

# Beyond Objectivism: New Methods for Studying Metaethical Intuitions

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## Abstract

Moral realists often assume that folk intuitions are predominantly realist, and argue that this places the burden of proof on antirealists. More broadly, appeals to intuition in metaethics typically assume that folk judgments are generally consistent across individuals, such that they are at least predominantly *something*, if not realist. A substantial body of empirical work on moral objectivism has investigated these assumptions, but findings remain inconclusive, due to methodological limitations. Objectivist judgments classify individuals into broad categories of realism and antirealism, but they do not address more specific conflicts between different types of realism and antirealism, such as between nonnaturalism and divine command theory, for example, or between noncognitivism and error theory. Further, the data currently show that the folk are objectivists about some moral claims, but not others, raising questions about *how much* of the moral domain is judged objective, and about *which types* of moral claims are more objective than others. Moral Foundations Theory provides methods for addressing these questions (e.g., Graham et al., 2013), but previous studies have not employed them. Here I present a new survey that addresses these limitations. The results challenge both of the empirical assumptions identified above, with important implications for metaethical methodology.

## Keywords

moral objectivism  
moral realism  
moral antirealism  
experimental philosophy  
intuitions  
metaethics

## 1. Introduction

An influential argument for moral realism, which Sinclair (2012) refers to as the *presumptive argument*, holds that because ordinary moral intuitions are predominantly realist, realist theories should be deemed correct until proven otherwise (see also Joyce, 2009, 2015; Hopster 2019). This argument focuses specifically on the realism debate, but it is also an instance of a more general metaethical method, which Timmons (1999) has dubbed *internal accommodation*, of appealing to intuitions about moral claims and issues, as opposed to nonmoral claims and issues (e.g., commitments to naturalism in general), which would constitute external accommodation instead. Accordingly, the presumptive argument exposes two tacit empirical assumptions that are important in metaethics, one of which applies specifically to the realism debate, while the other applies to the general method of internal accommodation. The more specific assumption is that realist intuitions are significantly more common than antirealist intuitions. Call this the *predominant realism thesis*. The more general assumption is that moral intuitions are at least predominantly *something*, if not realist. For as Gill (2009, p. 218) points out, if neither of two conflicting intuitions is more common than the other, then appealing to intuitions provides no reason to favor one view over the other. I thus refer to this as the *predominant something thesis*.

Joyce (2009, 2015) identifies the possibility that the predominant realism thesis might be false, and discusses the hypothetical implications should this turn out to be the case<sup>1</sup>. Gill (2009)

<sup>1</sup> Joyce (2009) refers to the predominant realism thesis as “the phenomenological thesis,” but this label is confusing, since Joyce says explicitly (p. 66) that phenomenology isn’t actually essential. He also frames the thesis using a different definition of “objective” from the one employed in empirical studies, so I avoid his terms in order to prevent confusion.

identifies the possibility that the predominant something thesis might be false, and discusses the hypothetical implications. Yet neither attempts to actually test these empirical assumptions. Meanwhile, in the last 15 years moral psychologists and experimental philosophers have developed a substantial body of work on moral objectivism (Nichols and Folds-Bennett, 2003; Nichols, 2004; Wainryb et al., 2004; Goodwin and Darley, 2008, 2012; Sarkissian et al., 2011; Young and Durwin, 2013; Wright, Grandjean, and McWhite, 2013; Uttich, Tsai, and Lombrozo, 2014; Beebe et al., 2015; Beebe and Sackris, 2016; Heiphetz and Young, 2016; Fisher et al., 2017; Theriault et al. 2017, Wright, 2018. For reviews see Wright and Pölzler, 2019; Pölzler, 2017, 2018; Moss, 2017; Beebe, 2015), which makes an important start toward evaluating the predominant realism thesis. However, its results remain inconclusive, for reasons discussed below, and it provides no conclusive evidence for or against the predominant something thesis.

Accordingly, I present here a survey designed to go beyond objectivist intuitions, using novel methods to explore the general landscape of metaethical intuitions in a way that is both more comprehensive and higher in resolution than previous studies. As a result, it is able to test the predominant realism thesis and the predominant something thesis directly, yielding results that challenge not only the presumptive argument for realism, but also the general method of internal accommodation.

In the next section I discuss existing work on moral objectivism. Thereafter, I discuss the role of the predominant realism thesis and the predominant something thesis in philosophical theorizing. I then describe the survey's methods and results, and discuss the implications.

## **2. Previous Work on Moral Objectivism**

Empirical work on metaethical intuitions has been dominated by<sup>2</sup> what I call the *method of disagreement*, wherein participants are presented with a case of disagreement about a particular moral claim, and asked to judge whether both claims in the disagreement could be true, or whether one claim must be false. The judgment that one claim must be false is classified as the objectivist response, since it implies that the issue is a matter of objective fact, which could, in principle, be checked against some set of moral truth-makers, or facts about moral reality. However, while this method mostly<sup>3</sup> succeeds in distinguishing realist intuitions from antirealist intuitions, it still provides no information about what moral facts are *like*, according to realists, or about why no such facts exist, according to antirealists. And it tells us nothing about how antirealists see the nature and function of moral claims, if not to describe moral facts truly. Yet these issues drive the most fundamental debates in the metaethical literature. The major positions in metaethics do not take the form of realism or antirealism *simpliciter*. Rather, realism and antirealism are general families of theories, each of which contains a range of more specific theories, which conflict with one another in basic, important ways.

Even a passing acquaintance with the literature in metaethics will reveal that the differences between moral naturalism and moral nonnaturalism are not minor, trifling issues. Nor are the differences between these theories and theories of divine command, or theological voluntarism (Quinn, 1990). Yet these are all variants of realism, which make ontological commitments to *some* type of moral truth-makers, rendering moral claims objective. Meanwhile, relativists, noncognitivists and error theorists all deny the existence of moral truth-makers, yet

<sup>2</sup> “Dominated by” is deliberately vague, but accurate. Other methods for studying objectivism have occasionally been employed in various studies, but only the method of disagreement constitutes a general, unifying theme. Further, many of these alternative methods are even more problematic, and of even less philosophical interest, than the Method of Disagreement. See Pölzler (2017, 2018) and Beebe (2015) for criticisms.

<sup>3</sup> The intuitions of error theory are an exception, as I explain below.

disagree with one another about the nature of moral claims in the absence of such truth-makers. And judgments of objectivism are simply too vague to capture the intuitions that distinguish them from one another. Some way of measuring more specific intuitions is needed.

In order to do so, however, we also need an operational definition of moral realism capable of capturing the relevant philosophical differences. To this end, I define realism here as the combination of cognitivism about moral propositions with ontological commitment to mind-independent moral facts. That is, realism entails both that the function of moral claims is to accurately describe mind-independent moral facts, and that some such facts actually exist. Put still differently, realism about a moral claim implies that the claim is truth-apt, that truth-makers for the claim exist, and that these truth-makers cannot be reduced to descriptive, psychological facts about the normative values of human beings. I take this to be a neutral, uncontroversial definition of moral realism, which accords with the standard classifications of realism and antirealism in metaethics. Figure 1 summarizes these definitions and classifications.

On this definition, noncognitivism (e.g., Hare, 1952; Blackburn, 1998; Gibbard, 1990) would be a form of antirealism in virtue of its rejection of cognitivism. If moral claims do not describe facts at all, then they cannot describe facts truly or falsely, and there is no need for ontological commitment to moral facts. Error theory (e.g., Mackie, 1977; Joyce, 2007) would also be a form of antirealism, but for an entirely different reason: while moral claims *are* descriptions of mind-independent moral facts, such facts don't exist. Meanwhile, relativism (e.g., Harman, 1975; Wong, 2006; Prinz, 2007) would be a form of antirealism for yet a third reason. While relativists accept cognitivism, and recognize the existence of moral facts of a certain sort, they take these facts to be mind-*dependent*, or reducible to descriptive facts about the values of human individuals or cultures.

