**Forthcoming in *Philosophia*. Comments Welcome.**

**Are Evolutionary Debunking Arguments Self-Debunking?[[1]](#footnote-1)**

**Abstract**

I argue that, at least on the assumption that if there are epistemic facts they are irreducible, the evolutionary debunking maneuver is prima facie self-debunking because it seems to debunk a certain class of facts, namely, epistemic facts that prima facie it needs to rely on in order to launch its debunking arguments. I then appeal to two recent reconstructions of the evolutionary debunking maneuver (Kahane (2011), Griffiths and Wilkins (2015)) and find them wanting. Along the way I set aside two ways (one envisaged, the other by Sterpetti (2015)) to avoid the self-debunking problem that I find unpromising. I conclude that the evolutionary debunking maneuver needs to clarify the meta-epistemological commitments upon which it is supposed to operate.

**1. Introduction**

Evolutionary debunking arguments are rife in recent philosophical debates.[[2]](#footnote-2) Any philosophical subject that seems to suggest a naturalistically dubious ontology and epistemology seems ripe for the application of an evolutionary debunking argument. Thus, evolutionary debunking arguments have been applied to moral, aesthetic, religious and epistemic ontology (facts, properties, entities etc.) in vindication of some form or other of antirealism (e.g. relativism, expressivism, error theory) about morality, aesthetics, religion and epistemology (and beyond).[[3]](#footnote-3)

Typically evolutionary debunking arguments have two components: one normative\epistemic and one causal\psychological.[[4]](#footnote-4) On the normative\epistemic one, they suggest that a certain kind of cognitive process (moral, aesthetic, religious etc.) is unreliable in light of the naturalistic framework of evolutionary theory and, therefore, we should explain away relevant dubious entities, facts, properties, truths etc. (and also dispel the concomitant puzzling epistemological question of knowing these ‘queer’ entities, facts, properties, truths etc.)[[5]](#footnote-5) On the causal\psychological one, evolutionary debunking arguments typically offer a causal evolutionary psychological story of why we are prone to find such moral, aesthetic, religious etc. beliefs prima facie intuitive: because having such-and-such beliefs was adaptive and bestowed our hunters-gatherers ancestors with a relative evolutionary advantage.

 When the normative\epistemic debunking component explaining away the relevant dubious ontology and epistemology is, as typically happens, conjoined with the causal\psychological component of why we are prone to find such beliefs intuitive, it seems to seal the fate of any kind of realism about these subject-matters. We have a full explanatory story of why we tend to have such-and-such beliefs and why these beliefs are unjustified and the corresponding ontology should be debunked. Let us call this two-pronged evolutionary debunking style of antirealist argument *‘the evolutionary debunking maneuver’.*

In this paper I press a problem concerning the meta-epistemological commitments of the evolutionary debunking maneuver: *‘the self-debunking problem’*. As the name of the problem indicates, evolutionary debunking seems to prima facie debunk itself and, hence, we prima facie have good epistemic reason to reject such arguments.[[6]](#footnote-6) I go on to examine two reconstructions of the evolutionary debunking maneuver by Kahane (2011) and Griffiths and Wilkins (2015) and indicate that both do not manage to avoid the problem. Along the way I explain why two ways for debunkers to avoid self-defeat –one envisaged and one proposed by Sterpetti (2015)- are unpromising. I conclude that the self-debunking problem poses a challenge for the evolutionary debunking maneuver that puts pressure on debunkers to clarify the meta-epistemological commitments (realist, antirealist, constructivist) of their arguments.

**2. Unpacking the (Conditional) Self-Debunking Problem**

To unpack the problem, let us ask some *questions about questions* concerning the epistemological status of evolutionary debunking arguments. First, think of the first-order, epistemically normative questions: ‘Does the cognitive science of religion evolutionarily debunk the existence of God as unjustified?’ or ‘Does the cognitive science of morality evolutionarily debunk moral facts?’ or, the more general and fundamental, ‘Does cognitive science debunk epistemology?’. One may ponder on these questions and ask the related epistemic meta-questions: ‘Are evolutionary debunking arguments stemming out of the cognitive science of religion, morality etc. themselves justified?’ or even the more general and fundamental: ‘In virtue of what property, facts, norms etc. of epistemic justification (if any) are evolutionary debunking arguments justified?’.[[7]](#footnote-7)

These are pertinent meta-questions because there is a lurking worry about the fact that, standardly, evolutionary debunking maneuvers debunk normative properties, facts etc.[[8]](#footnote-8) The property, norms and facts of epistemic justification are trivially also normative and therefore are also debunked.[[9]](#footnote-9) Hence, the evolutionary debunking maneuver is saddled with epistemic antirealism about the justification property, norms and facts.[[10]](#footnote-10) This result, however, seems to be debunking too much because it seems to debunk debunking arguments themselves, which is obviously self-defeating.

This is the case because, prima facie at least, if there is no real property, norms and facts of justification, then evolutionary debunking arguments cannot rationally operate and explain away as unjustified a certain (category of) belief.[[11]](#footnote-11) That is, if there is no real justification property, facts etc. in virtue of which justified beliefs are justified, then there are no really justified beliefs *at all.* And if there are no justified beliefs at all, then evolutionary debunking is itself unjustified and therefore is self-debunked. Indeed, evolutionary theory itself is rendered unjustified and debunked, which amounts to a reductio for the evolutionary debunking maneuver because evolutionary theory is an empirically well-justified theory.[[12]](#footnote-12)

One obvious rejoinder to the self-debunking problem is that the self-debunking problem only shows that our traditional understanding of epistemology is problematic, and not that debunkers are in trouble. Thus, debunkers can address the problem by reliance on a non-traditional understanding of epistemology. There are at least two basic forms such an understanding could take: naturalistic epistemic reductionism (analytic or synthetic)[[13]](#footnote-13) and epistemic constructivism.[[14]](#footnote-14) According to reductionism, even if moral and other kinds of facts are debunked, natural epistemic facts may exist, be coherent with evolutionary debunking and, hence, are not to be debunked. This realist and naturalistic line of thought would create trouble for the self-debunking problem because it would indicate that there are naturalistic epistemic norms and facts in virtue of which the evolutionary debunking maneuver runs and, therefore, there is no self-debunking problem.

