

CERTIFICADO

São Paulo, 17 de septiembre de 2019

Yo, Lorenzo Baravalle, Profesor Asistente de la Universidad Federal del ABC (Brasil) y coeditor del libro *Life and Evolution: Latin American Essays on the History and Philosophy of Biology*, que será publicado próximamente pela editora *Springer*, certifico con el presente documento, y para los debidos fines, que los Doctores Maximiliano Martínez, Alejandro Mosqueda y Jorge Oseguera han contribuido en la realización de dicho libro con un capítulo titulado "Evolutionary Debunking Arguments and Moral Realism".



Lorenzo Baravalle,
Profesor Asistente
Centro de Ciencias Naturales y Humanas
Universidad Federal del ABC
Santo André (SP)
Brasil

Chapter 7

Evolutionary Debunking Arguments and Moral Realism

Maximiliano Martínez, Alejandro Mosqueda and Jorge Oseguera

Abstract In this chapter we will develop a way for moral realism to respond to evolutionary debunking arguments. In general terms, debunking arguments that appeal to evolutionary theory hold that natural selection and moral realism are incompatible. Our aims are threefold. First, we will describe some of the relevant arguments in the debate on this topic. We distinguish between a modal argument, a parsimony argument, and Sharon Street's Darwinian dilemma. Second, we will focus on Street's argument, which has ignited most of the recent interdisciplinary debate between philosophy of biology and metaethics. We will focus on the overlooked fundamental tenets of moral realism to open a route for defending it: its cognitivist character, its representational language nature, and the relationship between evaluative judgments and their truthmakers (which are facts). This will allow us to propose a response to the evolutionary debunking arguments. Finally, *contra* Street, we will argue that moral realism is not scientifically inferior to moral anti-realism and therefore the former is not debunked.

7.1 Debunking Arguments

The recent debate over evolutionary debunking arguments against moral realism gained strength in 2006 with the publication of "A Darwinian Dilemma for Realist Theories of Value" by Sharon Street (2006). At this kind of debunking arguments can be found in the literature much earlier. The first version is found in *The Descent of Man*, where Darwin offers an evolutionary explanation of moral standards. Michael Ruse and Edward O. Wilson (1986), and Richard Joyce (2007), developed the basic argument on which Street expanded on.

Debunking arguments are epistemic arguments in the sense they aim to undermine the justification of our moral beliefs, but they can be divided into different types

M. Martínez (✉)

Departamento de Humanidades, Universidad Autónoma Metropolitana, Unidad Cuajimalpa,
4871 Vasco de Quiroga Ave. Santa Fe, CDMX 05300, México
e-mail: mmartinez@correo.cua.uam.mx

A. Mosqueda

Posgrado en Ciencias Sociales y Humanidades, Universidad Autónoma Metropolitana, Unidad Cuajimalpa,
4871 Vasco de Quiroga Ave. Santa Fe, CDMX 05300, México
e-mail: mosquedaesparza.josealejandro@gmail.com

J. Oseguera

Philosophy Department, Florida State University, 600 W College Ave. Tallahassee, FL 32306, USA
e-mail: jpogml@gmail.com

depending on the reasons they appeal to. Here, we will start distinguishing between two different types of reasons in order to pave the way for analyzing Street's argument. Darwin offers a modal debunking argument, since he points at the contingency of our moral beliefs. Michael Ruse and Edward O. Wilson offer an ontological debunking argument, since they point out at the unnecessarily heavy ontology of non-naturalist moral realism; Joyce expands this argument to naturalist moral realism. Sharon Street's claim is more complex, since she offers a mix of these types of arguments. In this section we present a description of the arguments and point out some of the differences between them.

7.1.1 The Modal Argument

Charles Darwin developed the basis of what we know today as the theory of biological evolution through natural selection (see Darwin 1859), which he then applied to human beings (see Darwin 1888). Morality was not something that he left out of his analysis.

If a tribe of human beings can give little or no advantage to a human being and their children over another human being of the same tribe, a tribe composed of humans who have a feeling of patriotism, loyalty, obedience, courage, sympathy, who are always willing to help others and who are willing to sacrifice themselves for each other, has a significant advantage over another tribe lacking these characteristics. This resulted in a prevalence in the population of its characteristics.

This evolutionary explanation of morality motivates skepticism towards moral realism if we consider the following thought experiment that Darwin stated: If "men were reared under precisely the same conditions as bee-hives, there can hardly be any doubt that our unmarried females would, like worker bees, think it a sacred duty to kill their brothers, and mothers would strive to kill their fertile daughters; and no one would think of interfering" (Darwin 1888, p. 73). This hypothetical case points to the contingency of our moral beliefs. We have the moral beliefs that we have only because of how we evolved, but if we had evolved differently, we would have different moral beliefs and our morality would be different. This is problematic because it conflicts with the objectivity, inescapability and necessity present in our traditional conception of morality and therefore seems to undermine it. In other words: if the moral truths are necessary and objective, as we seem to consider them, it is problematic to demonstrate

that our moral judgments are originated from contingent and historical contexts that could be otherwise. This problem is known in the literature as the “contingency challenge” (Lillehammer 2010, p.365). Since it seeks to undermine the justification of our moral beliefs appealing to *modality*, Darwin’s argument can be considered a modal argument. It is important to note that this argument only targets moral realisms that hold that moral truths are *necessarily* true.

7.1.2 The Parsimony Argument

On the other hand, Michael Ruse and Edward O. Wilson offered an argument of ontological parsimony against moral realism. They characterize moral claims as distinctly prescriptive in an objective way:

they [our moral claims] lay upon us certain obligations to help and to co-operate with others in various ways. ... Morality is taken to transcend mere personal wishes or desires. ... moral statements are thought to have an objective referent whether the Will of a Supreme Being or eternal verities perceptible through intuition (Ruse and Wilson 1986, p. 178).

