loyalty, purity). To examine how these items (along with an additional item that was removed in the study²³) varied in different dimensions (such as perceived objectivity, agreement and perceived consensus) we conducted a pretest with 300 participants. The pretest showed that the items vary substantially in these dimensions. See Figs. S3, S4, and S5 in Supplemental Materials for the results of the pretest and Table S4 in Supplemental Materials for the wording of the items and their intended

²³ We dropped one item simply in order that we had 44 final items, so that we could show each moral issue to respondents an equal number of times.

categorization.

Furthermore, contexts involving concrete moral issues, rather than morality in the abstract, raise the issue of whether people expressing metaethical stances agree or disagree about the first-order moral issue with those evaluating them.²⁴ Our theory that metaethical stances function to signal one's stance towards disagreement, in combination with our prior results suggesting that people perceive individuals who express different metaethical attitudes to have different traits, suggests that taking these stances might be expected to have different effects depending on whether the social context is one of moral agreement or disagreement. In contexts where a person disagrees with you, then their signaling tolerance of disagreement may be seen as desirable and associated with positive perceptions of character. Conversely, in cases where a person agrees with you, their signaling tolerance of disagreement may be seen as negative.

Given this, we predicted some variation in the effects between conditions of normative agreement or disagreement. As such, as in our previous two studies, we predicted that in situations of disagreement (where the participants disagreed with the respondent about a specific moral issue) participants would evaluate those who expressed an objectivist metaethical stance towards a moral item (objectivists) as lower in moral character, less empathetic, less tolerant, less desirable as social partners, and more likely to reproach participants compared to those who expressed a relativist metaethical stance (relativists). However, we predicted these effects to be attenuated or disappear entirely in situations of agreement (where the participants agreed with the respondent about a specific moral issue). In contrast, we predicted that in cases of agreement, objectivists would be perceived as more morally serious, compared to relativists, and we predicted the effect would be attenuated or go away entirely in cases of disagreement.

5.1. Method

We preregistered our predictions, design, and analyses at AsPredicted (https://aspredicted.org/ZJG_JGW), although we deviated from the planned analyses, as we explain below (and we report the preregistered analyses in the Supplemental Materials).

5.2. Participants

We preregistered that we were going to recruit 440 participants. 440 US Amazon Mechanical Turk participants finished our survey (215 Male, 224 Female, 1 Other, $M_{age} = 39.20$, $SD_{age} = 12.60$, age range = 18–89). Each participant was presented with all four combinations of metaethical stance (objectivist vs. relativist) and position (agree vs. disagree) for 4 (randomly assigned) moral items (i.e. each participant evaluated 16 respondents). We also randomized the order of the assigned moral items and within each assigned item we randomized the order of the four experimental conditions (objectivist-agree, objectivist-disagree, relativist-agree, relativist-disagree). Since each participant provided 16 observations we had a total of 7040 observations (16×440) for each dependent variable (except moral seriousness for which there was one missing observation).

5.3. Procedure

As in the previous studies, we informed participants that they would be presented with the questions shown to respondents in a previous

²⁴ First-order moral agreement or disagreement could also be influential indirectly in cases of individuals expressing metaethical stances about morality in the abstract. That is because a person may infer that an individual expressing an abstract metaethical stance typically tends to agree or disagree with them about first-order moral issues (for example, based on group membership or just on background priors).

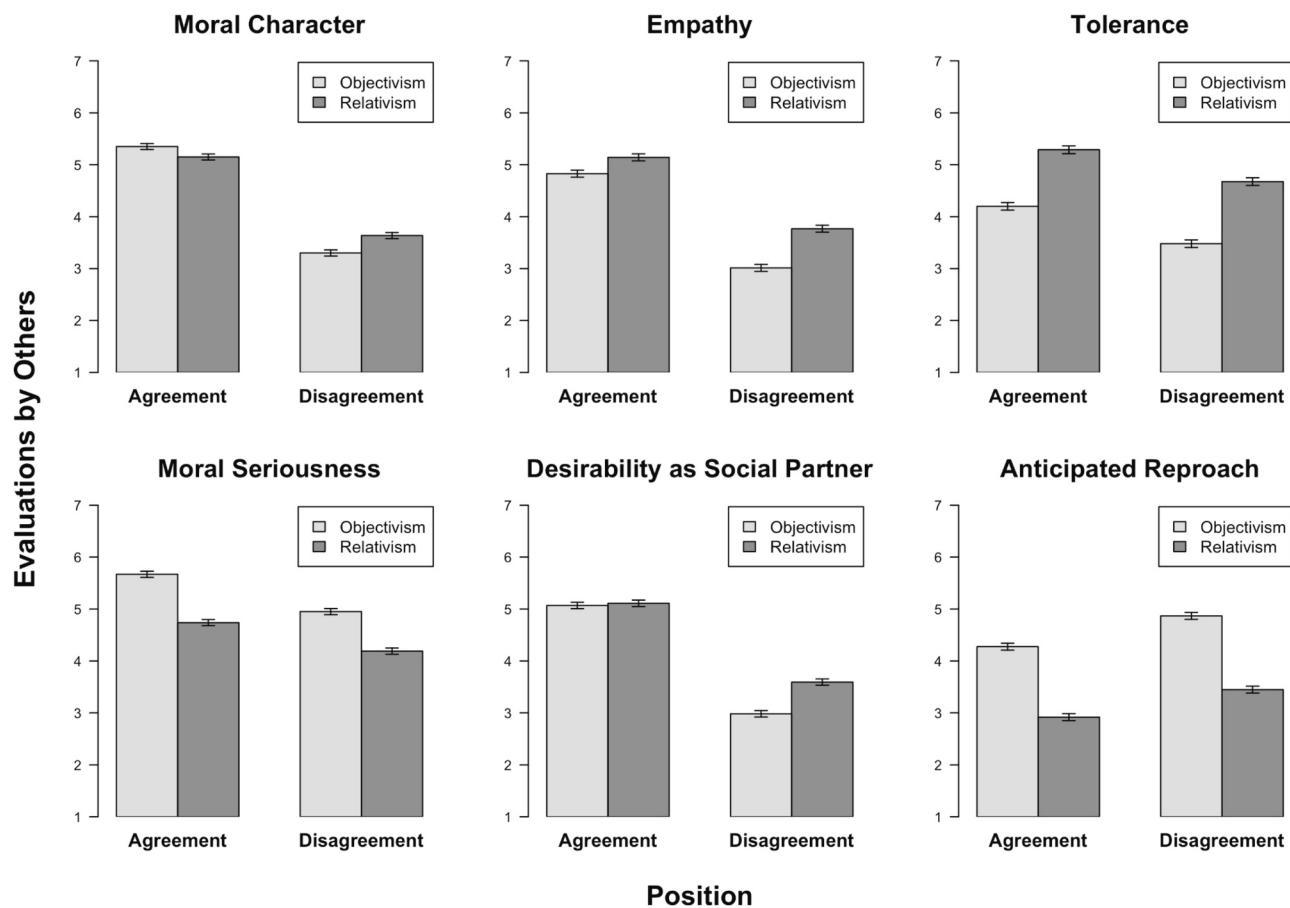


Fig. 3. Study 3 Results: Barplots with means (and 95 % confidence intervals) depending on position (agreement vs. disagreement) and metaethical stance (objectivism vs. relativism) for each measure.

survey, the responses of 16 randomly selected respondents, and then asked to evaluate them. In this study, we additionally informed respondents that they themselves would be asked to answer the questions that these respondents had previously answered, in order to measure respondents' own level of agreement or disagreement with these questions. Each participant first rated their agreement or disagreement, on a 6-point scale, with 4 items which were randomly selected from the database of 44 moral items (see Table S5 in Supplemental Materials for the wording of the items in the study). After doing so, they then indicated their metaethical stance towards each of these same four statements individually, by selecting one of the two items used in our previous studies ("When people disagree about this moral issue there can be at most only one correct answer" or "When people disagree about this moral issue each can be correct according to their own moral standards").

Participants were then told that they would be shown 16 responses, each belonging to a different participant, each shown on a different page, and asked to evaluate them. Participants were instructed that they would be shown information about whether the prior respondent had agreed or disagreed with them about one of the specific moral statements which respondents had previously rated their agreement or disagreement with, as well as their response to the (metaethical) question about their views about morality. In contrast to our previous studies, as we needed to present multiple respondents as having given objectivistic or relativistic response, these responses were presented as being selections in a multiple choice question, rather than written responses. We told respondents that we would not provide information about the prior respondents' degree of agreement or disagreement, only

whether they had agreed or disagreed with them.²⁵ To manipulate whether the prior respondent had ostensibly given an objectivist or relativist response, we informed participants that when asked "when two people disagree about this moral issue, do you think they can both be correct, or can there be at most only one correct answer?" the respondent had either selected "When people disagree about this moral issue there can be at most only one correct answer" (objectivism) or "When people disagree about this moral issue each can be correct according to their own moral standards" (relativism). Participants were then asked to evaluate each respondent in terms of moral character, empathy, tolerance, moral seriousness, desirability as a social partner, and anticipated reproach.

After evaluating each respondent, participants were presented with a comprehension check to test whether they had understood that they were evaluating 16 *different* respondents and they were asked for demographics.

²⁵ We specified that, if they were told that the respondent agreed with them, this means that if the participant agreed with the statement, the respondent also agreed with the statement, whereas if the participant disagreed with the statement the respondent also disagreed with the statement. They were also instructed that, if informed that the prior respondent disagreed with them, this meant that if the respondent agreed with the statement, the participant disagreed with the statement, whereas if the participant disagreed with the statement the respondent agreed with the statement.