Indeed, Heathwood (2009) has recently argued for analytic naturalistic epistemic reductionism in regard to epistemic reasonability.[[15]](#footnote-15) That is, he has argued that epistemic reasonability is reducible to descriptive evidential probability. Assertions of epistemic reasonability are reducible to what is likely to be true and likelihood of truth in terms of nonnormative, descriptive evidence. Thus, if Heathwood’s (2009) account is to the right direction, the self-debunking problem is dissolved because on the basis of descriptivist evidential probability we could run evolutionary debunking arguments for other naturalistically dubious domains.

Unfortunately, I cannot afford to dwell into the matter of epistemic reductionism at any length here and I have to quickly set aside this line of thought. Although I am kind of skeptical of reductionist approaches to (epistemic) normativity in general for the rather typical reasons that have to do with the irreducibility of normativity,[[16]](#footnote-16) I can only afford to indicate that to avoid the complications of the reductionist worry, in the rest of the essay, unless noted, I will be concerned with a more modest and restrictive *conditional self-debunking problem*: if we assume that even if there are epistemic facts they are irrreducible facts, then the evolutionary debunking maneuver is prima facie self-debunking. The conditional self-debunking problem clarifies that either there are no real epistemic facts or there are but they are irreducible. In other words, it assumes that epistemic naturalistic reductionism is wrong.

The second form a non-traditional understanding of epistemology could adopt is epistemic constructivism. The debunker could propose that antirealists can ‘construct’ epistemic facts (e.g. via social construction or via the Kantian categorical imperative) in virtue of which debunking arguments operate and this would allow us to solve the self-debunking problem and salvage debunking arguments. This is one route out of the problem for debunkers that bears some prima facie promise, but I am not overall optimistic about its prospects because it is bound to meet considerable problems. I cannot presume to do justice to epistemic constructivism, which in contrast to its moral counterpart it is a project still rather underdeveloped, but it seems that such an account would run into the horns of a dilemma: either the constructed epistemic facts are not objective or they are objective. If not objective, the version of constructivism would collapse to some form of antirealism (subjectivism, relativism etc.) and antirealism runs into the problem. If objective, they would have to explain in what sense they are objective if they are constructed and dependent on us.

Relatedly, one serious problem for constructivist accounts (on both horns) would be ‘the problem of acquiescence to normative authority’: why accept and acquiesce to these epistemic facts as authoritative if they are merely constructed and dependent on us? Why not some other sorts of constructed facts? What of interpersonal disagreement about what facts to construct and how are we to rationally resolve it?[[17]](#footnote-17) These are some of the questions that such an approach would have to address. So, the challenge to evolutionary debunkers to clarify their metaepistemological commitments remains potent.[[18]](#footnote-18) In what follows, I shall also be assuming that it is mistaken.

This much offers a first preview of ‘the conditional self-debunking problem’for the evolutionary debunking maneuver*.* Thus, evolutionary debunking seems self-defeating and we have a *possible* meta-epistemological limitation of evolutionary debunking. We should be circumspect about this limitation of evolutionary debunking and only say ‘possible’ because there might be a plausible response on behalf of evolutionary debunking to this worry via antirealism (or either via naturalistic reductionism and constructivism we have assumed wrong). They could, in principle, explain how we can debunk normative facts and truths (incl. epistemic) without any pernicious self-debunking. Besides, epistemic antirealists of various sorts (relativists, expressivists, error theorists) have faced similar self-defeat arguments and they have tried to come up with rejoinders.[[19]](#footnote-19) Whether such rejoinders work and whether they could carry over to the case of evolutionary debunking maneuver is a moot point that is not of our current concern.

 Our current concern is neither to defend the evolutionary debunking maneuver, nor of course to indict it, but rather to stipulate and sharpen the (conditional) self-debunking problem. The more modest conclusion that should follow from our discussion is that the evolutionary debunking maneuver needs to clarify the meta-epistemological commitments (realist, constructivist or antirealist) upon which it is supposed to operate. Otherwise, it is left hostage to its meta-epistemological fortune. An epistemically antirealist commitment seems to prima facie defeat the evolutionary debunking maneuver, while a realist commitment, at least an anti-reductionist epistemically realist one, seems to conflict with the naturalistic framework of evolutionary theory (as standardly conceived).[[20]](#footnote-20) There is then controversial naturalistic reductionism and constructivism that for current purposes we have assumed mistaken.

 **3. Kahane’s (2011) Reconstruction and Sterpetti’s (2015) Proposal**

To illustrate that the (conditional) self-debunking problem poses a conspicuous challenge for evolutionary debunking maneuvers, let us examine a reconstruction of the evolutionary debunking maneuver and two ways -one envisaged and one proposed by Sterpetti (2015)- to solve the problem and see how they fail to address it.

Kahane (2011:111), who is no advocate of the evolutionary debunking maneuver, has suggested a general schema of how it works:

‘‘Causal Premise: We believe that p, an evaluative proposition, because we have an intuition that p, and there is an evolutionary explanation of our intuition that p.

Epistemic Premise: Evolution is not a truth-tracking process with respect to evaluative truth.

Therefore, we are not justified in believing that p.’’

The causal premise is as a matter of empirical fact problematic, but I will forgo discussion of it because our focus is on the self-debunking problem.[[21]](#footnote-21) That said, the epistemic premise is prima facie self-defeating and, therefore, we have good epistemic reason to reject it (together with the evolutionary debunking maneuver). It is self-defeating because it states a general principle that the premise itself does not satisfy. If evolution is not a truth-tracking process with respect to evaluative truth, and this premise is itself evaluative, then we should reject the premise itself by its own lights because we have good epistemic reason to reject it.[[22]](#footnote-22) It is itself not truth-tracking and we have good epistemic reasons not to rely on processes, principles etc. that are not truth-tracking. Given that truth is a central epistemic goal, this good epistemic reason consists in the unreliability for truth of non-truth-tracking principles, processes etc.

