



**DISCUSSION NOTE**

# **THE DEBUNKING CHALLENGE TO REALISM: HOW EVOLUTION (ULTIMATELY) MATTERS**

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## The Debunking Challenge to Realism: How Evolution (Ultimately) Matters

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**E** VOLUTIONARY DEBUNKING ARGUMENTS (EDAs) have attracted extensive attention in recent metaethics, as they pose an important challenge to moral realism (see FitzPatrick (2016) for an overview). EDAs “move from a premise about the influence of evolutionary forces on our moral beliefs to a skeptical conclusion about those beliefs” (Vavova (2015)). In a recent paper, Andreas Mogensen (2015) suggests that such a move is in fact illicit: explanations of the kind that evolution supplies – so-called *ultimate* explanations – have no debunking potential. Rather, what matters for the debate over moral realism are so-called *proximate* explanations. Proponents of EDAs, claims Mogensen, simply confuse the two sorts of explanation. Once this confusion is cleared up, the moral realist can safely accept the premises of an EDA without being forced to accept its conclusion.

If this critique (unpacked below) is correct, it has considerable importance for the debate: EDAs turn out to be invalid, and so realists simply need not worry about them. But we believe that the dialectical situation is more delicate and complex than Mogensen implies. It is certainly helpful to bring the proximate/ultimate distinction into the picture, but the upshot of doing so is not the dismissal of EDAs. This is because a reconstructed EDA can be formulated that takes the distinction into account. Indeed, we believe this formulation may reflect better the key idea underlying extant EDAs. However, as we go on to suggest, once this more sophisticated reconstruction is on the table, a further, more serious issue arises for the aspiring debunker.

### 1.

There are various versions of EDA, but they all share broadly the same structure:

1. Our tendency to form the moral beliefs we actually tend to form is explained by evolution through natural selection.
2. Natural selection would not have favored moral belief-forming mechanisms that are truth-tracking.
3. Our moral beliefs are generally off track with respect to moral truths (even if such truths exist). [1,2]

Therefore,

4. The justification for our moral beliefs is systematically defeated.<sup>1</sup>

Much of the debate here revolves around premise 2 and its implications. The rationale for this premise runs like this: natural selection explains the traits of organisms by showing how they contributed to the survival and reproduction of their ancestors. It is fairly easy to see how an organism's survival and reproduction might be positively affected by its having certain particular moral beliefs, e.g., that it should reciprocate altruistic behavior or care for its offspring. But it is unclear how an organism's survival and reproduction could be affected by whether such beliefs are (mind-independently) true or not.<sup>2</sup> It is this *truth-indifference* of evolutionary explanations of human morality that purportedly has debunking implications: if the origins of our moral beliefs are explained in a truth-indifferent fashion, suggest advocates of EDAs, we should be skeptical of the idea that they track moral truths.

With this in mind, let us say a few words about the proximate/ultimate distinction. Originally introduced by the biologist and philosopher Ernst Mayr (1961), it is a distinction between two types of causal explanation, pertaining to two related but distinct *explananda*. Ultimate explanations pertain to the long-run genealogical processes via which certain organisms came to have a certain trait. Proximate explanations, on the other hand, pertain to the short-run, developmental and physiological processes in virtue of which extant organisms have the traits they have. Mayr used the example of bird migration to illustrate: an ultimate explanation of why certain birds display migratory behavior cites the ways in which spending different seasons in different locations was advantageous to the birds' ancestors. It would describe differences in food availability, climate, etc., and weigh these against the dangers of predation, fatigue and other costs of migration. In contrast, the corresponding proximate explanation pertains to how birds migrate in the here and now – how birds learn a particular flyway, how they “know” when to migrate and so on.

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<sup>1</sup> As noted, this general structure is fleshed out differently by different authors. For example, Street (2006) argues that our dispositions to form certain moral beliefs were shaped by selection pressures that would not have favored a capacity to track moral truths. This would make it an extraordinary coincidence if our moral beliefs happen to track moral truths. Hence, we are not justified in supposing that our moral beliefs track such truths. And a somewhat different EDA, due to Joyce (2006), has it that a complete genealogy of how our capacity to make moral judgments evolved need not cite moral truths, rendering moral truths explanatorily superfluous and hence discredited. But such differences will matter little for the present discussion.

