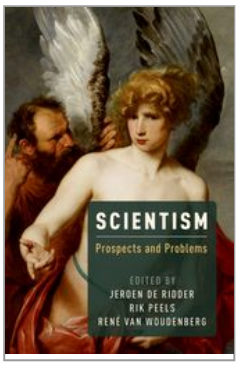

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Cognitive Science and Moral Philosophy

Challenging Scientistic Overreach

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Abstract and Keywords

Can empirical work in cognitive science and moral psychology impact issues of general theoretical relevance to moral philosophy? Some think it can. They take it to underwrite debunking arguments against mainstream philosophical views. This chapter first critiques recent philosophical work by two prominent experimentalists, Joshua Greene and Shaun Nichols. The chapter argues that the cases they make for this sort of strong impact of experimental work on moral philosophy suffer from a problematic form of scientism and ultimately fail. Indeed, they fail for reasons that likely apply to other projects with similar ambitions as well. Second, the chapter clarifies the dialectical situation with respect to empirically driven attempts to debunk traditional philosophical views, which leads to a general challenge to such debunking projects going forward. It ends by suggesting a more modest and plausible role for experimental work in connection with moral philosophy that gives up the overreaching debunking ambitions.

Keywords: moral objectivity, Joshua Greene, Shaun Nichols, dual-process theory, evolution, moral epistemology, debunking arguments, cognitive science

10.1 Introduction

Empirical work in cognitive science and moral psychology can obviously be morally significant. As Joshua Greene points out, for example, empirical information about implicit racial bias and its influence on juries is morally

significant in the following sense: When combined with the moral assumption that legal decisions shouldn't be influenced by racial considerations, it implies that there is often a problem with jury deliberations and that measures should be taken to correct for this (Greene 2014: 711). Those are broadly moral conclusions. But this form of moral significance for empirical information is nothing new or surprising (though the details sometimes are): Moral judgments always have to take account of relevant empirical facts, and these include psychological facts.

What is controversial, and of broader philosophical interest, is whether the empirical research has a deeper bearing on matters of general theoretical relevance to moral philosophy. A central issue here concerns the nature and significance of ethical intuition, and one prominent theme emphasized by those who do take the empirical work to have deep philosophical relevance is the idea that the empirical research—which teaches us "how the mind actually works," as Greene (ibid.: 726) puts it—can be enlisted to do broad *debunking* work in moral philosophy. I will focus here on two recent examples where research in neuroscience, cognitive science, and empirical moral psychology is claimed to pose powerful **(p.234)** challenges to mainstream philosophical views through undermining targeted ethical or meta-ethical intuitions.

The first is Greene's updated attack on deontology in "Beyond Point-and-Shoot Morality: Why Cognitive (Neuro)Science Matters for Ethics." Greene here claims that the neuroscientific work he discusses "reveals the hidden inner workings of our moral judgments," indicating that deontological ethical intuitions and theories are the products of non-rational causal influences operating by way of evolved "automatic settings" within human moral psychology. This in turn implies that once we become aware of these debunking facts "we should distrust [these] automatic settings" and so reject the deontological beliefs and theories that flow from them. We should, he thinks, instead embrace an allegedly more rationally grounded morality, such as act-consequentialism (ibid.: 695, 717). The second is Shaun Nichols's "Process Debunking and Ethics" (2014) and his claim is that the empirical work he cites provides, or at least with further research will likely provide, materials for similarly debunking the meta-ethical belief in moral objectivity (much in the way that others have appealed to scientific results to debunk religious beliefs, for example). The idea is that the data can show this belief to result merely from epistemically defective processes, in which case those of us who hold such a belief should give it up.

My concern is with such debunking projects, which attempt to use empirical work to debunk traditional normative ethical or meta-ethical views. Such projects, I shall argue, tend to embody a problematic *scientism*, privileging scientific causal explanation of targeted ethical or meta-ethical beliefs while ignoring or downplaying important philosophical alternatives, thereby overreaching significantly from the scientific results to draw unwarranted

conclusions about debunking the beliefs in question. More specifically, I will take up two central tasks in sections 10.2–10.4. The first is a critique of these two recent projects. I've chosen this work because it represents some of the most prominent arguments currently on offer in this area, covering both normative ethics and meta-ethics, and it also exhibits features of debunking arguments I want to highlight for more general critique, bringing out difficulties that are likely to plague other work with similar debunking ambitions.[1] I will argue that the cases made by Greene and Nichols for this **(p.235)** sort of impact of experimental work on moral philosophy fail. The empirical results they cite are interesting and do have some role to play in the philosophical debates, but the reasoning from those results to the philosophical conclusions they seek is deeply problematic. In the end, the threats presented to their philosophical targets are much weaker than they are often taken to be.

My second task is to go on to draw some more general lessons from these case studies. Although the two critiques I offer are naturally limited, they illustrate broader issues that arise for many such projects, as I have explored elsewhere, for example, in connection with recent evolutionary debunking arguments in meta-ethics (see my 2014, 2015, 2017). A central point that will emerge in connection with both Greene and Nichols is that there are alternative philosophical accounts of the workings of at least some ethical intuition and of the etiology of at least some of our ethical or meta-ethical beliefs, and these accounts are equally compatible with all the empirical data cited. These alternatives tend to be ignored or downplayed by those working on ethics from an empirical perspective, and this isn't surprising. The alternative accounts do not lend themselves as fully to empirical investigation as the debunking forms of causal explanation do, making them less tractable from an empirically oriented perspective and less attractive to those with scientistic leanings. Nonetheless, they remain live and plausible philosophical possibilities.

This matters for the dialectical situation because if these alternative accounts turn out to be correct, then they obviously undercut the purported empirical debunking. Everything therefore turns on how each of us should weigh, from where we currently stand, the advantages and disadvantages of the two very different stories on offer—the debunking accounts vs. alternative accounts amenable to the traditional views under attack. And my central point is that this is not in fact settled for everyone by the empirical data but remains a philosophical issue as controversial and contestable as the original philosophical debates in question (i.e., between deontology and consequentialism, or objectivity and nonobjectivity). I will argue that proper attention to philosophical alternatives to the debunking stories shows that while the empirical work may indeed be philosophically significant, it cannot do the strong debunking work it is often imagined to do. It can lend modest support to explanatory models that, *if* true for our relevant beliefs, would indeed **(p.236)** cause problems for them. That is a significant contribution to the philosophical debate, but it is a far cry

from using scientific leverage to debunk our beliefs by showing us that our beliefs are in fact “best explained” in ways that show them to be ill-founded, thus defeating our justification for them. That, I will argue, is what the empirical work does not, and probably cannot, do, at least not in any very general way. Finally, I will end by offering a dilemma and challenge to experimentalists with strong debunking ambitions similar to those of Greene and Nichols, and I will urge a recasting of the philosophical role for such work.