 Of course, debunkers could try to avoid self-defeat with at least one of two ways that I find unpromising and, therefore, will quickly set aside. First, we could suggest that evolution is truth-tracking with respect to at least this particular evaluative truth. But this would have been hopelessly ad hoc. Independent reasons are called for such an ad hoc attribution of truth-trackingness and it seems that none is directly forthcoming. If evolution is not truth-tracking with respect to evaluative truth, it seems question-begging in the absence of independent reasons to suggest that at least one evaluative truth is truth-tracking, namely, that evolution is not a truth-tracking process with respect to evaluative truth. It is all the more ad hoc and question-begging if we realize that the particular evaluative truth that is truth-tracking it is the evaluative truth that would have to be truth-tracking if the epistemic premise would avoid self-defeat. Obviously, this sounds contrived. Hence, this approach suffers from obvious adhocness from the outset.[[23]](#footnote-23)

Second, we could follow the lead of Sterpetti (2015) who has recently argued that evolutionary debunking maneuvers can resist self-defeat if they bite the bullet and concede that scientific reasoning is not truth-tracking.[[24]](#footnote-24) Since scientific reasoning is not truth-tracking, there is no self-defeat for the evolutionary debunking maneuver, which is also scientific in a broad sense, because it is itself not truth-tracking.[[25]](#footnote-25) Hence, evolutionary debunking maneuvers and scientific reasoning are coherent in both being non-truth-tracking.

I cannot afford to discuss this interesting line of thought at length, but the following two brief comments indicate that it faces serious challenges. First, it seems to lead to global skepticism about scientific reasoning and knowledge and most epistemologists and philosophers of science would find this unpalatable. Arguably, most epistemologists and philosophers of science are realist about scientific knowledge (and scientific ontology (particles, molecules etc.)) and would not take lightly the loss of scientific truth and knowledge.[[26]](#footnote-26)

Second, Sterpetti (2015) asserts that since scientific reasoning is not truth-tracking, there is no self-defeat for the evolutionary debunking maneuver because it is itself not truth-tracking. But assuming the popular knowledge norm of assertion[[27]](#footnote-27), it seems self-defeating to suggest that we can assert to *know* – presumably via Sterpetti’s own truth-tracking meta-scientific reasoning- that since scientific reasoning is not truth-tracking, there is no self-defeat for the evolutionary debunking maneuver because it is itself not truth-tracking. This is the case because, by the popular knowledge norm of assertion, if we assert that scientific reasoning is not truth-tracking (incl. evolutionary debunking), we assume that we know this much (via Sterpetti’s own truth-tracking meta-scientific reasoning), which renders the proposal self-defeating.

Sterpetti (2015) could try to recoil from the claim that we can know that since scientific reasoning is not truth-tracking, there is no self-defeat for the evolutionary debunking maneuver because it is itself not truth-tracking. He could deny the knowledge norm of assertion and propose that we don’t know that since scientific reasoning is not truth-tracking, there is no self-defeat for the evolutionary debunking maneuver because it is itself not truth-tracking. But this retreat would lead to a dilemma.

Either we know that we don’t know the fact or we don’t know that we don’t know the fact. If we know it, then we are committed to self-defeat because we have to assume the minimal truth-trackingness of (meta-)scientific reasoning that we are supposed to deny. If we don’t know it, then it is unclear why we should accept the suggestion that self-defeat is avoided because we have no good reason to accept it. Moreover, if we don’t know the fact, the possibility of an infinite regress looms because the same kind of dilemma will reappear at the next level: do we know or do we not know that we do not know that we do not know the fact. Neither option seems palatable for Sterpetti’s proposal.

Sterpetti (2015), however, might still have a reply. He might suggest that we can have mere justified assertion\belief that the scientific reasoning (incl. evolutionary debunking) is not truth-tracking and that would avoid the self-defeat problem. Besides, some defend norms of assertion of weaker epistemic status than knowledge, such as justification (cf. Kvanvig (2003)). Yet, this retreat to a weaker epistemic norm of assertion and belief would still commit to self-defeat. For, if scientific and meta-scientific reasoning is not truth-tracking, it is hard to understand why we should think that Sterpetti’s (2015) own (meta-)scientific reasoning is itself justified. Moreover, by Sterpetti’s own reasoning (2015) we have good positive reason to doubt that any scientific reasoning is conducive to truth (via truth-tracking justification). For, insofar as Sterpetti’s own reasoning is (meta-)scientific we have good reason not to trust it by its very own lights. This makes again for epistemic self-defeat. I conclude that Sterpetti’s proposal does not avoid self-defeat and, therefore, the self-debunking problem is still standing. We have not made any progress.

**4. Griffiths’ and Wilkins’ (2015) Milvian Bridge Principle**

Be that as it may, a second more sophisticated reconstruction of evolutionary debunking arguments might help us resolve the self-debunking problem. Griffiths’ and Wilkins’ (2015) purport to offer a sophisticated account of how evolutionary debunking maneuvers typically work (and should work). Roughly, they propose that evolved cognitive processes are generally reliable and truth-tracking because in this way our ancestors managed to adapt, survive and reproduce. But some evolved processes are not reliable and truth-tracking because evolutionary theory does not justify the existence of corresponding truth-making facts (e.g. moral, religious or aesthetic facts). Indeed, evaluative cognitive processes are of this unreliable kind and their belief output should be debunked in all earnest.