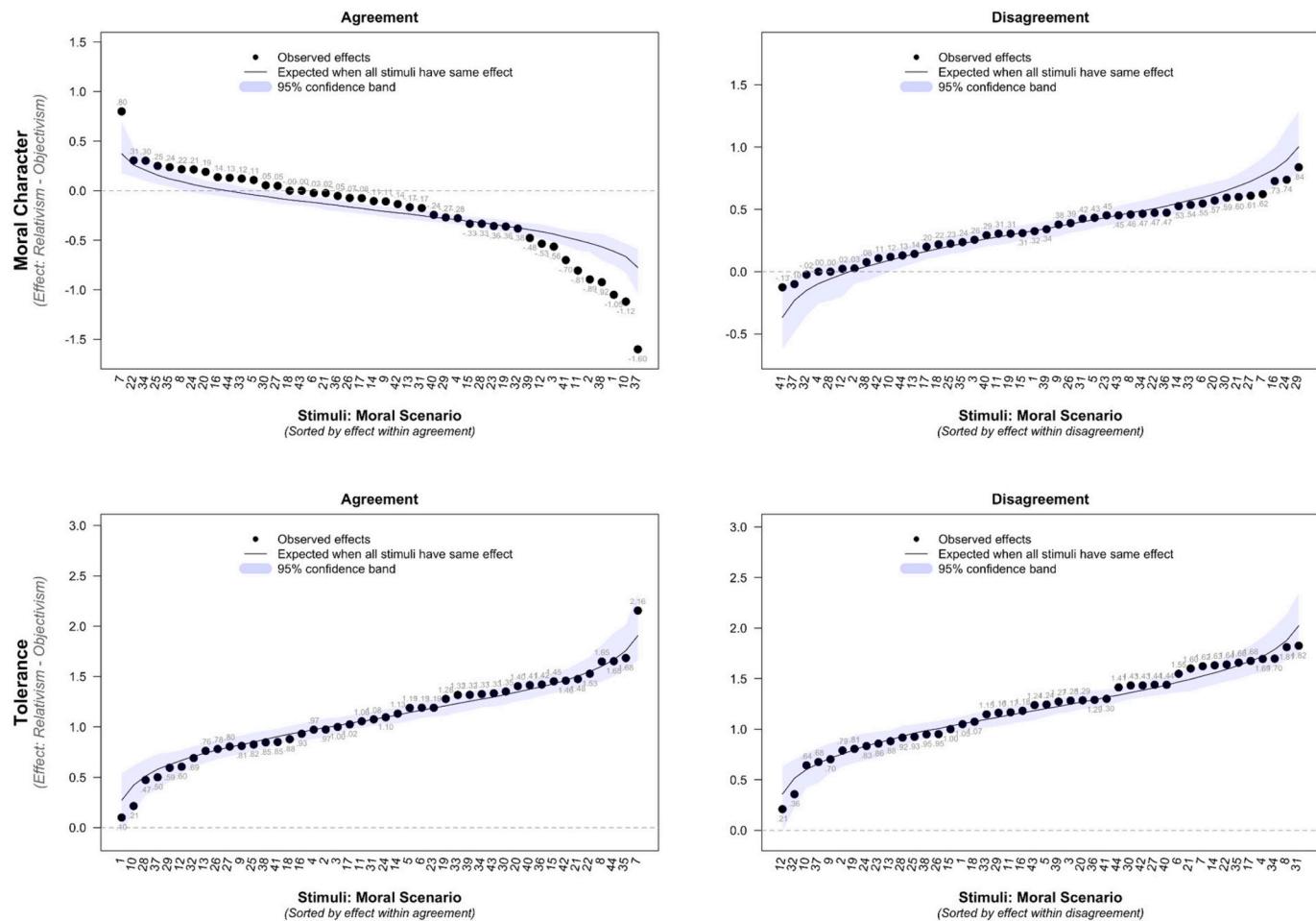


Fig. 4. Study 3 Stimulus Plots for Mean Differences. Plots show mean differences for each item, including the expected line and its 95 % confidence interval obtained via resampling, for moral character and tolerance. See Table S5 in Supplemental Materials for wording of stimuli.

5.4. Measures

Due to each participant being required to evaluate 16 separate individuals, we elected to use short one-item forms of each measure. To measure moral character we used the same single item moral character measure that we had employed in Study 2 (1 = *Very morally bad*, 7 = *Very morally good*). To measure perceived traits of empathy, tolerance, and moral seriousness, we asked respondents to evaluate the extent to which the prior respondent was *empathic, intolerant* (reverse scored), and *strongly believes in their moral values* respectively (we attempted to select items that were the best exemplars of the corresponding construct; 1 = *Not at all*, 7 = *Extremely*). To measure desirability as a social partner, we asked participants to rate the extent to which somebody like the respondent would be a good person to have as a social partner (such as a co-worker, neighbor, or close friend; 1 = *Not at all*, 7 = *Extremely*). To measure anticipated reproach, we asked participants how likely the respondent would be to think they are a bad person if they disagreed with them about a moral issue (1 = *Not at all*, 7 = *Extremely*). For the comprehension check, participants were asked how many respondents they evaluated in the study, with the four options being '1', '4', 'more than 10' or 'I don't know' (with the correct answer being 'more than 10'). At the end of the survey, we asked participants for demographic information (age, gender, political ideology).

5.5. Results

For each measure, we fitted an OLS regression, with the outcome

predicted by the metaethical stance, the position, their interaction, and participant and item fixed effects (i.e., cluster affiliation dummies for each subject and item).²⁶ These fixed effects were included to address the non-independence arising from each participant providing multiple observations and each item being evaluated multiple times, respectively (McNeish, 2023). Conceptually, this approach estimates the effect of the manipulations within each subject-item cluster. This method is similar to employing a mixed model with random intercepts for subjects and items (McNeish & Kelley, 2019). After fitting each model, we examined the conditional effects of metaethical stance (i.e., the differences between perceptions of objectivists and relativists in the agree and disagree conditions), as well as the interaction effect (i.e., the comparison of the effect of metaethical stance in the agree and disagree conditions). Fig. 3 summarizes the results of the study, separately for each measure (See Table S7 in Supplemental Materials for means depending on the condition for each measure).

There are a few deviations from the preregistration worth discussing. Although we preregistered mixed models with "maximal" participant and item random effects, we instead ran regressions with participant and item fixed effects, since mixed models with complex random effects structures (like the ones we preregistered) can lead to large losses in statistical power without delivering in their purported benefit of helping to make the results generalizable to other items (Simonsohn et al.,

²⁶ Sample R Code: lm(dv ~ metaethical_stance * position + factor(item_id) + factor(subject_id)).

2024). In contrast, regression based approaches can deal with issues of non-independence due to participants or stimuli (McNeish et al., 2017; McNeish & Kelley, 2019), without leading to losses of statistical power. Additionally, although we preregistered that we would evaluate the results using a “main effects” approach (i.e. testing the effect of metaethical stance across the position conditions, and the effect of position across the metaethical stance conditions) we instead evaluated the results using a “conditional effects” approach (i.e. the effect of metaethical stance in the agree and disagree conditions, separately), since using conditional effects facilitated the interpretation of our results (e.g. we had crossover interactions which were uninterpretable with main effects, but easily interpretable with conditional effects). In the Supplemental Materials (see Study 3 Supplementary Analyses section), we report the preregistered mixed models with main effects as well as with conditional effects to facilitate comparison with the results reported in the paper. Importantly, the (conditional effects) findings we report below remain consistent when employing mixed models.

For moral character, we found an interaction between metaethical stance and position, $t(6554) = 9.02, p < .001$, with objectivists being rated higher in moral character than relativists in contexts of agreement, $t(6554) = -4.78, p < .001$, but relativists being rated higher in moral character than objectivists in contexts of disagreement, $t(6554) = 7.98, p < .001$. For empathy, we found an interaction effect, $t(6554) = 6.39, p < .001$, with relativists being rated as more empathic than objectivists in both contexts of agreement, $t(6554) = 6.47, p < .001$, and disagreement, $t(6554) = 15.50, p < .001$, although the effect was larger in contexts of disagreement. For tolerance, we failed to find an interaction, $t(6554) = 1.41, p = .158$, with relativists being rated as more tolerant than objectivists in situations of both agreement, $t(6554) = 20.35, p < .001$, and disagreement, $t(6554) = 22.34, p < .001$. For moral seriousness, we found an interaction, $t(6553) = 2.81, p = .005$, with objectivists being rated as more morally serious both in contexts of agreement, $t(6553) = -21.79, p < .001$, and disagreement, $t(6553) = -17.82, p < .001$, although the effect was larger in contexts of agreement. For desirability as a social partner, we found an interaction effect, $t(6554) = 9.19, p < .001$, with no significant differences in preference in contexts of agreement, $t(6554) = 0.96, p = .336$, but a preference towards relativists over objectivists in contexts of disagreement, $t(6554) = 13.96, p < .001$. For anticipated reproach, we failed to find an interaction effect, $t(6554) = -0.96, p = .338$, with objectivists being judged more likely to reproach those disagreeing than relativists in both contexts of agreement, $t(6554) = -28.13, p < .001$, and disagreement, $t(6554) = -29.48, p < .001$. All of these findings are robust to clustering the standard errors at the subject level, in addition to including subject and item fixed effects.

To further explore our findings, we employed Stimulus Plots to visualize the results at the level of each moral item (Simonsohn, Mon-tealegre and Evangelidis, 2024). This approach allows us to identify potential subset-specific patterns or outliers that may drive the overall results. Additionally, these plots offer valuable insights into exploratory patterns and potential moderators that are hidden in the overall analysis. These stimulus plots show the mean difference for each item, as well as confidence intervals obtained via resampling. This allows us to assess both the size and direction of the effect for each moral issue, but also whether each issue is anomalous relative to what we would expect if each moral issue were to have the same effect. This is important, because we would expect some random variation in the results for each issue. Thus, when comparing results across a large number of stimuli, as we do here, we should expect to see some anomalous results purely through random chance (Simonsohn et al., 2024). It is important, therefore, not to over-interpret patterns that lie within the confidence band.

Examining the Stimulus Plot for tolerance indicates consistent results

across items, both in terms of relativists being perceived as more tolerant, across all items, in both agreement and disagreement, and in that no issues appeared to behave anomalously (see Fig. 4). We found similarly consistent effects for anticipated reproach (see Study 3 Stimulus Plots in Supplemental Materials). For moral seriousness, while we found that objectivists were consistently perceived as more morally serious across all issues, in both conditions of agreement and disagreement, in disagreement some issues showed unusually large or small effects.²⁷

In contrast, examining the Stimulus Plots for moral character reveals a more complex pattern (see Fig. 4). In situations of disagreement, relativists were rated superior to objectivists for the majority of issues, and while a small number of issues appear to show a reversed effect, they are not clearly anomalous. Conversely, in contexts of agreement, we see more variation, with objectivists being rated more positively for a majority of issues, with particularly large effects for a subset of issues, but relativists evaluated more positively for a subset. For desirability as a social partner we likewise observed a consistent pattern in conditions of disagreement, with relativists being preferred across issues, but in conditions of agreement, we see much more variation, with objectivists preferred for some issues and relativists preferred for others. Similarly, for empathy, results appear to show consistently more positive evaluation of the relativist in cases of disagreement, but in conditions of agreement, we see a number of issues which show preference for the relativist and a number which show a preference for the objectivist (see Study 3 Stimulus Plots in Supplemental Materials).²⁸

To gain further insight into what factors might influence participants' evaluations, we also conducted exploratory analyses²⁹ of how these results are affected by the participants' own metaethical stance

²⁷ Interestingly, the pattern here is of relatively less variation between items than one would expect. i.e. evaluations of perceived moral seriousness are particularly consistent across moral issues.