10.2 Greene on the Dual Process Model and “Automatic Settings”

At the heart of Greene’s case, stemming largely from his well-known fMRI studies, is the “dual process theory” of moral judgment. On this view, there are two very different processes by which we arrive at moral beliefs or judgments—one involving quick, emotionally laden responses and emphasizing efficiency over flexibility, the other involving controlled conscious reasoning that brings greater flexibility at the cost of less efficiency (Greene 2014: 698). Greene presents extensive scientific evidence for this psychological claim, and for present purposes I will simply grant it. I am happy to do so because this psychological claim is in itself entirely innocuous from the point of view of moral theory. What is not innocuous is a further interpretation of the quick, intuitive, emotionally laden responses. This is what Greene introduces from the start with a metaphor involving “automatic settings” on a camera that allow for efficient though inflexible “point-and-shoot” operation. These settings are contrasted with the “manual mode” of operation, which corresponds instead to controlled, conscious reasoning.

This metaphor is so pervasive in the discussion that intuitive moral responses are all soon referred to simply as “automatic settings,” encouraging the impression that the moral dispositions in question are, by analogy with the preprogrammed auto settings designed into a camera, innate features of our Darwinian evolutionary design. This in turn encourages the thought that the moral dispositions associated with intuitive moral responses are nothing more than evolved emotional dispositions—elements of our “inner chimp” with little claim to rational respectability or reliability when it comes to the kinds of moral problems we contemplate in normative theorizing, which are not the kinds of problems such evolved responses were designed to solve. And if that is how things are, it is easy to be drawn into Greene’s **(p.237)** dismissive take on deontology once he links “characteristically deontological judgments” (involving concepts of rights and duties) to such “automatic emotional responses” and adds that the judgments are “driven by” the emotional responses.[2]

Ultimately, he doesn’t move quite that fast, since he recognizes that dispositions for automatic responses can also be acquired through cultural and personal experience. So he has a separate argument (which I’ll take up below) for why these too should be thought unreliable for moral theorizing. But in both cases the fundamental problem with Greene’s argument lies in the unsupported slide—

lubricated by the “automatic settings” metaphor—from the empirically measurable features of intuitive moral responses, such as their being quick and emotionally laden, to their unflattering characterization as unreliable or rationally barren, mere relics of our evolutionary past or upshots of deficient experience.

Consider the subset of negative, characteristically deontological judgments of particular interest to Greene, which pertain to bringing about bodily harms through “personal force,” where “the agent directly impacts the victim with the force of his/her muscles,” as by pushing a large person off a footbridge in front of a trolley in order to stop it before it hits five others (Greene 2014: 709). (It is worth noting here that there are plenty of common negative deontological judgments that don’t fit this model. Many cases involve no direct or personal bodily harm, e.g., giving the order to have someone shoved off the footbridge. Others involve no bodily harm at all and even bodily benefits, e.g., embezzling money in order to donate more to charities that provide bodily aid. Still others involve no harm of any kind, e.g., paternalistic deception or manipulation for someone’s own good. So Greene’s focus is artificially narrow and that is important to the debate. But I will set that aside and focus on Greene’s trolleyology.)

Let’s grant the (entirely unsurprising) claim that such judgments, as in the footbridge case, are made quickly and are associated with emotional arousal. And let’s grant also the further claim that these judgments actually depend on the healthy functioning of brain regions associated with emotions, as indicated by the data on diminished deontological judgment patterns in subjects with damage to these regions (ibid.: 701–703). This is interesting, though of course if these brain regions have additional functions (beyond **(p.238)** emotional ones) that also influence moral judgment, then we could not conclude straightaway that deontological judgments depend specifically on proper emotional functioning: Perhaps judgment is affected by the impairment of these other functions in the damage cases.[3] But again, set that complication aside and let’s just grant that the data establish that when emotional functioning is impaired, this tends to inhibit at least some deontological judgment. What follows?

This might indeed rule out an extreme rationalist view according to which all deontological judgments flow from exercises of pure reason that take place independently of healthy emotional functioning. But it needn’t bother more moderate deontologists in the least. Philosophers ranging from sensibility theorists back through Ewing and Broad and all the way back to Aristotle have embraced the importance of proper emotional development and functioning to sound ethical deliberation, judgment, and behavior (Dancy 2014). It is hardly a blow, then, to be told that people with life-impairing forms of brain damage and dysfunction (such as psychopaths, those suffering from dementia, or VMPFC

damaged patients) tend to answer moral questions on surveys in ways that are incompatible with the moral theory we endorse.

What would cause problems for the deontologist would be a demonstration that emotional involvement in deontological judgment is merely distorting or deeply unreliable across the board. This would be the case, for example, if the emotional involvement associated with characteristically deontological judgments were simply a matter of "automatic settings" built into our evolutionary design for Darwinian reasons having nothing to do with any deontological moral facts (even if such facts exist), being geared instead simply toward maximizing a hunter-gatherer's inclusive biological fitness. In that case, there would be good reason for deontologists to be worried: It would require a "cognitive miracle" for such "automatic settings" to lead us reliably to have accurate moral beliefs. Greene himself speaks not in terms of reliability with respect to tracking moral facts (as is typical in current debates over evolutionary debunking), but rather in terms of the automatic settings "functioning well" or not, leaving open the meta-ethical understanding of this. Still, his worry is similar, with the addition of the premise that, barring miracles, "automatic settings" will tend to function well only when either:

(p.239)

> (i) they are adaptations (resulting from evolutionary "trial and error"), being employed in a context similar to that in which they evolved (as with dispositions for perceptual judgment), or
> (ii) they are dispositions cultivated through social and individual "trial and error experience." (Greene 2014: 714)

The problem, he thinks, is that neither condition is met with respect to the dispositions operative in our characteristically deontological judgments. This is especially so for the judgments involved in much of our normative theorizing, which appeal to cases that are often "unfamiliar." By this he means: cases outside of actual personal experience or involving types of situations that have come on the scene long after our evolutionary conditioning—such as opportunities to help distant strangers, or to affect the distant future by mitigating global warming, or challenges presented by global terrorism, or complications arising from biomedical technologies (ibid.: 716).