In this popular way of understanding morality, moral facts become true in virtue of objective referents, be they theological or moral entities. Their argument aims to debunk this objectivity in morality by making those properties irrelevant to the explanation of moral phenomena. The first step they take is to offer an evolutionary explanation of why we experience our moral judgments as objective and with a prescriptive force: “human beings function better if they are deceived by their genes into thinking that there is a disinterested objective morality binding upon them, which all should obey. We help others because it is “right” to help them and because we know that they are inwardly compelled to reciprocate in equal measure” (Ruse and Wilson 1986, p. 179). In other words, evolution selected cognitive mechanisms that make us experience our moral judgments as objective, which helped us to be more effective cooperators and, therefore, to maximize our biological fitness. The key point here is that this explanation does not require the existence of an objective morality. Our moral judgments and their prescriptive and objective phenomenology can be explained without having to raise objective references for moral statements, such as “Will of a Supreme Being or eternal verities perceptible through intuition”. If this hypothesis is true and can successfully

explain our moral phenomena, then, offering an “objective basis for morality is redundant”; it does not play a necessary explanatory role (see Ruse and Wilson 1986, p. 254). Even if the entities that make objective moral propositions did not exist, we would still make the moral judgments we make. On the other hand, if they exist, we have no reason to suppose that evolution puts us in correspondence with them. If these entities are redundant, what reason do we have to posit them? The conclusion then is that the objectivity of morality is an illusion, which would imply that moral realism is false.

Richard Joyce (2007, p. 189) interprets Ruse and Wilson in the following way. There are two competing hypotheses that could explain our moral judgments. One, let's call it Hypothesis A, is the evolutionary explanation offered by Ruse and Wilson: we have the moral beliefs that we have because evolution designed us that way. According to an alternative explanation, Hypothesis B, there are entities (for example, a supreme being, irreducible moral properties) that are intuited or perceived, which gives objectivity to moral claims. Given that Hypothesis A has the same explanatory power as Hypothesis B, but does not raise additional ontological entities, we can apply Ockham's razor and deny Hypothesis B. But according to Joyce, this conclusion is too hasty, since an ontological reduction of Hypothesis B to Hypothesis A is possible. An explanation of moral properties could be offered in terms of natural or physical properties. With such a reduction, Hypothesis B would not imply an ontology greater than Hypothesis A. In this way, Ockham's razor could not be applied, so the argument of Ruse and Wilson only applies to non-naturalist realist theories. But a naturalistic theory that intends to make such a reduction would have the burden of proof, because it would have to offer a clear and plausible explanation of what such a reduction consists of. According to Joyce, the prospect of a theory of this type is very unlikely, since it could not satisfy a desideratum that he considers key: to explain “the inescapable practical authority” of morality. We will not dwell on this topic because it falls out of the scope of this paper.

To sum up: Darwin's contingency challenge is the seminal evolutionary debunking argument. Ruse and Wilson framed it in ontological terms as an argument against non-naturalist moral realism, on which Joyce expanded to include naturalist strands of moral realism. We will now move on to analyze Sharon Street's more complex argument. As we will point out, she takes elements of these formulations and develop them further. After our analysis, a response to both the modal and the ontological argument will become apparent.

7.2 Street's Debunking Argument

In "A Darwinian Dilemma for Realist Theories of Value" (2006), Sharon Street introduced one of the most discussed arguments in metaethics based on evolutionary premises and against moral realism. With this *debunking argument* she attempts to undermine moral realism by appealing to the evolutionary origins of our moral beliefs. Roughly, the idea of the argument is that the best explanation of the content of our moral judgments is an explanation based on evolutionary biology that does not appeal to the independent moral truths posited by moral realism. We have reconstructed Street's argument as follows:

1. Realism: Moral truths are independent of our evaluative attitudes.
2. Evolution: Natural selection has had an important influence on the content of our moral beliefs.
3. If the realist does not want to be incompatible with science, she has the challenge of explaining the relation between (1) and (2).
4. Dilemma: Either (a) there is no relation between (1) and (2), or (b) there is a relation between (1) and (2): natural selection favored the ancestors who grasped moral truths.
5. (a) leads to moral skepticism.
6. (b) is an unacceptable explanation on a scientific basis.

Therefore, since moral realism cannot give a satisfactory explanation of the relation between (1) and (2), moral realism is debunked.

The first premise exposes, according to Street, one of the most important characteristics of moral realism. For Street, the "claim of realism about value (...) is that there are at least some evaluative facts or truths that hold independently of all our evaluative attitudes" (Street 2006, p. 110). For moral realism the truth or falsity of moral judgments does not depend on our *evaluative attitudes*, which

include states such as desires, attitudes of approval and disapproval, unreflective evaluative tendencies such as the tendency to experience X as counting in favor of or demanding Y, and consciously or unconsciously held evaluative judgements, such as judgements about what is a

reason for what, about what one should or ought to do, about what is good, valuable, or worthwhile, about what is morally right or wrong, and so on (2006, p. 110).

This does not imply that there is no relationship between the subjects and what makes the moral judgments true or false. The independence that moral realism claims only consists in the following: what makes a moral judgment true or false does not depend on what a subject or a group believes, desires, etc. Street characterizes moral realism in this way “because it is independence of this type of mental states that is the main point of contention between realists and antirealists about value” (Street, n. 1, p. 156).

The second premise is supported by evolutionary biology, which explains morality as a trait that increases the *fitness* (survival and reproduction) of those who possessed it. Street points out that “one enormous factor in shaping the content of human values has been the forces of natural selection, such that our system of evaluative judgements is thoroughly saturated with evolutionary influence” (Street 2006, p. 114). The intuition behind this premise is “that just as evolutionary forces shaped our eyes and ears, so they shaped our moral beliefs” (Vavova 2015, p. 104).

