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Recasting the Darwinian Dilemma

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Abstract:

It is uncontroversial to say that evolution has contributed little to the content of our factual judgments about the world. It is also uncontroversial to say that evolution has had a lot to contribute to the content of our non-factual judgments. What has been controversial is the extent to which evolution has influenced the content of our *moral beliefs*, and whether such influence has any metaethical implications. Sharon Street has received a lot of attention for her attempt to "debunk morality" in her paper, "A Darwinian Dilemma for Realist Theories of Value." She argues that not only have evolutionary influences thoroughly saturated the content of our evaluative judgments, but that this fact leads to the rejection of moral realism. She claims the evidence of evolutionary psychology sets moral realists on the horns of a dilemma, a dilemma I will briefly elaborate below. Shafer-Landau has responded to Street's dilemma with what he calls the "natural reply." I accept that the natural reply successfully refutes Street's argument. However, I do not take this as cause to give up on the project of evolutionary metaethics. To this end I will recast the Darwinian dilemma, focusing on just those moral judgments we have good reason to think are highly adaptive and aiming at the conclusion that there are unlikely to be moral truths to which these judgments correspond. Finally, I conclude with a pragmatic argument as to why we should not feel demoralized by the replacement of moral realism with evolutionary ethics for many of our most cherished moral beliefs. We need not conclude, as Jerry Fodor has, that in the absence of moral knowledge "practically everything I believe about anything is false and it's the end of the world."

Quite some time:

We puzzled and pined and thought we knew
That to fix our problems we need divide the world in two
But if then two, then why not three?
This could go on for quite some time you see

If a world needs another to solve all the problems
Of ethics and purpose and origin and knowledge
Then the source world must be a troubled, cold and lonely place
An inevitable sadness, despite not existing in space

Btu waht fi ew fnoud our qusetonis colud be resolevd
By raelzinig we wree not bulit, but evolved
Thruogh blindenss and trial and toil and might
We began to say “ought,” “injustice,” and “right”

And we called things "good" not because they were true
But because they were loved, and love got us through
Yet it wasn't all kindness, there's plenty to dread
There's a heaven and hell in us all, it's been said

Recasting the Darwinian Dilemma

"Are our moral preferences true or false, or are they only odd biological phenomena, making things good or bad for us, but in themselves indifferent? How can your pure intellect decide?"

-William James

It is uncontroversial to say that evolution has contributed little to the content of our factual judgments about the world (belief in a heliocentric solar system did not evolve naturally, but was discovered rationally). It is also uncontroversial to say that evolution has had a lot to contribute to the content of our non-factual judgments (we have evolved a preference for sugar over dirt because of the adaptive benefits this preference provides). What has been controversial is the extent to which evolution has influenced the content of our *moral beliefs*, and whether such influence has any metaethical implications.[1] Sharon Street has received a lot of attention for her attempt to "debunk morality" in her paper, "A Darwinian Dilemma for Realist Theories of Value." She argues that not only have evolutionary influences thoroughly saturated the content of our evaluative judgments, but that this fact leads to the rejection of moral realism. She claims the evidence of evolutionary psychology sets moral realists on the horns of a dilemma, a dilemma I will briefly elaborate below. Shafer-Landau has responded to Street's dilemma with what he calls the "natural reply." I accept that the natural reply successfully refutes Street's argument. However, I do not take this as cause to give up on the project of evolutionary metaethics. To this end I will recast the Darwinian dilemma, focusing on just those moral judgments we have good reason to think were ancestrally adaptive and aiming

[1] William, FitzPatrick, "Morality and Evolutionary Biology", *The Stanford Encyclopedia of Philosophy* (Summer 2012 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/sum2012/entries/morality-biology/>.

at the conclusion that there are unlikely to be moral truths to which these judgments correspond. Finally, I conclude with a pragmatic argument as to why we should not feel demoralized by the replacement of moral realism with evolutionary ethics for many of our most cherished moral beliefs. We need not conclude, as Jerry Fodor has, that in the absence of moral knowledge "practically everything I believe about anything is false and it's the end of the world."[2]

Street's Darwinian Dilemma:

Let's begin by elaborating Sharon Street's attempt to show that evolutionary psychology creates problems for moral realism. She begins with the observation that there is a huge set of psychologically possible moral beliefs. In other words, there are a tremendous variety of ways we could have valued things in the world and judged how we ought to behave towards them. It is psychologically possible that we could have valued killing our own offspring or spending our days staring at grass. Next, she points out that when we compare moral systems that actually exist in the world, we see many universal features among them. She provides the following examples:

(1) The fact that something would promote one's survival is reason in favor of it.

(2) The fact that something would promote the interests of a family member is a reason to do it.

(3) We have greater obligations to help our own children than we do to help complete strangers.

[2] Jerry Fodor, "Making Mind Matter More," in *A Theory of Content and Other Essays* (Cambridge, MA: MIT Press, 1992), 137–60, 156.

(4) The fact that someone has treated one well is a reason to treat that person well in return.

(5) The fact that someone is altruistic is a reason to admire, praise, and reward him or her.