In the absence of cognitive miracles, deontological judgments would thus seem highly suspect if they stemmed from "automatic settings" that are either nothing but (i) vestiges of ancient adaptations being employed in novel contexts, or equally badly, (ii) cultivated dispositions employed in thinking about cases that are so unfamiliar that it would take a miracle for these dispositions to function well in Greene's sense. The question, then, is whether Greene shows that the dispositions that yield the quick, intuitive moral judgments used to support

deontology are nothing but outmoded adaptations or cultivated dispositions that are insufficiently rationally informed to allow for sound application in normative theorizing.

In fact, we find almost nothing in Greene's discussion to provide support for this claim or to undermine the natural alternative available to deontologists. It is one thing to demonstrate empirically that many deontological judgments occur quickly, without deliberation, and engage emotions, so that they stem from automatic moral belief-forming dispositions; it is quite another thing to speculate about *what exactly did or did not go into the formation of those particular dispositions*. No doubt some dispositions involving quick, non-deliberative responses are the direct result of evolutionary shaping, "designed" for meeting the adaptive challenges of Pleistocene hunter-gatherers. Such dispositions can be expected to be reliable only with respect to such biological aims in similar environments—and not in novel environments or with respect to the aim of truth of a sort that is not neatly aligned with the biological aims. But, as Greene himself acknowledges (ibid.: 714), other psychological dispositions equally involving quick, non-deliberative responses might **(p.240)** be acquired through experience and training, and in a way that is rationally informed (as described below). These are obviously the relevant focus for the deontologist, so the question is whether Greene has said anything to preclude understanding at least many deontological judgments on this model. I shall argue that he has not.

10.3 Problems for Greene's Argument, and an Alternative Model

To begin with, the system involved with automatic processing is far more flexible than theorists such as Greene suggest, and its dispositions can be highly intelligent and responsive to environmental stimuli (Railton 2014). As Peter Railton has pointed out, there is plenty of evidence that this system, far from being limited to rigid response types, was "designed to inform thought and action in flexible, experience-based, statistically sophisticated and representationally complex ways—grounding us in, and attuning us to, reality," thus allowing for "spontaneous yet apt" responses (ibid.: 846–847). But even apart from the wide-ranging evidence Railton discusses in connection with a variety of organisms, it should already be clear from examples of human skill that the system involved with quick, automatic responses can be *developed through experience and training* to yield intelligent, rationally informed, flexible responses—or as Julia Annas helpfully puts it, "educated responses" (Annas 2011: 28–29). And often these responses will be emotionally engaged as well, where emotional dispositions are developed through the same experience and training, becoming equally refined and rationally informed, functioning in ways that needn't be oriented specifically toward evolutionarily given aims.[4]

Consider the development of artistic skill and sensitivity. Once someone has mastered jazz piano, as Annas points out, "the result is a speed and directness of response comparable to that of mere habit, but unlike it in that the lessons

learned have informed it and rendered it flexible and innovative" (ibid.: 29). If the pianist's cognitive, emotional, and physical dispositions **(p.241)** constitute "automatic settings," they are in any case very different from the inbuilt, rigid settings of a camera in "point-and-shoot" mode. They may be quick, non-deliberative, and emotionally laden, belonging to the system associated with automatic responses rather than conscious, effortful reasoning. But they are no less informed by all the conscious, reason-involving effort, experience, and refinement that went into the years of intelligent training that crafted those dispositions within artistic practices. Far from being evolutionarily given settings keyed to Darwinian goals, they are intelligently formed dispositions oriented toward goals reflecting standards internal to autonomously developed cultural practices, such as jazz piano. Similarly with games, sports, and crafts. Indeed, Greene should be happy to acknowledge this, since again he allows for the development of dispositions within the automatic processing system through "trial and error experience." Presumably he would recognize that this captures such things as the mastery of chess or the skills of the pianist, painter, or diagnostician or surgeon, and not just simple cases of "trial and error" such as learning not to eat certain poisonous plants.

The point, however, is that in addition to capturing a wide and familiar range of human skills and dispositions, the above model can very plausibly be employed to capture dispositions involved in a great deal of ethical judgment as well, including deontological judgment. Just as in the case of artistic, intellectual, and practical skills and pursuits, individual human beings can, through a decent ethical upbringing, intelligently cultivate ethical dispositions oriented toward certain goals and reflecting certain standards internal to our culturally inherited traditions of ethical inquiry—standards that are no more micromanaged by specific evolutionary influences than standards of jazz piano or contemporary scientific practice are, reflecting instead cultural developments and refinements that are significantly independent of specific evolutionary shaping. Greene never seriously considers this model in connection with ethical judgment, but if artists, chess masters, and physicians can make quick, intuitive, and often emotionally laden judgments in ways that nonetheless reflect the intelligence of the slower, effortful processes that went into *training and refining the dispositions* for such judgment, then why should this possibility be closed off for ethical thought? When we make a quick, emotionally laden, intuitive judgment that it is wrong to push innocent people in front of trains even to do good for others, this may well be a rationally informed expression of a moral disposition formed and refined through moral experience, reflection, and training. It needn't be merely a response caused by irrational, alarm-like emotion. Our developed emotionally **(p.242)** laden intuitions, or what Dancy calls "practical seemings," may at least sometimes constitute an *intelligent appreciation of non-consequentialist values and their normative implications* (Dancy 2014: 795–801). And if they do, then Greene's case against deontological judgments does not go through. So, as he

recognizes, he needs an argument to rule out this construal of (at least many) intuitive moral judgments, at least if he wishes to do more than simply to flag an alternative *possibility* that, *if* true for deontological judgments *across the board,* would present a genuine problem for deontologists. He does, of course, purport to do more than that, so let us consider the further argumentation he provides to that end.

The primary consideration he cites has to do with the "unfamiliar" nature of many of the cases discussed by deontologists, which is supposed to cast doubt on the possibility of our competently addressing them using our "automatic settings" (Greene 2014: 714–715). Part of what this is supposed to mean is that these cases involve cultural developments very unlike the circumstances of our Pleistocene evolutionary background—trolleys, biomedical technologies, or the possibility of actions with global impact. But again, since we are not here appealing to evolutionarily given dispositions, this is irrelevant. The question is whether there is a problem applying our culturally and individually developed dispositions for quick moral responses to such cases, on the grounds that we lack the relevant "cultural or personal experience" to underwrite such applications (ibid.: 714). Greene thinks there *is* a problem here, and likens this to trying to apply the skills it takes to ride a bike to the unfamiliar task of driving a car. It is hopeless to try to apply our automatic bike riding skills to driving a car, which will instead require switching to "manual mode" until the car driving skill is developed; similarly, he thinks, it is hopeless (or would require a "cognitive miracle" not to be hopeless) to apply our dispositions for quick, automatic moral responses to the cases at issue in debates in normative ethics.