To demonstrate the influence that natural selection has had on the content of our moral judgments, Street cites six judgments whose wide acceptance can be explained by evolutionary biology:

- The fact that something would promote one’s survival is a reason in favor of it.
- The fact that something would promote the interests of a family member is a reason to do it.
- We have greater obligations to help our own children than we do to help complete strangers.
- The fact that someone has treated one well is a reason to treat that person well in return.
- The fact that someone is altruistic is a reason to admire, praise, and reward him or her.
- The fact that someone has done one deliberate harm is a reason to shun that person or seek his or her punishment (Street 2006, p. 115).

Evolutionary biology explains the widespread human acceptance of these judgments based on the idea that they promoted reproductive success and survival more effectively than alternative judgments (see Street 2006, p. 115). In this sense, we consider being negligent with our children as something incorrect because it does not promote our reproductive success or our survival. Despite cultural, historical and social differences, these six judgments have been widely accepted because they increased our fitness. This shows, according to Street, that “the content of human evaluative

judgements has been tremendously influenced ... by the forces of natural selection” (Street 2006, p. 121).

According to Street, “[c]ontemporary realist theories of value claim to be compatible with natural science” (Street 2006, p. 109). This poses a challenge to moral realism. As stated in the third premise, if moral realism does not want to be incompatible with natural science then it “needs to take a position on what relation there is, if any, between the selective forces that have influenced the content of our evaluative judgements, on the one hand, and the independent evaluative truths that realism posits, on the other” (Street 2006, p. 121).

This challenge generates the dilemma indicated in the fourth premise: “[r]ealists have two options: they may either assert or deny a relation” (Street 2006, p. 121). What is required of moral realism is that it takes a position on it. In this sense, denying that there is a relation is an option that the realist can choose in order to take a position. (a) is an interesting option because it allows realism to recognize the influence of evolutionary forces on the content of our evaluative judgments, and thus not be incompatible with science, without their notion of independence being in danger, since it does not commit to linking such influence with independent evaluative truths.

If the realist denies that there is a relation, then she would have to accept that evolution has pushed us to adopt precisely just the moral judgments that accord with independent truths. But this would be a matter of luck. It would be fortunate that the moral judgments that natural selection promoted are precisely the moral judgments that moral realism considers true. In this way, denying that there is a relation between (1) and (2) “leads to the implausible skeptical result that most of our evaluative judgements are off track due to the distorting pressure of Darwinian forces” (Street 2006, p. 109), as mentioned in the fifth premise of the argument.

The second horn of the dilemma is to accept that there is a relation between (1) and (2). We can account for this relation from a *tracking account*: natural selection made us track those events that satisfy the truth conditions of our moral judgments. “According to this hypothesis, our ability to recognize evaluative truths, like the cheetah’s speed and the giraffe’s long neck, conferred upon us certain advantages that helped us to flourish and reproduce” (Street 2006, p. 126). The individuals who captured such facts and made judgments in accordance with them, had more fitness than those who did not.

The tracking account is a scientific explanation because it offers a hypothesis about how the course of natural selection explains the wide presence of certain moral

judgments rather than others in humans (see Street 2006, p. 126). As this explanation is a scientific explanation, it is subject to competition with other theories under scientific standards. In this competition, the tracking account is overcome by an alternative explanation called the *adaptive link account*: the tendency to adopt certain moral judgments contributed to fitness because our ancestors forged adaptive links between their surrounding circumstances and appropriate responses to them, making them act, feel and believe in ways that were advantageous (see Street 2006, pp. 126-127). In living organisms there are several mechanisms that serve to link the circumstances of the organism with their responses in ways that tend to promote fitness. "A straightforward example of such a mechanism is the automatic reflex response that causes one's hand to withdraw from a hot surface, or the mechanism that causes a Venus's-flytrap to snap shut on an insect" (Street 2006, p. 127). Street argues that the adaptive link account is superior to the tracking account at least with respect to three common criteria of scientific adequacy: parsimony, clarity and explanatory power.

The tracking account is less *parsimonious* because it "posits something extra that the adaptive link account does not, namely independent evaluative truths" (Street 2006, p. 129). The tracking account postulates independent moral truths supported by moral facts to explain why it is adaptive to make certain judgments. In contrast, the adaptive link account explains the adaptive advantage of such judgments without the need to postulate independent evaluative truths. With respect to parsimony, the adaptive link account is preferable because its explanation is simpler and does not multiply the ontology of the world since it does not postulate independent evaluative truths.

Regarding the criterion of *clarity*, Street argues that the tracking account becomes obscure upon closer examination:

[A]ccording to the tracking account, making certain evaluative judgements rather than others promoted reproductive success because these judgements were true. But let's now look at this. How exactly is this supposed to work? Exactly why would it promote an organism's reproductive success to grasp the independent evaluative truths posited by the realist? The realist owes us an answer here (Street 2006, pp. 129-130).

The only explanation that the tracking account can give about why certain moral judgments promoted fitness is that such judgments are true. But this answer is unsatisfactory because of the following question: exactly why does the fitness of an organism promote independent evaluative truths? Conversely, the adaptive link account

holds that we make such judgments simply because they were adaptive, not because they are true.