Hence, we can distinguish between processes that are reliable and truth-tracking and processes that are not on the basis of what truth-making facts the naturalist framework of evolutionary theory could countenance. An evolution-driven epistemic norm in virtue of which evolutionary debunking arguments operate is now straightforward: adaptive and reliable processes that the existence of corresponding truth-making facts they involve is justified by evolutionary theory. Corresponding truth-making facts the existence of which evolutionary theory does not countenance are debunked. They formalize this account in terms of the so-called Milvian Bridge[[28]](#footnote-28) principle (2015:section 2):

‘Milvian Bridge: The X facts are related to the evolutionary success of X beliefs in such a way that it is reasonable to accept and act on X beliefs produced by our evolved cognitive faculties.’[[29]](#footnote-29)

They apply the principle to commonsense beliefs and extend it to scientific beliefs but not to moral and religious beliefs. Commonsense facts (perceptual, memorial etc.) may relate to the evolutionary success of corresponding commonsense beliefs and therefore be reasonable to accept and act upon. But objective moral and religious facts may not relate to the evolutionary success of corresponding moral and religious belief and therefore be unreasonable to accept. Evolutionary theory does not justify belief in the existence of such facts because moral and religious beliefs, probably, have been adaptive without any required commitment to corresponding facts, entities etc. In other words, pragmatic success is one thing and truth another.[[30]](#footnote-30)

The Griffiths’ and Wilkins’ proposal seems to bear many virtues. First of all, insofar as the (conditional) self-debunking problem is concerned, the Milvian Bridge strategy is more refined than Kahane’s (2011) epistemic premise in regard to what *exactly* adaptive and reliable processes produce justified beliefs: only those that the evolutionary theory itself justifies (and evaluative processes are not one of those). Second, the Milvian Bridge principle offers a naturalistic, broadly reliabilist perspective on cognitive processes and epistemic justification that demystifies their operation. No existence of a priori abstract facts or norms and mysterious intuitive grasp thereof is required for the operation of cognition and resultant epistemic justification.[[31]](#footnote-31) Third, it helps us explain why the existence of some facts is debunked in a non-question-begging way: because we have independent evolutionary reasons for doing so. Evolutionary theory itself, which is empirically justified does not justify their existence. Fourth, it helps us understand why the evolutionary process designed creatures that delude themselves about a number of aspects of their everyday experience: because it was evolutionary advantageous to deceive themselves. It was conducive to survival and reproduction.

The Milvian Bridge principle, however, seems to run into problems, including the self-debunking problem. First, the self-debunking problem: the Milvian Bridge principle seems to entail its own epistemic self-defeat in at least two different ways. On the one hand, the principle itself does not satisfy the epistemic rationality standard for ontological commitment that it purports to set. Recall the principle: ‘Milvian Bridge: The X facts are related to the evolutionary success of X beliefs in such a way that it is reasonable to accept and act on X beliefs produced by our evolved cognitive faculties.’ Yet the Milvian Bridge fact *itself* is not prima facie related to the evolutionary success in a way that is reasonable to accept and act upon this belief produced by our evolved cognitive faculties.[[32]](#footnote-32) This is the case because it is hard to envisage how the Milvian Bridge fact could be related to the evolutionary success of our Pleistocene ancestors in a way that is reasonable to accept and act upon this belief produced by our evolved cognitive faculties.[[33]](#footnote-33) For one thing, our ancestors would not have had the leisure time we have to develop an interest to such highly theoretical issues. Practical, survival needs would have been pressing.

On the other hand, the Milvian Bridge Principle is epistemically self-defeating in a second way. This is the case because when the principle is used to launch specifically evolutionary debunking arguments against normative facts (e.g. moral facts in Griffiths and Wilkins (2015:section 5)), it entails an evaluative-epistemic assertion which itself claims that evolution is not a reliable and truth-tracking process with respect to normative-evaluative truth. This much is captured by the off-track construal of the epistemic premise of evolutionary normative debunking arguments. However, this implies that, by the epistemic premise’s own lights, the epistemic premise is unjustified because it is itself evaluative. Thus, debunking evaluative truths implies *debunking* debunking evolutionary arguments because they rely on evaluative truths. For one thing, they rely on at least the evaluative, epistemic truth that evolutionary theory is justified –which clearly is, no doubt.[[34]](#footnote-34)

Second, in the same vein with the second self-defeat problem, evolutionary normative debunking seems to also rely on a host of other evaluative, *meta*epistemic truths\norms\facts (regulative of rational doxastic conduct) that should be debunked by the lights of the Milvian Bridge principle. Such norms are that ‘We ought to pursue the truth and avoid falsity, be logically and probabilistically consistent, sensitive to counterevidence, proportionate belief on evidence, be intellectually honest, open-minded, love truth’ etc.

Perhaps these norms are even indispensable for rational reasoning as some have indicated (cf. Cuneo (2007:229)), something that would make things even worse for the principle.[[35]](#footnote-35) Besides, evolutionary normative debunking relies on the Milvian Bridge principle itself, which is a metaepistemic norm i.e. a metaepistemic rationality principle regulating epistemically rational ontological commitment. A fortiori, at least some of these metaepistemic truths bear an air of aprioricity[[36]](#footnote-36) and that this complicates the problem even further because it is not clear how strongly naturalistic-evolutionary stories account for aprioricity and its normative authority (or at least appearances thereof).[[37]](#footnote-37)

Third, there is a general methodological worry that the Milvian Bridge principle is ad hoc and question-begging because it admits only of natural facts that mere naturalistic, evolutionary theory itself can justify. But the principle is in trouble because it simply decides the ontological\philosophical matter of what facts to countenance from the start, namely, *reductive* natural facts and this, again, threatens to beg the question against antireductionists about, say, normative, mathematical, logical, ordinary objects facts and other facts.[[38]](#footnote-38) Worthy of note is also that evolutionary theory as a biological theory *simpliciter* is strictly speaking silent about irreducible normative (and other) facts and in principle could be rendered coherent (even if not ultimately plausible) with such a story.[[39]](#footnote-39)

It is only the metaphysical position of *strong reductionist naturalism* that speaks against irreducible facts, not the biological theory of evolution per se.[[40]](#footnote-40) Indeed, some would suggest that a *weaker non-reductive naturalism* could, in principle, have the best of both worlds: respect realist appearances (normative and other) in accordance with a plausible metaphysical supervenience thesis, respect empirical evolutionary theory and avoid epistemic self-defeat. Besides, realist appearances (normative and other) are also empirical data that a theory should account for (either save or debunk) and the most direct (and prima facie less ad hoc) way to do so is in a realist theory that saves appearances.