But why should we think that applying our culturally developed ethical intuitions to trolley cases, or to cases involving bioethics or global terrorism or climate change, is anything like trying to drive a car using only bike riding skills (ibid.: 716)? Greene's claim here should not be confused with the plausible worry that some science-fiction cases contrived by moral philosophers (and metaphysicians) are so outlandish that intuitive responses to them cannot count for much. That may be true. But Greene provides no argument for thinking that this worry threatens the deontologist's support for basic non-consequentialist claims. For one thing, although deontologists often do appeal to artificial cases, they can in fact make the same points using **(p.243)** more "familiar" cases, as they often do in case studies drawn from medicine, business, or war. And even apart from that, most of the artificial cases deontologists discuss are hardly so far out as to preclude our ability to recognize and assess their morally salient features.

It is true that few (if any) of us have actually encountered a runaway trolley while standing near a switch that could redirect it—and no one will ever find herself on a bridge next to a person both large enough to stop one and yet somehow still light enough that one could handily push him off! But it is hardly obvious why this should pose a problem for quickly recognizing the morally

salient features of these cases already familiar from everyday life. We have driven cars if not trolleys, swerved to minimize damage, and faced many situations in which an innocent person could be metaphorically "thrown under the bus" to spare trouble for others. People have plausibly developed, in everyday contexts, an emotionally laden disposition to consider the deliberate harmful use of one person (even to do good for others) as a wrong-making factor, especially where the harm is egregious. We have similarly developed a disposition to recognize harm brought about through mere damage control, as a side effect of diverting a public threat, as being a very different matter. And the development of these dispositions involves not just the sort of "trial and error" Greene considers, based on actually encountered situations, but also consideration of fictional or hypothetical cases. The critical and imaginative discussion of such cases is a standard part of moral training and development. Consider, for example, the social role of fiction and film in shaping our moral sensibilities, and similarly with conversation about historical events, current affairs, and merely possible cases, which help us to clarify our values through ongoing discourse.

The moral philosopher's discussions about cases are just more systematic extensions of this, not some brand new activity as ill-served by our developed sensibilities as driving a car would be by bike riding skills. When we consider pushing someone in front of a train to help others, our response may be quick and emotionally laden, but it may nonetheless be the exercise of a rationally informed moral disposition to recognize the morally salient features and to see them as wrong-making. This is what Railton (2014: 832) calls a "manifestation of an underlying moral competency," built up through conscious experience, training, and refinement. And, for all Greene has shown, this may well be a matter of having developed a reliable sensitivity to deontological moral properties and facts, allowing for the intuitive *recognition of good reasons* for such responses (no cognitive miracles required). Nothing in Greene's argument discredits this possibility.

(p.244) Indeed, Greene himself presumably thinks that in the even *more* "unfamiliar" case of having to push a button that will kill one innocent person in order to prevent the destruction of most of the planet, the equally quick intuitive judgment that this is permissible—which on his schema counts as a "characteristically *consequentialist* judgment"—is a matter of recognizing good reasons for thinking it permissible. But if we can have reasons-responsive intuitions in this (extremely) "unfamiliar" case, why can't we equally have them in the much more "familiar" kinds of cases employed by deontologists to support deontology? Greene's view relies on an indefensible double standard here.

It is true, of course, that some automatic responses are caused by emotional factors independently of recognition of good reasons. And such blindly emotional responses may tend to yield more characteristically deontological judgments

than consequentialist ones. But it doesn't follow from this that (going in the opposite direction) most deontological judgments are the result of blindly emotional responses. Even if *all* blindly emotional responses yielded deontological judgments, this might account for only a subset of deontological judgments, with many other quick and intuitive deontological judgments instead resulting from rationally informed, emotionally laden dispositions on the reasons-responsive model. Empirical evidence that blind emotions lean toward the deontological is not empirical evidence that deontological judgments are generally driven by blind emotions.

Greene (2014: 708) asks: "What, for example, is it about pushing the man off the footbridge that makes us feel that it is wrong? Experiments are answering this question, among others." But experiments are "answering" such questions only insofar as it is just assumed, scientistically, that the alternative, reasons-responsive model I have sketched is false. If that model instead turns out to be correct, and what it is about that case that makes (some of) us feel it is wrong is our recognition of good reasons for thinking it is wrong through a recognition of the wrong-making factors in play, then the experiments are not in fact correctly answering the question why we believe what we do: The explanatory appeals to extraneous causal factors will just be misguided here.

Of course, experiments can show that some judgments made by some people are unreliable, by revealing ways in which certain subjects are influenced by factors that all would agree are morally irrelevant and so should not be influencing judgment (ibid.: 709–710). For example, suppose some subjects are found to judge it to be permissible to knock the large man off the footbridge by using a switch that activates a lever that pushes him off, while *also* judging it impermissible to shove him off directly using their muscles. **(p.245)** In that case, it is indeed plausible that their judgment is being influenced by morally irrelevant factors along the lines Greene identifies, since there is plainly no morally relevant difference between the two cases, as all agree. Deontologists should grant that such influence occurs, and they owe a debt to experimentalists for exposing such potential sources of error for some deontological judgments, which might help with weeding out certain mistakes. But this does not add up to anything like the sort of powerful case against deontology that Greene imagines, because it does not support the general, deflationary interpretation of intuitive deontological judgments he relies upon in his argument.

In fact, given the lack of actual support for his conclusions by the scientific data, it is tempting to turn around a favorite move deployed by Greene himself and hypothesize that much of his argument concerning the ethical significance of the data can best be explained as an elaborate *post hoc rationalization* of a consequentialist philosophical view held for unrelated reasons—rather than being a scientifically driven undermining of deontology.[5] But however that may be, my more modest claim is just that his interpretations are not supported by

the science, so that his claim to be drawing strong conclusions based on scientific results is a matter of scientistic overreach. Indeed, it is far from clear what kind of experimental work could possibly show us that our deontological judgments across the board are mere “automatic settings” in Greene’s loaded sense, as opposed to spontaneous expressions of rationally informed, intelligently developed moral dispositions.

