Debunking Arguments in Parallel:
The Cases of Moral Belief and Theistic Belief

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1. Introduction

There is now a burgeoning literature on evolutionary debunking arguments (EDAs) against moral beliefs, but perhaps surprisingly, a relatively small literature on EDAs against religious beliefs. There is an even smaller literature comparing the two.[1] This essay aims to further the investigation of how the two sorts of arguments compare with each other. To begin with, I shall offer some remarks on how to best formulate these arguments, focusing on four different formulations that one can discern in the literature and that can be applied to both sorts of beliefs. I shall then go on to make a series of comparisons regarding the relative vulnerabilities of moral beliefs and theistic religious beliefs to these four arguments, suggesting that there are a number of respects in which theistic religious beliefs are somewhat less liable than moral beliefs to be undercut by EDAs.

2. Formulating Debunking Arguments

The literature on EDAs presents a considerable variety of versions of these arguments. There is no single canonical formulation, and it is best therefore to think of EDAs as a family of arguments. In this section, I shall distinguish four formulations that seem to me to be the most pervasive in the literature on debunking arguments against morality and against religious belief.

To begin with, it will be important to be clear on how we are understanding the beliefs that are supposed to be the targets of these arguments. Moral debunking arguments (MDAs) target moral beliefs given a realist construal of the truth-makers of those beliefs. Russ Shafer-Landau offers a helpful definition of moral realism as the view that

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[1] Indeed, Wielenberg (2016) is the only author I'm aware of who has engaged in a systematic comparison of the two sorts of arguments.

sincere moral judgments express beliefs, rather than conative attitudes; (ii) some of these beliefs are true; and (iii) such beliefs, when true, are not true by virtue of being the object of, or being implied by, the attitudes of (even idealized) agents (2012: 1).

Importantly, there is a question about the extent to which MDAs target moral realism of all varieties, or only versions of moral realism that view moral properties as *sui generis* and not identical to or reducible to natural properties, where natural properties are taken to be the sorts of properties that could figure in scientific explanations. I am inclined to think that MDAs are more clearly a challenge to non-naturalist moral realism than to versions of moral realism that treat moral properties as identical to or reducible to natural properties, and at least some advocates of MDAs share this view (e.g. Locke 2014, Lutz 2018). For the sake of erring on the side of caution, the arguments made in this chapter should be understood as pertaining only to non-naturalist moral realism.

Religious debunking arguments (RDAs) target religious beliefs, typically the beliefs of monotheistic believers, given a realist construal of the truth-makers of those beliefs. Although RDAs might well be relevant to polytheistic belief, I shall restrict my focus exclusively to monotheistic religious beliefs. We can take monotheism to be the view that there exists an uncreated and immaterial personal being who is supremely good, powerful, and knowledgeable and who created and sustains the material universe. This is what I shall have in mind henceforth whenever I talk about religious belief or theistic belief.

All four arguments that we are about to consider have in common the fact that they purport to undercut the epistemic warrant that theistic and moral beliefs might otherwise enjoy. These arguments are not arguments against the truth of theism or moral realism, but rather against the epistemic warrant of theistic and moral beliefs in view of the belief-forming processes that allegedly produced them.[2] As such, they are supposed to be able to work given the truth of theism and moral realism, respectively. In the formulations below, I shall refer to 'D-beliefs' or 'D-belief-forming processes', where 'D' can be substituted for either of the target domains, namely, morality or religion.

Start with what we might call the *counterfactual formulation*. This argument hinges on a counterfactual claim, namely, that if the D-facts had been completely different than they actually are, then evolution would nevertheless have selected for the same D-belief-forming dispositions as it actually has done. Debunkers allege that whereas the accuracy of our ancestors' beliefs about their physical surroundings made a big difference to how successful they were at navigating their environment, the accuracy of moral and religious beliefs was irrelevant to their survival value.[3] As Justin Clarke-Doane observes (2012: 325–326), this thought has counter-

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[2] By 'warrant' I mean the property enough of which turns a true belief into knowledge.

[3] See, for example, Street (2006: 130–131), Griffiths and Wilkins (2012: 140–143).

factual force. Varying the moral or religious facts would have no bearing on which moral and religious beliefs it was evolutionarily beneficial for humans to hold. This is supposed to show that religious and moral beliefs lack warrant. The argument can be formulated like so:

(C1) Humans would still have evolved the same D-belief-forming dispositions even if the D-facts had been completely different than they actually are.

(C2) IF S would still have believed p if p had been false (as a result of using the same belief-forming mechanism that S actually used to form the belief that p), THEN S's belief that p lacks warrant.

(C3) Therefore, our D-beliefs lack warrant.

Notably, (C2) is the sensitivity condition for warrant, which has been the subject of much debate in the last few decades.[4] Whether the above argument is cogent turns at least in part, then, on whether sensitivity really is necessary for warrant.[5] Nevertheless, an argument of this sort is fairly popular in the literature on both MDAs and RDAs.[6]

Turn next to what we might call the *explanatory formulation*. This argument foregrounds the notion of an explanatory connection between D-beliefs and the D-facts, alleging that the absence of such a connection implies that a correlation between D-beliefs and D-facts (i.e., D-beliefs being true) would be a lucky coincidence, which prevents those beliefs from being warranted. To illustrate, suppose that you want to find out whether each of the galaxies in the Local Group has an odd or an even number of stars, and your method for forming beliefs is to flip a coin. Presumably, there is no explanatory connection whatsoever between the coin flips and the number of stars in any given galaxy. Hence, it would be an enormous coincidence if you arrived at a set of largely true beliefs about the number of stars in the galaxies inhabiting the Local Group. Sharon Street's (2006) debunking argument against moral realism contends that something like this situation obtains for moral beliefs that are produced by belief-forming dispositions that were evolutionarily selected not for their reliability at producing true beliefs but merely for their propensity to promote prosocial behavior. The explanatory formulation can be set out as follows:

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[4] Dretske (1971) and Nozick (1981: 197–203) pioneered the development of the sensitivity condition in epistemology.