²⁸ Speculating about what differences between moral issues explain the observed differences after the results are known is a fraught enterprise. This is particularly so given that, as we note above, we should expect to see some random variation in results (especially small, large or reversed effects) purely through random chance. However, it seems notable that the three moral issues for which we see the strongest results favoring the objectivist for moral character and desirability as a social partner (in contrast to the results of Studies 1 and 2) in cases of agreement, concerned father-daughter incest, racial discrimination, and opening fire with a gun on a crowd of people, all strikingly severe moral issues. This is consistent with the view that for more severe moral issues, about which respondents feel more strongly, people more strongly desire for people who agree with them to signal moral commitment. With existing data we cannot confirm that it is severity per se which explains these differences, as the issues likely vary on a number of correlated dimensions, and in the study we did not measure participants' perceptions of different characteristics of the moral issues, only their own metaethical stance and level of agreement or disagreement regarding each moral statement. The moral issues in our database were selected to represent a range of levels of severity, based on theoretical intuition about the items, but we did not measure participants' own perception of the severity of the issues within the study.

²⁹ For each combination of moderator and variable, we fitted the following mixed model: R Code: lmer(dv ~ metaethical stance * position * moderator + (1 | item_id) + (1 | subject_id)). We opted for mixed models with random intercepts for items and subjects instead of regression with item and subject fixed effects because fixed effects models limit the variance that can be explained to within-cluster variance (in this case, within-items and within-subjects). On the other hand, mixed models allow for modeling different sources of variance separately (McNeish, 2023), which is preferable for this kind of analysis. After fitting each model, we examined the significance of the effect of metaethical stance within each level of position and the moderator, and visually inspected the plot. This was to assess whether our results are consistent across different levels of the moderator.

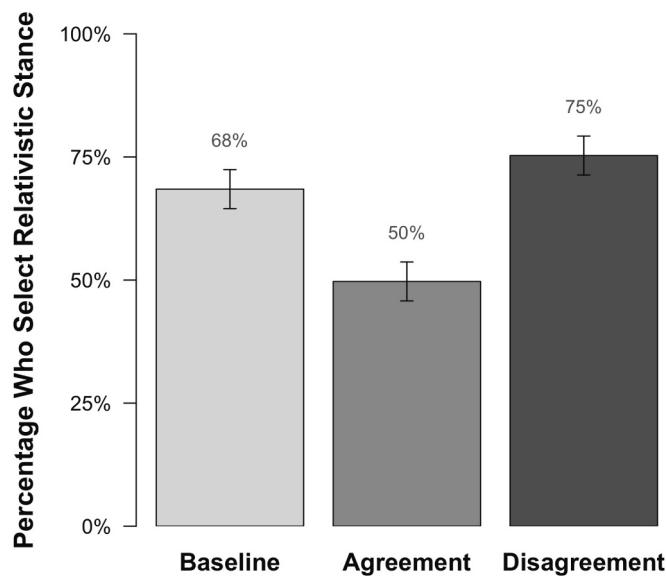


Fig. 5. Study 4 Results. Barplots with percentage of participants who selected a relativistic stance within each condition (baseline, agreement, vs. disagreement). Error bars represent 95 % confidence intervals.

towards the moral statement in question and the strength of their agreement or disagreement with the moral statement.³⁰

Examining how the results vary depending on the participants' own metaethical position also potentially serves to rule out an alternative explanation of our results: that our findings are simply driven by a sample composed largely of relativists tending to evaluate relativists more positively due to something like a 'halo effect'.³¹ While some evidence is offered against this hypothesis by our findings, in Study 2, that objectivists are evaluated as more morally serious and, in Study 3, that the effect of adopting objectivist or relativistic stances varies based on agreement or disagreement, with objectivists evaluated more positively than relativists in some situations, our results would be further strengthened by showing directly that objectivists often evaluate relativists more positively and vice versa.³²

The results of these analyses offer some support for our view. In line with our main results described above, we find that relativists are consistently evaluated to be more tolerant than objectivists by both participants who endorsed objectivism and participants who endorsed relativism about the issue in question. Similarly consistent patterns were found for anticipated reproach and moral seriousness. For moral character, conversely, we observe a more complex pattern. In line with our main analysis, we found that in conditions of disagreement both objectivists and relativists rate relativists as having superior moral character. However, in conditions of agreement, where our main analysis found that objectivists were rated *on average* to have a superior moral

³⁰ Participants' metaethical stance and strength of agreement or disagreement with the moral statement might be influenced by a number of different characteristics of the moral issue in question (e.g. how severe the moral issue is or perceived level of social consensus about the issue). Nevertheless, examining the influence of participants' metaethical stance and level of agreement may still illustrate possible differences in the effects of metaethical stance in the context of different kinds of moral issues. We focus on participants' metaethical stance and the strength of their agreement, because we have respondent-level data on these from the study.

³¹ Our thanks to Reviewer 2 for raising this point.

³² It is potentially important to note that the participants answered these questions before evaluating the person who agreed or disagreed with them and, therefore, their own metaethical judgments were not made in a context of agreement or disagreement.

character, in our exploratory analysis, while objectivists rate objectivists to have substantially higher moral character, relativists rate relativists to have slightly superior moral character. Similarly, for ratings of empathy and desirability as a social partner, in conditions of disagreement, we found both objectivists and relativists rated relativists more positively, while in conditions of agreement objectivists rated objectivists more positively and relativists rated relativists more positively (see Figs. S16-S21 in the Supplemental Materials).³³

Additionally, we examined how these results vary based on the strength of participants' agreement or disagreement with the moral statement in question.³⁴ Here we likewise found that, for tolerance, relativists were consistently evaluated higher than objectivists. Similarly, for moral seriousness, anticipated reproach and empathy, we found quite consistent results. However, for moral character and desirability as a social partner, we found a more complex pattern where, in conditions of disagreement, relativists were consistently evaluated more positively than objectivists, but in conditions of agreement, objectivists were evaluated more strongly positively over relativists as participants' strength of agreement or disagreement with the moral statement increased (see Figs. S10-S15 in the Supplemental Materials).

5.6. Discussion

These results suggest that taking different metaethical stances has different reputational implications and that these implications can vary in contexts of agreement and disagreement.

In line with our predictions, for empathy, moral seriousness, and desirability as a social partner we found significant differences in the effects of taking relativistic or objectivistic stances in conditions of agreement and disagreement. Specifically, relativists are judged to be more empathetic than objectivists in both conditions of agreement and disagreement, but the effects are reduced in cases of agreement. Conversely, objectivists are judged to be more morally serious in cases of both agreement and disagreement, but this effect was reduced in cases of disagreement. In contrast, for desirability as a social partner, we found that relativists were preferred over objectivists in conditions of disagreement, but there was no significant difference in conditions of agreement.

Moreover, for moral character, while we found that objectivists were rated as having worse moral character than relativists in conditions of disagreement, rather than finding that the effects were weakened in conditions of agreement, we found that they fully reversed. That is to say, objectivists were rated as having *better* moral character than

³³ This has different implications for each of the main results for these measures. For moral character, we previously found that objectivists were rated higher than relativists in conditions of agreement. These new analyses imply that this result might have been driven by the particularly strong preference of objectivists for objectivists, in cases of agreement. For empathy, we found that relativists were preferred in cases of agreement as well as disagreement. These analyses suggest that the overall results are driven by respondents who endorsed relativism and slightly by attenuated participants who endorsed objectivism evaluating objectivists more positively. For desirability as a social partner, in cases of agreement, we found no significant difference in the evaluation of objectivists and relativists, whereas these new results suggest that participants who endorsed objectivism and relativism evaluated objectivists and relativists more positively, respectively, and canceled each other out in the overall analysis. It is perhaps worth reiterating that the results in conditions of moral disagreement accorded with our overall results for each of these measures.

³⁴ We recoded responses of equally strong agreement or disagreement to represent the same 'strength of agreement or disagreement', i.e. "Somewhat agree (4)" and "Somewhat disagree (3)" were recoded as 1, "Agree (5)" and "Disagree (2)" were recoded as 2, and "Strongly agree (6)" and "Strongly disagree (1)" were recoded as 3. Thus the scale represents the strength of the participants' stance regarding the issue, whether of agreement or disagreement.

relativists in conditions of agreement. Thus, we found an even stronger effect than predicted. These results suggest that whether a person agrees or disagrees with an individual is highly consequential to how expressing a metaethical stance will affect perceptions of one's moral character. A stance that would be expected to have positive implications in a social context where a person disagrees with someone might be expected to have a negative impact in cases where a person agrees with someone.

However, contrary to our predictions, for tolerance and anticipated reproach we failed to find evidence that relativists and objectivists were evaluated differently depending on whether they agreed or disagreed with the respondents. Namely, although, in line with our predictions and in line with our previous studies, objectivists were evaluated to be less tolerant than relativists and more likely to reproach those they disagreed with in conditions of disagreement, contrary to our predictions, they were evaluated similarly in conditions of agreement. Given the narrow confidence intervals, it seems unlikely that this result is due to low power. A potential explanation for these results is that relativism is so integrally associated with tolerance and objectivism with intolerance (and conversely for anticipated reproach), that expressions of these positions continue to reliably lead to these perceptions, whether the person expressing them is one we agree or disagree with morally.

As such, our results suggest that there are some effects of taking different metaethical stances that are consistent across conditions of moral agreement or disagreement, while others may be attenuated or increased, or have opposing effects in cases of moral agreement or disagreement.

Our examination of the Stimulus Plots (see Figs. S6-S9 in Supplemental Materials), also suggested that these effects held largely consistently across most moral issues for most measures. In particular, these highlighted a pattern of consistency in conditions of agreement across measures, but a variation at the level of moral issue in conditions of disagreement for some issues (moral character, empathy and, in particular, desirability as a social partner).

Our exploratory analyses examining the influence of respondents' own metaethical stance on these results also found results largely consistent with our main analyses, while finding a pattern of greater consistency in conditions of moral disagreement, and more variation in conditions of agreement. For tolerance, anticipated reproach, and moral seriousness, we found consistent patterns for both participants who endorsed objectivism and those who endorsed relativism about the moral issues in question. In contrast, for moral character, empathy, and desirability as a social partner, while relativists were evaluated more positively in cases of disagreement, in line with our main results, in cases of moral agreement, participants who had endorsed relativism rated relativists more positively and those who had endorsed objectivism rated objectivists more positively. These results rule out an explanation based purely on participants more positively evaluating people who share the same metaethical stance as themselves.³⁵ Moreover, these different patterns across different measures suggest something like the explanation proposed above. Certain traits, such as tolerance and anticipated reproach, are so integrally related to relativism that

³⁵ Our finding that, for a subset of measures, in conditions of moral agreement, evaluations by participants who endorsed objectivism and participants who endorsed relativism diverge could be explained in a number of ways. One possibility is that, in cases of normative agreement, *both* participants who endorsed objectivism and those who endorsed relativism simply evaluate those who share their metaethical views more positively. An alternative possibility is that it is *only* participants who endorse objectivism who more positively evaluate people because they share their views (relativists in conditions of agreement, follow the same pattern as both objectivists and relativists in conditions of disagreement, by evaluating relativists more positively). A possible explanation for why objectivists alone might more positively evaluate objectivists in cases of agreement, is because, in cases of agreement, objectivists might particularly strongly care about objectivism as a signal of moral commitment.

relativists are evaluated as being higher in these traits whether in cases of moral agreement or disagreement, and even if the person evaluating themselves disagrees with moral relativism. Conversely, evaluations of other traits, such as moral character and desirability as a social partner, may be more context sensitive.