10.4 Nichols on Process Debunking and Belief in Moral Objectivity

Nichols focuses his primary debunking efforts on the meta-ethical sphere, targeting the common belief in the *objectivity* of morality, that is, the notion that the truth conditions for moral claims “are independent of the attitudes and feelings people have toward the claim” (Nichols 2014: 734). His interest is in what he calls “process debunking arguments” wherein “one attempts to undercut the justificatory status of a person’s belief by showing that the belief was formed by an epistemically defective psychological process” (ibid.: 727). A paradigm of such a debunking argument would be one purporting to show that “the sole source of [a person’s] theistic belief” lies in wishful thinking. **(p.246)** Since that is clearly an epistemically defective process, this revelation of the etiology of the theistic belief should undermine any confidence she might have had in its truth (ibid.: 733). Nichols’s concern, then, is with debunking arguments seeking to establish that the sole source of our belief in moral objectivity lies in equally epistemically defective processes. If this could be shown, then we should likewise lose any confidence we might have had in the objectivity of morality, and so abandon moral objectivism.

Now the first thing to notice here is what a tall order this turns out to be. It is not enough for a debunking argument just to establish the existence of epistemically defective causal influences that have some effect on some people’s belief in moral objectivity. Such a claim is entirely unsurprising and does nothing so far to undermine a given agent’s belief in moral objectivity. If I am told that some morally irrelevant causal factor C helps to incline some people to believe in moral objectivity, this should perhaps inspire self-scrutiny to see whether C might be operative in myself as well. But it does not by itself give me reason to conclude that it is. And even if I do come to that conclusion, this is so far compatible with other, more epistemically sound processes *also* being at work in leading me to the belief in question. If these other, more respectable processes are sufficient on their own to lead me to this belief, and C merely provides further inclination to believe what I would believe anyway for good reasons, then the mere presence and operation of C fails to be undermining. This is true even if it were somehow established that C would by itself also have been sufficient to lead to the belief.

Suppose a close friend is accused of a grisly murder and I have excellent evidence that he is innocent, which I cite in defense of my belief that he is. Someone might object that I would believe this even in the absence of such

evidence, simply due to my attachment to him and desire to protect him from prosecution. Even if this is true, it does nothing to impugn the evidence I have and does not undermine my justification for the belief I base on that evidence, though it may prompt increased scrutiny to be sure the evidence really is as good as it seems. My justification would be threatened only if there were independent grounds for doubting the evidence in question. Similarly, the mere presence and additional influence of C needn't deflate my confidence in my belief in the objectivity of morality, at least in the absence of independent grounds (presented to me in a non-question-begging manner) to doubt the quality of the reasons I cite as good reasons for that belief. In order for me to lose confidence in my belief in moral objectivity, I will have to be given good reason to think not merely that some people's belief in moral objectivity is influenced to some extent by C, but that my own belief in moral objectivity **(p. 247)** is to be chalked up *solely* to C and/or other epistemically defective processes.[6] But does the experimental work really show those of us *not already* inclined on other grounds to reject moral objectivity that our own belief in moral objectivity is deeply suspect due to its having originated solely from epistemically defective processes?

Nichols, to his credit, doesn't claim that it does. Instead, he limits himself to much weaker theses that do seem to be supported by the empirical research. The problem, however, is that claims weak enough to be credibly supported by the science are also too weak to do any strong, general debunking work. Nichols claims, for example, that many moral judgments are accompanied by emotions and that "there is some reason to think that emotion facilitates judgments of objectivism," that is, the belief that the moral claims in question are objectively true (ibid.: 738). But this in itself is entirely innocuous. First, an emotion's facilitating judgments of objectivism is compatible with the agent's *also appreciating good reasons* for belief in objectivism, as Nichols recognizes. Second, it is also compatible with the emotion's playing an epistemically valuable role in facilitating such judgments, so that it is actually part of the agent's coming to appreciate good reasons for the judgment.

For example, indignation over someone's cruel mistreatment in a case of human trafficking, say, may be an expression of a *developed moral-emotional disposition that is partly constitutive of grasping the values that make such treatment wrong*. Our emotionally laden intuitive sense that this is wrong and should be stopped may be an insightful "practical seeming" in Dancy's sense, attuning us to the values in play and to their normative implications. If we are then asked whether the wrongness here is objective, we might reflect on the values to which our emotions have attuned us—such as the dignity of the person being mistreated and the badness of her misery. And we might then recognize that these values ground the wrongness of such cruel treatment in a way that is *independent* of subjective or merely conventional factors. This will then lead us rationally to conclude that this wrongness is *objective*. In this way, emotions may

facilitate our belief in moral objectivity by helping us to grasp values that we understand upon reflection to have direct normative implications apart from conventional or subjective factors, thus *justifying* our belief in objectivity. This is exactly as it should be. And it would also nicely explain such empirical facts as that "children with psychopathic tendencies, **(p.248)** [who therefore] have diminished sensitivity to distress in others, . . . are more likely to judge that moral transgressions (e.g., hitting another child) are authority dependent," that is, not objective (ibid.: 736). Their emotional impairment is an *epistemic* impairment, akin perhaps to emotional impairments in the realm of aesthetics, posing obstacles to aesthetic experience and understanding.

Consider next Nichols's claim that "there is a tiny bit of evidence suggesting that emotional processes inflate judgments of objectivity in epistemically defective ways" (ibid.: 739). Here he discusses evidence that induced disgust can contribute to a tendency to view a judgment as objective, and that induced anger over an unrelated matter can do the same in some subjects, though the results are not very robust.[7] This is interesting, if again unsurprising: People worked up from thinking about a conflict that made them angry are likely to be in a more combative, stubborn mood, and more ready to dig in their heels in an argument; so they might be expected also to be slightly more likely to say that someone who disagrees with them about something is clearly mistaken. There are a number of worries one could raise about whether such experiments are adequately measuring genuine belief in objectivity, rather than picking up on other things, but let us set such worries to one side and grant that there can be such emotional distortions in judgments of objectivity.[8]

(p.249) Another proposal Nichols discusses is that belief in moral objectivity can be influenced by the desire to punish (ibid.: 740). On the face of it, of course, this is far too limited to support any general or strong debunking argument about belief in moral objectivity. It cannot naturally explain belief in the objective wrongness of historical acts (unless we form strong desires to punish people we know are long dead, such as Nero, which seems unlikely), or of acts that we judge to be objectively wrong but also to be such that the agent is excused for them, so that we think punishment inappropriate. So even if there is some effect in some cases, it could at most play a very limited role in a debunking argument that stitched together a variety of psychological factors to cover all the relevant types of cases.[9] Still, let's grant for the sake of argument that there are some real, measured effects on belief in moral objectivity for some cases.