[5] Both White (2010: 580–581) and Bogardus (2016: 638–644) reject debunking arguments which rely on the sensitivity principle due to concerns about that principle's liability to lead to implausible skepticism more widely.

[6] As for MDAs, a counterfactual formulation is considered in (or is at least a possible interpretation of) the writings of Ruse (1986: 253–254), Bedke (2009: 190), Clarke-Doane (2012: 325–326), Bogardus (2016: 638–644), Joyce (2016: 147), and Braddock (2017). In the literature on RDAs, a counterfactual formulation is discussed by Murray (2007: 395–398), Thurow (2013: 85–86), and Wielenberg (2016: 86–87).

(E1) Given that D-belief-forming dispositions weren't evolutionarily selected for their alethic reliability, there's no good explanation for why our D-beliefs would be correlated with the D-facts.

(E2) IF there's no good explanation for why our D-beliefs would be correlated with the D-facts, THEN it would be a lucky coincidence if our D-beliefs were to be correlated with the D-facts.

(E3) IF the correlation of our D-beliefs with the D-facts would be a lucky coincidence, THEN our D-beliefs lack warrant.

(E4) Therefore, our D-beliefs lack warrant.

Whilst this is an influential way of formulating the evolutionary debunking challenge against morality,[7] owing to the centrality of Street's contribution to the debate,[8] I am not aware of any discussion of RDAs that uses this formulation.

The next formulation we turn to is framed in terms of the probability that our D-belief-forming dispositions are reliable, where the relevant notion of reliability is to be understood in terms of the ratio of truth to falsehood that those dispositions yield. On this way of formulating the challenge, given that our basic moral and religious belief-forming dispositions were the products of an evolutionary processes that were indifferent to moral truth and religious truth, the probability that those dispositions would yield a high proportion of true beliefs is very low. This version of the debunking challenge is formulated along structurally similar lines to Alvin Plantinga's (2011: 344–345) Evolutionary Argument Against Naturalism (EAAN), and we can refer to it as the *probabilistic formulation*. I'm not aware of any advocates of debunking arguments explicitly modelling their arguments on Plantinga's EAAN, but Daniel Crow (2016) and Andrew Moon (2017) have both pointed out that Plantinga's formulation is apt to capture what is going on with arguments that contend that the lack of a connection between evolutionary success and truth in a given domain makes it improbable that our beliefs about that domain are mostly true. This formulation seems to capture nicely John Wilkins and Paul Griffiths' (2012) so-called "Milvian Bridge" principle, which holds that we are entitled to trust our belief-forming processes in a given domain only if there is a connection between evolutionary success and truth in that domain. Wilkins and Griffiths contend that such a connection obtains for the domain of 'commonsense' and—albeit indirectly—for scientific beliefs, but not for moral and religious beliefs. Letting 'E' stand for 'D-beliefs are produced by belief-form-

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[7] Examples of other authors who develop arguments that are close to Street's explanatory formulation include Lutz (2018), Braddock (2016b), Locke (2014).

[8] Street (2006) frames her debunking challenge as a dilemma for realists, but I think the above formulation captures the heart of what Street is doing by giving center stage to the key notions of explanation, correlation, and coincidence that are central to Street's way of posing the challenge.

ing mechanisms that were not evolutionarily selected for their alethic reliability' and 'R_D' stand for 'our D-beliefs are reliable (i.e., mostly true),' the probabilistic formulation can be set out as follows:

(P1) $Pr(R_D/E)$ is low.

(P2) E is true.

(P3) There is no other proposition X that can be legitimately conditionalized upon, such that $Pr(R_D/E \ \& \ X)$ is high.

(P4) Therefore, the probability that our D-beliefs are reliable conditional on our total available evidence is low.

This way of setting things out is not exactly the same as Plantinga's, but one reason for doing things this way is that it brings out something that is left implicit in Plantinga's formulation and that is essential for the argument to succeed: namely, that there is no other proposition besides E upon which one can legitimately conditionalize in order to arrive at a high probability for R_D.

Finally, consider what we might call the *companions in guilt* formulation. According to this argument, there is a certain subset of the beliefs produced by the belief-forming processes responsible for religious beliefs or moral beliefs that is already known to be false. This is taken to show that those belief-forming processes are unreliable as a whole, or at any rate, not sufficiently reliable for the beliefs they produce to be warranted. The argument can be formulated thus:

(G1) The belief-forming process that produces D-beliefs has produced many false beliefs.

(G2) IF the same belief-forming process that produced S's belief that *p* has produced many false beliefs, THEN S's belief that *p* lacks warrant.

(G3) Therefore, D-beliefs lacks warrant.

This formulation seems to capture what is going on when it is claimed that certain cognitive mechanisms that allegedly contribute to the formation of religious beliefs, such as the so-called Hypersensitive Agency Detection Device (HADD), produce many false beliefs in contexts in which they can be checked, leading to the conclusion that the process in question is unreliable as a whole.[9] A variant on this is to say that the processes that produced religious beliefs have produced many god beliefs—polytheistic beliefs—that are incompatible with monotheistic be-

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[9] Arguments of this sort are discussed by Murray (2007: 393–395), Clark and Barrett (2011: 26–29), Nola (2012), and Launonen (forthcoming: 3–7).

liefs, and the mutual incompatibility between many of the outputs means that a significant proportion of the beliefs produced by these processes must be false.[10] In the moral domain, a parallel argument would allege that our evolved moral belief-forming processes have produced false moral beliefs—perhaps beliefs about the greater moral worth of members of one's in-group over an out-group—which purportedly shows that those processes are unreliable as a whole.

3. The Scope of Debunking Arguments

With these formulations in view, let us now consider the question of who, if anyone, is supposed to be troubled by such arguments.