Suppose, then, that a respondent in an empirical study is presented with a disagreement, and that she does *not* judge that one claim must be false. This could be because she holds noncognitivist intuitions. If moral claims do not describe facts at all, then neither claim would be false—the terms of truth, falsity and disagreement simply misconstrue the nature of moral claims from the outset. Alternatively, this judgment could be produced by relativist intuitions. If moral claims can be true relative to the commitments of one person or culture, but false relative to the commitments of a different person or culture, then both claims in a disagreement could be true. Yet since both intuitions warrant the same response, the method of disagreement fails to capture the difference between them.

The situation is even worse regarding error theory. Since error theorists are cognitivists who deny the existence of moral facts, they should judge that at least one claim in a moral disagreement must be false, since *all* moral claims must be false. But this means that error theorists should choose the *objectivist* response in the method of disagreement, even though error theory is an *antirealist* position. As a result, error theory shows that the method of disagreement does not fully succeed even in distinguishing realism from antirealism, since it cannot capture the antirealist form of objectivism represented by error theory.

Meanwhile, this definition of realism classifies naturalists, nonnaturalists and divine command theorists all as realists. Naturalists hold that moral claims describe moral facts, that some moral facts exist, and that these facts are not reducible to descriptive facts about what human beings consider right or wrong. Yet naturalists also argue, further, that moral facts are identical to some set of natural facts, of the sort that could, in principle, be identified by science (Railton, 1986; Brink, 1989; Boyd, 1995; Copp, 2003; Sterelny and Fraser, 2016). Nonnaturalists, meanwhile, deny that this is what moral facts are like (Moore, 1903; Shafer-

Landau, 2006; Scanlon, 2003; Hampton, 1998; Fine, 2002; see Cuneo, 2007 for a review).

However, nonnaturalism is not the same thing as *supernaturalism*. Nonnaturalists take moral facts to be irreducible to facts about nature, but they also do not identify moral facts in terms of prior facts about supernatural agents or forces. This distinguishes nonnaturalism from divine command theory (Quinn, 1978; Adams, 1979), according to which moral truth-makers depend on prior facts about God's will. As a species of supernaturalist realism, divine command theory holds that moral truth-makers are reducible to descriptive facts about God's beliefs and desires. Thus, while such facts are clearly mind-dependent in one sense, they are still mind-independent in the sense necessary to distinguish them from relativism: they cannot be reduced to facts about the minds of human beings. According to relativism, no supernatural commitments are necessary for identifying the relevant minds, and for the purposes of scientific study I define realism here in terms of this naturalistic conception of minds.

Importantly, however, objectivism follows merely from the fact that *some* set of moral facts exist—regardless of whether they are natural, nonnatural or supernatural. Thus, these distinct theories all warrant the same response in the method of disagreement. Further investigation is needed to capture these differences.

Moreover, existing work on objectivism is also limited in another way. With one notable exception (Therault et al., 2017), previous studies do not examine how objectivist intuitions are distributed throughout the moral domain. Early studies seemed to show that moral claims are considered highly objective, or at least more objective than other types of claims (Wainryb et al., 2004; Goodwin and Darley, 2008; Wright, Grandjean, and McWhite 2013; Beebe and Sackris, 2016; Beebe et al., 2015). However, further studies and analyses reveal a more complex pattern. For instance, Therault et al. (2017) asked participants to rate statements simultaneously, or non-

exclusively, as fact-like, moral-like or preference-like. They found that the statements rated as moral-like were also consistently rated as much more preference-like than fact-like. Assuming that fact-like statements are objective, while preference-like statements are subjective, this suggests that moral intuitions are more subjectivist than objectivist. Further, careful reviews of this literature show more generally that the folk are “metaethical pluralists,” or objectivists about some moral claims, but not others (Wright, 2013, 2018; Pölzler, 2017; Wright and Pölzler, 2019). This raises two key questions: *how much* of morality is considered objective, and *which types* of moral claims are considered objective?

The influential Moral Foundations Theory (Haidt, 2012; Graham et al., 2013) has shown that the moral domain can be subdivided into at least five functional subdomains: harm, fairness, authority, loyalty and purity. In conjunction with the observed pattern of metaethical pluralism, this suggests that the folk might be objectivists in certain subdomains, but not others. Yet only Theriault et al. (2017) have attempted to examine this possibility, and while they found that moral-like statements are judged more preference-like than fact-like across all five subdomains, this methodology still addresses only the vague categories of objectivism and subjectivism. It does not capture the important differences among different species of realism or antirealism, or the objectivist antirealism of error theory. Accordingly, no previous studies have examined how the intuitions underlying the basic positions in the metaethical literature might be distributed across different subdomains within the moral domain. For example, nonnaturalist intuitions might be predominant among harm norms, while noncognitivist intuitions are predominant among fairness norms, or vice versa. Alternatively, the folk might be naturalists in the domain of loyalty, but relativists in the domain of purity. And so on. These are the empirical questions that

must be examined in order to properly evaluate the predominant realism thesis and the predominant something thesis.

### **3. Philosophical Significance of the Predominant Realism Thesis and the Predominant Something Thesis**

Questions about burden of proof loom large in debates about metaethical methodology. For instance, Sayre-McCord (2015) closes the “Moral Realism” entry in the *Stanford Encyclopedia of Philosophy* as follows: “...it is pretty clear that people do generally regard their moral claims, and the moral claims of others, as purporting to report facts, and to the extent they themselves sincerely advance such claims they seem to be regarding at least some such claims as actually true. The burden is on the antirealists about morality to argue that that this involves a mistake of some sort.” Meanwhile, in the “Moral Antirealism” entry, Joyce (2015) includes a section entitled “Who Bears the Burden of Proof?” It begins: “It is widely assumed that moral realism enjoys some sort of presumption in its favor that the antirealist has to work to overcome.” In support of this claim, Joyce offers three different quotations, the most direct of which comes from Brink (1989, p. 23-24):

We begin as (tacit) cognitivists and realists about ethics... We are *led* to some form of antirealism (if we are) only because we come to regard the moral realist’s commitments as untenable, say, because of the apparently occult nature of moral facts or because of the apparent lack of a well-developed methodology in ethics.... Moral Realism should be our metaethical starting point, and we should give it up only if it does involve unacceptable metaphysical and epistemological commitments.

Thus, realism is presumed correct until proven otherwise, while antirealism is incorrect until proven otherwise, and antirealists owe the rest of us sufficient reason for abandoning the shared intuitions of common sense. Further, though this argument awards the dialectical advantage to realism, antirealists sometimes accept it as well. Joyce (2009, p. 61) shows how Mackie (1977) concedes this point while defending error theory, while Finlay (2007, p. 4) shows how Timmons (1999) concedes it while defending noncognitivism.

The question I wish to address is: who are “we,” in this argument? More specifically, *how many of “us”* must share an intuition in order for it to count as being held by “people generally,” as Sayre-McCord puts it? The terms “ordinary” and “common” carry statistical implications, which matter very much in this context. For suppose we were to find that only 15% of the folk are tacit cognitivists and realists, while 85% are tacit noncognitivists and antirealists. Not only would 15% conflict with any reasonable interpretation of “people generally,” but the argument would be turned upside down. If 85% of people begin as intuitive *antirealists*, then it would be *realists* who bear the burden of dislodging “us” from the intuitive starting point of common sense.

I am willing to grant, for the sake of argument, that whenever a coherent theory does accord with intuitions shared by a substantial majority of the folk, that theory deserves to be granted the dialectical advantage, laying the burden of proof on conflicting theories.<sup>4</sup> Even so, this is no reason to give the advantage to any position that is *not* held by a clear, substantial majority. This presumptive argument in favor of realism does not proceed by identifying some sense in which realist intuitions are better, or more reliable, than antirealist intuitions, such that realism deserves the advantage even if realist intuitions turn out to be statistically rare. Rather,

<sup>4</sup> Although he frames the claim differently, see Sinclair (2012) for objections to the claim that the ability to preserve the “face-value” of metathical intuitions should count in favor of a metaethical theory.

commonness itself is what realist intuitions are said to possess, and antirealist intuitions to lack. Realism is privileged specifically on grounds that it is predominant in the general population.