(6) The fact that someone has done one deliberate harm is a reason to shun that person or seek his or her punishment.[3]

Street wants to argue that given the evidence of evolutionary psychology, moral realism is not the best explanation for these universal features of human morality. She argues as follows:

1. Evolution has thoroughly shaped the content of the evaluative judgments we make.
2. The moral realist must either assert or deny a relation between evolutionary influences and moral truths.
3. If they deny a relation, we are left with moral skepticism.
4. If they assert a relation, realism will fail by the standard criteria of theory selection.
5. Because the realist must either assert or deny a relation, and both options give us reasons to reject realism, then we should reject realism.

The target of Street's argument is moral realism in general; the view that at least some moral facts exist which hold independently of all our evaluative attitudes. Evaluative attitudes include beliefs about what is "better" or "worse" or beliefs about what one should or ought to do.

[3] Sharon Street, "A Darwinian Dilemma for Realist Theories of Value," *Philosophical Studies,* 2006, 7.

Street's first premise needs elaboration. Evolution can only operate on the heritable mechanisms of the mind that generate moral beliefs. Street is *not* claiming that highly specific evaluative judgments, like "I should reciprocate to Mary for picking me up from the airport," evolve. As Richard Joyce points out, it is not plausible to hold that such a specific belief evolved, for "what does natural selection know of *Mary* or *airports*?"[4] Evolutionary ethicists need to offer an account as to how natural selection can be responsible for much of the content in our moral judgments without going too far.

To this end, Richard Joyce and Street offer important qualifications. Evolutionary ethicists are claiming that evolution contributes to the content of moral beliefs through predispositions to categorize the world in morally normative ways. As Joyce would say, natural selection is responsible for the formation of certain moral *concepts* such as *obligation, virtue, property, desert,* and *fairness.* We come pre-equipped to categorize the world in moral terms; moral concepts evolve, particular moral beliefs do not.

Joyce offers an analogy here; evolutionary influences are like a belief-pill that "does not generate particular propositional beliefs but, rather, disposes you to form beliefs involving a particular concept--a concept that wouldn't otherwise figure in your beliefs." He uses an example of a belief-pill that makes you have beliefs about Napoleon. The pill doesn't generate specific beliefs about Napoleon, e.g. "Napoleon lost at Waterloo." Rather, it makes you just generate beliefs about Napoleon in general. Without this pill, you would have never formed beliefs about Napoleon at all. Applying this idea to moral beliefs, we could say evolution furnishes us with the concept of obligation in the first place, but it can't tell you whether you have an obligation to feed the homeless of St. Louis.

[4] Richard Joyce, *The Evolution of Morality*, (Cambridge: The MIT Press, 2006), 180.

In addition to moral categories, Street talks of evolved evaluative tendencies, which are heritable instincts to be understood as unreflective, non-linguistic, motivational tendencies to experience something as “called for” or “demanded” given the situation.[5] So evolution doesn't just supply us with concepts like obligation, but also the visceral motivations to see the fulfillment of these obligations as practically self-evident. We do not just form judgments about the "rightness" of feeding our offspring; we are deeply motivated to see these obligations through.

It is also critical to note that Street is not claiming evolution is the only influence on the specific evaluative judgments we come to hold. She counts society, culture, history, reason and other evolutionary factors such as genetic drift as influences that go into forming an evaluative judgment. However, she does seem to assign a central role to evolutionary influence when she claims it has “thoroughly saturated” all our moral beliefs. Her meaning here can be expressed by the counterfactual “had the general content of our basic evaluative tendencies been very different, then the general content of our full-fledged evaluative judgments would also have been very different.”[6] Evolutionary forces are not the only influence on our evaluative judgments, but they are the most significant.

With these clarifications we are ready to hear Street’s Darwinian dilemma; do evolutionary influences give us evaluative tendencies that guide us to moral truths, or not? If the realist denies a relation, then Street argues we are left with moral skepticism. If the realist asserts a relation, then we should reject realism based on standard scientific criteria. Let’s briefly cover her rationale for this dilemma.

[5] Street gives the example of a bird having a base desire to feed their offspring.
[6] Street, 12.

To assert a relation between evolutionary influences and moral beliefs is to claim that there is a survival advantage to be had by grasping moral truths. As Derek Parfit puts the point, "just as cheetahs were selected for their speed, and giraffes for their long necks, the particular feature for which we were selected was our ability to respond to reasons and rational requirements."[7] Street believes this "tracking account" can be rejected in favor of an "adaptive link" account that views morality as merely evolved modes of behavior unrelated to moral truths. To show this she appeals to standard scientific criteria for theory selection.

To begin with, the realist account is more ontologically crowded than the adaptive link account. This is because the realist posits the existence of entities (moral truths) that the adaptive link account does not. Additionally, the realist's claim that moral behaviors evolve *because they are true* is unclear upon closer inspection. The realist has not told us *why* grasping moral truths would be advantageous. Some truths are helpful; others unhelpful, and some neutral, and we are not given a reason why grasping moral truths would be helpful.[8] Additionally, when we wonder why we have the moral beliefs we have out of all the psychologically possible moral beliefs the adaptive account has something informative to say, that such judgments forged links between circumstance and response to promote reproductive success. Street sees the realist explanation of "because they are true" as simply "reaffirming our convictions but adding nothing to our understanding of why we have them."[9] The realist explanans does little to shed light on the explanadum.