Helen de Cruz and Johan de Smedt have suggested that 'evolutionary considerations are only relevant for the justification of beliefs from an externalist perspective' (2012: 412). Looking at the four formulations we have just canvassed, one can see how this might be a tempting thought. These arguments do seem to be targeting epistemic properties that are externalist in character, which is to say, properties whose presence or absence is not always within an agent's purview—counterfactual sensitivity, the presence of an explanatory connection between belief and truth-maker, the ratio of truth to falsehood yielded by the belief-forming processes that produced our beliefs. However, the situation is made relevant for internalists by the simple addition of a further step for each argument, claiming that once a person becomes *aware* that her beliefs lack the externalist epistemic property at issue, she thereby acquires an undercutting defeater for her belief for her internalist justification. Most internalist views of justification have a no-defeater condition, and most understand what it is to acquire an undercutting defeater in terms of the acquiring of a reason to think that a certain objective connection does not hold between one's belief and the truth it purports to represent.[11] I suggest, then, that debunkers need not think that their arguments only work given the truth of epistemic externalism.

Another question is that of whether debunking arguments should be seen as targeting both inferential and non-inferential beliefs in the domain at issue, or only non-inferential beliefs. Moral beliefs and theistic beliefs are in somewhat different situations with respect to this issue, I suggest. Advocates of MDAs tend to want to say that their arguments apply to both inferential and non-inferential moral beliefs, because of the fact that inferential moral beliefs are necessarily inferentially dependent on some non-inferential moral beliefs. That is to say, the

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[10] An example of this approach is Goodnick (2016).

[11] There are various views on the issue of exactly how one acquires an undercutting defeater, but the following are all live options in the current discussion: learning that your belief is insensitive or unsafe (Clarke-Doane and Baras 2021); learning that your belief is not explained by its truth-maker (Barker 2020: 1832); learning that your belief is unlikely to have been produced by a reliable process (Goldman 1979).

inference that ultimately grounds any inferential moral belief must involve at least one moral claim as a premise.[12] Street makes much of this point in denying the moral realist an escape route via rational reflection:

> Rational reflection must always proceed from some evaluative standpoint; it must work from some evaluative premises; it must treat some evaluative judgements as fixed… [R]eflection of this kind isn't going to get one any closer to evaluative truth, any more than sorting through contaminated materials with contaminated tools is going to get one closer to purity. (Street 2006: 124)

A parallel claim in regard to theistic beliefs would be much less plausible. That is, arguments for the existence of God do not, on the whole, rely on the premise that God exists. It has admittedly been alleged, for example, that the modal ontological argument has a crucial premise that one would have no reason to accept unless one were already a theist.[13] That aside, there is little reason to think that inferential belief in God must ultimately rest on non-inferential belief in God. This point is implicitly recognized by some proponents of RDAs, such as Matthew Braddock (2016a: 269–272), who aim their arguments only at non-inferential theistic beliefs.

This means that if debunkers wish to make their arguments apply to inferential theistic beliefs, it would have to be argued that the inferential processes involved in evaluating natural theological arguments are epistemically suspect in virtue of their causal origins. Such a move is very liable to over-generalize and lead to a much more far-reaching skepticism, because of the fact that the belief-forming processes that are used in evaluating natural theological arguments are plausibly the very same processes that are used to evaluate philosophical arguments more generally.[14] Take as an example the currently popular argument for theism from fine-tuning, which is a species of design argument. Some older design arguments could perhaps be viewed as resting ultimately on a brute intuition that the world is purposeful—an intuition that is potentially liable to be undermined by evolutionary explanations (e.g., Paley 1802). But the fine-tuning argument rests on no such premise. Bayesian formulations of the fine-tuning argument such as those offered by Robin Collins (2009) and John Hawthorne and Yoaav Isaacs (2018) allow for a complex overall probability judgment to be broken down into various sub-judg-

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12 This is in effect a statement of the impossibility of deriving an *ought* from an *is*. Whilst there have been examples offered in which a descriptive statement seems to entail a normative statement—e.g., a description of a state of affairs in which a promise is made (Searle 1964)—the descriptive statement is always one that involves normatively thick concepts such as the concept of a promise or a murder. What is genuinely impossible is deriving a normative statement from a descriptive statement that is devoid of normatively thick concepts.

13 The premise in question is the one that states that it is possible that God exists necessarily. See Oppy (2007).

14 See Thurow (2014) for discussion on this point.

ments, one such being the question of how probable a life-permitting universe would be on the hypothesis of a naturalistic single universe, another being the question of how probable a life-permitting universe would be on the hypothesis of theism. Even then, these sub-judgments are not a matter of appeal to brute intuition; rather, reasons are offered for thinking that, for example, a scenario in which no intelligent agent is guiding the selection of initial conditions and laws for a given instance of universe origination is tremendously unlikely to yield a life-permitting universe. In short, to try to claim that arguments for God's existence necessarily involve a special type of cognitive process that is not used elsewhere in philosophy is an uphill struggle, to put it mildly.

Turn now to the related question of the extent to which debunking arguments should be seen as targeting all or only some of the causal influences that shape moral beliefs and theistic beliefs. Let us grant that inferential moral beliefs are always ultimately dependent on non-inferential moral beliefs. Still, it is open to moral realists to maintain that not all of our non-inferential moral belief-forming processes are contaminated by evolutionary influence. Some realists have offered examples of moral principles that it would not be evolutionarily advantageous to believe, suggesting that belief in these principles is not plausibly the result of evolutionary influences.[15] Others have suggested that our ability to identify true moral principles, once we have become alert to our selfish and parochial inclinations, is of a piece with our ability to identify true *a priori* principles in philosophy more generally.[16] It is on this issue that some debunkers back away from the specifically evolutionary character of their causal story for moral beliefs, claiming that what *really* matters is that moral facts (on a standard non-naturalist realist construal) are causally inert such that *no* causal belief-forming process ever could stand in a truth-conducive relationship to such facts.[17] If this is really what the debunking challenge to moral beliefs boils down to,[18] then it is just as much of a challenge to any other domain in which the truth-making facts are causally inert, including perhaps the domain of epistemological theorizing. Whether or not MDAs really do amount to this older and more general challenge to the possibility of knowledge of causally inert facts, advocates of RDAs do not have available to them such a fallback option, in view of the causal efficacy of God on traditional theism.