Finally, Street argues that the adaptive link account has more *explanatory power* than the tracking account. "Its appeal to the truth and falsity of the judgements in question sheds no light on why we observe the specific content that we do in human evaluative judgements; in the end, it merely reiterates the point that we do believe or disbelieve these things" (Street 2006, p. 134). First, the tracking account cannot explain the remarkable coincidence that the moral truths that it posits is exactly equivalent as the judgements that are explained by the adaptive link account. Second, the adaptive link account explains why we tend to make judgments that today we would clearly consider as false, for example, the judgment that we should help more people from our group and less to people who do not belong to our group: it was adaptive for our ancestors to cooperate with close individuals and to be wary of the non-close. Lastly, the adaptive link account also explains why, out of all the possible moral judgments, we have the ones we have: our moral judgments are those that were appropriate for the circumstances of our ancestors. The tracking account, by contrast, does not explain these issues. In this way, the sixth premise of Street's debunking argument is supported.

The above shows that moral realism is in trouble: either it has to deny the relation between (1) and (2) and fall into a skepticism, or it has to adopt an explanation that is scientifically inferior to the unrealistic explanation of the adaptive link account. The argument, according to Street, shows that the adaptive link account is better for explaining the content of our moral judgments. But such an explanation does not appeal to independent evaluative truths, instead it explains the content of our evaluative judgments based on what promoted survival and adaptation. Therefore, moral realism is undermined because the forces of evolution determined in an important way the content of our moral judgments in directions that have nothing to do with the independent evaluative truths postulated by moral realism.

7.3 A version of Moral Realism based on Realism itself: a critical examination of Street's Argument

The discussion has been extensive and several aspects of Street's argument have been

examined. David Copp (2008), for example, argues that the tracking account and the adaptive link account are compatible, so he proposes an alternative realistic explanation to explain the relation between (1) and (2), which he calls *society-centered moral theory*. Erik Wielenberg (2010), on the other hand, discusses the first horn of the dilemma and tries to show that skepticism does not follow from denying that there is no relationship between the independent evaluative truths posited by the realist and the influence of natural selection on the content of our evaluative judgments. In a recent paper, Marc Artiga (2015) uses the naturalistic theory of teleosemantics to try to show that the tracking account is not inferior to the adaptive link account. Our strategy will be different: we will try to defend moral realism from its fundamental characteristics. We will offer a detailed explanation of the notion of independence of the evaluative attitudes in order to introduce into the discussion other important characteristics of moral realism --such as cognitivism, representational language and moral facts-- and thus offer a more precise explanation of the tracking account; one that shows that it is not really an inferior explanation to the adaptive link account.

Our argument is based on a review of the first premise of Street's argument. "Moral realism" is a technical term and therefore there is not a single correct definition. For Street, "[the] claim of realism about value ... is that there are at least some evaluative facts or truths that hold independently of all our evaluative attitudes" (Street 2006, p. 110). The independence of the evaluative attitudes is undoubtedly one of the main characteristics of moral realism. However, we believe that to fully understand this characteristic it is necessary to make explicit that moral realism is a form of cognitivism.

One of the reasons why moral realism holds that what makes a moral judgment true or false is independent of our evaluative attitudes, is because it considers that moral judgments do not pretend to express our opinions, desires, beliefs, emotions, or moral theories; but we intend to describe the world. This claim makes moral realism a form of cognitivism. In general, "the key thought for cognitivism is that the sentence [a moral statement] purports to describe how things are" (Bedke 2018, p. 293). Moreover, a "view is cognitivist if it allows for a central class of judgments within a domain to count as beliefs, capable of being true or false in virtue of their more or less accurate representation of the facts within the domain" (Shafer-Landau 2003, p. 17). Moral realism is a form of cognitivism because it holds that evaluative judgments are statements that can be true or false by virtue of correctly reporting certain facts. "Realist

not only think that moral language and thought purport to describe or represent, but they think there are mind-independent moral properties and facts that we sometimes describe or represent accurately” (Bedke 2018, p. 296). For moral realism, the truth or falsity of moral judgments does not depend on our evaluative attitudes, but depends on their correct description or representation of the facts. It is important to note that for any kind of moral realism the facts are the truth conditions of our evaluative judgments. That is, a moral realist cannot disregard the existence of facts as one of his fundamental theses, because, after all, it is the facts that determine whether an evaluative judgment is true or false. It is because of this commitment to cognitivism that, for moral realism, the truth or falsity of evaluative judgments is independent of our evaluative attitudes.

It is then important to recognize that for this view of moral realism the moral discourse is of a representational type and that its truthmakers are facts. Moral language behaves very similarly to other representational languages. Both the sentence “Corruption is common” and “Corruption is incorrect” are statements that we can affirm or deny and to which we can assign truth values based on the facts. By taking moral language as representational, our evaluative judgments aim to describe a reality that is independent of our way of speaking and thinking about it.

Recognizing the cognitivist position of moral realism allows us to better understand the claim that the truth or falsity of evaluative judgments is independent of our evaluative attitudes, and also helps us to distinguish moral realism from other metaethical positions. Unlike non-cognitivism, expressivism and emotivism, moral realism holds that “moral or normative talk is fully representational, that is fully and straightforwardly fact-stating and truth-evaluable, that it expresses beliefs, that it attempts to describe the normative part of the universe” (Enoch 2018, p. 30). And unlike constructivism, moral realism holds that moral judgments “are not made true by our decision-making procedures, or by our endorsing them, or by anything about us and our perspectives” (Enoch 2018, p. 30).

We must understand then the moral realists’ notion of independence of the evaluative attitudes as a cognitivist thesis, which states that for moral realism evaluative language is a representational language, with which you try to represent or describe reality. Facts play an important role since they are the truth makers of this representational language. How does this explanation clarify or specify the tracking account mentioned above? Faced with the dilemma generated by the thesis of moral realism and the thesis of evolutionary biology, Street believes that moral realism can

claim that there is a tracking relation between independent evaluative truths and the influence of natural selection on the content of our evaluative judgments. According with the Street's version of the tracking account, "our ability to recognize evaluative truths ... conferred upon us certain advantages that helped us to flourish and reproduce" (Street 2006, p. 126). The evaluative judgments that provided the most selective advantages to our ancestors were those that were true. In this way, moral realism can point to the evolutionary advantages of grasping evaluative truths: "Surely ... it is advantageous to recognize evaluative truths; surely it promotes one's survival ... to be able to grasp what one has reason to do, believe, and feel" (Street 2006, p. 125).