The other horn of Street's dilemma involves denying a relation between evolutionary influences and moral truths, which she claims will lead to moral skepticism. Moral skepticism

[7] Ibid., 17.
[8] Ibid., 22.
[9] Ibid., 25.

results because it would mean admitting that our moral beliefs are not formed by a process that would get us to moral truth; our morality is driven by what helps us survive, not by what is true. Street's analogy is to say this is equivalent to pushing a ship out to sea with a destination, but relying on only the wind and tides to get it there. We wouldn't be confident that the ship would arrive at its destination and should likewise be skeptical that any of our moral beliefs actually correspond to moral truths.

The Natural Reply:

Critiques of Street's position come at different levels. Because evolutionary metaethics is based on the conclusions of evolutionary psychology, some realists like Shafer-Landau go after the evidential and methodological legitimacy of this supporting theory. For Shafer-Landau, the evidence we have to work with in forming conclusions about our prehistoric past is slim. He writes, "Evolutionary accounts are meant to identify the distal, not proximate, origins of our moral faculties; those accounts concern themselves with literally prehistoric events for which we have relatively thin evidence."[10] Furthermore, he is suspicious of the conclusions we draw from that evidence claiming that "The evolutionary account is in many ways a just-so story…we should not pretend that it is free of speculation."[11]

In addition to critiquing evolutionary psychology directly, the realists have argued that the Darwinian dilemma itself is unsound. First, they argue that we have insufficient evidence to accept the premise that evolutionary influences have thoroughly shaped the content of all our evaluative judgments. Shafer-Landau points out, and I agree, that the strong psychological claim that evolution has thoroughly shaped all of our evaluative judgments is "far from well

[10] Russ, Shafer-Landau, "Evolutionary Debunking, Moral Realism and Moral Knowledge," *Journal of Ethics & Social Philosophy*, 2012, 26.
[11] Ibid., 8.

confirmed."[12] While many moral beliefs such as the desire to care for our families more than strangers seem plausibly influenced by evolution, there are many moral beliefs that seem to have little, if any, evolutionary influence. How is it that we get celibate monks, suicide bombers or Jim Jones cults if evolution has "thoroughly saturated" all our moral beliefs as Street has claimed? Street seems to have handpicked evaluative judgments that serve her case, committing the confirmation bias.

Secondly, realists have targeted the non-tracking horn of the dilemma by arguing that even if it were true that evolution has thoroughly shaped our moral faculties, the conclusion of moral skepticism would not follow. Shafer-Landau makes this objection and calls it the "natural reply." It involves first observing that reason corrects and expands our knowledge in the case of factual beliefs. Next the realist suggests that perhaps the same is true of moral beliefs and provides examples of moral beliefs that appear rationally warranted and not the result of evolution. These examples attempt to show that reason is able to discover moral truths in the same way we use it to discover factual truths. Let's develop these points further.

Realists rightly point out that rational reflection does a great deal to correct for the distortions of evolution on our beliefs in the case of factual beliefs. To revisit Street's analogy, just as a ship with a crew and captain can arrive at their destination by using reason to overcome the distorting influences of the wind and tides, so too we can use reason to correct for the distortion of evolutionary influences on our moral beliefs. Evolutionary psychologists will not deny this, as the ability of reason to overcome the distortion of evolution is an inherent assumption within evolutionary psychology itself. Error management theory is a very successful hypothesis within evolutionary psychology which states that evolution predisposes us to beliefs that minimize evolutionary cost, not that maximize truth. It is cost, not truth that drives many

[12] Ibid., 9.

of our evolved beliefs. For example, people tend to overestimate the height of a building by 30% when standing at the top as opposed to standing at the bottom.[13] This descent illusion provides evolutionary benefits; it makes us more cautious in situations that could be hazardous to our health. The fact that we can differentiate between an evolved bias, and the actual height of the building, presupposes that reason can correct for the distorting influences of evolution. However, reason does much more than correct our evolved errors; it greatly expands our knowledge as well. Moral realist William FitzPatrick has pointed out how astronomy, quantum field theory and modal metaphysics are examples of how reason regularly discovers truths that go well beyond what we inherit biologically. He argues that these examples show the power of reason to discover truth independently, and if this can be done with respect to scientific and metaphysical truth, why not ethics too?[14]

Shafer-Landau's "natural reply" is an attempt to provide counterexamples to Street's claim that all our moral beliefs are thoroughly saturated by evolutionary influence. He first points out that if ancestral adaptiveness is the criteria for determining if a belief is the product of evolution, then pointing out highly presumptively warranted moral beliefs that are apparently maladaptive would counter this claim.[15] He offers several examples of such behaviors including, "impartial benevolence, compassion for vulnerable strangers, kindness to small animals, and speaking truth to power."[16] These examples are meant to show that not only do we have moral beliefs that are not significantly influenced by evolution (on account of them being maladaptive), but that these moral beliefs are also true (on account of being highly

[13] David Buss, "Evolutionary Psychology: Controversies, Questions, Prospects, and Limitations," *American Psychologist*, 2010, 113.
[14]William, FitzPatrick, "Morality and Evolutionary Biology", *The Stanford Encyclopedia of Philosophy* (Summer 2012 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/sum2012/entries/morality-biology/>.
[15] Shafer-Landau, 8.
[16] Ibid., 8.

presumptively warranted). In Shafer-Landau's view, the burden is on the evolutionary ethicist to give an evolutionary account of every example the realist can provide, a task that he believes (rightly) to be far from complete.