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[15] See Levy and Levy (2020).

[16] See Singer (2005: 349–351), Brosnan (2011: 57), Fitzpatrick (2015: 886).

[17] Das (2016: 319) offers extensive examples of this ambivalence.

[18] Klenk (2017b: 794) alleges that the supposedly evolutionary character of the challenge is an 'illustrative veneer' and what we really have is just 'a brushed-up version of the Benacerraf-Field challenge,' which is the challenge of explaining how our minds could come into cognitive contact with a domain of causally inert facts. See Benacerraf (1973) and Field (2005).

With these points in view, let us now turn to considering the question of whether either moral beliefs or theistic beliefs are relatively more vulnerable than the other to the four formulations outlined earlier.

4. The Counterfactual Formulation

I suggested earlier that the popular counterfactual formulation of an evolutionary debunking argument against non-inferential theistic beliefs and non-inferential (and perhaps by extension inferential) moral beliefs can be stated as follows:

(C1) Humans would still have evolved the same D-belief-dispositions even if the D-facts had been completely different than they actually are.

(C2) IF S would still have believed p if p had been false (as a result of using the same belief-forming mechanism S actually used to form the belief that p), THEN S's belief that p lacks warrant.

(C3) Therefore, our D-beliefs lack warrant.

On the standard way of understanding counterfactual conditionals, a statement of the form *if p were the case then q would be the case* is true just in case q is true in the nearest possible worlds (to the actual world) in which p is true.[19] Given that fundamental moral truths are metaphysically necessary on moral realism, and given that God exists necessarily if traditional theism is true, there is immediately a difficulty in how to assess premise (C1) of the counterfactual formulation. The antecedent of the counterfactual conditional in (C1) is necessarily false, given the truth of moral realism and of theism (an assumption the argument needs to make).[20] A widely held view is that counterfactual conditionals with necessarily false antecedents are merely trivially true.[21] Erik Wielenberg contends that the counterfactual formulation "does not really get off the ground in either the religious or the moral domain" (2016: 87) for this very reason.

With that said, Daniel Nolan (1997: 539–540), among others, has pointed out that very many philosophical debates concern theories that are either necessarily true or necessarily false. Such debates unavoidably involve appeals to what would be the case were the theory under scrutiny true. Materialists in the philosophy of mind contend that if dualism were true, there would be an intolerable problem of how mind and matter interact, to give just one ex-

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[19] Stalnaker (1975), Lewis (2001).

[20] Debunking arguments are usually presented as seeking to establish that $(p \lor \neg p) \supset \neg WS(p)$, (whether or not p is true, S is not warranted in believing p), but this obviously entails both $\neg p \supset \neg WS(p)$ and $p \supset \neg KS(p)$, and so both must be established.

[21] Stalnaker (1975: 170), Lewis (2001: 24).

ample. But if counterpossibles are all trivially true, then these debates are fundamentally misguided. For any true proposition of the form *if philosophical theory T were true then C would be the case* (where theory T is either necessarily true or necessarily false, and where C is taken to be an undesirable or implausible consequence of T), there is also a true proposition of the form *if T were true then C would not be the case*—thus making a nonsense of such reasoning. But since philosophical debates which proceed in this manner are not fundamentally misguided, says Nolan, there is something wrong with the idea that counterpossibles are always merely trivially true. Nolan contends that there are some cases in which it is proper to take into account impossible worlds in our counterfactual reasoning.[22]

Suppose, then, that we evaluate (C1) by looking at the nearest worlds—impossible worlds—in which moral realism is false or in which the fundamental moral truths are different than in the actual world, and the nearest worlds—again, impossible worlds—in which theism is false or in which God's essential attributes are different than in the actual world. It would seem that theism fares somewhat better than moral realism at this point. The reason is that even if they exist, the moral truths are causally impotent, given standard non-naturalist realist construals of the moral truths. This means that in the nearest worlds in which the moral facts are completely different or non-existent, there is nothing different about the causal structure of the universe, and so no difference as regards which moral belief-forming dispositions it is evolutionarily beneficial for humans to have. As applied to moral beliefs, (C1) looks to be true. If God exists, on the other hand, God is causally responsible for creating the entire material universe, meaning that in the nearest world in which God doesn't exist, there isn't a material universe at all, and hence, no human beings with theistic beliefs. As applied to theistic beliefs, (C1) looks more questionable.

But have I been too quick to suggest that theistic beliefs can evade the counterfactual argument just because theism entails the causal dependence of the material universe on God? Joshua Thurow presents the following case, intended to cast doubt on this thought:

> Suppose Jones believes that there is beer in his refrigerator because of wishful thinking. Furthermore, suppose there is beer in his refrigerator. Now, suppose also that the six-pack of beer in his refrigerator is sitting on a button and, if the button were not pressed, it would cause Jones to be instantly annihilated. (Thurow 2013: 86)

Thurow suggests, plausibly, that Jones's belief lacks warrant given the way it was formed, and the fact that Jones wouldn't exist at all in the nearest world in which the fridge contained no beer does nothing to shake this evaluation of the epistemic status of Jones's belief. Thurow contends that we should therefore ignore the way in which the very existence of the agent is caus-

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[22] See also Brogaard and Salerno (2007).

ally dependent upon the truth of the belief in question. In the case of religious beliefs, what that means is that

> we should ignore the fact (if it is a fact) that we depend upon God for our existence when assessing the reliability of PBP [the belief-forming process that generates and sustains theistic beliefs] in forming a belief that some god exists. We do this by asking what we would believe on the basis of PBP if there were no gods and we still existed and used PBP to form a belief about whether there are any gods. (Thurow 2013: 86–87)

One worry about the use of the beer in the fridge case to motivate this approach with respect to theistic beliefs is that the cases are importantly disanalogous in at least one respect, namely, that the belief-forming process that Jones uses to form the belief about the beer (wish fulfilment) has not in any sense been causally shaped by the fact of the beer's presence in the fridge, whereas if theism is true, then God is at the very least the ultimate cause for why humans exist and have the sorts of minds we have.