Note that shortly after making this argument, Brink attempts to deny that his “concern” is with predominance in this sense. On the very next page (p. 25) he adds this:

I do not claim that moral realism is a common belief. I am willing to admit that, about moral realism, common belief is silent, divided, or even antagonistic. My concern, however, is not with unreflective and untutored metaphysical or metaethical views. My appeal to commonsense moral thinking is not a prediction about the likely results of a Gallup poll on the issue of moral realism. Rather, my concern is with the philosophical implications or presuppositions of moral thought and practice.

However, I see no way to square these claims with the content of the presumptive argument itself; this passage simply contradicts the passage above. It hard to see what other means, besides tutoring and reflection, could be responsible for a person’s becoming worried about the apparently occult nature of moral facts, or the apparent lack of a well-developed methodology in ethics. Thus, since the claim in the original argument is that we must be *led* into antirealism from a realist starting point, then the argument is committed to a view of intuitions as unreflective and untutored metaphysical or metaethical views—no matter what Brink says about his concerns. Moreover, “we” in the original argument clearly refers to “people generally,” for reasons just given above. And even in this same passage, Brink refers to the argument as an “appeal to commonsense moral thinking.” Yet views that most people do not hold cannot be considered features of common sense. So again, whatever he may say about his concerns, the presumptive argument itself is committed to empirical assumptions of the sort that can be tested in Gallup polls. Like other versions of this argument, the special feature of realist intuitions that the

argument identifies is precisely that of being held by *most* people, prior to reflection and tutoring.

Accordingly, the presumptive argument is most charitably interpreted as follows:

(1) If a theory accommodates the moral intuitions of a significant majority of the folk, then any conflicting theories bear the burden of proof.

(2) Realism accommodates the moral intuitions of a significant majority of the folk.

(C) Therefore, antirealism bears the burden of proof.

Premise (2) is a direct statement of the predominant realism thesis. However, it is important to recognize that the antecedent of premise (1) also makes a tacit empirical assumption: the predominant something thesis. One theory is said to possess the burden of proof specifically because a conflicting theory accommodates intuitions that are predominant. And since these intuitions take the form of metaethical judgments about moral claims and moral facts, rather than judgments about nonmoral claims and nonmoral facts, this is an instance of the method of internal accommodation.

Cuneo (2007) discusses in further detail the role internal accommodation plays in metaethical theorizing. Using Timmons' distinction, he characterizes naturalism and nonnaturalism as methodological "stances": "In a slogan, nonnaturalists champion the primacy of the internal, while naturalists advocate the priority of the external" (2007, p. 855). Then, while defending his claim about nonnaturalism, he provides a pithy summary of the basic motivations and assumptions behind internal accommodation. Regarding nonnaturalists such as Reid, Moore and Shafer-Landau, he says,

These thinkers take our broadly commonsensical conception of the moral domain very seriously. As a matter of methodological policy, none of them seriously countenances the

possibility that the assumptions embedded in ordinary moral thought are massively mistaken. All of them, moreover, count it as serious, even decisive evidence against a position if it fails to comport with central elements of our commonsensical conception of morality, such as the categorical nature of moral obligation.

If this characterization is correct, then nonnaturalists, especially, should be happy to endorse premise (1) in the presumptive argument, since it purports to favor one theory over another precisely on grounds of “comporting with central elements of our commonsensical conception of morality.” In this sense, premise (1) is a shining example of internal accommodation in action.

This description of internal accommodation, then, helps to clarify the role of the predominant something thesis in metaethical methodology. Cuneo notes that none of those who champion internal accommodation “seriously countenances the possibility that the assumptions embedded in ordinary moral thought are massively mistaken.” And while the data I present below do not bear on whether any intuitive judgments are *mistaken*, they do bear on a related assumption, which is equally important: that these intuitions are not massively *inconsistent* with one another. For if folk intuitions do not cluster into any majority position at all, but fracture instead into several sizable minorities, then there is no such thing as *the* intuitive starting point of “common” sense. Rather, several incompatible positions would each share an equal claim to being endorsed by “us.” Thus, in the absence of some further argument showing that certain intuitions are epistemically superior to others, accommodating “our” intuitions can only mean accommodating intuitions on both sides of the relevant debates. But if so, then internal accommodation accomplishes little as a means for evaluating theories, because it provides no reason to favor one theory over another. Gill makes this point in slightly different terms (2009, p. 218): “Some parts of ordinary moral discourse might be best captured by, say, a relativist

analysis, while other parts might be best captured by an absolutist analysis, and there may be no reason for holding that one of these parts is any more conceptually genuine or aberrant than the other.”

Perhaps appealing to intuitions makes sense *when a majority exists* in support of a single, coherent theory. There can be only one majority in a population, so appealing to the intuitions of the majority at least succeeds in identifying a unique position among conflicting alternatives. But if no majority at all emerges among the relevant competitors, then no intuitions at all need to be accommodated. In other words, whenever the folk speak with a single, clear voice, there may be some reason for philosophical theories to accommodate *that* voice. But where the folk do *not* speak with one voice, there is no reason to accommodate them.

A final note: As others have observed, conflicting intuitions can occur within individuals, as well as across individuals (Gill 2009; Pölzler 2017; Hopster 2019). Gill (2009, p. 217-8) and Pölzler (2017, p. 472-473) cite evidence that metaethicists’ appeals to intuition have often assumed consistency in *both* dimensions, and they argue that inconsistency in either dimension threatens the method of internal accommodation. For present purposes, however, I wish to point out only that this constitutes a stronger form of predominance than the one I rely on here. This conception of predominance requires not only that certain intuitions are in the majority overall, but, in addition, that these intuitions are distributed in a specific way relative to individuals, with the same individual endorsing the same metaethical theory across a range of moral issues. A weaker form of predominance simply makes no claims about how intuitions are distributed among individuals, holding merely that certain intuitions are predominant in general. Again in the name of charity, I adopt this weaker interpretation for both of the empirical theses tested here. Predominance will be measured without requiring that individuals consistently endorse the

same position across multiple moral claims.<sup>5</sup> The key question, then, is whether the results will support even this weak form of the predominant realism thesis and the predominant something thesis.

#### **4. Methods**

An age- and gender-representative sample of 537 residents of the United States was recruited and compensated through Qualtrics' online market research services. All cases were scanned for participants who simply identified the fastest way to complete the survey, or who "clicked through" using the same response for every question. Thirty such cases were identified and rejected prior to analysis, resulting in a sample of 507 cases. Participants were 51.1% female and 48.9% male. Self-reported ethnicities were as follows: 9.3% African-American, 2.2% Native American, 3.6% Asian, 4.7% Hispanic, 77.9% White, 2.4% Other.

After granting informed consent, participants answered a series of demographics questions, including one question that also affected which questions they would receive later in the survey. This question asked, "Do you believe in the existence of God?" Answers were registered on a Likert scale anchored at -3 ("No, God definitely does not exist") and +3 ("Yes, God definitely exists"), with a midpoint at 0 ("I have no idea"). Later on, participants whose scores were below 1 on this scale were screened off from questions about divine command theory, because it would not make sense to ask those who do not believe in God about the role God plays in establishing moral objectivity.

<sup>5</sup> The data are publicly available on the Open Science Framework, so anyone who would like to investigate issues of intrapersonal inconsistency is encouraged to access the dataset at <https://osf.io/uqadk/>.

Each participant was then presented with a total of 17 claims, or “items,” and asked the same series of questions about each item. The question series was designed to sort individuals into the six metaethical theories identified above, while the list of items was designed to evenly represent a range of distinct moral issues. See Figure 2 for a complete list of items, and Figure 3 for a flowchart describing the question series.