I accept that these objections have successfully exposed weaknesses in Street's Darwinian dilemma. The Darwinian dilemma relies on insufficient evidence that all our moral beliefs have been thoroughly saturated by evolutionary influence, and would benefit from a clearer explanation of what such thorough saturation would even entail. Even if it could be established that evolution has had such a pervasive influence, the argument hasn't shown that rational reflection isn't a sufficient factor for correcting evolutionary influence. The counterexamples offered by Shafer-Landau provide prima facie evidence that reason does in fact correct for evolutionary distortion with respect to our moral beliefs. If the evolutionary ethicist insists that even if they don't know why a belief evolved, it *must* have evolved, then I agree with Shafer-Landau that this move threatens to render the position untestable.[17]

It is for these reasons that I think the Darwinian dilemma, as originally formulated, is unsuccessful. However, this is not reason to give up on evolutionary metaethics. Some improvements can be made that reinvigorate the argument and allow it to hit in a different way. Let's turn to those changes now.

Recasting the dilemma:

Remember that what is up for debate is the extent to which evolution has influenced the content of our moral beliefs (a psychological claim), and whether such influence has any metaethical implications (a philosophical claim). Street's argument is unsuccessful because she overstates the influence of evolution on our moral beliefs (evolution has thoroughly saturated

[17] Shafer-Landau, 9.

all of them) and draws metaethical conclusions that are too strong (moral realism is false). I think a moderate approach that draws more careful metaethical conclusions is in order. Instead of arguing that evolution has thoroughly saturated all our moral beliefs, I argue that we should claim that evolutionary influence has been significant with regards to some evaluative judgment only where we have good evidence from evolutionary psychology to think so. I have chosen altruism because it is ethical ground that a moral realist will not want to give up, yet it is also a topic on which evolutionary psychology has a lot to say. Instead of asking, "Does the strong evidence that altruism evolves naturally show that realism is false?" I ask, "Does the strong evidence that altruism evolves naturally show that there are unlikely to be moral truths about altruism?" While there are plenty of arguments that target moral realism across the board, evolutionary metaethics itself will be better off serving as a tool to wrestle specific moral intuitions from realists as is warranted by the evidence. As evolutionary psychology grows, the ground that moral realism can lay claim to will deteriorate. [18]

Finally, I should briefly note that although Street targeted moral realism in general, my reformulation targets only ethical nonnaturalism. Ethical nonnaturalism is a variety of moral realism which claims that the moral features of the world are not reducible to any set of non-moral features.[19] From here on in the paper, when I refer to moral realism I am referring specifically to its non-naturalist variety.

[18] My approach seeks to model this debate in metaethics on the debate between naturalism and supernaturalism with respect to the question, "does everything in the natural world have a natural cause?" Metaphysical naturalism is a generally accepted position today, but it has not always been so and it did not rise to being widely accepted because of general philosophical arguments showing supernaturalism to be false. While general arguments play an important role, it has been the thousands of cases where it has been claimed that some natural phenomenon X cannot be given a natural explanation, but then later this claim is shown false, that have played a greater role in the larger debate. Likewise, evolutionary psychology may gradually wear down moral realism by wrestling away moral beliefs one at a time.

[19] In other words, there is something that makes torturing children wrong, that holds regardless of what anybody thinks, and cannot be reduced to some physical description of the world.

One issue with debunking arguments is that it is still unclear exactly what evolves to influence evaluative judgments and with how much influence. Shafer-Landau has recognized this murky feature of traditional evolutionary ethical accounts when he complained that we need to "think more carefully about what it is for a belief to be 'the product' of evolutionary influences."[20] Street herself admits that regarding the exact nature of evaluative tendencies, "more work is needed to make such claims precise." Joyce's suggestion that only moral concepts evolve, like a belief pill about Napoleon that makes us have beliefs about Napoleon (but not any specific beliefs) seems unsupported by the evidence. Evolution does a lot to determine the specific content of the judgments it influences. For example, evolution does not merely furnish us with the general concept of being attracted to someone; it creates very specific population level tendencies about *what kinds of people* we will be attracted to. Men around the world tend to prefer women with features such as clear skin and full lips.[21] That men tend to prefer women with these features may seem obvious enough, what evolutionary psychology does is explain *why* it is these features men find attractive and not pot bellies and buck teeth.

But remember, evolution does not code for specific judgments, e.g. "I want to take Mary on a date to the movies," as what does evolution know of Mary and movies? However, take a moment to appreciate how thoroughly evolution has saturated this specific judgment about Mary; the very fact that we are even sexual creatures is attributable to evolution, in addition to the many *things about Mary* we have evolved to like.[22] Exactly what is it that

[20] Ibid., 19.
[21] David Buss, *Evolutionary Psychology: The New Science of the Mind*, (Boston, Pearson Education, Inc., 2008), 150.
[22] Recall Street's definition of what it means for evolution to have "thoroughly saturated" our evaluative judgments; had our evolutionary past been very different so too would the evaluative judgments we make. My suspicion is that many of the ways we have evolved to experience the world are so

evolves and exerts such a fundamental influence on our specific judgments about Mary? To attribute specific judgments to evolution is to say too much, to attribute general concepts is to say too little.