The following case, however, does seem to suggest that X's merely being the remote, ultimate cause of a belief-forming process is not sufficient for that process to yield warranted beliefs about X. Suppose that Dorothy reads a book that describes the universe's coming into being several billion years ago in an explosion that began with an unimaginably dense and hot state. As a result of reading the book, Dorothy correctly forms the belief that the universe began with just such a Big Bang. Unbeknownst to Dorothy, however, the book that she read was actually a medieval work of science fiction that was in no way based on empirical discoveries about the origins of the cosmos. Plausibly, Dorothy's belief lacks warrant, and this is irrespective of the fact that she and the process she used to form her belief (the medieval science fiction book) do not even exist in the nearest world in which there was no Big Bang. The mere fact that the Big Bang is the ultimate cause of the belief-forming process Dorothy used does not seem to do anything to vindicate the counterfactual sensitivity of the process she used.

But there is an important disanalogy between even this case and the case of theistic beliefs. The book that led to Dorothy's Big Bang belief is not in any sense responsive to the particular manner in which the universe began. By contrast, the cognitive mechanisms postulated by the Cognitive Science of Religion (CSR)—mechanisms that detect agency, personhood, striking patterns of order in the structure of the world, and so on—are responsive to features of the world that theists will typically want to see as traces of divinity in the world, namely, personhood and order.[23]

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[23] A point developed by Clark and Barrett (2011: 21–22).

I suggest, then, that (C1) is a peculiarly challenging counterfactual to assess when applied to theistic belief. On the standard way of evaluating a counterfactual conditional of the form *if p were false then q would be true*, we change *p* from true to false and keep everything else as similar as possible save for the changes that are metaphysically and causally necessitated by changing *p* from true to false. Where *p* is theism, the changes include there being no material universe at all. And yet cases like the one involving Dorothy's belief about the Big Bang indicate that when evaluating the counterfactual sensitivity of a person's belief-forming process, we should ignore the fact that the belief-forming process is caused in some remote, ultimate sense by the belief's truth-maker. Plausibly, in evaluating that case we should look at the nearest world in which the universe began in some manner other than a Big Bang and yet Dorothy consults the same book to form a belief about the universe's origin. This suggests that we should similarly look at the nearest world where God doesn't exist but where humans exist and possess those same cognitive mechanisms which are responsive to agency, personhood, patterns of striking order in the world's structure. The question is: is that a world that still contains the phenomena of agency, personhood, striking order, and so on, and hence a world in which those cognitive mechanisms are triggered by similar inputs as in the actual world and thus produce religious beliefs? If we say yes (thus affirming (C1)), then we are ignoring any relation of dependence that the phenomena of agency, personhood, and striking order may have upon God, which might seem unfair. On the other hand, if we say no (thus denying (C1)), then we end up with an incoherent scenario: a world in which we (human agents) exist and possess those cognitive mechanisms described by CSR, and yet in which there is no agency, no personhood, and no patterns of striking order in the structure of the world. This isn't a merely metaphysically impossible world, but a conceptually impossible world, one that we cannot in any sense conceive of.

5. The Explanatory and Probabilistic Formulations

For the purposes of the present discussion, I am going to treat the explanatory formulation and the probabilistic formulation as basically equivalent. Whilst I do not claim that explanation and probability are conceptually equivalent in general, it does seem plausible that in the case of evolutionary debunking arguments, the reason for assigning a low probability to the reliability of beliefs produced by evolved belief-forming mechanisms in a given domain is precisely the lack of an explanatory connection between evolutionary success and truth in the domain at issue. In his discussion of the structural similarities between Street's debunking argument against moral realism and Plantinga's EAAN, Daniel Crow suggests that

> In general, the absence of the truth-tracking relation that Street describes explains the
> kind of low probability that Plantinga posits, which in turn explains why it would be a

coincidence if many of the relevant beliefs were true. Each of these epistemic concepts constitutes a link on the same explanatory chain. (Crow 2016: 136–137)

I concur with Crow. It also seems to me that the probabilistic formulation allows certain issues to be explored with greater clarity, in particular, the dialectical situation pertaining to so-called 'third factor' responses. So I shall focus now on the probabilistic version, which as I suggested earlier can be stated as follows (letting 'E' stand for 'D-beliefs are produced by a belief-forming mechanism that was not evolutionarily selected for its alethic reliability' and R_D stand for 'our D-beliefs are reliable, i.e., mostly true'):

(P1) $Pr(R_D/E)$ is low.

(P2) E is true.

(P3) There is no other proposition X that can be legitimately conditionalized upon, such that $Pr(R_D/E \& X)$ is high.

(P4) Therefore, the probability that our D-beliefs are reliable conditional on our total available evidence is low.

I noted already that (P3) is indispensable for the argument. Without it, the conclusion doesn't follow. In general, just because the probability of A conditional on B is low, it does not follow that the probability of A conditional on all the available evidence is low. That is why (P3) is essential for the argument to go through. What (P3) is in effect saying is that there is no other way to explain the existence of a reliable cognitive mechanism for forming beliefs about a given domain other than an explanation in terms of a connection between evolutionary success and truth in the domain at issue. Does this not amount to a presumption of naturalism? One might think that it does, because if theism is true, then it certainly isn't the case that evolution is the only process capable of bringing it about that humans have a reliable ability to form true beliefs about a given domain.[24] Against this, the debunker might claim that she need not presumptively rule out theistic explanations in order for (P3) to go through; she might instead offer reasons for thinking that, as it happens, theistic explanations of our cognitive faculties in a given domain are inferior to naturalistic explanations.[25] If it does turn out that (P3) presupposes naturalism, and hence, the falsity of theism, then that would be a significant strike against such an argument as applied to theistic beliefs. A debunking argument is fairly uninteresting if it presupposes the falsehood of the target beliefs.