<sup>2</sup> For brevity, the rationale for premise 2 given in the text is illustrated only in terms of some (particular) moral beliefs we tend to form. Parallel illustrations could be given for different elements of our moral psychology, such as moral concepts, which serve as the target for some EDAs.

## 2.

Enter Mogensen's critique. In support of premise 2, proponents of EDAs rely on the truth-indifference of *ultimate* processes – namely the irrelevance, with respect to fitness, of the truth-value of our ancestors' moral beliefs. But “we can't infer that moral facts do not explain our moral beliefs simply because beliefs of that kind have evolved as a result of truth-indifferent selection pressures. Those who draw this conclusion are confusing proximate and ultimate causes” (Mogensen 2015: 202).

Mogensen's key claim, then, is that proponents of EDAs are confused about the kind of biological explanation their argument requires. Even if truth-indifferent forces led to the survival and reproduction of our ancestors, this does not rule out the possibility that extant humans like us reliably recognize moral truths – via reasoning, deliberation, moral perception, intuition or some other method(s) – and form moral beliefs accordingly. That a capacity to recognize moral truths need not be invoked to (ultimately) explain the evolution of human morality *does not imply* that we lack such a capacity and do not exercise it in (proximately) forming moral beliefs. The debunker cannot derive conclusions about proximate mechanisms merely by appeal to evolution.

As noted, this critique is potentially quite important: if debunking arguments commit a simple fallacy, then realists are off the hook. Moreover, since the critique turns on confusing the proximate with the ultimate – a perfectly general conceptual point that is not specific to the debunking of *morality* – it would seem to block the use of debunking arguments in other areas where they have been raised, such as religion and mathematics (Bergman and Kain (2014); Wilkins and Griffiths (2012)). Is this indeed the case?

## 3.

No doubt the logical point underlying Mogensen's critique is correct: ultimate and proximate explanations are conceptually distinct, and assumptions about the former do not *strictly entail* conclusions about the latter. Nevertheless, there are important connections between them (Laland et al. (2011)). Taking these connections into account will allow us to set out an improved EDA – one that escapes Mogensen's criticism and reveals interesting new questions about the biological assumptions that must be in place for the debunking threat to sting.

The most important connection for present purposes is evidential: information regarding ultimate causes can tell for or against specific hypotheses about proximate causes. This is because ancestors pass on their traits, via genes and other forms of inheritance, to their descendants. In other words, ultimate conditions have, in part, shaped proximate mechanisms, and can therefore provide evidence about them. To illustrate, recall Mayr's bird migration example. Suppose one is studying the Swainson's thrush, a migratory

bird that breeds in colder areas of North America and winters in Central and South America. And suppose one knows that this bird's migratory behavior evolved at a time when climate differences between North and Central America were much less pronounced than they are today. This would make it unlikely that the thrushes are rigidly "programmed" to fly from northern to southern parts of America and back. A more plausible hypothesis is that the birds can track differences in climate and adjust their flyway accordingly. Here, information about the evolution of the thrush's migratory behavior (an ultimate explanation) serves as evidence supporting our understanding of how it chooses particular migratory patterns (a proximate explanation).

We suggest EDAs can and should be understood as implicitly relying on a similar evidential connection between ultimate and proximate claims. To be sure, proponents of EDAs typically fail to explicitly acknowledge this point. Still, the proximate/ultimate distinction can be readily incorporated into a faithful reconstruction of their argument that is entirely in keeping with its intended spirit, and yields the same conclusion. The basic form of reasoning would run parallel to the case of bird migration: moral realists countenance a proximate claim, viz., that human moral beliefs tend to track moral truths. To determine whether this claim is plausible, we turn to an ultimate explanation as a source of evidence. Champions of EDAs suggest that, given the selection pressures at work in shaping our moral psychology, it is highly unlikely that ancestral humans developed a capacity to track moral truths. Assuming that we present-day humans have inherited our moral belief-forming mechanisms from our ancestors, it is highly unlikely that we have mechanisms that tend to track moral truths, either.