We find the answer in what evolutionary psychologists refer to as *evolved psychological mechanisms* (EPM), which precede judgments and behavior. A psychological mechanism consists of an input, decision rule, and output, and when we understand these features we know *how* the mechanism works; or what is called the proximate explanation. Evolutionary psychologists consider cultural universals regarding gender roles, social roles, language and cognition to be good candidates for evolved psychological adaptations. For example, evolutionary psychologists have recognized that there seem to be physical standards of beauty that hold cross-culturally. One of these standards that has been isolated and described by evolutionary psychology is universal male attraction to a female with a low waist to hip ratio.[23] The input (seeing a woman with a low WHR) is transformed into an output (get aroused) through a decision rule, e.g., if you see a woman with a curvy body, then experience attraction towards that woman. Outputs can come in the form of a physiological response, a manifest behavior or further inputs for additional psychological mechanisms. The output is much like Street's evaluative tendencies; it is inheritable unreflective, non-linguistic, motivational tendency to experience something as "called for" or "demanded" given the situation. Men's response to this input is species-typical, meaning that cross-culturally, this has been a feature of women that men deem attractive.[24]

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fundamental they can be easily overlooked, and that these fundamental experiences may apply equally as well to morality as they do to sexuality. The fact that we even have the ability to experience another as a friend or ally is likely a fundamental feature of our evolved psychology.

[23] David Buss, *Evolutionary Psychology: The New Science of the Mind*, (Boston, Pearson Education, Inc., 2008), 150.

[24] Ibid., 151.

Proximate explanations are then subject to what are called ultimate explanations. Once an evolutionary psychologist knows *how* an EPM works, they want to know *why* it evolved to work that way. Answering this question involves figuring out what specific adaptive problem the EPM was "designed" to resolve. In the case of women with a low WHR, evolutionary psychologists hypothesized that this feature may serve as a "fertility cue" to the male. This hypothesis is then tested and considered supported when evolutionary psychologists discovered that women with a low WHR tend to be more fertile, survive birth better as well as being less susceptible to diabetes, hypertension, heart attack, stroke, and gallbladder disorders.[25] It is also worth noting that ultimate explanations are not conscious explanations. We don't see an attractive person and think "The fat distribution on the body of this individual indicates to me that they will be more likely to birth children and avoid diabetes." No, we just think, "She's beautiful!"

How the outputs from these EPMs interact with other influences on a specific judgment is a more complex issue. What cannot be denied is that Mary's curvy hips incite a response in most men that will immediately *count as a point in favor of* a range of judgments and behaviors over others. In other words, the attraction is a reason to flirt or ask Mary on a date, but it certainly isn't a sufficient reason for any of these actions. There is far more at play in human sexuality than just evolved psychological mechanisms. The judgment and resulting behavior regarding what to do about Mary is a result of evolutionary, social, personal and rational influences. Despite being attracted to her curvy hips, a man may have cripplingly low self-esteem, be married, be a Shaker, be in a situation with far more pressing problems, or any number of such additional factors. What evolution has done for us in the way of something like sexual attraction, it has also done for some moral judgments. Just as there are more than only

[25] Ibid., 150.

evolutionary influences determining the judgments we make about who to have sex with, there are more than just evolutionary influences determining the judgments we make about what we "ought" to do in any given situation.

Here is an analogy to appearance to illustrate the kind of interplay I am proposing between evolution and the other influences on moral judgments. Evolution by natural selection "designs" psychological mechanisms which influence specific evaluative judgments, just as evolution by natural selection "designs" physiological features which greatly influence our overall appearance. To understand the role of evolutionary biology in forming our appearance is to understand the role of evolved psychological mechanisms in shaping the content of moral beliefs.

Let's explore this analogy in more detail. Just as one may observe many differences and similarities among moral systems around the world, the same can be said of human appearance.[26] If we take a specific feature of our appearance, like an ear, we can easily see how it is a combination of interacting biological, social, personal and rational influences. Most ears share a similar structure that has a deep evolutionary history; ours evolved, in part, from the lower jaw bones of our reptilian ancestors who needed to sense vibrations in the earth by resting their heads on the ground. Yet the ears we actually have now are also a result of many other influences including the social (perhaps they are pierced or stretched), personal (perhaps they are scarred or deformed), and rational (perhaps they have a hearing aid).[27] This analogy preserves Street's notion of the *significant influence* of evolution on our moral beliefs; had our evolutionary past been very different, so too, would the appearance of our ears. Evolutionary

[26] Just as we all tend to have noses, legs and eyebrows, we also tend to share convictions about providing for our offspring and reciprocating helpful behavior

[27] In this example we see how reason has overcome or "corrected" the limitations of our evolved ears. Evolutionary ethicists can make room for instrumental rationality in ethics without any commitments to moral realism.

influence on our appearance is also the most fundamental influence in the sense that it is the hardest to change; it's much easier to change your earrings than your ears. Additionally, it makes sense of evolutionary influence as one of many influences that come in degrees and that often interact with other influences to form a specific evaluative judgment. We could deconstruct any part of an individual's appearance or any evaluative judgment in this way.[28]