The first two items were non-moral “training” items, designed to familiarize participants with the questions prior to, and independently from, the target moral items. The first training item was a descriptive claim: “New York City is further north than Miami.” The second was an aesthetic claim: “Michael Jackson was a better dancer than most other people.” After answering all questions for these two items, each participant was presented with the same 15 moral items, in random order. These items were subdivided into five sets of three, following the structure of the Moral Foundations Questionnaire (Graham et al., 2011), a widely used, well-established instrument for eliciting distinct response patterns in distinct moral subdomains. Moreover, in addition to adopting the basic structure of the Moral Foundations Questionnaire, ten of the particular items were also copied directly from this source. Some items on this questionnaire, however, were not worded in a manner that was compatible with the questions in this survey, so five items were adopted from other studies instead (Levine et al., under review; Goodwin and Darley, 2008; Beebe and Sackris, 2016), which share the basic methodology of presenting a moral claim and eliciting judgments about it. These items were chosen on the basis of their ability to state a simple, clear moral claim, which falls squarely within a single subdomain, and would be unlikely to activate intuitions from multiple subdomains at once.

The first three questions were the same for all participants. The first question simply elicited a judgment of agreement or disagreement with the item, on a scale ranging from -3 to +3.

The purpose of this question was simply to have participants make a concrete, first-order moral judgment, so that subsequent questions could elicit second-order, metaethical judgments about that first-order judgment. Accordingly, participants who neither agreed nor disagreed with a given item, choosing 0 on this scale, were asked no further questions about that item. The subsequent questions asked participants to imagine others disagreeing with them about their first-order judgments, but it is not possible to disagree with someone who neither agrees nor disagrees with a given claim. Thus, data were simply foregone in these cases.

The second and third questions both employed the method of disagreement. Both questions instructed the participant to first consider the first-order judgment that she herself had just made, in agreeing or disagreeing with the item, and then to imagine that someone else disagrees with this judgment. The difference between the two questions concerned the cultural identity of the disagreeing individual. In the second question, the instructions were to “imagine that someone from your own neighborhood disagrees with you.” In the third question, the instructions were to “imagine that a shepherd from the highlands of Ethiopia disagrees with you.” Both questions then asked,

Could both of your claims be true, or would one person’s claim have to be false?

For both questions, four answer choices were provided, representing relativism, objectivism, noncognitivism and error theory (explicit labels for these positions were not presented in the actual survey):<sup>6</sup>

<sup>6</sup> Thanks to Cova and Pain (2012) for demonstrating, in a parallel study of aesthetic realism, how response options in the method of disagreement could address multiple forms of antirealism.

1. *Relativism*: Both claims could be true.
2. *Objectivism*<sup>7</sup>: One claim must be false.
3. *Noncognitivism*: “True” and “False” aren't the right words to use; it's a matter of personal evaluation. When someone says that [item], she's expressing an evaluative judgment, not a description of facts, which could be true or false. In the same way, if someone says spinach tastes gross, she isn't trying to describe a fact about spinach. She's just expressing her own evaluation of spinach.
4. *Error Theory*: Both claims are false, in the same way that it's false to claim that Santa Claus brings gifts only to children who behave well. The claim that [item] is a description of facts about the world, and not just an evaluative judgment, so it could be true or false. But these facts don't actually exist, so the description is false. Nevertheless, people can use false descriptions to communicate about [item], just as they can use the claim that Santa Claus brings gifts only to well-behaved children in order to convince children to behave well.

If participants chose the objectivist response, they were classified as realists, and further questions were asked in order to determine what kind of realism they endorsed. If any other option was chosen, then no further questions were asked (see Figure 3).

Previous work on moral objectivism by Sarkissian et al. (2011) has shown that when differences in cultural background are explicit and salient, objectivist responses are less common. Accordingly, framing the disagreement question in these two different ways served two functions. One function was to attempt to replicate these earlier findings using somewhat

<sup>7</sup> Here “objectivism” is used in a manner consistent with previous studies using the method of disagreement. This label overlooks the objectivist nature of Error Theory, but it preserves consistency with the existing literature.

different methods. Sarkissian et al. described the cultural backgrounds of the disagreeing agents in greater detail, and they employed more exaggerated differences, including non-human aliens in addition to humans from a different culture. The other function was to increase the survey's sensitivity to realist intuitions, because participants were classified as realists as long as they chose the objectivist response for *either* question. Those who endorsed the existence of moral facts in either disagreement were asked further questions about what those facts are like—natural, nonnatural or supernatural? Before going on to describe these questions, however, it is important to first address a side-effect of this methodology.

Because the disagreement question was asked twice, it was possible for participants to endorse two conflicting antirealist theories. For example, a respondent might endorse noncognitivism in the disagreement with someone from her own neighborhood, but relativism in the disagreement with someone from Ethiopia. I refer to such cases as *mixed antirealism*, since they include any combination of relativism, noncognitivism and error theory. These cases are difficult to interpret, because two conflicting views are endorsed not just by the same person, but even with regard to the same first-order moral claim. As noted above, this challenges the stronger form of predominance thesis requiring consistency within individuals, which Gill and Pölzler argue has often been a commitment of metaethicists' appeals to internal accommodation. However, since my concern is only with the weaker form of predominance, I will not press this point here. I simply note that instances of mixed antirealism are clearly unable to provide any positive support for the weaker form of either the predominant realism thesis or the predominant something thesis.

After these first three questions, different participants began to receive different questions. Those who reported belief in God above received questions about divine command theory that

nonbelievers did not receive. For believers, the fourth question provided the option of endorsing divine command theory. If this theory was rejected, then a fifth question asked about naturalism vs. nonnaturalism. For non-believers, by contrast, the fourth question skipped directly to the issue of naturalism vs. nonnaturalism.

The question about divine command theory was inspired by Plato's Euthyphro question: Is what is holy loved by the gods because it is holy, or is it holy because it is loved by the gods? Believers were instructed to imagine yet a third disagreement about the item, this time with God, rather than with an ordinary mortal. They were then asked whether disagreeing with God's judgment was sufficient to make their own judgment false. If so, then the response was classified as supernaturalist realism. Alternatively, if the participant judged that it was still possible for her own judgment to be true, despite conflicting with God's judgment, then it was inferred that she did not consider facts about God's will to be the truth-makers for the claim. The complete wording of the question depended upon the content of the item, but the following text was identical across all items:

Suppose that God did not judge that [participant's judgment of agreement/disagreement with the item]. Would this make it no longer true that [participant's judgment]? Or would it still be true that [participant's judgment], even if this were inconsistent with God's judgment?

1. *Supernaturalist Realism*: If the claim that [participant's judgment] were inconsistent with God's judgment, then it would not be true.

2. *Not Supernaturalist Realism*: It would still be true that [participant's judgment], even if this claim were inconsistent with God's judgment.

Believers who endorsed supernaturalist realism were asked no further questions about that item. Believers who did not endorse supernaturalist realism were then asked whether moral facts are natural or nonnatural:

If facts about God's judgment are not what determines whether it's true that [item], then what kind of facts *do* determine whether this claim is true?

Non-believers, who had not previously been asked anything about God's judgment, were simply asked,

What kind of facts determine whether or not it's true that [item]?

The answer choices for these questions were the same for believers and non-believers:

*1. Naturalism:* Facts about whether [item] are facts about the natural world, which can ultimately be explained entirely in scientific terms. It may be hard to say exactly what a scientist would have to observe in order to determine [item], but this doesn't mean that such facts cannot be fully explained according to a purely scientific worldview. It is possible, at least in principle, to identify such facts using scientific methods, and to explain them using scientific theory.

*2. Nonnaturalism:* Facts about whether [item] are not facts about the natural world, and they can never be fully explained in scientific terms. Whether or not [item] is a matter of

how people should act, but science can only explain how people *actually do* act—science can't tell us how people *should* act. Just as there is no way to observe logical facts, such as the fact that no object can be both a triangle and a circle at the same time, there is no way to observe facts about how people should act, such as facts about [item]. Thus, there is no way to identify such facts using scientific methods, or to explain them using scientific theory.