One specific concern we discussed above was whether the results of Studies 1 and 2 might be influenced by participants imagining a narrow set of moral issues (for example, highly controversial ones), which might mean that the observed pattern of results applies only for this subset of moral issues. One line of evidence against this comes from Study S1, which showed that the results of Studies 1 and 2 are robust even when participants believe that the target of evaluation is expressing a metaethical stance about all moral issues. However, our stimulus plots from Study 3 also allow us to assess this question, and to assess whether the results of Study 3 were themselves limited to a certain subset of moral issues. We believe that these show that our results are not limited to a narrow subset of moral issues. Our results were strongly consistent across moral issues, applying to either a majority, or all, moral issues for all measures, across conditions. For moral character, desirability as a social partner, and empathy, we observe more variation in conditions of moral agreement specifically, such that relativists and objectivists are each evaluated more positively, for different subsets of moral issues, though for empathy and desirability as a social partner a majority of issues still showed effects in the same direction as Studies 1 and 2. This overall pattern therefore seems to suggest that the results of Studies 1 and 2, and Study 3, are not limited to a small subset of moral issues.³⁶

However, there is a further question of whether the moral issues we used are a narrow and idiosyncratic set of moral issues. For example, if our sample of issues is primarily controversial issues, and relativists are particularly preferred in the case of controversial issues, our results might be distorted even if our results hold for a majority of sampled moral items. As noted above, we endeavored to avoid this through systematically selecting moral issues which varied on a number of dimensions (see Table S5 in the Supplemental Materials) and then pre-testing the issues to assess whether they varied significantly on key dimensions (see Fig. S3, S4, S5 and Table S6 in the Supplemental Materials). This confirmed that our issues spanned a range of different values, including high or low consensus (uncontroversial or controversial). In addition, in Study 3 we examined participant agreement with the moral issues, and whether participants judged the issues as relativist (see Table S8 in the Supplemental Materials). For assessing whether our items are likely to be biased against the objectivist, whether participants themselves judged the issues to be objectivist or relativist is likely the most relevant proxy, and our results confirm that the issues span a range from items which large majorities of participants judged to be relativist to those which a large majority judged to be objectivist.³⁷

³⁶ For moral character, as we noted above, we observed a stronger than expected divergence between the results in conditions of agreement and disagreement. We had predicted that the positive evaluation of relativists in conditions of disagreement would be attenuated or disappear entirely in conditions of agreement, whereas, instead, the overall effect fully reversed in cases of moral agreement. Although this result diverges from the effect we found in Studies 1 and 2, we do not view it as a troubling inconsistency. We explicitly predicted that we would find divergent effects in conditions of agreement and disagreement, which were manipulated in Study 3, but necessarily did not apply in Studies 1 and 2 (as there were no concrete moral issues to agree or disagree about in these studies).

³⁷ It is important to emphasize that we do not claim that our sample of moral issues is 'representative' of the total population of possible moral issues. Instead we aim for the more modest goal of trying to ensure that our sample of moral issues captures a range of potentially relevant dimensions in order to allow the identification of possible confounds and moderators (see Simonsohn et al. (2024)).

6. Study 4

The previous studies established that taking different metaethical stances has differing implications for social evaluation, which may vary across different contexts. This suggests that differing metaethical judgments may perform a social function and vary across different contexts because of their varying social implications. However, these studies did not examine directly whether participants would make different metaethical judgments in response to social incentives. In Study 4, we tested this by asking participants for their *own* baseline metaethical stances towards a concrete moral issue, and subsequently asking them to respond in a way which would make a person who agrees with them and a person who disagrees with them evaluate them favorably. We predicted that participants would be more likely to take a relativistic stance in cases of moral disagreement than in cases of moral agreement or their baseline stance. In addition, we examined what motivational factors might drive differences in metaethical judgment between conditions of moral agreement and disagreement by asking participants whether appearing tolerant or appearing morally committed would be more important for being positively evaluated in each condition. We predicted that participants would be more likely to identify appearing tolerant as more important in conditions of disagreement than in conditions of agreement. We also asked participants which metaethical position they would predict that a person who agreed or disagreed with them about this moral issue would take.

6.1. Method

We preregistered our predictions, design, and analyses at AsPredicted (https://aspredicted.org/6VS_B14).

6.2. Participants

We aimed to recruit 350 participants. 352 US Prolific participants completed our survey (158 Male, 187 Female, 5 Non-Binary, 1 Preferred to Self-Describe, and 1 Preferred Not to Say, $M_{\text{age}} = 38.56$, $SD_{\text{age}} = 12.54$, age range = 20–82). Each participant was randomly assigned one of twelve moral issues. Participants also indicated their metaethical stance towards the same issue before indicating which answer would make them appear more favorable to someone who agrees or disagrees with them on that moral issue (fully within-subjects design).

6.3. Procedure

At the study's outset, participants were asked to indicate their position on one of twelve moral issues. These 12 issues were selected from the 44 items used in our prior study, chosen primarily to represent a range of different levels of perceived objectivity and perceived consensus from our pretest, and secondarily to represent the Moral Foundations (based on our a priori classification) relatively equally (see Table S9 in the Supplemental Materials). Participants then indicated their metaethical stance towards the moral issue presented to them. In the baseline, participants were instructed to answer the question in a manner reflecting their honest opinion. In the agreement and disagreement conditions, they were asked to respond in a way that would make someone who either agrees or disagrees with them about that moral issue evaluate them more favorably (Jellison & Green, 1981). The exact wording used was (with changes to the disagree condition in brackets):

"Now, please answer the following question in a way that you think would make a person who agrees [disagrees] with you about that moral issue evaluate you more favorably. In other words, respond how you would if you wanted to 'look good' in the eyes of someone who agrees [disagrees] with you."

Participants responded to all three conditions (within-subjects design), with the baseline presented first and the order of the agreement and disagreement conditions randomized. Subsequently, participants completed the other measures. For these dependent measures, participants answered separate questions for situations in which the other person either agreed or disagreed with them about the moral issue.

6.4. Measures

To measure the participants' positions, we asked them to indicate their stance towards the moral statement (agree or disagree). To assess their metaethical stance, we inquired whether, in cases of disagreement on this moral issue, they believe both people can be correct (relativist stance), or if there can be at most only one correct answer (objectivist stance). To measure their relational motivation, participants were asked which consideration is more important when wanting to "look good" in the eyes of someone who agrees (or disagrees) with them about a moral issue (appearing tolerant or appearing committed to their moral values). To measure their perception of another person's metaethical stance (included for exploratory purposes), we asked them which position do they think someone who agrees (or disagrees) with them about the moral issue is most likely to believe (relativist or objectivist stance). At the end of the survey, we asked them for demographic information (age, gender, and political ideology).

6.5. Results

For each measure, we fitted an OLS regression model with the binary outcome predicted by the condition (linear probability model, see (Gomila, 2021)), including participant fixed effects (McNeish & Kelley, 2019).³⁸ For the primary measure, which encompassed more than two conditions, we conducted pairwise comparisons across all conditions.³⁹ These results are summarized in Fig. 5. For the remaining measures, each of which entailed two conditions, we compared them against each other. See Table S10 in Supplemental Materials for mean proportions depending on the condition for each measure.

As expected, individuals were more likely to adopt a relativist metaethical stance (over an objectivist stance) when trying to appear favorable to someone with whom they disagree, compared to someone with whom they agree, $t(702) = -8.97$, $p < .001$. Compared to the baseline, they were more likely to endorse a relativistic stance when trying to appear favorable to someone with whom they disagree, $t(702) = -2.39$, $p = .017$, and were less likely to endorse a relativist stance when trying to appear favorable with someone with whom they agree, $t(702) = 6.58$, $p < .001$. As predicted, individuals were much more likely to prioritize appearing tolerant (over committed to their moral values) in situations of disagreement (67 %) than in situations of agreement (21 %), $t(351) = -14.75$, $p < .001$. Finally, individuals were more likely to expect those who disagree (53 %) than those who agree (41 %) with them to hold a relativistic stance, $t(351) = -2.82$, $p = .005$.

As for Study 3, we also examined Stimulus Plots to assess whether the effects varied by moral item, and the results appeared broadly consistent

³⁸ Although we preregistered the inclusion of both participant and moral issue fixed effects, we found that after adding subject fixed effects, the moral issue fixed effects were not estimable, likely due to collinearity with the subject fixed effects. Therefore, we excluded the moral issue fixed effects and found that the results remained unchanged, regardless of their inclusion.

³⁹ Even though we did not apply any corrections for multiple comparisons, our results remain unchanged when the Holm correction is used.

across moral issues, particularly when examining the contrast between agreement and disagreement (see Figs. S22–S24 in Supplemental Materials).⁴⁰

In addition, we conducted further exploratory analyses.⁴¹ Firstly, we examined how participants' stated metaethical stance varied based on the metaethical stance which they perceived the other person to be likely to have. This allows us to test the alternative explanation that people merely select metaethical stances based on the stance which they anticipate the other person will hold, rather than based on the distinctive effects of relativism and objectivism per se. Our analysis showed that our predicted results held strongly in cases where participants perceived the other person to be likely to be an objectivist, with them being significantly more likely to select relativism in cases where the other person disagreed (vs. agreed) with them (even though they anticipated that the other person was themselves an objectivist). However, in cases where participants perceived the other person to be likely to be a relativist, we found no differences between conditions of agreement and disagreement, with participants being similarly highly likely to give a relativist response in both cases (see Fig. S25 in Supplemental Materials). One possible explanation of this is that individuals anticipate that people who are relativists themselves would derogate them for endorsing objectivism, even in cases where they agree on first-order moral issues. This could also be explained in light of the general (though not exceptionless) tendency across our earlier studies, for relativists to be perceived more positively. Only where people do not anticipate that the other person is a relativist, might they think that endorsing objectivism is likely to pay dividends in cases of moral agreement.