Debunking arguments like Street's assume the validity of evolutionary psychology and I do the same. The discipline is so established among the scientific community at this point that a realist strategy focused on attacking evolutionary psychology faces an uphill battle. Instead, moral realism needs to find a way to remain plausible given the evidence of evolutionary psychology. What I want to do now is offer some arguments that reveal complications for moral realism accomplishing this task; as this is the proper role of evolutionary metaethics. My goal is to provide arguments that can be used as vehicles for moving from good evidence in evolutionary psychology that some evaluative judgment is highly influenced by an EPM, to the conclusion that there are unlikely to be moral truths about that evaluative judgment. Again, I have chosen altruism, but the idea is that any evaluative judgment we found to be ancestrally adaptive could follow suit. First I will discuss how, in such cases, moral realism suffers from a dilemma with respect to explaining how evolutionary influences relate to moral truths. Second I will present a double standard held by the realist with respect to explaining why evolutionary psychology offers sufficient explanations for non-moral features of human psychology, e.g., taste preferences, but doesn't offer sufficient explanations with respect to moral features. The

[28] If we have reason to believe that evolution has had a similar impact on some of our basic moral principles as it has had on our appearance, then metaethical and normative implications follow. The divide between descriptive and prescriptive ethics is not so sharp. Normative principles have a story, just like everything else. They do not fall out of a vacuum; they do not hang on skyhooks.

attempt to resolve this double standard results in either a *reductio ad absurdum* or in accepting an adaptive explanation for the evaluative judgment in question.

Let's begin with the reformulated Darwinian dilemma:

1. Evolution has had a significant influence on the content of our evaluative judgments about altruism.[29]
2. Where evolution has had a significant influence on the content of a specific evaluative judgment, there is unlikely to be a moral truth about that judgment.
3. 2 is true because if there were a moral truth about altruism[30], we can ask, what is the relationship between the evolutionary influences on our moral beliefs and moral truths about altruism?
    a. Realists who deny a relation claim that we discover altruistic moral truths with reason. If this is true, why are so many non-rational creatures altruistic? Either ants or vampire bats are rational too, or there *is* a relation between evolution and moral truths.
    b. If there is a relation, then why do so many organisms *not* behave altruistically?
4. Either way the realist answers this question it doesn't fit well with the evidence.
5. Given 4, moral realism is rendered less likely true as an explanation for evaluative judgments we know are highly adaptive.

If we have good evidence that a behavior was ancestrally adaptive, like altruism, we can ask the realist "Is there a relation between the evolutionary influences that forged altruistic

[29] This premise is certainly defensible with reference to the theories of kin selection and reciprocal altruism. I will not take the time to defend this premise here, but assume it as true.
[30] Altruism here is defined biologically. It includes any action by which the benefits to the individual agent are outweighed by the benefits to other agents. "Benefits" are to be understood in terms of increasing the probability that one will reproduce.

behavior and moral truths about altruism, or not?" If the realist says there isn't a relation they get what I call the similarity problem. Recall that in Street's dilemma, if the moral realist denies a relation between evolutionary influences and moral truths then they are left with moral skepticism. This is because the chance that evolutionary forces would have guided us to moral truths is highly unlikely; equivalent to a boat pushed out to sea guided only by the wind and tides would end up reaching its destination. The realist responded here by saying we can use reason to correct for evolutionary distortion and lead us to moral truths, like how a navigator corrects for the distortion of the wind and tides to arrive at a destination.

However, even if we accept the realist's response here, they have, at best, only explained how *rational animals* come to hold altruistic moral beliefs. They have not explained the bizarre coincidence that many species that lack rational reflection altogether also end up behaving altruistically. Altruism evolved in vampire bats, ground squirrels, ants and even robots.[31] The realist owes us an explanation for the fact that the same moral behaviors discovered by rational agents also evolve naturally in non-rational organisms. To continue the boat analogy, the realist has offered us a story akin to having two boats set out, one with a captain and crew, the other with no crew. The manned ship ends up making it to the destination (no surprise there), but upon pulling into the harbor turns to see the unmanned ship coasting up behind them. What a coincidence that would be! If it's truly reason that gets us to that destination, then how did the other ship managed to arrive there safely without it?

If the realist claims there is a relationship between evolutionary forces and truths about altruism, namely that evolution tracks moral truths, then they are left with what I call the difference problem. If evolution naturally guides creatures to behave altruistically then why are

[31] Waibel M, Floreano D, Keller L "A Quantitative Test of Hamilton's Rule for the Evolution of Altruism,". PLoS Biol 9(5): e1000615. doi:10.1371/journal.pbio.1000615, 2011.

so many species not naturally inclined to behave altruistically? Additionally, we have no evidence that behaviors evolve to correspond to some stable set of truths about how one "ought" to behave. If evolution guides animal behavior to moral truths, then why do evolved behaviors change with the environment?

The behavior of fire ants provides an excellent illustration here. In the late 1930's, the Argentine fire ant *Solenopsis invicta* invaded the US. By the 1970's, biologists began to notice that fire ant colonies came in two distinct types; Monogyne (mono=one, gyne=female) colonies had a single queen, polygyne colonies supported multiple queens. In the monogyne colonies, unfamiliar queens were killed immediately. In polygyne colonies, monogyne queens were killed but polygyne queens were accepted into the colony. Monogyne colonies tend to dominate territory sparsely populated by fire ant colonies. In the more densely populated areas, polygyne colonies become more prominent. Scientists believed natural selection could be responsible for this observation, but to support this hypothesis they needed to find a genetic basis for the different behaviors. In 2002, they found just that; the Gp-9 gene is directly related to whether a worker ant takes a "God save the queen!" or an "Off with her head!" approach to an unfamiliar queen. Whether monogyne or polygyne colonies dominate a region is directly related to how much territory the ants have to inhabit. When the ants came over in the 1930s monogyne colonies spread quickly because there were plenty of new places to start a colony. By the 1970s, polygyne colonies became more prominent in the areas where the fire ant colonies had become dense.[32] This example suggests that ancestrally adaptive behavior is sensitive to the evolutionary needs of a species relative to its environment, *not* moral truths.