The question series thus begins by sorting each participant, for each item, into one of the four categories of objectivism, relativism, noncognitivism or error theory. Next, it sorts objectivists who believe in God into those who endorse supernaturalist realism (divine command theory) and those who do not. Last, it sorts objectivists who do not endorse supernaturalist realism into naturalist realism or nonnaturalist realism. Thus, for each item, each individual is placed into one of seven mutually exclusive and jointly exhaustive categories, representing six theories drawn from the metaethical literature, plus the seventh “theory” of mixed antirealism (Figure 3).

This methodology still does not, of course, provide a complete, fully detailed image of each participants' intuitions about a given item. More detail could be obtained using a semi-structured interview (Moss, 2017), or free-response answers. Yet only so much detail is needed to test the predominant realism thesis and the predominant something thesis, and the benefits of these methods bring with them various costs. Interviews are far more time- and money-intensive, and there is high risk of influencing respondents with “leading” questions. Free-response answers generate the problem of subsequently interpreting the terms used by the folk in a way that interfaces with the concepts used in the philosophical literature. This can be difficult even

for a single individual, but the difficulty is further compounded by the need to ensure that such interpretations are consistent across individuals, who may use different terms. Further, lay people may lack the conceptual resources necessary to articulate an abstract and complex philosophical position, even if they would endorse that position once someone else articulates it for them. I do suggest that forced-choice methods are always better, overall. Ideally, intuitions should be investigated with mixed methods, yielding multiple perspectives onto the same phenomena. But for the purpose of testing the predominant realism thesis and the predominant something thesis, the benefits of forced-choice methods outweigh the costs.

## **5. Results and Discussion**

### *5.1 Results and Analysis*

First, percentage scores were identified for each theory, on each item. Next, for the three items representing each subdomain identified by Moral Foundations Theory, these percentages were averaged together. Table 1 presents the averages for all theories across all subdomains. Table 2 presents a summary analysis of realism and antirealism, which ignores differences among specific theories. Overall, 65.4% of responses endorsed some form of antirealism, while 34.6% endorsed some form of realism.

Regarding the specific theories, Table 1 shows that the clear “winner” was noncognitivism, which received the highest score in all five subdomains, averaging 34.2%. In second place, relativism averaged 20.4% across all items, while nonnaturalist realism, in third, averaged 15.3%. At the other end of the scale, error theory accommodated the fewest intuitions in all subdomains, averaging merely 2.9%. In between, naturalism, at 9.7%, divine command theory, at

9.6%, and mixed antirealism, at 8.0%, were each endorsed by a minority that was small, but not insignificant.

More interesting patterns emerge, however, when we consider how these averages break down across subdomains. As Figures 4a and 4b illustrate, two distinct response profiles emerged among the five subdomains, as there was a striking similarity between the harm and fairness subdomains, on one hand, and among the authority, loyalty and purity subdomains, on the other. The crucial difference between the harm/fairness response profile and the authority/loyalty/purity response profile concerned the second-ranking, “runner-up” position. In both profiles, noncognitivism scored at least 28.9%, while five other theories scored below 15%. But between these values, each profile contained a runner-up to noncognitivism, with significantly higher scores than the other five theories. In the harm/fairness profile, this runner-up was nonnaturalism. In the authority/loyalty/purity profile, the runner-up was relativism instead.

In the harm/fairness profile, scores for the runner-up were close behind those of the winner. Indeed, among harm items, this difference was not statistically significant, according to the results of a Z-test corrected for multiple comparisons using Bonferroni’s method ( $p = .202$ ). Here, noncognitivism received 28.9%, while nonnaturalism received 24.6%. Among fairness items, this difference was significant ( $p < .001$ ), but not very large. Noncognitivism received 30.9%, while nonnaturalism received 22.8%. By contrast, however, in the authority/loyalty/purity profile, nonnaturalism never received more than 11.1%, while relativism received at least 22.2% in each subdomain. The differences between the winner and the runner-up in this profile were greater than in the harm/fairness profile, because the scores for noncognitivism were higher: at least 35.0% in each subdomain. Nevertheless, in both profiles it is clear that two positions each accommodated relatively large minorities, while five positions

accommodated relatively small minorities. In the harm/fairness profile, the two large minorities were the antirealist theory of noncognitivism and the realist theory of nonnaturalism, each of which was endorsed by approximately 1/4 of the sample. In the authority/loyalty/purity profile, the two large minorities were both antirealist theories, and while relativism was endorsed by approximately 1/4 of the sample, noncognitivism was endorsed by more than 1/3.<sup>8</sup>

Finally, the results did not replicate the earlier finding of Sarkissian et al. (2011), according to which objectivism is less common for disagreements across cultures. For each of the 15 items, a chi-square test was performed to determine whether responses to the same-culture objectivism question and the different-culture objectivism question were significant. Only for one item (*Team*) was the difference significant (Pearson  $\chi^2 = 10.288$ ,  $p = .016$ ). For the other 14 comparisons, p-values were above .05. This implies that, if cultural differences between the disagreeing parties substantially affect rates of objectivist judgment, then these differences must be quite pronounced, and specified in considerable detail.

## 5.2 Discussion

These results strongly challenge the predominant realism thesis, as Table 2 and Figures 5a and 5b show. The antirealist family enjoyed a nearly two-thirds majority across the moral domain in general, largely due to the authority/loyalty/purity response profile. The harm/fairness profile was more balanced. Indeed, among harm norms, antirealist theories were endorsed by only 52.0% of the sample, while realist theories were endorsed by 48.0%. A Z-test revealed that this

<sup>8</sup> A careful reviewer noted that in the domains of authority, loyalty and purity—but not harm or fairness—one of the three items was worded as a first-personal expression, rather than as a general normative claim. Since the survey is framed around questions of direct interpersonal disagreement, the reviewer wondered whether these first-personal expressions might be responsible for the difference between the two response profiles. This potential confound was ruled out, however, in analysis. When the first-personal items were removed, the response values changed by mere fractions of a percent. Such minute differences have no impact on the results, or on the arguments based on them.

difference was barely significant ( $z = 1.81, p = .035$ ). Among fairness norms, 54.2% endorsed antirealism, while 45.8% endorsed realism. This difference was also significant ( $p < .001$ ), though still small. Such slim majorities hardly show antirealism to be the predominant view of the folk in these domains, but they do show clearly that realist intuitions were *not* predominant. Meanwhile, antirealist intuitions clearly *were* predominant elsewhere in the moral domain. As Figure 5b shows, an overwhelming majority of the folk endorsed some form of antirealism in the authority/loyalty/purity response profile. Thus, realist theories do not accommodate the moral intuitions of a majority of individuals in any part of the moral domain, much less across the moral domain in general. Premise (2) in the realists' presumptive argument appears to be false (at least in the U.S.).

The findings also contradict the predominant something thesis. None of the specific theories examined was endorsed by anywhere near a majority of the sample, in any part of the moral domain. Consequently, *no theory at all* accommodates the intuitions of people generally; there is no shared starting point of common sense. This fact has previously been obscured, I submit, by the fact that earlier studies only examined intuitions at the vague, general level of realism and antirealism.

The general debate between realism and antirealism is a two-sided debate, and majorities come cheap in two-sided debates. If each individual is sorted into one of two mutually exclusive and jointly exhaustive categories, then only a perfect 50/50 split could prevent *some* position, one way or the other, from being favored by a majority. Thus, at this level of generality, the predominant something thesis already seems a safe empirical assumption, merely on a priori grounds. Of course, a majority is not necessarily a *substantial* majority, and a slim majority may not establish predominance, in the relevant sense. But this point may have been easy to overlook

in earlier studies of objectivism, since the predominant something thesis itself is never stated explicitly to begin with. Further, of course, the results here show that, at this level of generality, the predominant something thesis *is* true: the folk are predominantly antirealist, and antirealism is something, after all. Nevertheless, there is a big difference between finding that the whole family of antirealist theories is predominant and finding that a specific theory within this family is predominant.