There are other worries concerning this sort of argument. Suppose we grant the argument's requirement that our cognitive faculties be vindicated by demonstrating the existence of

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[24] Ritchie (2012: 174), Crow (2016), Fuqua (2018: 276), and Launonen (Forthcoming: 9) all make this point.

[25] See, for example, Braddock (2016a: 281-82).

a connection between evolutionary success and truth. And suppose we grant that such a connection does not obtain in the case of moral beliefs and theistic beliefs.[26] How sure should we be that such a connection exists for other domains, such as perception, scientific inquiry, and mathematics? Daniel Korman (2019) has questioned the existence of such a connection for our beliefs about midsize objects. Justin Clarke-Doane (2012) has argued that such a connection is just as questionable for mathematical beliefs (interpreted along mathematical realist lines) as for moral beliefs. And Crow (2016) has argued that it is very difficult to stop the skepticism induced by an argument of this kind from spilling over into a far-reaching skepticism about our cognitive faculties in general,[27] which of course is what Plantinga's EAAN aims to do, given naturalism. Worse still, perhaps, even if the skepticism can be stopped from spilling over into a general skepticism, it isn't clear how the argument can avoid undermining itself. After all, how is it that we get to know a proposition like (P3)? It is far from obvious that all of the inferential reasoning processes and all of the non-inferential belief-producing mechanisms required to arrive at knowledge of an epistemological proposition like (P3) exhibit the connection between evolutionary success and truth that the argument demands.[28]

　　With all of that said, I would like to make a couple of points of comparison between theistic beliefs and moral beliefs as regards the legitimacy of a certain kind of response to the probabilistic formulation (as well as to the explanatory formulation). The response I have in mind is known variously as the 'third factor' response or the 'minimalist' response. The first premise of the probabilistic formulation of the debunking argument states that $Pr(R_D/E)$ is low, for the target domain D. In the case of moral beliefs, a minimalist response argues that there is some moral proposition d, which is such that $Pr(R_D/E \& d)$ is high; or in other words, there is some moral proposition conditional upon which it is probable that our evolved moral belief-forming dispositions *are* reliable. This move, of course, denies (P3), in claiming that there is a proposition besides E which can be legitimately conditionalized upon in order to arrive at a high probability for the reliability of the cognitive faculty at issue. For David Enoch's (2010) minimalist response, d is the proposition that survival is morally good. On Wielenberg's (2010) version, d is the proposition that the property of having moral rights supervenes upon the property of having cognitive faculties. For Knut Olav Skarsaune (2011), d is the proposition that pain is morally bad and pleasure is morally good. In short, what these minimalist responses allege is that whilst evolution may not track the moral truth directly, it does track some

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[26] Although, note that Van Eyghen (2019: 134–137) has argued that there *is* a connection between evolutionary success and truth for religious beliefs, one that has to do with the spiritual fruit that various religious beliefs and practices are liable to produce.

[27] Though she doesn't use this probabilistic formulation, Vavova (2014) makes the case that epistemic principles just below the surface of EDAs lead rapidly to a general skepticism.

[28] A point that is developed at length by Crisp (2011) and Kyriacou (2019).

non-moral property that is hypothesized to be tightly correlated with some important moral property.

There is an intense debate that continues to rage around the question of whether the minimalist response is legitimate, or whether it involves a form of unacceptable epistemic circularity. Critics of the minimalist response contend the latter, arguing that it is impermissible to conditionalize upon a moral proposition *after* one has been presented with a defeater for the reliability of one's moral belief-forming faculties.[29] If such reasoning were permitted more generally, the thought goes, then it would virtually always be possible to rescue a belief from being defeated.[30] Against this, advocates of the minimalist response contend that it cannot be right to demand that the reliability of any given cognitive faculty be vindicated without ever appealing to a belief that is produced by that faculty, otherwise general skepticism beckons. Given this point, they contend, the availability of a vindicating explanation (one that invokes d) prevents there from being a defeater in the first place.[31] I don't propose to try to settle this debate here. However, I would note that theistic beliefs appear to enjoy some advantages compared to moral beliefs as regards the legitimacy of mounting a minimalist response to a debunking argument.

Firstly, whereas a minimalist response on behalf of moral beliefs cannot avoid appealing to some moral proposition or other in order to generate an explanation of the reliability of our moral belief-forming faculties, a parallel explanation could be put forward for the reliability of non-inferential theistic beliefs that is uncontroversially non-circular in character: namely, one that appeals to arguments for theism whose premises do not in any way presuppose the existence of God, and that contends that if God exists then the mechanisms that produce non-inferential theistic belief are likely to be reliable. Whether or not such arguments are successful is of course a matter of debate. But as far as I am aware, there aren't any arguments that even attempt to argue for the reliability of our moral belief-forming faculties from wholly non-moral premises.

Let us consider a second point of comparison. Several debunkers have suggested that the minimalist response is more clearly legitimate if made on behalf of moral truth construed naturalistically, that is, on behalf of a view of moral truth on which moral properties are *identical with* certain natural properties. The thought is that on the naturalist moral realist view, moral properties are causally efficacious and hence can enter into a causal explanation of our moral beliefs, and that this makes it more acceptable to conditionalize upon a moral proposi-

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[29] Moon (2017) helpfully draws out comparisons between the dialectic in this debate and the situation that pertains to various other cases of alleged undercutting defeat, ultimately registering agnosticism about the legitimacy of the minimalist response. For a reply, see Klenk (2017a).

[30] Such is the position of Street (2008: 214–217), Korman (2014: 355), Locke (2014: 227–232), and Shafer-Landau (2014: 10, 21).

[31] See Brosnan (2011: 62) and Wielenberg (2014: 158–163).

tion in order to generate an explanation of the reliability of our moral belief-forming disposi-tions.[32] If this point is correct, then theistic beliefs, unlike moral beliefs on a non-naturalist realist view, should also be granted this concession, given that God, unlike non-naturalist moral truths, is causally efficacious.