Let's turn to articulating the Darwinain double standard:

[32] "Fire Ants Invade and Evolve," Understanding Evolution. University of California Museum of Paleontology. 22 August 2008 <http://evolution.berkeley.edu/evolibrary/news/060101_batsars>.

1. Moral realists often accept many evolutionary explanations for non-moral psychological phenomenon.
2. Evolutionary psychology offers the same kind of explanation for non-moral as it does moral psychological phenomenon, no distinction is made.[33] The realist can resolve the double standard in one of two ways:
    a. Requiring a realist explanation for non-moral psychological phenomena, e.g., claiming there are objective moral truths not only about behaviors but about taste preferences and sexual attraction too.
    b. Give up on moral realism and accept evolutionary psychology as a satisfactory explanation for moral and non-moral psychological phenomenon.
3. Because realism results in either a double standard or a reductio ad absurdum, the position is rendered less probable.

The double standard argument begins with the observation that a moral realist is likely to accept many explanations from evolutionary psychology regarding less controversial features of human psychology, e.g., taste preference, standards of beauty, etc. This commits them to a double standard with respect to what counts as a sufficient explanation for psychological phenomena. The moral realist has no qualm with claims that evolution has influenced the content of our judgments about preferences and non-moral behaviors. Yet when it comes to a very specific kind of psychological explanation, namely explanations of judgments they deem "moral," suddenly the realist wants to reject the significance of evolutionary influence on the content of those judgments and instead posit moral truths as the primary influence. It is difficult

[33] The realist's distinction is equivalent to one claiming an evolutionary biologist can only explain the evolution of lesser animals but not humans, or, for that matter, feet but not faces.

to see what drives the realist to treat evaluative judgments differently besides preconceived philosophical assumptions about what morality is.

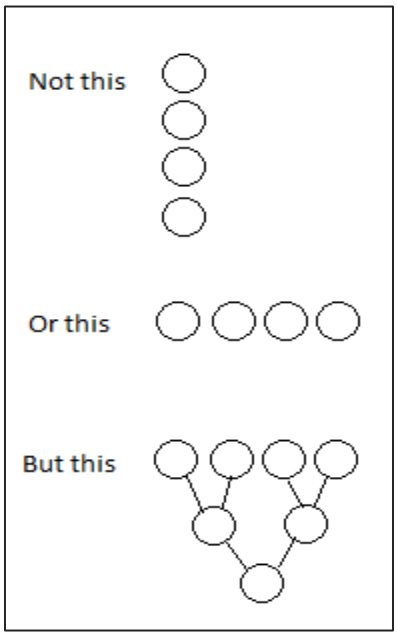
One way to resolve this double standard would be to claim that the less controversial psychological phenomena are also significantly influenced by reason and truth. This quickly leads to a *reductio ad absurdum* for the realist. Consider evolved taste preferences. Of all the psychologically possible taste preferences, evolutionary psychologists have documented that we have come to prefer things with sugar because of the quick energy that sugar provides. The realist can see, and rightly avoids, the absurdity of positing objective truths about what things one ought to prefer the taste of, otherwise dung beetles would be among the most morally wretched creatures on earth. Recall the evolutionary explanations of why men are attracted to women with a low waist to hip ratio. Evolutionary psychology gives a strong explanation of this; women with a low WHR tend to be more fertile, have healthier births and can easily be judged not pregnant. Yet moral realists see no need to posit truths to which claims like "one should be attracted to a woman with curves" can correspond. Becoming realists about less controversial psychological phenomena seems an intuitively unsatisfactory option.

Why posit moral truths about "moral" behaviors and not things like the foods one should prefer or the bodies one ought to be attracted to when evolutionary psychology offers the same kind of explanation for both? To treat these features differently amounts to a double standard, to be a realist about all of them amounts to a *reductio ad absurdum*, to accept the adaptive explanation across the board means giving up on moral realism.

I anticipate that the realist will opt to defend their double standard here, but I think their arguments are heavily motivated by pragmatic/existential concerns. We have no rational reason to treat moral explanations differently, but we are afraid of the consequences if we do.

Many realists are concerned that without a moral hierarchy grounded in reason we will be demoralized and left with an "anything goes" moral anarchy. To argue for the existence of objective morality, Robert Adams claims that without it we will be demoralized, a state he describes as a "weakening or deterioration of moral motivation."[34] This weakening of moral resolve is supposed to stem from the belief that if morality is not grounded in reason then it must ultimately be based on a foundation that lacks objective authority, like our subjective feelings. Bertrand Russell famously expressed the worry this way, "I cannot see how to refute the arguments for the subjectivity of ethical values, but I find myself incapable of believing that all that is wrong with wanton cruelty is that I don't like it."[35]

A pragmatic argument for evolutionary ethics:



I will spend the last part of this paper pushing back against this worry that a loss of moral truths will lead to moral anarchy and demoralization. Many of the worries about the loss of objectively true morality rest on a false dilemma; either some moral claims are true or none of them are and we are left with a baseless relativism. However, evolutionary ethics offers another possibility, one that avoids many of the concerns we have about a purely relativistic morality.