Now, it should be noted that it is confusing to say that moral realism proposes to grasp independent evaluative truths, as Street affirms. This suggests that the thesis of moral realism about moral truths is completely ontological and we think it is not so. As we stressed, the thesis about independent evaluative truths consists in affirming that our evaluative judgments are representational statements with which we try to describe or represent a certain reality. In this sense, the truth or falsity of a evaluative judgment does not depend on the evaluative attitudes of the agent but on the correct reporting or description of the reality in question. Undoubtedly there is an ontological element in this thesis since it assumes that there are facts by virtue of which evaluative judgments are true or false, depending on whether or not they are adequately represented. But it is a different thing to affirm that there are (independent) facts than to affirm that there are (independent) evaluative truths. The thesis about independent evaluative truths seems to be more a semantic thesis that exposes a cognitivist way of understanding moral discourse.

We also believe that we must avoid thinking about our ability to recognize evaluative facts by virtue of which an evaluative judgment can be true or false as a special capacity. J. L. Mackie had already expressed this concern from the rarity argument:

If there were objective values, then they would be entities or qualities or relations of a very strange sort, utterly different from anything else in the universe. Correspondingly, if we were aware of them, it would have to be by some special faculty of moral perception or intuition, utterly different from our ordinary ways of knowing everything else (Mackie 1977, p. 38).

Among other difficulties that arise in such an argument, for Mackie there would be an epistemological difficulty in accounting for our knowledge of the entities or evaluative

traits and their links with the natural features of which would be consequences that suggests the need to postulate a special capacity for it.

But why is it necessary to postulate a special capacity that allows us to see the evaluative traits? As Platts points out, "why, to change the case, we can not account for the recognition that people make of the malicious, the loyal, the aggressive, the dishonest, simply in parallel terms to those who realize their recognition of others traits in the world?" (Platts 1983, p. 4). As we have mentioned, for moral realism evaluative language is representational, with it we try to describe the facts in the world. We recognize them in the same way that we recognize other non-evaluative features in the world.

According to Street, the tracking account states that we have an ability to recognize evaluative truths that gives us certain adaptive advantages that helped us grow and reproduce. But we have tried to show that we should not understand such ability as a special capacity and that we should not confuse the semantic thesis of independent evaluative truths with the ontological thesis of evaluative facts. Consequently, the description of the tracking account should be specified. The tracking account that explains the relationship between (1) and (2) would consist in that we can recognize the evaluative facts that exist in the world from which an evaluative judgment is true or false by virtue of representing such facts correctly, and some of those facts that are truthmakers are also evolutionary facts: facts about what promote fitness.

Before testing this new version of the tracking account under the criteria of parsimony, clarity and explanatory power (the scientific standards Street uses to attack it); we would like to point out that there seems to be a gap in Street's argument. Street argues that if the moral realist does not want to be incompatible with science, she has to explain the relation between her thesis that evaluative truths are independent of our evaluative attitudes and the evolutionary thesis that natural selection has had an important influence on the content of our evaluative beliefs. This generates, according to Street, the following dilemma: moral realism has to deny that there is a relation between the realistic thesis and the evolutionary thesis, or has to accept that there is a relation between them. Street herself proposes the tracking account as an option that moral realism has to explain such a relation. The problem with the tracking account is, according to Street, that it is unacceptable on a scientific basis because it is an inferior explanation to the adaptive link account in relation to the criteria of parsimony, clarity and explanatory power. The strange thing in this step of the argument is that the

parameters in relation to which the explanation of the tracking is inferior have nothing to do with the explanation of the relation between (1) and (2), which was supposed to be the challenge that moral realism had to explain. We believe that for two explanations to compete it is important that both are trying to explain the same phenomenon (in this case the relationship between theses (1) and (2) in Street's argument). While the tracking account does explain such a relationship, the adaptive link account does not do so. How then can these explanations compete if they do not try to explain the same phenomenon?

The adaptive link account does not explain the relationship between (1) and (2). The criteria of parsimony, clarity and explanatory power from which Street contrasts the tracking account with the adaptive link account, revolve around explaining the tendency that we have to adopt certain evaluative judgments rather than others, why such judgments contributed to fitness, and why we observe the specific content we do in evaluative human judgments. All these aspects strictly correspond to the evolutionary thesis. But note that the explanation of the relation between the thesis of independent evaluative truths and the thesis that natural selection has influenced in important ways the content of our moral beliefs is left aside. Given this caveat, the question for Street would be: why the fact that the tracking account is inferior to the adaptive link account with regard to the evolutionary thesis makes the tracking account also unacceptable to explain the relationship between the realistic and the evolutionary theses? No doubt the result would be different if we contrast the tracking account and the adaptive link account under the criteria pointed out by Street (not only in relation to the evolutionary thesis but in relation to the explanation of the relationship between the realistic thesis (1) and the evolutionary thesis (2)), which is the core of the dilemma she stresses.

7.4 Reassessing the superiority of the Adaptive Link Account over the Tracking Account

So far, we have tried to contextualize moral realism and the tracking account from the basic tenets of moral realism itself: its cognitivist character, its claim that evaluative language is representational, and the feature that evaluative judgments are true or false by virtue of corresponding properly with particular facts. So, the tracking account

would hold that we can describe facts of the world independently of our interests and desires, by virtue of which our evaluative judgments are true or false. And some of the facts that determine the truth values of our moral judgments are evolutionary. For example, the judgment "Caring for our children is correct" is true in virtue of the evolutionary fact that taking care of our children promotes our fitness. Or the judgment "Not to be reciprocal before cooperative attitudes is incorrect" is true in virtue of which not being reciprocal before cooperative attitudes does not promote our fitness.