Of course, challenges like Street’s (2006) evolutionary dilemma against normative realism, disagreement, supervenience challenges etc. would become pressing but this is a further question down the road.[[41]](#footnote-41) No doubt, such challenges show that just because antirealists are in some trouble, realists are not rescued from their own particular difficulties. To suppose this much would be to commit the so-called ‘mistake of adversarial stance’ (cf. Enoch (2011:218-220); Enoch credits the term to Crispin Wright.).[[42]](#footnote-42)

Fourth, we might reason in Euthyphronic style against the Milvian Bridge principle as follows. Should we consider a belief justified because we think it justified or should we think it justified because it is *categorically* justified in virtue of a justification-conferring property? It seems that the right answer goes down the latter horn and not the former because whether a belief is justified or not should not merely depend on our attitudes (evolved, saturated by culture or other).[[43]](#footnote-43) Evolutionary debunking arguments, however, simply support the first, seemingly implausible horn out of the Euthyphronic dilemma. The justification of belief is a mere construction out of our evolved epistemic attitudes, as Street (2008:225) for example suggests.[[44]](#footnote-44) This is prima facie the wrong result.

To sum up, I have argued that the Milvian Bridge principle is self-debunking and that it excludes from our ontological inventory (perhaps indispensable?) metaepistemic facts, some of which might be a priori known facts. It also threatens to beg the question (against metaphysical alternatives) with an implicit commitment to strong reductionist naturalism. Finally, we pressed Euthyphronic worries about missing the categoricity of epistemic justification. I conclude that the Milvian Bridge Principle is unstable. I take these worries not to be conclusive but to make a presumptive case against the stability of the Milvian Bridge.

Let us close with some rumination on the place of the self-debunking problem in the more general picture of evolutionary debunking debates. The self-debunking problem is an exemplification of a more general problem for debunking arguments: what is the epistemic norm in virtue of which beliefs are rendered justified or unjustified (and corresponding facts debunked). At first sight, neither the normative\epistemic premise nor the more refined Milvian Bridge principle will do as such a norm because evolutionary debunking seems to rely on epistemic facts and truths (like the Humean maxim of ‘proportionating belief on evidence’) that evolutionary theory itself does not prima facie justify and actually intends to debunk, which inevitably culminates in self-debunking because they seem indispensable for rational doxastic conduct.[[45]](#footnote-45)

**5. Conclusion**

I have argued that the evolutionary debunking maneuver seems prima facie self-debunking, at least if we assume that if there are epistemic facts they are irreducible, because it needs to rely on epistemic facts in order to launch its debunking arguments. I have then appealed to two recent reconstructions of the evolutionary debunking maneuver (Kahane (2011), Griffiths and Wilkins (2015)) and found them wanting. Along the way I set aside two ways to avoid the conditional self-debunking problem (one envisaged, one by Sterpetti (2015)) that I found unpromising. I conclude that evolutionary debunking maneuvers need to clarify the meta-epistemological commitments upon which they are supposed to operate. A commitment to epistemic antirealism seems to self-debunk and defeat the evolutionary debunking maneuver, while commitment to epistemic realism, at least traditional anti-reductionist realism, seems to conflict with the naturalistic framework of evolutionary theory (as standardly conceived). There is then naturalistic epistemic reductionism (e.g. Heathwood (2009)) and epistemic constructivism that for current purposes we have assumed mistaken.