Note that the reasoning here is ampliative – the ultimate story makes the proximate conclusion more likely, but falls short of entailing it. This raises the question of *how well* the ultimate story actually supports the corresponding proximate story.<sup>3</sup> We will come back to this important point shortly. For now, however, our claim is simply that an EDA can be formulated more cogently by taking into account the evidential connection between ultimate and proximate explanations:

1. Our ancestors' tendency to form the moral beliefs they actually tended to form is explained by natural selection.
2. Natural selection would not have favored moral belief-forming mechanisms that are truth-tracking.
3. Our ancestors' moral beliefs were generally off track with respect to moral truths. [1, 2]
4. Our own belief-forming mechanisms are inherited from our ancestors.
5. Our own moral beliefs are likely to be generally off track with respect to moral truths [3, 4].

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<sup>3</sup> For a related discussion, see FitzPatrick (2014).

Therefore,

6. The justification for our moral beliefs is systematically defeated.

Thus, Mogensen is right that ultimate explanations do not *strictly entail* claims about proximate mechanisms. But his critique ignores important evidential connections between the ultimate and the proximate. Consequently, it also ignores the way in which a reconstructed EDA can substantiate a claim regarding proximate belief-forming mechanisms by relying on a plausible ultimate story about their origins. However, the reconstruction brings out further issues that bear significantly on the prospects of EDAs. In closing, we outline one such issue.

#### 4.

Framing EDAs as we have done, in terms of an ultimate explanation that provides evidential support for a proximate claim, naturally raises the question of *how strong* the support in fact is. This question is hard to settle, not least because very little of the extensive literature on EDAs actually spells out a detailed ultimate story about human morality.<sup>4</sup> One point that bears directly on the question of strength of the evidential support concerns what we shall label “flexibility.” As our reconstruction above makes clear, EDAs implicitly assume that our belief-forming mechanisms are inherited, so that we present-day humans are heirs to the effects of natural selection on our ancestors. Now, there is a tendency in many contexts to regard inherited, evolved traits as inflexible – i.e., to take whatever is “in our genes” as impervious to external, environmental influences. We believe this thought is presupposed, in one way or another, by many of those writing on EDAs. The issue deserves a more extensive discussion than we can devote to it here, but we shall comment on it briefly.

The fact that a trait is an evolutionary adaptation does not imply that it is insensitive to external, environmental circumstances. Indeed, many evolved traits are highly sensitive to the environment. This point has been emphasized by writers on innateness (e.g., Griffiths (2002)), who provide a wealth of examples. To pick an especially simple case (drawn from Lewontin (1983)): the number of light-receptor cells in the eye of a fruit fly under ordinary conditions is about 1,000. But this number varies widely depending on the temperature in which the fly develops. At 15C° it goes up to 1,100, while at 30C° it goes down to 750. This type of flexibility seems at least as relevant when it comes to psychological phenomena: while natural selection often “instills” certain behaviors and cognitive tendencies, this need not result in

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<sup>4</sup> Joyce (2006, ch. 4) is a partial exception. Machery and Mallon (2010) explicitly assess the plausibility of ultimate explanations, but engage mainly with the empirical question of whether and how human morality evolved, and only briefly with EDAs proper. We address this issue more comprehensively in (Levy and Levy, (in prep)).

the behavior or cognitive tendency being insensitive to environmental (e.g., social) inputs. The point may matter quite a bit for assessing EDAs: even if there is an evolution-by-natural-selection story to be told about human moral psychology, and even if that story suggests that we have evolved to make fairly specific moral judgments, and even if those fairly specific moral judgments are formed in a truth-indifferent way – it is still possible that, given the right kind of environment, we tend to revise our judgments in a way that aligns with moral truths. In this way, ultimate explanations, while remaining highly relevant for assessing proximate claims, may nevertheless leave considerable room for proximate flexibility. Aspiring debunkers and moral realists would then have to work out whether such flexibility could suffice to restore confidence in our ability to track moral truths.<sup>5</sup>

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