6. The Companions in Guilt Formulation

Let us finally turn to the companions in guilt formulation, which I suggested can be stated as follows:

> (G1) The belief-forming process that produces D-beliefs has produced many false beliefs.
>
> (G2) IF the same belief-forming process that produced S's belief that p has produced many false beliefs, THEN S's belief that p lacks warrant.
>
> (G3) Therefore, D-beliefs lacks warrant.

It bears mentioning that an argument of this sort raises the specter of the notorious generality problem in a particularly acute way.[33] Not only does such an argument prompt the question of how, as a rule, we are supposed to work out which belief-forming process type (of the indefin-itely many types under which a token could be classified) is the salient type for determining reliability, but there is the further complicating issue that even if a satisfactory solution to the generality problem is forthcoming, premise (G1) may depend upon a way of classifying belief-forming process types that yields implausible skeptical results if applied more generally.[34]

There are basically two ways to motivate premise (G1). Approach A contends that we already know that a subset of the beliefs produced by the salient process type are false. Ap-proach B contends that the salient process type produces many beliefs that are mutually in-compatible with one another, so that at most only a small proportion of the beliefs it produces can be true.

Approach A seems shaky in the case of moral beliefs. The basic problem is that in order to justify the claim that a subset of our moral beliefs are false, the advocate of approach A must presuppose some reliable method of arriving at true moral beliefs. That is, she must presuppose that we have access to an independent source of reliably formed moral judgments by way of which we can come to know that some moral beliefs are false. The moral realist can warmly embrace such a position.

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[32] Locke (2014: 232–234) and Lutz (2018: 1110) both make this concession to naturalist forms of moral realism.

[33] See Conee and Feldman (1998) for a presentation of the generality problem.

[34] I have made the case elsewhere that this is just what it requires (Baker-Hytch 2014).

The argument that HADD produces many 'false positives', and that this shows that religious beliefs as a whole are produced by an unreliable process,[35] is an example of approach A. Something that has been pointed out repeatedly is that this approach requires a highly implausible approach to typing belief-forming processes, one that would classify the processes that produce belief in ghouls, poltergeists, and so on, as falling under the very same salient type as the processes that produce belief in monotheism.[36] Such a coarse-grained approach to typing belief-forming processes is liable to yield highly implausible results if applied consistently in epistemological theorizing. Whilst a definitive solution to the generality problem has yet to emerge, epistemologists are at least generally agreed that if there is to be such a solution, it will be one that involves a fairly fine-grained approach to typing belief-forming processes.[37]

Braddock (2016a) offers a version of approach A according to which polytheistic and finite god beliefs are the predominant output of the cognitive mechanisms described by CSR, and according to which these beliefs are false. The argument alleges, in other words, that the majority of the beliefs produced by these mechanisms are false, and that these are the same mechanisms that are also responsible for producing monotheistic beliefs, which undermines the warrant of the latter class of beliefs. Braddock takes it that the assumption that polytheistic beliefs are false is a safe one given that the argument is aimed at monotheists, by whose lights polytheistic beliefs are indeed false.

One line of response to this, explored by Hans van Eyghen (2019: 142-44), is to maintain that polytheistic and finite god beliefs need not be viewed as false by the monotheist's lights, provided that one allows for a distinction between gods and non-divine supernatural beings. Van Eyghen points out that the CSR-described mechanisms themselves do not discriminate between gods and non-divine supernatural beings; the classification of a believed-in superhuman agent as either a god or a non-divine supernatural being occurs at the level of cultural religious frameworks. Van Eyghen notes that the major monotheistic belief systems make room for the existence of a whole host of supernatural beings (e.g. angels) who have some god-like properties albeit to a finite degree, and whose existence is quite compatible with a metaphysically ultimate God. In short, the many beliefs in finite deities that humans form as a result of the CSR-described mechanisms could happily be viewed by the monotheist as a broadly correct cognitive response to the existence of various finite and intermediary supernatural agents who populate the monotheist's worldview, albeit a cognitive response that is filtered through a somewhat misleading cultural framework.

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[35] See Nola (2012).

[36] Murray (2007: 393–394), Clark and Barrett (2011: 26–29), Wielenberg (2016: 87–90), and Launonen (forthcoming: 3–7) make this point at length.

[37] See, e.g., Alston (1995), Heller (1995), and Comesaña (2006).

Another potential reply to Braddock's version of approach A might be to argue that, even setting aside van Eyghen's response, the fact that the cognitive processes described by CSR are involved in producing both polytheistic beliefs and monotheistic beliefs does not on its own entitle us to conclude that the cognitive processes that produce polytheistic beliefs and the cognitive processes that produce monotheistic beliefs should be classified as the *same* belief-forming process type for the purposes of evaluating the epistemic status of a person's religious beliefs. After all, the CSR-described mechanisms are just one part of a very complex and multifaceted causal nexus that results in any given person's religious beliefs. It is not uncommonly the case that a cognitive mechanism X reliably produces true beliefs when conjoined with certain additional causal influences A, but yields many false beliefs when conjoined with certain other causal influences B. If we were to classify both X + A and X + B as the same causal process type for the purposes of evaluating a belief's epistemic status, we would be forced to conclude — implausibly — that there is no difference between the epistemic status of the beliefs produced by X + A and those produced by X + B. In a sense this is the generality problem rearing its head again, the problem of how to assign a token belief-forming causal process, with all its particularities and nuances, to an overarching *type* of process whose reliability determines the epistemic status of the belief in question. All that to say, it seems quite open to the monotheist to contend that the CSR-described mechanisms in conjunction with monotheistic cultural influences should be classified as a different causal process type than the CSR-described mechanisms conjoined with polytheistic cultural influences.

As for approach B, applied to theistic beliefs this is in effect the argument from religious diversity.[38] As Lari Launonen (forthcoming) has argued, it is questionable whether this argument gains anything by appealing to CSR explanations. The real work, one might think, is being done by the mutual incompatibility of various religious belief-systems, which is something that could be observed long before anything was known about evolution or the mechanics of human cognition.[39] A parallel argument can of course be made with regard to mutually incompatible sets of moral beliefs that have been held by different cultures. Such an argument is similarly independent of evolutionary considerations. Still, it is worth asking the question of

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[38] See Goodnick (2016).