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1. I would like to thank Fabio Sterpetti for helpful correspondence, two anonymous referees as well as the participants of a workshop at the University of Amsterdam in 2015 for helpful discussion. [↑](#footnote-ref-1)
2. See, for example, Gibbard (1990), Dennett (1995), Ruse (1995), Dawkins (2006a), Kitcher (2007), Street (2006, 2009), Joyce (2007), Atran and Heinrich (2010), De Cruz et al. (2011), Haidt (2012) and Griffiths and Wilkins (2015). For critical reactions, see Kahane (2011), Shafer-Landau (2012), Enoch (2013), Vavova (2014), Cuneo and Shafer-Landau (2014), FitzPatrick (2015) and Das (2016). [↑](#footnote-ref-2)
3. Indeed, evolutionary debunking arguments have been applied to ontology itself. For example, Korman (2014) has explored how such arguments apply to ordinary objects ontology, although he eventually remains optimistic that ordinary objects realism can withstand such arguments. [↑](#footnote-ref-3)
4. The reconstruction of evolutionary debunking arguments I provide is similar to Kahane’s (2011:111). I will later on discuss Kahane’s (2011) reconstruction. [↑](#footnote-ref-4)
5. The normative, epistemic premise may be explicated in different ways and result in different versions of a debunking argument. Shafer-Landau (2012) distinguishes at least five different variations of what he calls ‘the Darwinian Debunking Argument’. One basic form of the argument suggests that evolutionary theory renders the existence of normative properties, norms and facts explanatorily redundant and therefore unnecessary to postulate. Another basic form of evolutionary debunking argument, the argument from causal tracking, suggests that given that normative properties, facts etc. do not seem natural, it is very unclear how we could causally be responsive to and track such facts if they existed. But if there were such facts, we would be in position to have such causal tracking while we are not. Therefore, it is unlikely that there are such facts. A third version of the argument builds on the prima facie causal inefficacy of normative facts and suggests that this constitutes sufficient reason to debunk their existence. However, no matter what particular form such evolutionary arguments might take, the important thing for current purposes is that they render the existence of normative ontology implausible. [↑](#footnote-ref-5)
6. Trivially, any argument that is self-debunking is self-defeating and self-defeating arguments undermine themselves. Thus, they provide us with good epistemic reason to reject them. Of note is that we are concerned here with epistemic self-defeat that implies undercutting (e.g. Descartes’ cogito) and which is to be distinguished from the stronger logical self-defeat that implies contradiction and rebutting (e.g. the self-referential semantic paradoxes). Epistemic self-defeat provides us with pro tanto sufficient epistemic reason to reject an argument. See Fumerton (1995:43-53) for some discussion of the distinction between epistemic and logical\formal self-defeat. [↑](#footnote-ref-6)
7. It might seem uncharitable to the debunker to ask epistemic meta-questions in realist-framed terms because the debunker exactly debunks a realist framework and, therefore, denies it in principle. However, there is no pro-realist bias in asking epistemic meta-questions in realist-framed terms because epistemic appearances indicate that the default epistemic framework to be assumed is realist (cf. Kyriacou (2016:section 2)). Thus, epistemic appearances provide us with an independent, Moorean reason why realism is the default framework. That is, insofar as ordinary epistemic appearances go, the debunker is committed to epistemic realism. It is only further arguments against the veridicality of these realist appearances that can force the realist framework to give way to an antirealist one and, of course, these further arguments is what it is at issue. Thanks to an anonymous referee for pressing this worry. [↑](#footnote-ref-7)
8. See Plantinga’s (1993:216-37) ‘evolutionary argument against naturalism’ and De Cruz et al. (2011:521-2) for different versions of similar epistemic self-defeat worries. They both frame the problem in terms of the reliability of cognitive processes. However, both Plantinga (1993) and De Cruz et al. (2011) do not press the worry at the fundamental metaepistemological-ontological level as we do here (and as they should, I think). Vavova (2014) does press the self-defeat worry at the metanormative-ontological (moral and epistemic) level and, correctly I think, suggests that the evolutionary debunking maneuver is prima facie epistemically self-defeating. Of note is that self-defeat arguments against epistemic antirealists have a celebrated history going all the way back to Plato’s *Theaetetus*. See Burnyeat (1976) for some scholarly discussion of Plato’s own argument against Protagorean relativism. [↑](#footnote-ref-8)
9. See Cuneo (2007) for a detailed defense of the claim that epistemic facts are normative just as moral facts are. A similar idea was famously voiced by Clifford (1877) and it is widely accepted: see Fumerton (1995), Feldman (2002), Foley (1987), Alston (2005) and Greco (2011). As we shall see, some debunkers might be tempted to deny this intuitive assumption in order to evade the self-debunking problem. They might opt to suggest with some (e.g. Heathwood (2009)) that epistemic facts are reducible to nonnormative, descriptive facts. [↑](#footnote-ref-9)
10. See for instance Joyce’s (2007), Kitcher’s (2007) and Street’s (2006, 2009) debunking of normative facts. Street (2006, 2009) clearly intends her debunking argument to carry over to the epistemic domain. [↑](#footnote-ref-10)
11. See Kvanvig (2003), Boghossian (2007), Blackburn (2006), Cuneo (2007), Lynch (2009) and Rowland (2013) for various self-defeat arguments against various sorts of epistemic antirealists. [↑](#footnote-ref-11)
12. Indeed, it leads to global skepticism about justification\reasons for belief that even more moderate, local skeptics (e.g. about testimony) would find abhorrent. Compare Fumerton (1995:50): ‘‘…all strong global skepticism is self-refuting. If one concludes that one has no epistemic reason for believing anything at all, then it follows that one has no epistemic reason for believing that one has no epistemic reason for believing anything at all…That is precisely why so few skeptics have been strong global skeptics’’. Yet the evolutionary debunking of epistemic justification seems to imply this strong global form of skepticism. For a defiant global skeptic about knowledge and justification see Unger (1975). Also, it might be objected that it is only if we assume a traditional understanding of epistemology that debunking arguments lead to skepticism. If we assume less traditional naturalistic approaches to epistemology, debunking arguments do not lead to skepticism. This is a possible scenario, but this is something to be argued and not to be assumed. If, for instance, less traditional approaches to epistemology are not plausible, then we are saved of skepticism but at the price of epistemology (see Kim (1988) for this worry). It is precisely for this reason that debunkers need to clarify their meta-epistemological commitments. [↑](#footnote-ref-12)
13. Epistemic naturalistic reductionism could be either analytic (cf. Heathwood (2009) or synthetic (cf. Jenkins (2007)). Like moral reductionism, epistemic reductionism faces a number of important challenges (semantic, psychological, ontological etc.), such as a classic Moorean open question argument in the analytic case and a sophisticated neoMoorean open question argument in the synthetic case (cf. see Timmons’ and Horgans’ (1992) twin earth argument). For a recent application of the Moorean open question argument to epistemic concepts see Greco (2015). However, Heathwood’s (2009) argument has been independently criticized as implausible (cf. Rowland (2013), Cuneo and Kyriacou (forthcoming)). I cannot afford to go into the matter here but, first, he seems to misuse an epistemic open question argument and, second, to have a dubious take on probability. At any rate, whether we could be naturalists and epistemic realists in a way that defuses the self-debunking problem is something to be shown, not assumed. Besides, this is the whole point of the paper, namely, to indicate that the self-debunking problem puts pressure on debunkers to clarify their meta-epistemological commitments. [↑](#footnote-ref-13)