As a further exploratory analysis, we also examined whether results differed based on whether the participant agreed or disagreed with the moral statement in question itself (in contrast to agreement or disagreement between them and the other person). Here we found our predicted pattern of relativism being lower in conditions of agreement than in conditions of disagreement and higher than baseline in cases of disagreement held where participants agreed with the moral statement (see Fig. S26 in Supplemental Materials). In cases where participants disagreed with the moral statement, while relativism is lower in agreement than disagreement, we found no differences between disagreement and baseline. Notably, in cases where participants had disagreed with the moral statement, participants were highly likely to endorse relativism across *all* conditions, including at baseline, which might partly explain the lack of results in these cases.⁴²

⁴⁰ Two items appear to show directionally opposite effects to the others, with participants appearing *less* likely to adopt a relativist stance in cases of disagreement than at baseline. Notably these items, which concerned mocking one's nation's laws and traditions and refusing to stand for the national anthem during a state funeral for soldiers who died in combat, might seem like they are both relatively 'right-coded' i.e. moral issues which conservatives might be more concerned about. However, examining the confidence intervals suggests that these items do not appear to be behaving abnormally.

⁴¹ For each analysis, we fitted the following mixed model: R Code: lmer(dv ~ condition * moderator + (1|subject_id)). We opted for mixed models with random intercepts for subjects rather than regression with subject fixed effects, as explained previously (see Footnote 29). To assess whether our results are consistent across different levels of the moderator, we examined the significance of the effect of the condition within each level of the moderator and visually inspected the plot.

⁴² It is important to note that while our moral statements were selected to vary on a number of dimensions, they were all valenced in the same direction, stating that "It is wrong..." and that participants tended, on the whole, to agree with them more often than disagree (65.9 % vs 34.1 %). Thus, while it is not theoretically implausible that people who disagree with "It is wrong" statements might tend to be more likely to be relativists, we cannot rule out the possibility that results would differ with a broader sample of moral issues, valenced in different directions (e.g. "It is praiseworthy to...").

6.6. Discussion

These results offer significant evidence in support of the view that individuals' metaethical stances are influenced by reputational considerations in the way predicted by our theory. When responding in the way they thought would lead to them being more positively evaluated by a person who disagrees with them, respondents were significantly more relativistic than their baseline metaethical stance, and when responding in the way they thought would lead to them being more positively evaluated by someone who agrees with them, they were significantly more likely to give an objectivistic stance.

Moreover, we found that respondents identified different stakes in conditions of agreement and disagreement. In line with our theory, they indicated that appearing tolerant was more important than appearing committed to their moral values in cases of disagreement, while in cases of agreement they were more likely to indicate that appearing morally committed was important.

These results are in line with our proposal that metaethical judgments serve the function of signaling tolerance or (intolerance) of disagreement, and that this has reputational consequences, in contrast to the alternative explanation that differences in social evaluation are merely consequences of taking different metaethical stances. These findings also support our proposed explanation of metaethical pluralism, that people anticipate different social implications for taking metaethical stances in cases of agreement and disagreement.

7. Study 5

In Study 4, we examined how respondents reported they would act if they wanted to be evaluated positively in conditions of moral agreement and disagreement, as well as examining their baseline metaethical judgments, finding results in line with our predictions. This offered support for our theory, given the plausible assumption that people are, to at least some extent, motivated to be evaluated positively. However, as participants were explicitly instructed to act so as to be evaluated positively, it could not test directly whether participants are *spontaneously* motivated by reputational considerations when ordinarily making such metaethical judgments. To address this limitation, we endeavored to directly manipulate social considerations within Study 5.

In order to do this, we randomly assigned participants (between-subjects) to be told either that their responses to a question about their metaethical stance would be shown to a future participant who either agreed or disagreed with them about a moral issue, or to a control condition where they were not told that their responses would be evaluated by a future participant. In line with the outcomes of Study 4, we predicted that participants would be more likely to adopt a relativist stance in conditions of disagreement, compared to agreement, and compared to the control condition. We also predicted that participants would be less likely to adopt a relativist stance when evaluated by someone who agrees compared to the control.

7.1. Method

We preregistered our predictions, design, and analyses at AsPredicted (<https://aspredicted.org/tg55-vdf7.pdf>).

7.2. Participants

We aimed to recruit 1100 participants. 1094 US Prolific participants completed our survey (410 Male, 656 Female, 21 Non-Binary, 3 Preferred to Self-Describe, and 4 Preferred Not to Say, $M_{age} = 38.97$, $SD_{age} = 12.96$, age range = 18–84).⁴³

⁴³ Since the study included a debriefing, we also excluded participants who did not give permission to use their data.

7.3. Procedure

At the study's outset, participants were randomly assigned either to one of the two treatment conditions (agreement or disagreement), or the control condition. In the treatment conditions, participants were told that they would first be asked a question about their moral beliefs, then asked to evaluate a previous participant who answered this same question and answered a second question, that they would then be asked to answer this second question, and that their responses to the two questions would then be shown to a future participant to evaluate them (using the same evaluation questions which they themselves had just answered). In fact, they were not shown the responses of a previous participant, merely randomly assigned responses, and nor were their responses shown to a future participant. In the control condition, participants were simply told that they would first be asked a question about their moral beliefs, then asked to evaluate a previous participant who answered this same question and answered a second question, then that they would themselves be asked to answer this second question.

All participants were first asked to indicate their position on one of twelve moral issues. We used the same twelve moral issues as in Study 4 (see Table S9 in the Supplemental Materials).

All participants were then told that, in order to ensure the study was balanced, half of participants would be shown a response from a person who had agreed with them about the moral issue and half would be shown a response from a person who disagreed with them about the moral issue. This was intended to avoid the possibility that respondents might draw an inference about the prevalence of the moral stance in question based on whether they were assigned a person who agreed or disagreed with them about the moral issue, which might influence their metaethical stance (Ayers & Nichols, 2020). In addition, in the treatment conditions, participants were also told that the previous participant had also been told that their response would be evaluated by a person who agreed or disagreed with them, just as the participant themselves would be told that they would be told that their responses would be evaluated by a person who agreed or disagreed with them, and that these would also be balanced so that an equal number of participants were evaluated by a person who agreed or who disagreed.

All participants were then asked to evaluate the responses of the previous participant. In fact, we randomly assigned participants either to see a response showing agreement or disagreement with the participants' stance regarding the moral issue in question, and expressing either an objectivist or relativist response. The goal of this stage of the experiment was to promote realism, as in the treatment condition, participants would ostensibly go through the same process of being evaluated that they themselves just experienced as an evaluator. Participants were asked to evaluate the previous participant using the same measures which we had previously employed in Study 3.

In the control condition, participants were then simply asked to give their own metaethical stance regarding the moral issue in question. In the treatment conditions (agreement and disagreement), participants were then told that their responses would be shown to a future participant (who agreed or disagreed with them about the moral issue in question), who would evaluate them using the same questions which they themselves had used to evaluate a previous participant. They were then asked to indicate their metaethical stance using the same question as in the control condition.

All participants were then presented with a suspicion check, asking whether they found anything about the study strange or suspicious. All participants were also asked for their age, gender and political ideology. At the end of the study, all participants were then debriefed about the deception within the study.

7.4. Measures

To measure the participants' positions, we asked them to indicate their stance towards the moral statement (agree or disagree). To

measure moral character we used the same single item moral character measure that we had employed in prior studies (1 = *Very morally bad*, 7 = *Very morally good*). To measure perceived traits of tolerance and moral seriousness, we asked respondents to evaluate the extent to which the prior respondent was *intolerant* (reverse scored) and *strongly believes in their moral values* respectively (1 = *Not at all*, 7 = *Extremely*). To measure desirability as a social partner, we asked participants to rate the extent to which somebody like the respondent would be a good person to have as a social partner (such as a co-worker, neighbor, or close friend; 1 = *Not at all*, 7 = *Extremely*). To assess their metaethical stance, the key DV, we inquired whether, in cases of disagreement on this moral issue, they believe both people can be correct (relativist stance), or if there can be at most only one correct answer (objectivist stance). At the end of the survey, we asked them for demographic information (age, gender, and political ideology).

7.5. Results

We fitted an OLS regression model with the binary outcome predicted by the condition (linear probability model, see (Gomila, 2021)), including fixed effects for the moral issue (McNeish & Kelley, 2019). For the primary measure, which encompassed more than two conditions, we conducted pairwise comparisons across all conditions. These results are summarized in Fig. S27 and Table S11 in the Supplemental Materials. 93 % of participants indicated not finding anything strange or suspicious about the study.

Contrary to our expectations, individuals were no more likely to adopt a relativist metaethical stance (over an objectivist stance) when told they would be evaluated by a person who disagrees with them compared to when told they would be evaluated by a person who agreed with them, $t(1080) = -0.70, p = .487$. Similarly, compared to the control condition, they were no more likely to endorse a relativistic stance in the disagreement condition, $t(1080) = -1.24, p = .216$, and were no less likely to endorse a relativist stance when in the agreement condition, $t(1080) = 0.54, p = .590$.

We also examined Stimulus Plots to assess whether the effects varied by moral item, and the results appeared broadly consistent across moral issues (see Figs. S28-S30 in Supplemental Materials).

7.6. Discussion

Contrary to our predictions, we found no difference in participants' metaethical judgments when comparing judgments made when they were told they would be evaluated by a person who agreed or disagreed with them, or comparing these to a control condition where they were not told they would be evaluated.

This absence of a result is striking, given that in Study 4, respondents strongly indicated that they would be more likely to give different metaethical stances when seeking to be evaluated positively in conditions of agreement or disagreement. We believe there are several possible explanations for this disparity.

One prosaic possibility is simply that our manipulation of reputational concerns was simply not salient or strong enough to substantially influence participants. This is plausible for several reasons. Participants may care little about how they will be evaluated by a future online participant who they know they will never interact with. Moreover, participants would know that the person evaluating their response would not have access to any individually identifying information about the participant. These limitations of our online setting may have substantially weakened any potential reputational stakes.

It is also possible that our results were confounded by the fact that participants would be aware *in all conditions* that their responses could be evaluated by the researchers. Their responses may therefore have been influenced by a consideration of how this audience would evaluate them. In addition, due to the fact that we had to explicitly notify participants that they would be evaluated by another person, it may have

been *too* clear to them that their response could be seen as reputationally motivated. As altering one's judgments in light of how one will be evaluated can itself lead to negative evaluation, participants may have been motivated to avoid appearing reputation-seeking.