Consider, for example, the basic conflict between nonnaturalism and noncognitivism, the winner and the runner-up in the harm/fairness response profile. The nonnaturalist holds that moral claims describe nonnatural facts, while the noncognitivist holds that moral claims do not describe facts at all, so the fundamental issue at stake is that of cognitivism vs. noncognitivism. Now, given that noncognitivism is the antirealist position here, and given that antirealist intuitions in general are predominant, can we infer that noncognitivism does a better job of accommodating moral intuitions than nonnaturalism? No. The relevant majority here has been constructed by ignoring the differences among different species of antirealism, and aggregating scores from three mutually incompatible theories—two of which are *cognitivist* theories. The predominance of the whole family of antirealist positions, in the aggregate, provides no reason to think that any specific theory within this family is predominant, so appealing to antirealist intuitions in general provides no reason to favor the noncognitivist intuitions of noncognitivism over the cognitivist intuitions of nonnaturalism. The antirealist family encompasses intuitions from both sides of the conflict between noncognitivism and nonnaturalism, so attempting to accommodate the intuitions of the whole family provides no reason to favor one side of this conflict over the other.

Internal accommodation is useful only when the intuitions involved are specific enough to adjudicate the relevant debates. Yet when we measure moral intuitions at a level of specificity designed to engage the basic positions in the metaethical literature, we are no longer engaged in a two-sided debate. Accordingly, there is no reason to assume, a priori, that *any* position will emerge as predominant, and, in fact, no position does. But if there is no single, coherent position to be found among the relevant intuitions, then accommodating those intuitions serves no purpose.

It is for this reason that, for the sake of charity, I formulated premise (1) in the presumptive argument as a conditional: *if* some theory succeeds in accommodating the intuitions of people in general, *then* competing theories bear the burden of proof. For if no theory is endorsed by a substantial majority, then the antecedent of (1) is not satisfied, and no claim is made at all about who has the burden of proof. As a result, the findings here show that the presumptive argument fails, but they do not show that it backfires. That is, the data show that antirealism bears no burden of proof, but they do not show that the burden falls on realism instead. Since no theory is endorsed by a substantial majority, there is no reason to accommodate any moral intuitions at all, so no theory deserves a dialectical advantage.

Internal accommodation only makes sense in cases where the predominant something thesis is satisfied, and where the relevant “something” is a specific theory, rather than a broad family of mutually conflicting theories. In conjunction with the data presented here, these conditions show that the scope of cases in which internal accommodation is appropriate is far narrower than metaethicists have previously recognized. In the future, attempts to appeal to intuitions of common sense should be accompanied by positive empirical evidence showing that the relevant intuitions truly are common.

Proponents of internal accommodation might respond to this argument by pointing to the prevalence of noncognitivist intuitions, and arguing that a majority is too much ask. Instead, the response might go, we can fall back on the largest minority in cases where no majority exists. After all, there can be only one *largest* minority, so this method would succeed in picking out a unique position as *the* intuitive starting point, even if it is not exactly common. On this measure, noncognitivism clearly emerges as the intuitive standard, in all five subdomains. So perhaps noncognitivism is predominant enough for purposes of philosophical methodology, and the predominant something thesis is true after all.

I am not entirely set against this suggestion, but more needs to be said to justify internal accommodation based on this weakened notion of predominance. The data show that 65.8% of people do not possess noncognitivist intuitions, so the question is why we should care about accommodating any set of intuitions that *most* people do *not* possess. If there is a good reason to do this, then proponents of internal accommodation still need to provide it.

I am assuming that where internal accommodation must be abandoned, there is always external accommodation instead, and we may still proceed by integrating our metaethical views with various non-moral intuitions. Of course, it still needs to be shown that the relevant non-moral intuitions are predominant, and thus the data here favor external accommodation only in the weak sense that they hamper the competition. But if the objection to internal accommodation is sound, then it is important that there is at least some reasonable alternative at hand. In addition, I emphasize that my argument is not meant to challenge the very idea of internal accommodation in metaethics. It is only meant to identify a limitation in the scope of its use, and to underscore the need for genuine empirical evidence in support of claims about what is common in common sense.

Note too that, according to Cuneo's claims about the methodological stances of naturalism and nonnaturalism, the results here favor naturalism. This is to paint with a broad brush, of course, since naturalistic commitments of different kinds support both realist and antirealist theories alike. But while the data here do not challenge nonnaturalism directly, when combined with Cuneo's characterization of nonnaturalism as a methodological stance based on internal accommodation, they do pose an indirect, methodological challenge. To the extent that justification for nonnaturalism is dependent on accommodating moral intuitions, the falsity of the predominant something thesis calls this justification into question.

Finally, in addition to philosophical implications, the results here have important implications for moral psychology. The data further support existing claims about metaethical pluralism, but they also identify a range of more specific patterns under this heading, which warrant further investigation. In particular, there are the two distinct response profiles, which clearly identify harm and fairness as special, or separate from other moral norms. This corresponds with previous findings of Moral Foundations Theory (Graham, Haidt, and Nosek, 2009), according to which harm and fairness are also identified as special, but in a different way: while concerns of harm and fairness are important to liberals and conservatives alike, concerns of authority, loyalty and purity are much more important to conservatives than to liberals.<sup>9</sup> Together, these patterns suggest that metaethical intuitions should be more consistent across cultures in the domains of harm and fairness than in the other domains. This also suggests that harm and fairness might be special in other ways.

<sup>9</sup> This convergence suggests the possibility that the findings here were driven simply by a sample that was predominantly liberal. However, liberals made up only 37.1% of the sample, with conservatives comprising 31.8%, and 31.2% identifying as "neither liberal nor conservative." Further, when responses of conservatives were isolated, the same response profiles emerged: noncognitivism was the winner in all five domains, nonnaturalism was the runner-up in the harm and fairness domains, and relativism was the runner-up in the authority, loyalty and purity domains.

Related questions concern the status of additional types of moral norms, which are not addressed by Moral Foundations Theory. The authors of this theory claim that the moral domain is composed of *at least* five subdomains, but they do not claim that these five subdomains exhaust the moral domain (Graham et al., 2013, p. 60). In my own view, the leading candidates for additional subdomains include norms of autonomy, honor, honesty, ownership, integrity and authenticity. How, then, do metaethical intuitions about such other types of norms compare with the harm/fairness profile, on one hand, and the authority/loyalty/purity profile, on the other? Do all other norms share the authority/loyalty/purity profile, leaving harm and fairness in a class of their own? Or do certain types cluster together with harm and fairness? Does some third (or fourth?) profile emerge?

Similar questions arise outside the moral domain altogether. Since questions of objectivity, realism and antirealism arise for any type of normative claim, intuitions about epistemology, aesthetics, logic, etiquette and other non-moral domains should also be examined, helping to situate the psychology of moral norms within the psychology of norms in general (Chudek and Henrich, 2011; Sripada and Stich, 2006).

Finally, while a primary aim of this study was to be more comprehensive than previous studies, it still faces a crucial limitation: the sample was limited to residents of the United States, who are not necessarily representative of humans in general. It could be that at a global level, the predominant realism thesis is true after all. For example, perhaps supernaturalist realism is more common in other cultures, where moral facts are based on different sorts of supernatural facts, or where monotheists are more religious. On the other hand, perhaps learning more about other cultures will simply add to the widespread inconsistency observed here, further undermining the

predominant something thesis. It is important for future work to address these cross-cultural questions.