14. Epistemic constructivism has been a generally underexplored position (though see Warenski (MS)), and to some extent Street (2006, 2008, 2009). Although Street (2006, 2009) is a moral and epistemic debunker and a moral constructivist (2008), as far as I know, she has not done much positive work on epistemic constructivism in particular. She only outlines two ways epistemic constructivism could go (2009:243-5). At any rate, Boghossian (2007:Ch.3) traces the view to Goodman, Putnam and Rorty, formulates it and subjects it to criticism (2007:38-41). [↑](#footnote-ref-14)
15. Another reductionist position would be Goldman’s (1992) process reliabilism. As we shall see, the Milvian Bridge principle of Griffiths’ and Wilkins’ (2015) seems to assume process reliabilism as an epistemological theory, but this is no particular help with the self-debunking problem at the metaepistemological level. For one thing, it is of no particular help with the problem because the Milvian Bridge principle seems to deny reliability in regard to epistemic facts, which again implies epistemic self-defeat and self-debunking. [↑](#footnote-ref-15)
16. See Rowland (2013) and Cuneo and Kyriacou (forthcoming) for criticism of epistemic reductionism. See also Greco (2015) for the application of a Moorean, open question argument to epistemic reductionism. [↑](#footnote-ref-16)
17. See Boghossian (2007:38-41) for criticism of epistemic constructivism along similar lines. He takes the problem of disagreement to be particularly sharp. [↑](#footnote-ref-17)
18. Of note is that the ‘the problem of acquiescence to normative authority’ is sufficiently similar to Enoch’s (2006, 2011) well-known ‘schmagency challenge’ to Kantian constructivism in ethics, so the same style of challenge would apply to epistemic constructivism. [↑](#footnote-ref-18)
19. See Kappel (2011) and Carter and Chrisman (2012) for a defense of epistemic expressivism, Olsson (2010, 2011) for a defense of epistemic error theory and Kusch (2010) and MacFarlane (2014) for a defense of epistemic relativism. [↑](#footnote-ref-19)
20. That is, without any extra metaphysical baggage, especially non-natural or supernatural baggage that would sit ill with a naturalistic framework. Of course, the standard understanding of evolution is unguided Darwinian evolution (cf. Dawkins (2006b)) and this is to be distinguished from guided Plantingian theistic evolution. In the broadly Reidian, Plantingian (1993) framework, God somehow orchestrates the evolutionary process towards ‘design’ of minimally reliable cognitive faculties for morality, religion, aesthetics, logic, epistemology etc. In this scheme of things, there is no danger for the epistemology of morality, religion, epistemology etc. and of course no evolutionary debunking arguments and no threat of self-debunking. That being said, the Plantingian is required to independently justify guided theistic evolution, which raises a whole host of difficult questions. For example, how does God ‘orchestrate’ the evolutionary process? Thanks to an anonymous referee who has asked to distinguish the two understandings of evolution. [↑](#footnote-ref-20)
21. The causal premise is implausible in the sense that it completely ignores the inevitable cultural\environmental stimulation and influence on our doxastic practices. Kahane (2011:18) has precisely made the point that the diversity of normative beliefs over cultures ‘‘makes the suggestion that all evaluative beliefs can be given a straightforward evolutionary [debunking] explanation extremely implausible’’. As Ruse (1995: 158) also notes, our evolutionary nature constrains culture but this is not to say that it predetermines the exact development of culture. ‘‘Rather, in a sense sits on top of a bed of biological constraints and dispositions’’. Therefore, evolution singlehandedly does not explain the sort of evaluative beliefs we have. It should also take into account cultural influences and their interplay with evolved cognitive dispositions. [↑](#footnote-ref-21)
22. It might be objected that we accept the epistemic premise on the basis of evolutionary theory, which is independently scientifically justified and, therefore, there is no self-defeat problem. But this way of presenting the problem belies what it is really at stake: if there is no justification facts, properties etc. then it seems idle to appeal to scientific ‘justification’ because there is none. So, the epistemic premise would still seem self-defeating if there are no epistemic facts, in spite of appeal to scientific ‘justification’. Of course, there may be ways to go around the problem and salvage scientific (and other) justification without commitment to robust epistemic facts and properties, but again this is something to be shown and not to be assumed. [↑](#footnote-ref-22)
23. Olsson (2010, 2011) has tried a kind of similar approach in his defense of moral and epistemic error theory against the self-defeat worry (cf. Cuneo 2007). He distinguishes between first-order moral\epistemic theory and second-order, metaethical\metaepistemological theory and suggests that his error theory applies only to the first-order theory. This, though, leads to a dilemma. Either his error-theory applies only to the first-order level or not. On the one hand, if it applies only to the first-order level, then it seems ad hoc to apply it only to the first-order level. Why not apply it to the second level, which is also in need of a theory? On the other hand, if it applies to the second–order level, then an infinite regress looms. Why not apply it to a third-level, and then a fourth-order level and so on ad infinitum. Both horns of the dilemma seem hard to follow. Note that the epistemic antireductionist realist can avoid the regress if she appeals to a priori foundational epistemic facts, like the Humean injunction that ‘we ought to proportionate belief to evidence’. Such facts could be true in virtue of conceptual content. For an analogous proposal in regard to moral facts see Cuneo and Shafer-Landau (2014). For some criticism of Olsson’s (2010, 2011) epistemic error theory, see Rowland (2013). [↑](#footnote-ref-23)
24. Sterpetti (2015) is concerned with scientific reasoning instead of epistemic reasoning more broadly. He also understands the epistemic premise in terms of evolution’s non-truth-trackingness tout court, not mere evaluative non-truth-trackingness. As far as I can see, these differences have no direct bearing on the discussion and I therefore ignore the complications. [↑](#footnote-ref-24)
25. Although Sterpetti (2015) takes his inspiration from a similar argument in the context of the discussion of a self-defeat problem that Godel’s second incompleteness theorem gives rise to, such arguments are not novel. This ‘biting the bullet’ line of thought is the one ancient pyrrhonists followed in order to avoid epistemic self-defeat for similar reasons- at the price of pyrrhonist skepticism, of course. But the difference of Sterpetti with the pyrrhonist is that the pyrrhonist insists on suspense of judgment rather than claiming that we can positively assert that since scientific reasoning is not truth-tracking, there is no self-defeat for the evolutionary debunking maneuver because it is itself not truth-tracking. See Sextus Empiricus’ (1933). [↑](#footnote-ref-25)
26. See Chakravartty (2011) for a discussion of scientific realism. [↑](#footnote-ref-26)
27. See Unger (1975), Williamson (2000) and Pagin (2014) for the knowledge norm of assertion. [↑](#footnote-ref-27)