The real question is: What follows? Certainly nothing that should make reflective people feel that their belief in moral objectivity is in imminent danger of being debunked. The experimental results serve only as warnings to be on the lookout for pitfalls they identify: If you are wrestling with meta-ethical questions about objectivity, don't base your views on inclinations you feel when disgusted or

hopping mad about something, or when itching to throttle someone, since we know those emotional factors may be distorting your judgment; instead, consider the question of moral objectivity in cooler moments. This is good advice, but the points raised don't take us very far down any path to debunking. Again, Nichols is aware of these limitations, so his thesis is stated very modestly: "*Insofar as* we believe in moral objectivity because the associated feelings of anger and disgust trigger greater certainty in one's assessment, the belief in objectivity is not justified," or again, "*to the extent that* people believe in objectivity **(p.250)** because of their desire to punish, their belief is prima facie unjustified" (ibid.: 739–740, my italics). In other words, any *boost* we might get from a mere desire to punish or from anger-based or disgust-based confidence (where this is *epistemically irrelevant* anger or disgust) is epistemically worthless.

This conclusion is entirely reasonable, but it tells us very little because it remains a wide open question *how much* of our belief in moral objectivity *is* attributable to such effects and how much is attributable to more epistemically respectable processes of the sort mentioned earlier. Nichols concedes, then, that "this is just the barest sketch of a debunking argument" (ibid.: 740). But in fact it is not even that. What it provides are only some ingredients that could in principle be used in a debunking argument if somehow one could fill in the rest of the argument to show that the etiology of our belief in moral objectivity is to be cashed out *exclusively* in terms of such extraneous causal factors. All of the empirical work goes toward supporting the existence and operation of these ingredients to *some* extent in *some* cases, but none of it shows us that such ingredients *exhaust* the explanation of "our" belief in moral objectivity.

That is where the crucial work of a real debunking argument would have to lie, and in order to be effective against those of us who do currently believe in moral objectivity this work would have to be done in a non-question-begging way, giving us good reasons to think our belief in moral objectivity can be chalked up entirely to such epistemically defective processes. But the sort of empirical research Nichols discusses does not provide that. I therefore reject his claim that "whether the argument can support a strong conclusion that the lay belief in moral objectivity is unjustified *will depend on what science reveals* about why we have the belief" (ibid.: 741, my italics). My point has been that this is precisely what science *cannot* do, at least without just scientistically begging the question against those of us who take ourselves to have recognized good reasons for the belief—for example, *good reasons* for thinking it to be objectively true that things like rape, slavery, and depriving girls of education are morally wrong. The scientific work can reveal causal factors that, if operative in a given case of belief formation, would be distorting, but it does not thereby show that there are not in fact good reasons for holding the belief in question or that we are not (at least in part) responding intelligently to those reasons in forming those beliefs. Indeed, it is hard to see how any experiment could accomplish such a thing,

especially with respect to “our” moral or meta-ethical beliefs and not just in certain particular cases.

(p.251) What we are left with, then, are just the much weaker and plausible theses from Nichols described earlier, which do not constitute an actual debunking argument against belief in moral objectivity. Nichols claims that there is at least a burden on objectivists “to defuse the debunking argument” (ibid.: 741). But I deny even this. There is, in fact, no looming debunking argument that requires defusing, at least if we stick to the modest, scientifically supported claims Nichols makes. One could, of course, construct an actual debunking argument in this area, employing as premises much stronger explanatory claims about our belief in moral objectivity, but those claims (as with Greene’s strong claims) would then go well beyond the limited and cautious conclusions actually supported by the scientific work, again bringing on the charge of scientism. To be sure, objectivists do owe an epistemic account of how we might justifiably believe in moral objectivity, perhaps along the lines I have sketched. But that demand is nothing new in the philosophical debate.

10.5 Debunking Arguments, the Philosophical Dialectic, and a Plausible Role for Empirical Work in Ethics

Having raised problems for the sorts of debunking projects offered by Greene and Nichols, it is necessary now to step back and consider more carefully the nature of the philosophical dialectic between debunkers and those whose views they target, so that we can see more clearly what exactly each side is trying to accomplish and which moves are or are not fair ones in this context. Some will object, for example, that the responses I have given to the challenges from Greene and Nichols are unfair because they set the bar for debunking arguments unreasonably high. We need to be able to assess such worries in order to assess whether any real progress has been made.

The answer to the above objection is that what an argument needs to accomplish in order to count as a successful *debunking argument* depends on how we understand the idea of debunking, and debunkers themselves tend to understand this quite strongly. A common understanding, familiar from recent discussions of evolutionary debunking arguments against ethical realism, goes roughly like this: A debunking argument aims to show that those who hold certain beliefs should give them up, by showing that their justification for those beliefs is *defeated* by explanations for those beliefs that reveal them to have been formed in epistemically defective ways; in particular, the explanations show the beliefs in question to have been formed through causal processes of a sort such that it would be a *mere lucky coincidence* if those beliefs turned out to be true. This is clearly Nichols’s understanding, for example: He **(p.252)** construes the sort of debunking he has in mind as attempting “to undercut the justificatory status of a person’s belief by showing that the belief was formed by an epistemically defective psychological process,” as by showing that “the *sole*

source of [a person's] theistic belief" lies in wishful thinking (Nichols 2014: 727, 732–733, my italics).

Importantly, such arguments are supposed to be directed not only at third parties who can then appreciate from a safe distance that someone else's beliefs have been debunked, but also *at the believer herself*, so that the argument has rational debunking force for her: She is supposed to be shown by the argument that her relevant beliefs are merely the results of epistemically defective processes, whereupon she should lose confidence in them. This is clear in Richard Joyce's paradigm involving an agent's learning that her beliefs about Napoleon are simply the result of a pill that causes such belief formation utterly independently of any historical facts about Napoleon (Joyce 2006: 179): *Her becoming aware* of this truth about the etiology of her beliefs should undermine her confidence in their truth, since it defeats her justification for those beliefs. The idea is that debunking arguments provide us with similar revelations about the etiology of the beliefs being targeted, appealing to extraneous evolutionary or psychological causal processes rather than magic pills, with similar results for the believer.