In this sense, evolutionary facts are facts about fitness. But what kind of fitness are we talking about here? We take a multi-level selection approach *a la* Mayr (2002), Matthen (2003), Okasha (2006), and Martínez and Moya (2011), in which selection operates primarily on organisms, since it "has direct effects on both a higher level (characteristics of [groups and] populations) and a lower level (characteristics of genetic pools)" (Martínez and Moya 2011, p. 5). This focus on the organismal level means that the fitness we are primarily considering is individual fitness. Now, altruism and other moral behaviors are usually explained through genetic or group fitness, so it could be argued that if we focus on individual fitness, the implication will be that in some scenarios acting in a non-altruistic way will be seen as morally permissible. For example, cheating in a prisoner's dilemma scenario could increase the individual fitness of an organism, if the other organisms involved are not cheating. The cheater would be free riding on the non-cheating group by getting benefits at the expense of the others. If this translates into more offspring for the cheater, then the cheater would be fitter and we would have to conclude that cheating is morally obligatory or at least morally permissible. But as Trivers' (1971) and Axelrod's (1981) analyses show, mechanisms could evolve to make the non-cheaters more individually fit than the cheater. The non-cheaters could evolve mechanisms to become "reciprocal altruists," i.e., organisms that can distinguish cheaters from non-cheaters, which leads them **that** cooperate with other non-cheaters, but not with cheaters. This would preclude the cheaters from getting the benefits of cooperation and make the non-cheaters more fit, and therefore, make cheating morally impermissible.

But what if there are subtler cheaters, who cheat only when they realize that their cheating is not going to be discovered? This more refined cheater would be ripping the benefits of cooperation while sometimes free riding without having being discovered, and therefore not losing future opportunities to cooperate with non-cheaters. This strategy would seem to be more adaptive than the one of the non-cheater, and therefore

not morally impermissible. But this strategy would encounter problems because, as Trivers (1971) points out, a complex system of mechanisms would be developed to identify that kind of subtle cheaters and excluding them from the benefits of cooperation. Unnoticed cheating would become so costly in terms of resources and effort that would not be adaptive anymore.

However, calling attention to the points just mentioned, and the ones we mention at the end of the last section, not only allows us to reexamine and strengthen the moral realistic position with something of greater justice, it also allows us to reevaluate another of Street's attack points: the scientific inferiority of the tracking account compared with the adaptive link account. Recall that, for Street, the latter is a better scientific theory than the former given its alleged superiority in three aspects: parsimony, clarity and explanatory power. Let's see how the version of moral realism that we have just proposed allows us to reconsider this issue.

According to Street, the tracking account is less parsimonious than the adaptive link account because it postulates independent evaluative truths to explain why it is adaptive to make certain judgments. The tracking account is also less clear because it fails to answer the question of why grasping independent evaluative truths promotes the reproductive success of an organism. And finally, the tracking account has less explanatory power because, unlike the adaptive link account, it does not explain three key issues: a) why the truths that the realist proposes turn out to be exactly the same judgments that form adaptive judgments between the circumstances and the answers, b) why we tend to make certain judgments that we would consider false today, c) why, out of all the possible moral judgments, we have the ones we have. For Street, since the adaptive link account is scientifically superior to the tracking account, which is directly linked to moral realism (remember the dilemma presented in the fourth premise), then the latter must be abandoned.

We believe that the tracking account is no less parsimonious, obscure or with less explanatory power than the adaptive link account, as Street argues. Let's see why. With regard to parsimony, it is possible to hold now that the evaluative truths are not something postulated by the tracking account, much less ontologically. As we have insisted, the thesis behind the postulation of independent evaluative truths is that moral judgments are true or false by virtue of describing or representing facts in an adequate manner. So the truth or falsity of judgments is independent of our evaluative attitudes. In this sense, the tracking account does not postulate independent truths to explain why

it is adaptive to make certain evaluative judgments; it simply says that such judgments were adaptive because they correctly described an evolutionary and independent fact. Clearly there is nothing extra, ontologically speaking, postulated by the tracking thesis.

In relation to the criterion of clarity, the problem with the tracking account was that it could not explain why to grasp the independent evaluative truths promotes the reproductive success of an organism. Again, moral realism does not propose to grasp truths, but argues that moral judgments are intended to describe or represent a reality, so their truth or falsity depends on whether they manage to do it properly. The question then would be: why does it promote the fitness of an organism to correctly represent a fact from a moral judgment? From the tracking account perspective we could say that correctly representing an evolutionary fact through an evaluative judgment promotes our fitness, since it prevents us from adopting judgments that would cause our own detriment (e.g., because an individual or group believes that they are true). One example is avoiding to take as true the judgment "it is right not to feed your own children", simply because an individual or group believes it. On the other hand, the tracking account would show how such a judgment is false because it is an evolutionary fact, independent of the group's or personal evaluative attitudes, that not feeding their own children goes against their fitness. In short, we are more likely to adopt judgments that promote fitness if the truth or falsity of evaluative judgments rests on independent facts (contrary to them depending on our evaluative attitudes). By simple evolutionary logic, it is more adaptive to make judgments whose truth conditions are independent of us than to make judgments whose truth rests either in fictions (see Mackie 1977) or in the swing of our evaluative attitudes, since the former are anchored in a less contingent reality.