## **6. Conclusion**

Because previous studies of metaethical intuition have focused on vague judgments about moral objectivism, and because they have treated the moral domain as an unstructured, undifferentiated whole, the image these studies provide is intriguing, but frustratingly low in resolution. A sharper image is offered by supplementing measures of objectivism with other measures, which address more specific metaethical intuitions, and by systematically examining a broad range of distinct types of norms. This image not only has interesting implications for the psychology of metaethics, but also for philosophical methodology. One implication is that the presumptive argument in favor of realism is undermined. Another implication is that the method of internal accommodation is undermined, since no single, coherent metaethical position is identified as the intuitive starting point of common sense. I conclude that such appeals to folk intuition in metaethics should henceforth be supported by empirical evidence for their predominance.

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Realism	Antirealism
<p>Moral claims describe moral facts that exist independently of human minds.</p>	<p>There are no mind-independent moral facts, so moral claims cannot describe them.</p>
<p><u>Naturalism</u>: Moral facts are natural facts, which can be addressed by science, at least in principle.</p>	<p><u>Relativism</u>: Moral claims describe facts about the values of cultures or individuals, so they are true only relative to human minds.</p>
<p><u>Nonnaturalism</u>: Moral facts are <i>not</i> natural facts, and <i>cannot</i> be addressed by science, even in principle.</p>	<p><u>Noncognitivism</u>: Moral claims do not describe facts at all, but simply express subjective desires or preferences.</p>
<p><u>Divine Command Theory</u>: Moral facts are determined by <i>supernatural</i> facts about God's judgment, not natural or nonnatural facts.</p>	<p><u>Error Theory</u>: Moral claims do describe mind-independent moral facts, but no such facts actually exist. Thus, all moral claims are false.</p>

**Fig. 1** Definitions of realism and antirealism in general, and of the prominent metaethical theories examined within each category

## List of Items

### Harm

1. One of the worst things a person could do is hurt a defenseless animal. (*Animal*)
2. Hitting someone just because you feel like it is wrong.^ (*Hit*)
3. If a person finds a stranger's wallet in the street and the wallet has the owner's ID and phone number, the finder should attempt to contact the owner and return the wallet to him.\* (*Wallet*)

### Fairness

1. When the government makes laws, the number one principle should be ensuring that everyone is treated fairly. (*Gov*)
2. Cheating on an exam that you have to pass in order to graduate is permissible.^ (*Cheat*)
3. Treating someone poorly on the basis of their race is wrong.^ (*Race*)

### Loyalty

1. I am proud of my country's history. (*Hist*)
2. People should be loyal to their family members, even when they have done something wrong. (*Family*)
3. It is more important to be a team player than to express oneself. (*Team*)

### Authority

1. Respect for authority is something all children need to learn. (*Respect*)
2. Men and women each have different roles to play in society. (*Roles*)
3. If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty. (*Soldier*)

### Purity

1. People should not do things that are disgusting, even if no one is harmed. (*Disgust*)
2. I would call some acts wrong on the grounds that they are unnatural. (*Unnatural*)
3. An unmarried woman should not be involved in a sexual relationship.\* (*Unmarried*)

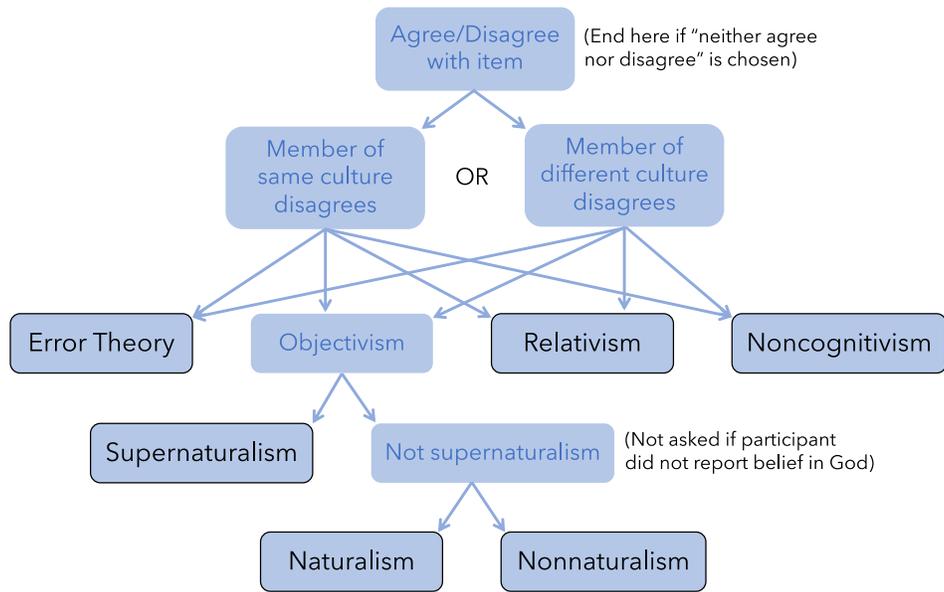
### Training

1. New York city is further north than Los Angeles.^ (*North*)
2. Michael Jackson was a better dancer than most other people. (*MJ*)

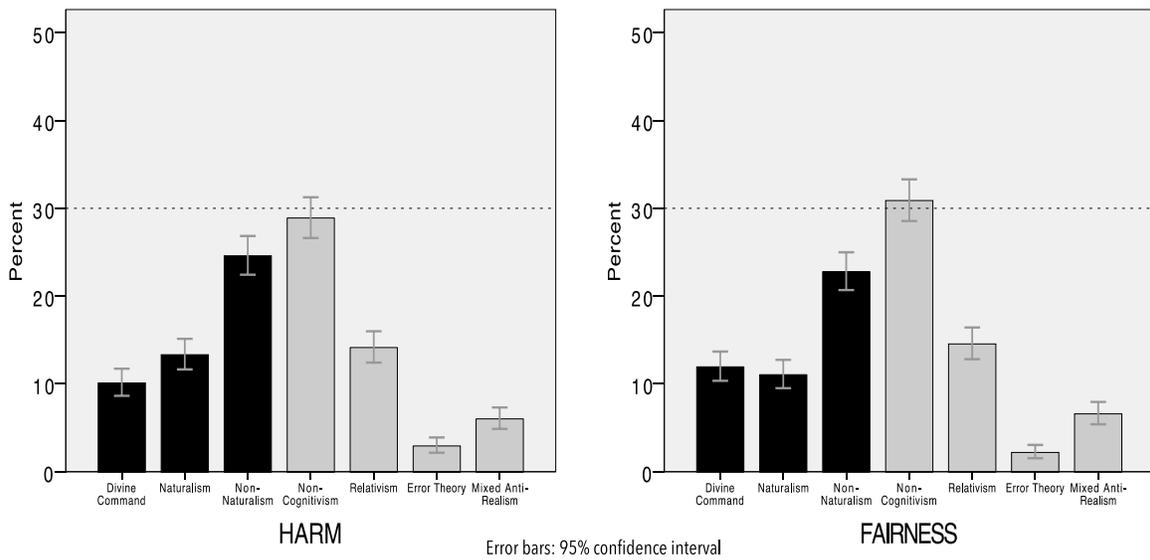
\* From Levine et al. (Under review)

^ From Goodwin and Darley (2008), Wright, Grandjean and McWhite (2013) and/or Beebe and Sackris (2016)