The bar here is indeed set high, but it is debunkers themselves who set that bar, and this is no accident since nothing weaker than this will succeed in demonstrating to us that our beliefs are mere *bunk*. Merely showing that there are some epistemically defective processes commonly involved in beliefs of this type and that it is *possible* that our beliefs are fully attributable to such sources alone is not the same thing as showing that our beliefs *are* in fact properly and exhaustively explained in this way. We have seen that alternative explanations remain open possibilities and will seem far more plausible to those of us who do hold the beliefs in question and take them (and our arguments for them) seriously. So in order for debunking arguments to have their intended force against those of us in this position, they would have to present us with compelling reasons to take the proposed debunking explanations more seriously than the alternative explanations favorable to our beliefs. And many debunkers seem to think they have done just that, by presenting their strong explanatory claims as *underwritten by science*. They take themselves to be showing that the scientific results ought to lead us to accept that these (debunking) explanations of our beliefs are indeed compelling and the *best explanations* of our beliefs—especially in light of the fact that they are more parsimonious than the alternative explanations that appeal to **(p.253)** our coming to appreciate good reasons for believing the contents of certain moral or meta-ethical propositions to be true.

Many debunkers thus embrace the high bar set for successful debunking but are not bothered by this because they are confident they can meet it.[10] It is far from clear, however, why those of us who take the relevant beliefs and supporting arguments seriously should feel compelled to grant the superiority of the

debunking explanations over the alternatives that strike us as more compelling despite being less parsimonious. While parsimony is one significant methodological desideratum, it does not automatically trump all other considerations in all contexts. And for many of us the evident plausibility of the vindicating explanations of certain moral or meta-ethical beliefs is far more compelling than the parsimony being sold by accounts that explain away these beliefs and their apparent justifications. We would gladly pay the cost of less parsimony in order to preserve the structure of belief and justification that we continue to find, upon reflection, to be overwhelmingly plausible—for example, the idea that I believe that slavery or rape are objectively wrong because they *are* objectively wrong and I've come to *recognize* that fact by recognizing the *good reasons* for thinking it to be so.[11] We might, of course, be wrong about that in the end, in the uninteresting sense that we might always be wrong about anything worth arguing about. But we cannot be rationally forced out of our position simply by appeals to science and parsimony. It is in this sense that the debunking arguments are guilty of scientistic overreach, whether they aim to show us that out of respect for cognitive science (and neuroscience, evolutionary biology, and so on) we deontologists must give up deontology, or that we realists must give up realism, as science has shown such things to be "bunk."[12]

(p.254) That said, however, there is a legitimate point underlying the complaint that the bar for debunking arguments is being set too high, and it is important to be equally clear about this. While it is true that the high bar is appropriate for the strong debunking ambitions I have discussed, which tend to characterize these debates, there are more modest ambitions for which the bar is appropriately set lower. The empirical results cited by experimentalists do indeed provide some interesting support for the pictures offered by those who challenge the traditional views in question. In Nichols's case, for example, the empirical results enable the skeptic about moral objectivity to move beyond mere speculation that our belief in moral objectivity is caused by extraneous psychological factors, to the more interesting position of being able to point to specific factors and provide evidence of their operation in some cases. While this remains far from debunking the beliefs in question, as I have emphasized, and it cannot be expected to dislodge those of us who continue to find our reasons for believing in moral objectivity compelling, it does at least *add to the credibility* of the skeptical position. And it also provides some further reason to scrutinize the belief in question, making more salient the possibility that it *might* be poorly grounded.

That is significant. Even if it does not have the broad debunking power commonly imagined, and does not generally defeat justification for the targeted beliefs, this sort of work might still prove important for some participants in these philosophical debates who are close enough to the fence that this added credibility for the skeptical position and extra potential doubt for the traditional positions might tip the balance.[13] Someone who is only weakly attracted to

deontology in the first place, and only tentatively moved by the rationales offered for deontological claims, might well find the sorts of explanation offered by Greene, given the empirical support he cites, to be on balance more compelling than the sorts of explanation that would vindicate deontological beliefs. Someone who is only weakly tempted by moral objectivism and is especially concerned with parsimonious explanation might well be most attracted on balance to Nichols's more parsimonious explanation of what is really behind her temptation to believe in moral objectivity, and so might then renounce that belief.

What this shows is that the sorts of undermining explanations of certain moral or meta-ethical beliefs that many offer with the support of empirical **(p.255)** results can indeed have an important role to play for some people in the philosophical debates, shifting them away from certain traditional philosophical positions. And they can also play a role even for those who are not so moved by them. The kinds of studies Nichols cites, for example, might at least make us question *some* of our objectivity judgments in certain contexts. And they might provide a plausible theory of error for cases where even objectivists might agree someone has gone wrong in her objectivity judgments (for example, because she made them while angry). Similarly, some of the considerations Greene cites might provide a plausible account of some judgments that even deontologists will agree are erroneous (for example, a case where mere squeamishness about hands-on violence leads to certain morally implausible deontological judgments).

Even those of us who hold the traditional philosophical views targeted by experimental philosophers can therefore grant that this empirical work is philosophically significant and interesting. What I deny is that the empirical work in the service of potential undermining explanations of certain beliefs succeeds in providing us with anything strong enough to be worth calling a "debunking argument," as this is typically understood in current debates.

10.6 Conclusion: A Dilemma and a Challenge

Let me conclude by posing a dilemma for experimentalists with strong debunking ambitions. On the one hand, they may make strong, sweeping claims about the etiology of the beliefs they are targeting that, *if* true, *would* debunk them; but then it is highly dubious whether the scientific data they cite really support such strong etiological claims, at least in a way that doesn't just beg central questions against opponents in the ways we have seen. On the other hand, they may instead make more cautious, modest claims that are indeed plausibly supported by the scientific research; but then these claims are too weak to debunk the beliefs in question, at least in the manner hoped for.

I have argued that Greene falls prey to the first horn: His debunking claims extend far beyond the very modest conclusions actually supported by the empirical research he cites. By contrast, Nichols falls prey to the second horn:

He is mostly careful to state his conclusions from the empirical research very modestly, so that they are plausibly supported by that work; but these reasonable claims—and any similarly reasonable claims we can expect from further research in the same vein—are far too weak to debunk our belief in moral objectivity in the sense described above. Nichols's claims could of course be strengthened so that they would, if true, genuinely support strong debunking conclusions, but **(p.256)** then this leads right back to the first horn, as noted earlier. Indeed, it is hard to see how that first horn will ever be avoided by arguments employing premises making the very strong and sweeping explanatory claims that would need to be made in order to support strong debunking conclusions: Scientific work may well support weaker and more limited explanatory claims about our beliefs, but it is far from clear how it could go further without devolving into scientism, just ignoring or discounting plausible alternative philosophical explanations that, if true, would block the proposed debunking.