Lastly, for Street, the adaptive link account has greater explanatory power in relation to three relevant issues in dispute: a) how to explain the remarkable coincidence that the moral truths posited by the realist are exactly equivalent to the judgements that are explained by the adaptive link account, b) why do we tend to make certain judgments that we consider false today, and c) why, out of all the possible evaluative judgments, we have the ones we have. We think the version of moral realism (and its respective tracking account) we developed here copes with those three questions. With regard to the first one, moral realism does not postulate independent evaluative truths, but facts independent of evaluative attitudes. Therefore, the first issue in dispute is not problematic, because the facts are part of the reality that has causal effects and, given

the previous explanation of why representing these facts is adaptive, it explains the coincidence that Street asks to explain: we have the evaluative judgments we have because they are adaptive by representing facts.

With respect to the second issue, it can be answered from the tracking account that the adaptive facts can change over time. What is adaptive in *t*₁ may not be adaptive in *t*₂. The fact that we tend to help only those of our group and to discriminate against strangers could have been adaptive in the ancestral evolutionary history, but it would not be so any more given our current globalized context. This would explain why we tend to maintain such a judgment even if we consider it false. For the moral realism we advocate here it is enough that the value of truth be determined by a fact, but if the fact changes, the conditions of truth also change (this will be important when we discuss the contingency challenge below). Finally, the third point, why of all the logically possible evaluative judgments do we have the ones we have? According to Street the adaptive link account answers that we have only those judgments that were adaptive. But according to the thesis of tracking we defend, which appeals to facts as conditions of truth, we have those judgments that have truth conditions based on facts. It is not factually possible that all logically possible judgments are adaptive, so we have those judgments that we have by virtue of referring to facts independent of our evaluative attitudes and which conferred fitness on those who adopted them. In short, we consider as true only those judgments whose conditions of truth are adaptive facts. For example, it is a fact that to value plants more than human beings or to exhort the murder of children does not confer fitness. For this reason we do not consider them true even if they are logically possible.

We think the version of moral realism we defend here answers the modal and the parsimony debunking arguments we described in the first section. With regard to the latter, we just argued above that moral realism doesn't posit an extra ontology: facts that already exist in the world are the truthmakers of our moral judgments. In no way this suppose a manner to postulate the existence of extra moral facts of a different kind. Moreover, it is not necessary to posit a special moral faculty. With regard to the contingency challenge or the modal debunking argument, from our perspective it is possible to argue that moral realism does not need to defend the existence of a necessary relationship between our moral judgments and eternal and immutable moral facts. A more modest version that defends a simple relationship between our moral judgments and the facts that are their truthmakers is enough to answer the contingency challenge.

Under this view, moral truths can change over time if the circumstances change, but that doesn't make them less real. As mentioned earlier with the examples of having in-group preferences and discriminating against strangers, what is adaptive in t_1 may not be adaptive in t_2 . This would mean that in t_1 a proposition like "Giving preferential treatment to members of your group than to members of other group is morally permissible" could be true, while false in t_2 . The fact that the truth-value of a proposition changes over time does not mean that it is not based on facts that are independent from our evaluative attitudes. Only a stronger version of realism would hold moral truths are necessary, but this is not a view that we are defending here.

Before reaching a conclusion a clarification about cultural evolution is in order. Take the example of the Fore people from Papua New Guinea, who have the maladaptive tradition of eating their dead, including their brain, which contained infectious prions responsible of an epidemic that has led to many more deaths. Think also of **some Christian traditions** that are not necessarily maladaptive, but are not precisely adaptive.¹ These traditions might create social cohesion, which could be translated into a positive contribution to biological fitness. If the overall contribution to fitness of a particular conduct is positive, then it would be prescribed in our view; if the contribution is negative, it would be forbidden; and if it is neutral, it would be permissible. In the case of the cannibal Fore people, it seems that even though the tradition is promoting social cohesion, its effect is not overall positive, since a considerable amount of people are dying. So the proposition "Cannibalism is morally permissible" would be false, even if it is part of the actual morality of that people. (It is important to remember that we are not concerned with what people or groups of people *believe* is morally good or bad, but with what is *actually* good and bad). If the tradition consisted in eating the whole body *but* the brain, where the infectious prions are, then there would be no epidemic and the positive effects of social cohesion might be beneficial in terms of fitness, in which case the tradition could be morally acceptable.

7.5 Conclusions

In this paper we offered a way for moral realism to avoid some of the main challenges

¹ We want to thank an anonymous referee for pointing out these cases.

posed by debunking arguments. By bringing attention to and develop the basic tenets of moral realism (which are ignored in the literature) we were able to respond to the seminal, modal debunking argument (or the contingency challenge), to the parsimony debunking argument, and to the debunking argument formulated by Street. Our strategy was to highlight three fundamental characteristics of moral realism that, from our perspective, cannot be ignored in the debate: its cognitivist character, its claim that evaluative language is representational, and the assumption that facts are the truthmakers of evaluative judgments. Focusing on these elements allowed us to argue that the tracking account is not inferior to the adaptive link account, one of the main points of Street's criticisms to moral realism. If our argument is correct, moral realism and the tracking account can explain the relationship between the thesis of realism and the evolutionary thesis. Therefore, moral realism is not debunked.

Acknowledgments We are grateful to our anonymous referees for their valuable comments on the manuscript. Thanks also to the audiences at the ISHPSSB São Paulo meeting (July 2017), the Seminario de Investigadores at Instituto de Investigaciones Filosóficas - UNAM (February 2018), and the AIFIBI meeting in Bogotá (July 2018) for useful discussions. AM wishes to thank to the Beca CONACyT para Estancias Posdoctorales Nacionales for financial support.