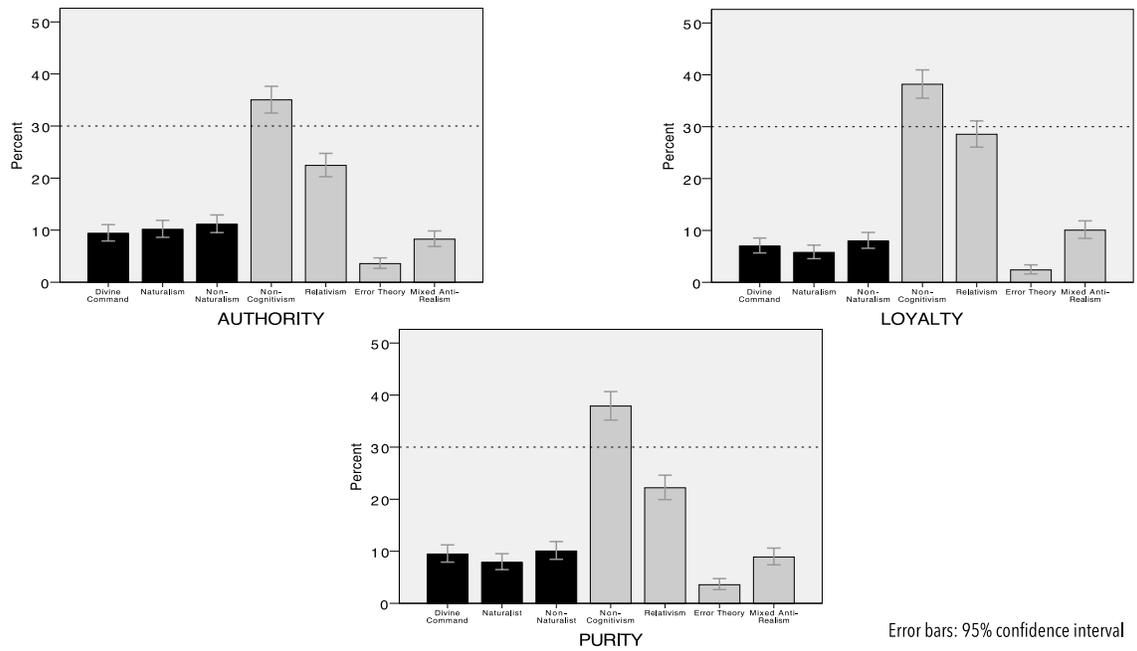
**Fig. 2** Complete list of items



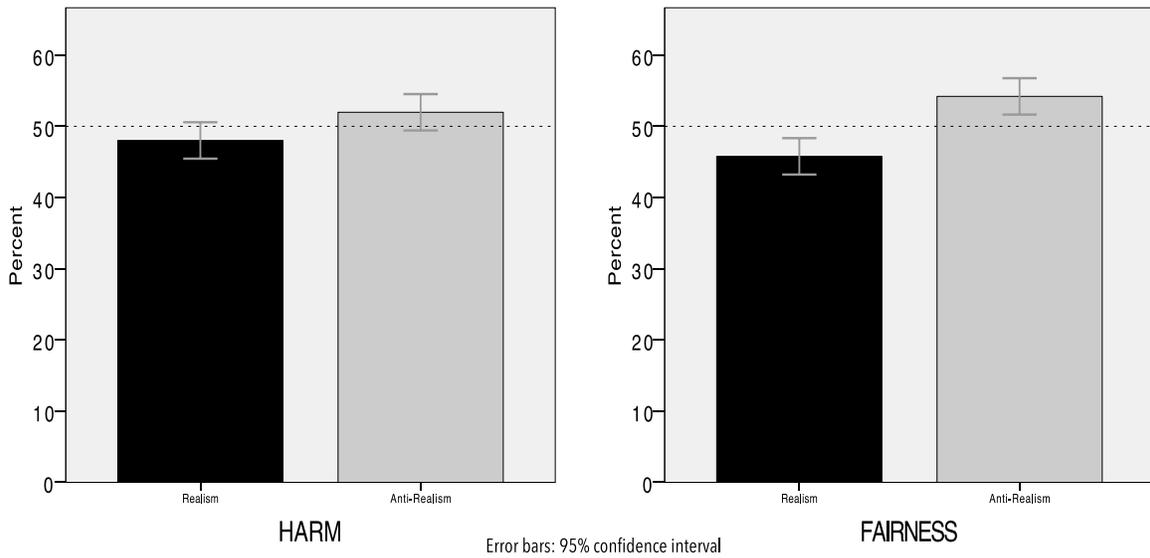
**Fig. 3** Flow chart describing the series of questions asked about each item



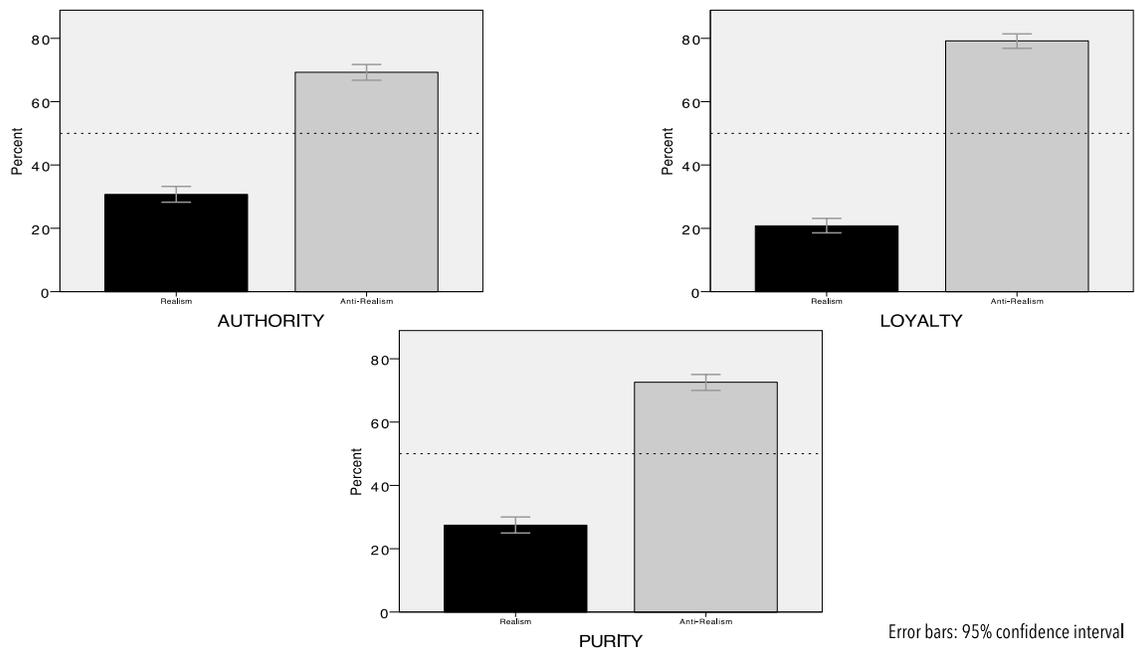
**Fig. 4a** The harm/fairness response profile for all specific theories



**Fig. 4b** The authority/loyalty/purity response profile for all specific theories



**Fig. 5a** The harm/fairness response profile summarizing all realist theories and all antirealist theories



**Fig. 5b** The authority/loyalty/purity response profile summarizing all realist theories and all antirealist theories

	Naturalism	Nonnaturalism	Divine Command Theory	Relativism	Noncognitivism	Error Theory	Mixed Antirealism
HARM	13.3%	24.6%	10.1%	14.1%	28.9%	2.9%	6.0%
FAIRNESS	11.1%	22.8%	11.9%	14.6%	30.9%	2.2%	6.6%
AUTHORITY	10.2%	11.1%	9.4%	22.4%	35.0%	3.6%	8.3%
LOYALTY	5.8%	8.0%	7.0%	28.5%	38.2%	2.4%	10.1%
PURITY	7.9%	10.1%	9.5%	22.2%	37.9%	3.6%	8.9%
<b>MEAN</b>	<b>9.7%</b>	<b>15.3%</b>	<b>9.6%</b>	<b>20.4%</b>	<b>34.2%</b>	<b>2.9%</b>	<b>8.0%</b>

**Table 1** Percentage scores for each specific theory in each moral subdomain

	Realism	Antirealism
HARM	48.0%	52.0%
FAIRNESS	45.8%	54.2%
AUTHORITY	30.7%	69.3%
LOYALTY	20.8%	79.2%
PURITY	27.5%	72.5%
MEAN	34.6%	65.4%

**Table 2** Percentage scores summarizing realist theories and antirealist theories in each moral subdomain