Experimentalists with strong debunking ambitions thus face a challenge going forward. They need to show that they can avoid this dilemma by doing two things: (i) basing their debunking conclusions on explanatory claims that are genuinely strong enough to support those conclusions (as Greene does but Nichols does not), while at the same time (ii) making a compelling, non-question-begging case that the explanatory claims they rely upon are genuinely supported by the empirical research they cite (as Nichols does but Greene does not). It is *this combination* that is required for a successful experimentalist debunking argument. But I have argued that it is plainly missing in the prominent work discussed here. Perhaps there are better ways of trying to meet these two conditions. But this is the challenge, in any case, that should be explicitly addressed and met by those who purport to be offering actual *debunking* arguments in ethics or meta-ethics, based on empirical research.

Alternatively, and far preferably, those interested in experimentalist lines of critique of traditional views could simply drop the strong debunking ambitions and settle instead for the more modest and plausible aims I have suggested. This would involve bringing empirical research to bear on the philosophical debates in a way that lends some support to already familiar challenges to the views being targeted, while avoiding overreaching in the philosophical conclusions drawn from the scientific work. This would still be important, empirically informed work that would have a significant impact on the philosophical debates. It might even provide a nudge past a tipping point for some participants in the debate. But it would avoid misrepresenting or exaggerating the implications of scientific work for normative ethics or meta-ethics in the way that much current talk of "debunking" has tended to do. The interdisciplinary debates over these topics would be much improved as a result.[14]

(p.257) References

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Notes:

(1.) As the subtitle of Greene’s article indicates, he is purporting to tell moral philosophers “why cognitive (neuro)science matters for ethics,” suggesting that the data and arguments marshaled here represent what Greene takes to be the best case for this sort of impact of scientific work on ethics; indeed, it is presented as a more philosophically refined version of his main earlier work on the topic, and so is a suitable target for focused critical examination in its own right, as is Nichols’s article.

(2.) See Greene (2014: 699, 713). Characteristically deontological judgments are judgments that are “naturally justified in deontological terms (in terms of rights, duties, etc.) and that are more difficult to justify in consequentialist terms.”

(3.) For example, Mikhail (2014: 777) points to research from Young and Saxe indicating that the VMPFC, which Greene associates with emotions, is also implicated in “the task of ascribing intent to harm.”

(4.) These developed emotional dispositions might, of course, still reflect some degree of evolutionary shaping, and where they are playing an epistemic role it is *possible* that this influence will be *distorting*. But as I have argued elsewhere (see earlier references to work on evolutionary debunking arguments), debunkers have not offered any compelling case for general distorting influence here, once the points in the text concerning culturally developed and refined dispositions are properly taken into account.

(5.) For Greene’s own move of this sort against deontologists, see Greene (2014: 718).

(6.) In speaking of the belief as being chalked up *solely* to such influences, I am just following Nichols’s language in formulating his paradigm example involving debunking theistic belief, quoted above.

(7.) Nichols (2014: 736–738). He notes that in the induced anger study the effect was found only for female subjects, and it consisted merely in a shift from 2.92 to 3.96 on a 1–6 point scale in terms of agreement with the proposition on the survey question meant to capture objectivity for the judgment in question.

(8.) To take just one example, Nichols mentions a study showing that “as compared to their responses on whether robbing a bank is wrong, participants were more likely to say that whether abortion or euthanasia is wrong is a matter of opinion or an issue about which there is no correct answer” (2014: 742). But a natural explanation for this effect is just that while robbing a bank is a *paradigm case of clear wrongdoing* in nearly everyone’s judgment, abortion and euthanasia are classic *hard cases* falling into notoriously complex gray areas. This means that abortion and euthanasia are both matters about which reasonable people disagree and matters that most people see as typically depending for their evaluation on the complexities of the *circumstances*, entirely unlike bank robbery. When people say, then, that it is “a matter of opinion” whether abortion or euthanasia are wrong, they likely mean nothing more than that the latter are *controversial* and that there is “no correct answer” in the sense of a *single agreed upon answer* to moral questions about them, or in the sense that there is in any case *no simple one-size-fits-all answer* to moral questions about these things (again, unlike with bank robbery), since answers will vary with the details. Even staunch objectivists will agree with the above thoughts, and people not trained to make distinctions among the many issues in play here can be expected to answer survey questions in ways that might appear to suggest subjectivism, relativism, or selective denial of objectivity, but are in fact just reflections of these other rather obvious thoughts about notoriously

hard cases. All of this complicates arguments relying on such survey data to draw conclusions about effects on objectivity judgments.

(9.) Again, there are questions to raise about the genuineness of the effect. It is interesting that people tend to give somewhat lower ratings for objectivity when considering an act by someone who has already been severely punished, but this might be less a measure of effects on belief in objectivity concerning the wrongness of the crime than a reflection of people's tendency to conflate different issues when answering survey questions. Are people who give slightly lower objectivity ratings when considering a case in which the wrongdoer was severely punished really thinking that what he did was less objectively bad, the badness somehow being more dependent on conventions or subjective factors than they would otherwise have thought? Or are their answers just confused reflections of their feeling that as objectively bad as the crime was, the wrongdoer has paid for it and therefore a less harsh response to the crime is called for at this point (this being poorly expressed through a weaker response to questions meant to measure "objectivity")? Given how hard it is to keep students from repeatedly conflating different issues in ethics classes, we should not have much confidence that similar conflations are not occurring in the minds of subjects filling out questionnaires in many of these studies.

(10.) Both Joyce (2006) and Sharon Street (2006) think that their debunking explanations of our moral beliefs are the *best* explanations for those beliefs, which should be accepted by all, including those who begin with realist sympathies, insofar as we are appropriately respectful of evolutionary biology and related sciences, and of what they believe such scientific work shows. They do not shy away from such strong claims, which is why they take themselves to be in a position to provide strongly debunking arguments that ought to be effective against their targets (rather than merely preaching to the choir of skeptics or subjectivists).

(11.) I have developed this line of response in connection with evolutionary debunking arguments in the articles cited earlier.

(12.) I am not here denying that *if* science had actually succeeded in giving us compelling reason to doubt the reliability of our moral faculties, then there would be problems for the justification of our moral beliefs and for meta-ethical beliefs partly based on them. My point is that the scientific results have *not* actually given us compelling reasons for such general doubt: If they seem to do so, that is only because of supplemental scientistic assumptions of the sort I have discussed, such as the assumption that the distorting causal influences identified are the *exhaustive* explanation of beliefs *generally* (within the targeted domain), and that the alternative "good reasons" model I have sketched is not significantly in play.

(13.) Matthew Braddock has emphasized this point to me.

(14.) I am grateful to Rik Peels, Jeroen de Ridder, and René van Woudenberg for very helpful comments on an earlier draft of this chapter.