[34] Peterson, Hasker, Reichenbach, Basinger, ed. *Philosophy of Religion: Selected Readings.* (New York: Oxford University Press, 2010), p 235.
[35] Pigden, Charles, "Russell's Moral Philosophy", *The Stanford Encyclopedia of Philosophy* (Fall 2008 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/fall2008/entries/russell-moral/>.

One worry is that if we discover that moral truth is relative, we may lose our motivation to be moral. In evolutionary ethics, we won't lose our motivation to be moral upon discovering an underlying evolutionary explanation for morality any more than we have lost our motivation for sex upon discovering that sexual behavior is an evolved activity. We are wired to care about moral behaviors, and this inherent motivation is one advantage that an evolutionary metaethic has over moral realism. Realism has been challenged to explain why even if there are moral truths we have any reason to care about them, i.e., the motivation problem. We don't need a rational reason to care about evolved moral judgments; we just are the kinds of creatures that have evolved to care about them.

Because evolutionary morality is intrinsically motivating, there should be a greatly diminished worry that evolutionary ethics leads to an "anything goes" moral anarchy. Our evolved moral intuitions constrain our behavior in reliable ways. A parent will find it just as unthinkable to stop feeding their children even upon hearing that there are no moral truths obligating them to do so. The truth is that we were never motivated by those moral truths in the first place; we were motivated by evolved moral intuitions which we mistook for moral truths. Here we have an excellent example of Dan Dennett's claim that "evolution changes everything but leaves everything the same."[36] The way we understand morality will be revolutionized, but it won't really change the way we behave.

I want to take a moment to romanticize the fact that many of our cherished moral behaviors are literally wired into our genetics. This more intimate view of our relationship to morality is a great advantage that evolutionary ethics offers that moral realism never could. Evolutionary ethics tells us that our moral principles are literally within us, programmed into the fiber of our being. We *are* altruistic beings; we are not convinced to be altruistic by cold rational

[36] Jonathan Miller, *The Atheism Tapes*, (BBC: 2004), Interview with Dan Dennett.

reflection. Our evolved morality is a fundamental part of who we are, present long before and persisting long after we hear any clever arguments. You do not need to be argued in to having sexual desire, you just have it, and likewise that desire is virtually impossible to argue away. The same is true of evolved moral intuitions.

I think we are attracted to moral realism because the idea that a moral claim can be *true* gives us a reason to respect it, a reason to place it higher up on a hierarchy of moral claims. I call this the Great Chain of Being view of morality. Where we used to want a reason to say humans were somehow objectively more important than other creatures, we have also wanted to say that some moral claims are somehow objectively better than others. Darwin turned the Great Chain of Being on its side and told us that biology has no use for saying that one species is better than another. Ever since his view has been resisted, partly from a fear of the consequences that would follow from saying humans are no *better* than apes. However, as the view of our evolutionary past has become more complete we have found an incredible story attached to our place on the tree of life. This story, far more than the wishful thinking of Dark Age priests, is a cause for awe and respect. The same applies to evolved behaviors. An evolutionary ethicist can point to the impressive track record of our moral behaviors and be astonished at how effective these behaviors have proven. Altruistic behavior has literally survived millions of years of ruthless natural selection. Just as we can confidently conclude that in the case of our ancestors, walking on two legs has just worked better than walking on four, we can claim that strong trusting communities just work better than fractured ones. This is why we have evolved so many ways to build and repair social relationships. This track record can be used to construct phylogenetic trees for moral claims as biologists do for species. We can use these trees to show how certain behaviors either managed to pay for themselves in

evolutionary currency (reproduction), or not. Altruism evolved *because* it is so powerful, a fact sufficient for inspiring reverence in me.

Darwinian debunking arguments have claimed that given the relatively new science of evolutionary psychology, we have reason to conclude the content of all our evaluative judgments has been significantly influenced by evolution and this creates problems for moral realism. We reviewed Street's Darwinian dilemma and the shortcomings exposed therein by the natural reply. These shortcomings arose from an overly ambitious psychological premise trying to prove too much of a metaethical conclusion. I then reformulated the Darwinian argument to show that there are still metaethical consequences to be drawn from the evidence of evolutionary psychology. In a more moderate approach, I argued that evolutionary metaethics should focus on only the evaluative judgments that have been significantly influenced by evolved psychological mechanisms. As our evidence expands, so too can the reach of our arguments. I argue that if moral realism tries to posit moral truths about any ancestrally adaptive behavior, it leads to a dilemma and a double standard that the realist has no satisfactory way to resolve. In short, moral realism has trouble fitting efficiently with the evidence in specific cases. I hypothesize that despite these problems, the moral realist will be motivated to retain their position because they fear the consequences that might follow if we call a moral behavior merely ancestrally adaptive, instead of grounding it in "truth." I then conclude by arguing that these consequences are either (1) unfounded, (2) provided, albeit in a different way, by an evolutionary view, and that (3) there are even some existential benefits inherent in an evolutionary view that realism could never provide.

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