A further possibility is simply that though participants would act in the way we predicted, *if* they wanted to be evaluated more positively by others, as suggested by Study 4, individuals are simply not motivated by wanting to be evaluated positively. We find this relatively unlikely for a number of reasons. One is that ensuring that one is positively evaluated has been shown to be highly important for individuals across a variety of domains, and perhaps in particular, concerning their moral attitudes (Sperber & Baumard, 2012). Moreover, as discussed in our literature review, prior work has shown that metaethical judgments appear to be strongly influenced by various social factors, a fact which would remain unexplained if individuals were not motivated by social considerations. However, if this were so, then it would undercut our broader theory that reputational implications explain and motivate metaethical judgment.

8. General discussion

Across our first three experiments, we demonstrate that expressing objectivist or relativistic metaethical stances has significant implications for how individuals are evaluated. This serves as a necessary precondition for our signaling explanation of metaethical judgment, for which it is a necessary precondition that individuals are sensitive to the signal (Sperber & Baumard, 2012). In Study 3, we also demonstrated that these implications vary depending on whether one expresses the metaethical stance in contexts of moral agreement or disagreement as predicted by our signaling account, and also depending on the moral issue in question. Thus, objectivism and relativism each appear to lead to more positive evaluation, in different respects, in different scenarios. In our fourth experiment, we demonstrate that individuals take different metaethical stances when trying to be evaluated positively by people who agree or disagree with them, compared to their baseline metaethical stance. Additionally, we demonstrate that participants recognize signaling different traits (moral commitment and tolerance) as more important for being evaluated positively in conditions of agreement and disagreement respectively.

These findings offer a potential explanation of the function of metaethical judgments and of metaethical pluralism, the tendency for the same individuals to make different metaethical judgments on different occasions. We argue that objectivist and relativist metaethical stances serve to signal one's tolerance or intolerance of disagreement about moral issues, and the implications of this appear to differ in different contexts. Thus, metaethical pluralism might be explained by individuals being responsive to the different implications of taking these stances in different contexts. This account would explain prior work showing that metaethical judgments are influenced by a variety of social factors, and also offer an explanation of *why* individuals might engage in making *meta*-ethical judgments in the first place, in addition to merely making first-order moral judgments about whether things are right or wrong.

However, in Study 5, where we endeavored to manipulate social stakes directly, we found no difference in respondents' metaethical judgments. We speculate that this is simply due to our online manipulation failing to sufficiently manipulate reputational considerations, due to the low stakes of one's responses being anonymously evaluated by a future participant. Future studies might explore this possibility using manipulations involving real-world interactions between participants. It is also possible that while individuals' metaethical judgments are ultimately explained by reputational considerations, the immediate social stakes of an individual interaction are not a proximal influence on their judgment. For example, where participants know that a majority of people agree or disagree with them about a given issue, and would view them more positively or negatively for adopting a particular metaethical stance, they may make their metaethical judgments in light of this

general social context, rather than responding to whether the particular individual they are interacting with agrees or disagrees with them. Future work could explore this by developing manipulations of social stakes which do not rely on individual interactions.

It is also possible that although taking different metaethical stances has dramatic implications for how individuals are evaluated, and individuals are sensitive to this fact, as our first four studies suggest, that their metaethical judgments are not ordinarily influenced by these considerations. Given the importance attached to being positively socially evaluated, this strikes us as unlikely. If this were so, it would leave several unanswered mysteries concerning why metaethical judgments appear to be sensitive to other social factors, why they vary across moral issues, and why individuals engage in metaethical judgments, as well as first-order moral judgments. If individuals' metaethical judgments are not sensitive to these reputational considerations, then this undermines our broader theoretical speculation that the reputational implications of metaethical judgments offer a cohesive explanation of these questions. However, our findings in this paper would still be consequential as the first evidence regarding how *meta*-ethical judgments are evaluated, and the different factors which lead to dramatically different character evaluations in different contexts.

Although we theorize that individuals' metaethical stances may be influenced by the reputational implications of taking these stances, it is important to clarify that our account does not require that individuals do so *strategically* in order to manage their reputation. Though we theorize that individuals' metaethical judgments function to preserve their reputation, and are influenced by social factors, this is not incompatible with their judgments being *sincere* (Sperber & Baumard, 2012). Due to the difficulty of making convincing signals non-genuinely, it may make most sense, evolutionarily, that if one is to be perceived as tolerant, one actually is disposed to be tolerant, i.e. that one signals by actually *having* the requisite emotions (Parrott, 2019). This is particularly so given that, as we noted above, signaling tolerance or intolerance of disagreement may serve practical purposes other than signaling traits of the individual. For example, by taking a relativist metaethical stance, one is effectively disavowing one's ability to charge this person with making a mistake. Thus, if taking a certain metaethical stance actually serves to promote enforcement of a moral norm, or conversely to defuse confrontation about moral disagreement, then taking such a stance may not merely be a 'cheap' signal of one's tolerance or moral commitment, but itself constitute tolerance or intolerance.

However, our account does not require that a capacity for expressing metaethical stances in particular for socially beneficial purposes need be a direct product of natural selection (c.f. Nichols & Folds-Bennett, 2003). Instead, people could have evolved a predisposition to manage their moral reputation (Sperber & Baumard, 2012), and this could, in turn, prompt them to employ ways of expressing themselves that facilitate these aims that are culturally mediated. As such, metaethical judgment may reflect domain-general cognitive mechanisms, rather than distinctively moral or metaethical processes (Greene, 2015). If so, a tendency to signal traits such as tolerance by expressing a relativist metaethical stance could emerge as a local cultural instantiation of a more general evolved capacity for reputation management using more general cognitive machinery.

8.1. Limitations and future directions

Our exploratory analyses highlighted a number of possible moderators of our results, such as the metaethical stance individuals perceive the person who might evaluate them to have, and whether the individual substantively agrees or disagrees with the moral statement in question, which should be examined in future research. Interestingly, these appeared to be influential primarily in cases of moral agreement, not disagreement, and why this is might be further explored.

A challenge for empirical study into the psychology of objectivism and relativism is that prior work has raised serious concerns about the

ability of folk respondents to comprehend items ostensibly expressing objectivist or relativist responses appropriately (Bush & Moss, 2020; Moss, 2017; Moss & Bush, 2021; Pölzler & Wright, 2019). However, even if participants lack the ability to understand such prompts as expressing specific metaethical commitments, this need not necessarily undermine research into how objectivists and relativists are perceived. Even if participants have a limited ability to recognise certain statements as expressing specific metaethical positions, it may still be possible to study individuals' responses to such statements *and* their responses to metaethical judgments in general.⁴⁴

One limitation of our results is that we only employed one set of prompts, derived from Goodwin and Darley (2008), to manipulate whether the targets of evaluation expressed a relativistic or objectivistic stance. One particular concern is that the use of this 'disagreement paradigm' may prompt relativistic responses by making disagreement salient.⁴⁵ Future studies might aim to replicate these results using a wider variety of prompts to manipulate objectivism and relativism. It is possible that different ways of expressing objectivistic or relativistic stances would elicit different effects.

In addition to only using two prompts, we also only examined two broad metaethical positions (objectivism and relativism). Future work could both explore different metaethical positions (such as cognitivism and non-cognitivism) or explore the effect of distinct variants of relativism and objectivism.⁴⁶ Such work could also be extended to explore perceptions of individuals expressing different stances concerning other domains, i.e. whether one adopts objectivistic or relativistic stances concerning factual or aesthetic matters, or expresses a 'global' relativism across all domains (Carter, 2016). Prior work has established that people's judgments about the objectivity of statements within these other domains vary, as they do in the moral domain (Goodwin & Darley, 2008). But it is possible that the implications of taking these stances

⁴⁴ One possibility is that lay people's metaethical judgments are insufficiently *fine-grained* to identify metaethical objectivism and relativism specifically, but they may have a more *coarse-grained* recognition of different issues as corresponding to more rough and ready clusters based on whether they are more or less like uncontroversial, clear cut factual questions or more or less like matters about which there is little consensus and widespread difference of opinion, such as matters of taste (Bush & Moss, 2020). It may also be possible that individuals have implicit metaethical attitudes (Wagner et al., 2021; Zijlstra, 2021), if only to these more coarse-grained positions, and implicit attitudes towards expressions of different metaethical positions, even if they fail to demonstrate understanding of explicit metaethical prompts. Research using a wider variety of prompts, including prompts designed to express different metaethical positions, beyond objectivism and relativism, to confirm discriminant validity, along with continued work to investigate individuals' interpretation of metaethical prompts, could explore the extent to which this is the case.

⁴⁵ Another concern with the disagreement paradigm is that participants might endorse seemingly relativistic responses if they perceive the disagreement in question as non-genuine. For example, if a moral statement appears ambiguous, they might believe that the "relativist" merely means to indicate that under one interpretation the moral issue is correct and on another interpretation the issue is incorrect. Our thanks to Reviewer 1 for raising this point. This concern has been raised in prior critiques of the disagreement paradigm (see Bush & Moss, 2020).

⁴⁶ Objectivism and relativism both assume that moral statements express beliefs about the world which can be true or false. By contrast, non-cognitivism holds that moral utterances do not express beliefs, and so cannot be true or false, but rather may express other states (e.g. emotions or attitudes) or prescriptions (e.g. "Don't do that!"). Previous research has found that when the option to endorse noncognitivism is given, participants frequently favor it over objectivism and relativism (Beebe, 2015; Davis, 2021; Pölzler & Cole Wright, 2020). The implications of expressing cognitivist or non-cognitivist stances may differ from those of expressing objectivism or relativism. For example, noncognitivism, like relativism, may serve to defuse apparent disagreement. Alternatively, denying that moral claims can be true or false at all may be seen as not treating certain moral issues appropriately seriously.

differ in these domains, perhaps due to different expectations (for example, judgments about aesthetics may be expected to be more consistently non-objective (see Cova et al., 2019).

In this paper we made extensive efforts to ensure that the concrete moral issues we used varied on key dimensions, which we then assessed through pre-testing, and measures of participants' own perception of these issues. However, the sample of moral issues we used was necessarily incomplete and cannot claim to be representative of all moral issues (even assessing what the composition of the population of all moral issues is, would be an enormous, perhaps impossible undertaking). One specific dimension on which our moral issues did not vary was valence (all concerned moral prohibitions, e.g., beginning with "It is morally bad to..."). Future work could explore these questions with a wider range of moral issues, including positively valenced statements.

Another factor that could be explored in future work is how the effects of expressing an objectivist or relativist stance may vary in accordance with various features of the population or broader social or cultural context. For example, these effects may vary depending on how far society favors a generally tolerant or intolerant attitude towards people with contrary moral standards. Our theory suggests that, as the social implications of signaling tolerance or intolerance of disagreement vary, so the effects of expressing relativist or objectivist stances would be expected to vary. For example, in a traditional, ideologically homogeneous, insular, community with rigid moral standards, objectivist stances may be more heavily favored, while a heterogeneous, multicultural society may favor expressions of tolerance or intolerance.