28. They call it ‘the Milvian Bridge’ principle after the homonymous battle (312 AD) of Constantine the Great that allegedly Constantine won due to the truth of Christianity. The idea is that Constantine won due to the *perceived* truth of Christianity that helped galvanize the morale of his troops, independently of whether Christianity is *really* true. In analogy, moral, religious and other talk and thought may have been adaptive although there are no corresponding moral and religious facts\truth. Such talk and thought is useful but it doesn’t correspond to anything. In motto, pragmatic success is one thing, truth another. [↑](#footnote-ref-28)
29. A similar principle seems to be at least implicit in the work of Street (2006, 2009). [↑](#footnote-ref-29)
30. Compare Ruse (1995:183): ‘‘Although there may not be an objective necessity in the world…it is part of our evolved nature that we are inclined to think that there is such a necessity in the world. Because we are thus deluded by our biology, we act in ways that are advantageous to us.’’ [↑](#footnote-ref-30)
31. See Mackie (1977) for a classic statement of these worries in regard to moral facts and Olsson (2010, 2011) about epistemic facts. Recall also of Street’s (2006, 2009) evolutionary version of this challenge in regard to normative facts more generally. [↑](#footnote-ref-31)
32. Such self-defeat arguments are often run by anti-reductionists against naturalistic metaphysical principles. See for example Shafer-Landau (2003: 110-4) on the Shoemakerian ‘causal criterion of ontological legitimacy’. [↑](#footnote-ref-32)
33. See Cuneo and Shafer-Landau (2014:427-8) and Huemer (2008:216) for a similar point. Also, it might be observed that we should not conflate between evolved ‘innate beliefs’ and ‘innate cognitive abilities’. The Milvian Bridge principle might not be innate, of course, but it is on the basis of innate cognitive abilities (such as reflection and perception) that we come to develop science (and the Milvian Bridge principle) and there is nothing objectionable to that. Newton developed the law of universal gravitation with the same cognitive tools and there is nothing objectionable to that. In response, the fact that scientific theories develop out of evolved cognitive abilities does not really help with the self-debunking problem for the Milvian Bridge principle. In the absence of epistemic facts, it remains prima facie self-debunking. To repeat, there may be non-traditional epistemological ways to rescue evolutionary debunking arguments (e.g. antirealist) and account for the fact that our scientific theories are justified, but this something to be argued and not to be assumed. Thanks to an anonymous referee. [↑](#footnote-ref-33)
34. See Vavova (2014:12) for a similar point against evolutionary normative debunking. [↑](#footnote-ref-34)
35. Such an epistemically realist position could dovetail with Enoch’s (2013) defense of moral realism by appeal to the practical indispensability of moral facts. In the epistemic case, epistemic facts would be epistemically indispensable for theoretical reasoning. Perhaps we could also -following Cuneo’s and Shafer-Landau’s (2014) case for ‘moral fixed points’ of conceptual truths- understand these epistemic facts as ‘epistemic fixed points’ of conceptual truths. But these are topics we cannot discuss here. [↑](#footnote-ref-35)
36. Of late, the a priori is not seen with as much Quinean skepticism (1953). See Bonjour (1998) for a defense of a priori justification and Cuneo and Shafer-Landau (2014) for a defense of moral a priori, what they call ‘moral fixed points’. If the moral-epistemic normative parity holds and the Cuneo-Shafer-Landau argument is sound, there may also exist epistemic fixed points. [↑](#footnote-ref-36)
37. Compare Cuneo and Shafer-Landau (2014:427): ‘‘…For one thing, beliefs to the effect that certain propositions are conceptual truths are sufficiently abstract that they are likely to be at many removes from susceptibility to the pressures of natural selection. Moreover, while our abilities to understand conceptual truths and to appreciate their modal status are neither especially adaptive nor maladaptive, such abilities are the natural extension of more general powers of reasoning that are themselves surely fitness-enhancing. In this respect, these advanced cognitive skills are just like those that enable us to excel at quantum physics or set theory.’’ [↑](#footnote-ref-37)
38. See FitzPatrick (2015) and Das (2016a: section 2) for discussion of the point. Compare FitzPatrick (2015:883): ‘‘…evolutionary debunking arguments…rely on strong explanatory claims about our moral beliefs that are simply not supported by the science unless it is supplemented by philosophical claims that just beg the question against realism from the start.’’ [↑](#footnote-ref-38)
39. It is also to be noted that the very phenomenon biology studies, life, seems by the lights of many biologists and biochemists irreducible to more basic molecular mechanisms. So it is a moot point whether even biology’s own subject-matter is reducible. See Ball (2003:33-5) for such pessimism. Others of course are more optimistic, such as Dawkins (2006b:Ch.6). [↑](#footnote-ref-39)
40. See Shafer-Landau (2003:64) and Das (2016a: 418-9, ftn. 3) for similar points. Of note is that we could have an even stronger form of naturalism than strong reductionism: *eliminativist* naturalism such as Churchland (1981) about mental states, Garner (2007) about morality and Dawkins (2006a) about religion. [↑](#footnote-ref-40)
41. For some responses to Street (2006), see Brosnan (2011), Setiya (2012), Enoch (2013), Vavova (2014), Cuneo and Shafer-Landau (2014), FitzPatrick (2015), and Das (2016). [↑](#footnote-ref-41)
42. A particularly acute challenge for the realist is the Benacerraff-Field-Street style of challenge as applied to epistemic facts: to explain why if there are epistemic facts we can non-coincidentally and reliably track these facts. I suppose one negative response is that epistemic facts are fundamental and indispensable for any justified reasoning and denying some minimal reliability of tracking would render any reasoning unjustified. That would be a prima facie reductio result for the challenge. Still we would need a positive account of how such tracking works, if there is to be one. One idea is to suggest, dovetailing Cuneo’s and Shafer-Landau’s (2014) account of moral conceptual truths, that there are indispensable epistemic conceptual truths. These are truths in virtue of the meaning of the constituent concepts and no causal tracking (as in perception) is involved. Conceptual competence would suffice for understanding such truths. I suppose a good candidate for an epistemic fixed point is: knowledge entails truth. But these matters would take us too far afield. [↑](#footnote-ref-42)
43. See also how Heathwood (2009) runs a Euthyphronic argument in order to show that epistemic reasonability depends on objective probability facts. [↑](#footnote-ref-43)
44. Compare Street (2008:225): ‘‘things are good, valuable, and required ultimately because we take them to be’’. [↑](#footnote-ref-44)
45. Compare Vavova (2014: 12): ‘‘The debunker aims to give us good reason to believe that we cannot trust our beliefs about reasons for belief. But this itself –what the debunker wants to give us- is a reason for belief. So we cannot trust it. We are therefore not permitted to take for granted the very thing we need to call our evaluative beliefs into question…what we are supposed to be mistaken about includes, crucially, epistemic principles about how to revise our beliefs in light of evidence’’. Also, for an indispensability argument in favor of irreducible moral facts see Enoch (2013). It is anyone’s guess that the same kind of reasoning, in light of the profound normative analogues between the moral and the epistemic, could as easily apply to irreducible epistemic facts. [↑](#footnote-ref-45)