[39] Braddock (2016a: 272) argues that appealing to CSR explanations is not redundant for arguments that appeal to conflicting beliefs, writing that "The argument turns on CSR mechanisms rather than a black box because the cognitive science of religion suggests that the religious cognition is *natural*: more precisely, the mechanisms contributing to the continuous history of false polytheistic and finite god beliefs *are the same sorts* of mechanisms contributing to and sustaining the god beliefs of current humans." As I suggested above, however, in view of the fact that many causal influences besides the CSR-described mechanisms are involved in producing religious beliefs, this consideration arguably doesn't suffice to establish that the processes that produce polytheistic beliefs and those that produce monotheistic beliefs should be classified as the same type of process for the purposes of evaluating the epistemic status of a person's religious beliefs.

whether theistic beliefs and moral beliefs are equally (in)vulnerable to approach B or whether one is more vulnerable than the other. As far as I can see, moral beliefs and theistic beliefs are in a broadly similar situation in relation to approach B. In both cases, a relatively coarse-grained approach to typing belief-forming processes is needed in order to be able to say that sufficiently many mutually incompatible beliefs are all the product of the same salient process type. That is, for the argument to work, the salient process type would need to be something like *forming beliefs as a result of upbringing and enculturation*. Such a process type would of course encompass many mutually incompatible beliefs, in both the moral case and the religious case. The difficulty is that, as noted earlier, such a coarse-grained approach to typing processes is widely thought by process reliabilist epistemologists to be misguided. But a narrower approach to typing processes, one that takes into account the specific influence of particular religious texts or moral teachers, for example, will struggle to encompass a large enough number of mutually incompatible beliefs under the same salient process type for premise (G1) to come out true.

Another respect in which moral beliefs and theistic beliefs are broadly in the same boat when it comes to approach B is that both kinds of beliefs can equally well (or poorly) avail themselves of a move that appeals to a common core of beliefs that is shared across diverse belief-systems. For an analogy, suppose that there is a certain geo-locating device that yields widely varying results when used by people standing in the same location—one person's device tells her that she is in Bicester, another person's device says that he is in Abingdon, and another person's that she is in Didcot. Nevertheless, their devices do all agree that they are somewhere in the vicinity of Oxfordshire. It might be plausible to suggest that the device is reliable at a certain (fairly low) degree of specificity, but unreliable at higher degrees of specificity. Something like this move has been made with respect to both the moral domain and the religious domain, and I don't see much reason to think that the facts of religious diversity are any more or less amenable to such a move than the facts of moral diversity.[40]

7. Conclusion

Setting moral beliefs and theistic beliefs side by side to investigate the question of whether either is relatively more vulnerable than the other to evolutionary debunking arguments has yielded a few points of contrast between the two cases. I have conducted this comparison given the assumption of a realist construal of the truth-makers for both sorts of beliefs, and specifically, given a *non-naturalist* realist construal of moral truth, according to which objective moral properties are not identical to or reducible to natural properties (i.e. properties that could feature in scientific accounts of the world). Firstly, as regards the scope of evolutionary debunking arguments, I suggested that whilst it is somewhat plausible to think that MDAs, if cogent,

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[40] Gutting (1983: 175–176) argues for a common core of content that spans the religious experiences of diverse traditions, and Lewis (1943) argues for a shared core of moral commitments across the world's cultures.

would apply to both inferential and non-inferential moral beliefs, it is considerably less plausible to see RDAs as applying to many inferential theistic beliefs. Furthermore, whilst MDAs might fall back on a claim that all moral belief-forming causal processes—whether evolutionary or not—lack a truth-conducive in virtue of the causally inert character of moral facts no such fallback is available for RDAs in view of God's causal efficacy. Secondly, insofar as the counterfactual formulation is cogent—and its reliance on the controversial sensitivity condition for warrant does render that questionable—it appears to be more clearly a threat to moral beliefs than to theistic beliefs in view of the causal inertness of moral facts compared with the causal potency of God. I did note, however, that it is difficult to know how to sensibly evaluate the key counterfactual claim as applied to theistic beliefs. Thirdly, with regard to the explanatory and probabilistic formulations, which I treated as effectively equivalent, I suggested that theism can avail itself of the so-called minimalist response in a manner that is less open to a charge of unacceptable circularity than the minimalist responses that have been offered on behalf of (non-naturalist) moral realism. Fourthly, I suggested that the two variants of the companions in guilt formulation are approximately equally troubling (or not) for moral beliefs and for theistic beliefs. Overall, then, it would seem that theistic beliefs have a slightly greater degree of immunity than moral beliefs to evolutionary debunking arguments.

A caveat to this is in order, however. This entire investigation has been conducted on the assumption that the epistemology of moral beliefs should be considered in isolation from the epistemology of theistic beliefs. When considering how moral beliefs fare against debunking arguments, I have entirely bracketed out any considerations having to do with God's ability to ensure that humans have broadly reliable moral belief-forming faculties. In effect, I have been considering how vulnerable moral beliefs are to debunking arguments given *atheistic* moral realism (of a non-naturalist variety). This was a useful assumption to make given that many moral realists (including many non-naturalist moral realists) are not theists.[41] However, if we were to drop that assumption and consider the situation for theistic moral realism, then it would become legitimate to take into account the relevance of God's causal powers to the question of the reliability of our moral belief-forming faculties, so that the advantages that I suggested theistic beliefs had against debunking arguments would be inherited by moral beliefs.[42]

[41] The survey of professional philosophers' views conducted by Chalmers and Bourget (2014) indicates that around 14.6% are theists and around 56.4% are moral realists. Assuming that virtually all theists are moral realists, that still leaves around 40% of philosophers who are both non-theists and moral realists.

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