These considerations are especially relevant for our findings given that all participants in our studies were recruited on Amazon's Mechanical Turk, except for Studies 4 and 5 which recruited participants from Prolific. Studies on the demographic characteristics of Mechanical Turk workers reveal that they are disproportionately nonreligious compared to the United States population as a whole (Levay et al., 2016; Lewis et al., 2015). For instance, Levay et al. (2016) found that approximately 40 % of Mechanical Turk workers identified as agnostic or atheist, while only 10 % of the population of the United States does so. Previous research has consistently shown that religiosity is positively correlated with objectivism, while lower religiosity is associated with relativism (Collier-Spruel et al., 2019; Goodwin & Darley, 2008; Yilmaz & Bahçekapılı, 2018). The participants in our sample may therefore have been more inclined towards moral relativism than the populations they come from, and may have a more favorable attitude towards expressing relativism towards the moral domain or particular moral issues because they themselves are disproportionately likely to be relativists. Prior work does suggest high correspondence between results using nationally representative and online convenience samples (Coppock et al., 2018), nevertheless, it is clear that our results should not be interpreted as offering an estimate of the overall balance of whether objectivists or relativists are perceived more or less positively, across the total population. Rather, our studies should be seen as experimentally assessing how different factors influence evaluations of objectivism and relativism. Similarly, our studies do not address the *sociological* question of what kind of evaluations predominate in natural settings. Our studies deliberately aimed for a relatively balanced and diverse set of moral issues, and equal number of cases of agreement and disagreement, but it is possible that in real-world settings, metaethical judgments predominantly concern either cases of agreement or disagreement, or certain kinds of moral issues.⁴⁷

Author note

We would like to thank Sarah (Seohyun) Lim for reproducing the

⁴⁷ There is limited research on what kinds of moral judgments are most commonly made (Hofmann et al., 2014), and to our knowledge none on what kinds of metaethical judgments predominate.

results of our paper and Joshua Knobe for helpful comments.

CRediT authorship contribution statement

David Moss: Writing – review & editing, Writing – original draft, Methodology, Conceptualization. **Andres Montealegre:** Writing – review & editing, Writing – original draft, Visualization, Validation, Methodology, Formal analysis, Data curation. **Lance S. Bush:** Writing – review & editing, Investigation, Conceptualization. **Lucius Caviola:** Writing – review & editing, Conceptualization. **David Pizarro:** Writing – review & editing.

Data availability

Data, code, materials, preregistrations, and supplemental materials are available on ResearchBox: <https://researchbox.org/1494> (use code DHAEMC).

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.cognition.2024.105984>.

References

Ayars, A., & Nichols, S. (2020). Rational learners and metaethics: Universalism, relativism, and evidence from consensus. *Mind & Language*, 35(1), 67–89. <https://doi.org/10.1111/mila.12232>

Baghramian, M., & Carter, J. A. (2022). Relativism. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy* (spring 2022). Metaphysics Research Lab, Stanford University. <https://plato.stanford.edu/archives/spr2022/entries/relativism/>

Barasch, A., Levine, E. E., Berman, J. Z., & Small, D. A. (2014). Selfish or selfless? On the signal value of emotion in altruistic behavior. *Journal of Personality and Social Psychology*, 107(3), 393–413. <https://doi.org/10.1037/a0037207>

Bartels, D. M., Bauman, C. W., Cushman, F. A., Pizarro, D. A., & McGraw, A. P. (2015). Moral judgment and decision making. In G. Keren, & G. Wu (Eds.), Vol. 63. *The Wiley Blackwell handbook of judgment and decision making* (pp. 478–515). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118468333.ch17>

Beebe, J. (2015). The empirical study of folk Metaethics. *Etyka*, 50, 11–28. <https://etyka.uw.edu.pl/index.php/etyka/article/view/486>

Beebe, J. R. (2010). Moral Relativism in Context. *Noûs*, 44(4), 691–724. <http://www.jstor.org/stable/40959698>.

Beebe, J. R. (2021). The empirical case for folk indexical moral relativism. In T. Lambrozo, J. Knobe, & S. Nichols (Eds.), *Oxford studies in experimental philosophy*. Oxford Academic. <https://doi.org/10.1093/oso/9780192856890.003.0005>

Beebe, J. R., & Sackris, D. (2016). Moral objectivism across the lifespan. *Philosophical Psychology*, 29(6), 912–929. <https://doi.org/10.1080/09515089.2016.1174843>

Bush, L. S., & Moss, D. (2020). Misunderstanding Metaethics: Difficulties measuring folk objectivism and relativism. *Diametros*, 1–16.

Carter, J. A. (2016). Global Relativism. In J. A. Carter (Ed.), *Metaepistemology and relativism* (pp. 31–58). Palgrave Macmillan UK. https://doi.org/10.1057/9781137336644_2

Colebrook, R. (2021). The irrationality of folk metaethics. *Philosophical Psychology*, 34(5), 684–720. <https://doi.org/10.1080/09515089.2021.1915970>

Collier-Spruel, L., Hawkins, A., Jayawickreme, E., Fleeson, W., & Furr, R. M. (2019). Relativism or tolerance? Defining, assessing, connecting, and distinguishing two moral personality features with prominent roles in modern societies. *Journal of Personality*, 87(6), 1170–1188. <https://doi.org/10.1111/jopy.12466>

Coppock, A., Leeper, T. J., & Mullinix, K. J. (2018). Generalizability of heterogeneous treatment effect estimates across samples. *Proceedings of the National Academy of Sciences of the United States of America*, 115(49), 12441–12446. <https://doi.org/10.1073/pnas.1808083115>

Cova, F., Olivola, C. Y., Machery, E., Stich, S., Rose, D., Alai, M., ... Others.. (2019). De Pulchritudine non Est Disputandum? A cross-cultural investigation of the alleged intersubjective validity of aesthetic judgment. *Mind & Language*, 34(3), 317–338. <https://onlinelibrary.wiley.com/doi/abs/10.1111/mila.12210>

Curry, O. S., Jones, C. J., & Van Lissa, C. J. (2019). Mapping morality with a compass: Testing the theory of “morality-as-cooperation” with a new questionnaire. *Journal of Research in Personality*, 78, 106–124. <https://doi.org/10.1016/j.jrp.2018.10.008>

Curry, O. S., Mullins, D. A., & Whitehouse, H. (2019). Is it good to cooperate?: Testing the theory of morality-as-cooperation in 60 societies. *Current Anthropology*, 60(1), 47–69. <https://doi.org/10.1086/701478>

Davis, T. (2021). Beyond objectivism: New methods for studying metaethical intuitions. *Philosophical Psychology*, 34(1), 125–153. <https://doi.org/10.1080/09515089.2020.1845310>

Davis, T., & Kelly, D. (2018). Norms, not moral norms: The boundaries of morality do not matter. *The Behavioral and Brain Sciences*, 41(E101). <https://doi.org/10.1017/S0140525X18000067>

DeScioli, P., & Kurzban, R. (2009). Mysteries of morality. *Cognition*, 112(2), 281–299. <https://doi.org/10.1016/j.cognition.2009.05.008>

DeScioli, P., & Kurzban, R. (2013). A solution to the mysteries of morality. *Psychological Bulletin*, 139(2), 477–496. <https://doi.org/10.1037/a0029065>

Dreier, J. (2009). Relativism (and Expressivism) and the problem of disagreement. *Philosophical Perspectives. A Supplement to Nous*, 23, 79–110. <http://www.jstor.org/stable/40658395>

Feltz, A., & Cokely, E. T. (2008). The fragmented folk: More evidence of stable individual differences in moral judgments and folk intuitions. In *Proceedings of the 30th Annual Conference of the Cognitive Science Society* (pp. 1771–1776). https://www.researchgate.net/profile/Adam_Feltz/publication/228337183_The_fragmented_folk_More_evidence_of_stable_individual_differences_in_moral_judgments_and_folk_intuitions/links/0f317535073c8302a600000/The-fragmented-folk-More-evidence-of-stable-individual-differences-in-moral-judgments-and-folk-intuitions.pdf

Fisher, M., Knobe, J., Strickland, B., & Keil, F. C. (2017). The influence of social interaction on intuitions of objectivity and subjectivity. *Cognitive Science*, 41(4), 1119–1134. <https://doi.org/10.1111/cogs.12380>

Gill, M. B. (2009). Indeterminacy and variability in Meta-ethics. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 145(2), 215–234. <http://www.jstor.org/stable/27734476>

Gomila, R. (2021). Logistic or linear? Estimating causal effects of experimental treatments on binary outcomes using regression analysis. *Journal of Experimental Psychology. General*, 150(4), 700–709. <https://doi.org/10.1037/xge0000920>

Goodwin, G. P., & Darley, J. M. (2008). The psychology of meta-ethics: Exploring objectivism. *Cognition*, 106(3), 1339–1366. <https://doi.org/10.1016/j.cognition.2007.06.007>

Goodwin, G. P., & Darley, J. M. (2010). The perceived objectivity of ethical beliefs: Psychological findings and implications for public policy. *Review of Philosophy and Psychology*, 1(2), 161–188. <https://doi.org/10.1007/s13164-009-0013-4>

Goodwin, G. P., & Darley, J. M. (2012). Why are some moral beliefs perceived to be more objective than others? *Journal of Experimental Social Psychology*, 48(1), 250–256. <https://doi.org/10.1016/j.jesp.2011.08.006>

Goodwin, G. P., Piazza, J., & Rozin, P. (2014). Moral character predominates in person perception and evaluation. *Journal of Personality and Social Psychology*, 106(1), 148–168. <https://doi.org/10.1037/a0034726>

Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of personality and social psychology*, 101(2), 366–385. <https://doi.org/10.1037/a0021847>

Green, D. P., Ha, S. E., & Bullock, J. G. (2010). Enough Already about “Black Box” Experiments: Studying Mediation Is More Difficult than Most Scholars Suppose. *The ANNALS of the American Academy of Political and Social Science*, 628(1), 200–208. <https://doi.org/10.1177/0022-216209351526>

Green, J. D. (2015). The rise of moral cognition. *Cognition*, 135, 39–42. <https://doi.org/10.1016/j.cognition.2014.11.018>

Heiphetz, L., & Young, L. L. (2017). Can only one person be right? The development of objectivism and social preferences regarding widely shared and controversial moral beliefs. *Cognition*, 167, 78–90. <https://doi.org/10.1016/j.cognition.2016.05.014>

Hofmann, W., Wisneski, D. C., Brandt, M. J., & Skitka, L. J. (2014). Morality in everyday life. *Science*, 345(6202), 1340–1343. <https://doi.org/10.1126/science.1251560>

Jellison, J. M., & Green, J. (1981). A self-presentation approach to the fundamental attribution error: The norm of internality. *Journal of Personality and Social Psychology*, 40(4), 643–649. <https://doi.org/10.1037/0022-3514.40.4.643>

Joyce, R. (2007). *The evolution of morality*. MIT Press. <https://play.google.com/store/books/details?id=3nk5Lq2hY9EC>

Kitcher, P. (2011). *The ethical project*. Harvard University Press. <https://play.google.com/store/books/details?id=SWyW0XB7pN8C>

Lakens, D., Scheel, A. M., & Isager, P. M. (2018). Equivalence testing for psychological research: A tutorial. *Advances in Methods and Practices in Psychological Science*, 1(2), 259–269. <https://doi.org/10.1177/2515245918770963>

Levay, K. E., Freese, J., & Druckman, J. N. (2016). The demographic and political composition of mechanical Turk samples. *SAGE Open*, 6(1). <https://doi.org/10.1177/2158244016636433>

Lewis, A. R., Djurovic, P. A., Mockabee, S. T., & Su-Ya Wu, J. (2015). The (non) religion of mechanical Turk workers. *Journal for the Scientific Study of Religion*, 54(2), 419–428. <https://doi.org/10.1111/jssr.12184>

Li, X., & Hsee, C. K. (2019). Beyond preference reversal: Distinguishing justifiability from evaluability in joint versus single evaluations. *Organizational Behavior and Human Decision Processes*, 153, 63–74. <https://doi.org/10.1016/j.obhd.2019.04.007>

Mackie, J. L. (1990). *Ethics: Inventing right and wrong*. MackieEthics: Inventing Right and Wrong 1977.

McNeish, D. (2023). A practical guide to selecting and blending approaches for clustered data: Clustered errors, multilevel models, and fixed-effect models. *Psychological Methods*. Advance online publication. <https://doi.org/10.1037/met0000620>

McNeish, D., & Kelley, K. (2019). Fixed effects models versus mixed effects models for clustered data: Reviewing the approaches, disentangling the differences, and making recommendations. *Psychological Methods*, 24(1), 20–35. <https://doi.org/10.1037/met0000182>

McNeish, D., Stapleton, L. M., & Silverman, R. D. (2017). On the unnecessary ubiquity of hierarchical linear modeling. *Psychological Methods*, 22(1), 114–140. <https://doi.org/10.1037/met0000078>

Mendleson, J. L., Bures, A. L., Champion, D. L., & Lott, J. K. (1997). Preliminary development of the intercultural tolerance scale. *Psychological Reports*, 80(3), 867–876. <https://doi.org/10.2466/pr.1997.80.3.867>

Montgomery, J. M., Nyhan, B., & Torres, M. (2018). How conditioning on posttreatment variables can ruin your experiment and what to do about it. *American Journal of Political Science*, 62(3), 760–775. <https://doi.org/10.1111/ajps.12357>

Moss, D. (2017). *Experimental philosophy, folk metaethics and qualitative methods*. Teorema: Revista Internacional de Filosofía. <https://www.jstor.org/stable/26384628>.

Moss, D., & Bush, L. S. (2021). Measuring metaaesthetics: Challenges and ways forward. *New Ideas in Psychology*, 62(100866), Article 100866. <https://doi.org/10.1016/j.newideapsych.2021.100866>

Nichols, S., & Folds-Bennett, T. (2003). Are children moral objectivists? Children's judgments about moral and response-dependent properties. *Cognition*, 90(2), B23–B32. [https://doi.org/10.1016/s0010-0277\(03\)00160-4](https://doi.org/10.1016/s0010-0277(03)00160-4)

Nichols, S. (2004). After objectivity: an empirical study of moral judgment. *Philosophical Psychology*, 17(1), 3–26. <https://doi.org/10.1080/0951508042000202354>

Parrott, W. G. (2019). Emotions as signals of moral character. In U. Hess, & S. Hareli (Eds.), *The social nature of emotion expression: What emotions can tell us about the world* (pp. 161–177). Springer International Publishing. https://doi.org/10.1007/978-3-030-32968-6_9.

Pötzler, T. (2018). How to measure moral realism. *Review of Philosophy and Psychology*, 9(3), 647–670. <https://doi.org/10.1007/s13164-018-0401-8>

Pötzler, T., & Cole Wright, J. (2020). An empirical argument against moral non-cognitivism. In *Inquiry: A Journal of Medical Care Organization, Provision and Financing* (pp. 1–29). <https://doi.org/10.1080/0020174X.2020.1798280>

Pötzler, T., & Wright, J. C. (2019). Empirical research on folk moral objectivism. *Philosophy Compass*, 14(5), Article e12589. <https://doi.org/10.1111/phc3.12589>

Pötzler, T., & Wright, J. C. (2020). Anti-realist pluralism: A new approach to folk Metaethics. *Review of Philosophy and Psychology*, 11(1), 53–82. <https://doi.org/10.1007/s13164-019-00447-8>

Pötzler, T., Zijlstra, L., & Dijkstra, J. (2022). Moral progress, knowledge and error: Do people believe in moral objectivity? *Philosophical Psychology*, 1–37. <https://doi.org/10.1080/09515089.2022.2119951>

Rai, T. S., & Holyoak, K. J. (2013). Exposure to moral relativism compromises moral behavior. *Journal of Experimental Social Psychology*, 49(6), 995–1001. <https://doi.org/10.1016/j.jesp.2013.06.008>

Sarkissian, H., Park, J., Tien, D., Wright, J. C., & Knobe, J. (2011). Folk moral relativism. *Mind & Language*, 26(4), 482–505. <https://doi.org/10.1111/j.1468-0017.2011.01428.x>

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2012). A 21 word solution. <https://doi.org/10.2139/ssrn.2160588>

Simonsohn, U., Montealegre, A., & Evangelidis, I. (2024). Stimulus sampling reimagined: Designing experiments with mix-and-match. *Analyzing Results with Stimulus Plots*. <https://doi.org/10.2139/ssrn.4716832>

Smith, M. (1994). *The moral problem*. Malden, MA: Blackwell.

Sousa, P., Allard, A., Piazza, J., & Goodwin, G. P. (2021). Folk moral objectivism: The case of harmful actions. *Frontiers in Psychology*, 12, Article 638515. <https://doi.org/10.3389/fpsyg.2021.638515>

Sperber, D., & Baumard, N. (2012). Moral reputation: An evolutionary and cognitive perspective. *Mind & Language*, 27(5), 495–518. <https://doi.org/10.1111/mila.12000>

Stanford, P. K. (2018). The difference between ice cream and Nazis: Moral externalization and the evolution of human cooperation. *The Behavioral and Brain Sciences*, 41. <https://doi.org/10.1017/s0140525x17001911>

Tooby, J., & Cosmides, L. (2010). Groups in mind: The coalitional roots of war and morality. In H. Högh-Olesen (Ed.), *Human morality and sociality: Evolutionary and comparative perspectives* (pp. 91–234). Palgrave-Macmillan. <https://www.cep.ucsb.edu/papers/GroupsInMind2010.pdf>.

Trainer, F. E. (1983). Ethical objectivism-subjectivism: A neglected dimension in the study of moral thought. *Journal of Moral Education*, 12(3), 192–207. <https://doi.org/10.1080/0305724830120308>

Turiel, E., Hildebrandt, C., & Wainryb, C. (1991). Judging social issues: Difficulties, inconsistencies, and consistencies. *Monographs of the Society for Research in Child Development*, 56(2), 1–103. <https://www.ncbi.nlm.nih.gov/pubmed/1766444>.

Wagner, J. M. J., Pötzler, T., & Wright, J. C. (2021). Implicit Metaethical intuitions: Validating and employing a new IAT procedure. *Review of Philosophy and Psychology*. <https://doi.org/10.1007/s13164-021-00572-3>

Wainryb, C., Shaw, L. A., Langley, M., Cottam, K., & Lewis, R. (2004). Children's thinking about diversity of belief in the early school years: Judgments of relativism, tolerance, and disagreeing persons. *Child Development*, 75(3), 687–703. <https://doi.org/10.1111/j.1467-8624.2004.00701.x>

Williams, L. E., Stein, R., & Galguera, L. (2014). The distinct affective consequences of psychological distance and construal level. *The Journal of Consumer Research*, 40(6), 1123–1138. <https://doi.org/10.1086/674212>

Witenberg, R. T. (2019). *The psychology of tolerance: Conception and development*. Singapore: Springer. <https://doi.org/10.1007/978-981-13-3789-5>

Wright, J. C. (2018). The fact and function of Meta-ethical pluralism: Exploring the evidence. In T. Lombrozo, J. Knobe, & S. Nichols (Eds.), Vol. 2. *Oxford studies in experimental philosophy*. Oxford Academic. <https://doi.org/10.1093/oso/9780198815259.003.0006>.

Wright, J. C. (2021). Morality as a regulator of divergence: Protecting against deviance while promoting diversity. *Social Cognition*, 39(1), 81–98. <https://doi.org/10.1521/soco.2021.39.1.81>

Wright, J. C., Grandjean, P. T., & McWhite, C. B. (2013). The meta-ethical grounding of our moral beliefs: Evidence for meta-ethical pluralism. *Philosophical Psychology*, 26(3), 336–361. <https://doi.org/10.1080/09515089.2011.633751>

Wright, J. C., McWhite, C. B., & Grandjean, P. T. (2014). The cognitive mechanisms of intolerance: Do our Meta-ethical commitments matter? In J. Knobe, T. Lombrozo, & S. Nichols (Eds.), Vol. 1. *Oxford studies in experimental philosophy*. Oxford Academic. <https://doi.org/10.1093/acprofoso/9780198718765.003.0003>.

Yilmaz, O., & Bahçekapılı, H. G. (2018). Meta-ethics and the mortality: Mortality salience leads people to adopt a less subjectivist morality. *Cognition*, 179, 171–177. <https://doi.org/10.1016/j.cognition.2018.06.014>

Yilmaz, O., Bahçekapılı, H. G., Harma, M., & Sevi, B. (2020). Intergroup tolerance leads to subjective morality, which in turn is associated with (but does not lead to) reduced religiosity. *Archive for the Psychology of Religion*, 42(2), 232–243. <https://doi.org/10.1177/0084672419883349>

Young, M. E., Cole, J. J., & Sutherland, S. C. (2012). Rich stimulus sampling for between-subjects designs improves model selection. *Behavior Research Methods*, 44(1), 176–188. <https://doi.org/10.3758/s13428-011-0133-5>

Zhao, X. (2022). Folk metaethics and error. *Philosophical Psychology*, 1–23. <https://doi.org/10.1080/09515089.2022.2139231>

Zijlstra, L. (2021). Are people implicitly moral objectivists? *Review of Philosophy and Psychology*. <https://doi.org/10.1007/s13164-021-00593-y>