References

- Artiga, M. (2015). Rescuing tracking theories of morality. *Philosophical Studies*, 172, 3357–3374.
- Axelrod, R., & Hamilton, W. D. (1981). The evolution of cooperation. *Science*, 211, 1390–1396.
- Bedke, M. (2018). Cognitivism and Non-Cognitivism. In T. McPherson, & D. Plunkett (Eds.) *The Routledge Handbook of Metaethics* (pp. 292–307). New York: Routledge.
- Darwin, C. (2004). *On the origin of species, 1859*. New York: Routledge.
- Darwin, C. (1888). *The descent of man and selection in relation to sex*. New Jersey: Princeton University Press.
- Copp, D. (2008). Darwinian skepticism about moral realism. *Philosophical Issues*, 18, 186–206.
- Enoch, D. (2018). Non-Naturalistic Realism in Metaethics. In T. McPherson, & D.

- Plunkett (Eds.) *The Routledge Handbook of Metaethics* (pp. 29-42). New York: Routledge.
- Joyce, R. (2007). *The evolution of morality*. Cambridge, MA: MIT Press.
- Lillehammer, H. (2010). Methods of ethics and the descent of man: Darwin and Sidgwick on ethics and evolution. *Biology & Philosophy*, 25, 361–378.
- Mackie, J. L. (1977). *Ethics. Inventing Right and Wrong*. London: Penguin.
- Martínez, M., & Moya, A. (2011). Natural selection and multi-level causation. *Philosophy and Theory in Biology*, 3, 1–14.
- Matthen, M. (2003). Is sex really necessary? And other questions for Lewens. *British Journal for the Philosophy of Science*, 54, 297–308.
- Mayr, E. (2002). *What Evolution Is*. New York: Basic Books
- Okasha, S. (2006). *Evolution and the Levels of Selection*. New York: Oxford University Press.
- Platts, M. (1983). La naturaleza del mundo moral. *Análisis Filosófico*, 3, 1–11.
- Ruse, M., & Wilson, E. O. (1986). Moral philosophy as applied science. *Philosophy*, 61, 173–192.
- Shafer-Landau, R. (2003). *Moral Realism. A Defence*. Oxford: Clarendon Press.
- Street, S. (2006). A Darwinian dilemma for realist theories of value. *Philosophical Studies*, 127, 109–166.
- Trivers, R. L. (1971). The evolution of reciprocal altruism. *The Quarterly Review of Biology*, 46, 35–57.
- Vavova, K. (2015). Evolutionary debunking of moral realism. *Philosophy Compass*, 10, 104–116.
- Wielenberg, E. J. (2010). On the evolutionary debunking of morality. *Ethics*, 120, 441–464.

Formato: IAF

Informe final (o de avance) de estancia posdoctoral en México

(Se debe presentar en papel con membrete de la Institución receptora en un máximo de 5 cuartillas)

1. Fecha del Informe (Para el caso de avance, **especificar el porcentaje**): 12 de septiembre del 2019, proyecto cumplido al 100%.
2. Fecha de inicio y término de la beca otorgada: 01/09/18 – 31/08/19
3. Nombre y número del CVU del becario: José Alejandro Mosqueda Esparza 377403
4. Programa de Posgrado receptor: Programa de Posgrado en Ciencias Sociales y Humanidades
5. Institución receptora: Universidad Autónoma Metropolitana, Unidad Cuajimalpa
6. Título del proyecto de investigación: ¿Cómo justificar moralmente una acción incorrecta sin terminar considerando como permisibles acciones terribles?
7. Objetivo, metas y periodo propuestos para la estancia:

El objetivo del segundo año de mi estancia posdoctoral fue realizar una investigación sobre la discusión interdisciplinaria entre la filosofía de la biología y la metaética. En particular, abordé la discusión sobre argumentos socavadores del realismo moral. Las metas de mi investigación fueron las siguientes: (a) reconstruir el argumento socavador de Sharon Street para entender el alcance de cada una de sus premisas; (b) distinguir entre un argumento modal, un argumento de parsimonia y el dilema darwiniano de Street; (c) resaltar tres características fundamentales del realismo moral: cognitivismo, lenguaje representacional y la importancia de los hechos morales como hacedores de verdad; y (d) argumentar que la explicación del rastreo, que es una explicación realista, no es inferior a la explicación del vínculo adaptativo y por lo tanto el argumento de Street no socaba al realismo moral.



El periodo propuesto para esta investigación fue del 01 de septiembre del 2018 al 31 de agosto del 2019.

8. Avances y descripción de los productos y/o metas comprometidos:

He completado las cuatro metas de la investigación propuestas. Junto con el Dr. Maximiliano Martínez y Jorge Oseguera, escribí un artículo sobre realismo moral y argumentos socavadores en el que presentamos una posible defensa que puede hacer el realismo moral ante el argumento de Street. El artículo fue aceptado para su publicación en el libro *Life and Evolution: Latin American Essays on the History and Philosophy of Biology*, editado por Luciana Zaterka & Lorenzo Baravalle, que será publicado por la editorial Springer. También presenté los adelantos de esta investigación en el Seminario de Investigadores del Instituto de Investigaciones Filosóficas de la UNAM.

9. Actividades desarrolladas en apoyo al fortalecimiento de la calidad del programa de Posgrado receptor (Precisar la participación en el programa. Ejemplo: relación de materias, cursos o seminarios a impartir, tutoría de tesis, interacción con estudiantes, etc.):

En el trimestre 19-1 apoyé en la UEA: Metodología I, a cargo de la Dra. Rocío Guadarrama. Mi apoyo consistió en exponer algunos de los temas de los cursos, asistir a todas las sesiones para apoyar en la discusión, leer los avances de investigación de los alumnos y asesorar individualmente a los alumnos que lo pidieron. En el trimestre 18-O apoyé en el Seminario de Tesis I para los estudiantes del doctorado en Ciencias Sociales y Humanidades, a cargo del Dr. Mario Barbosa. Durante este seminario apoyé en la lectura de los avances de tesis de los alumnos de primer trimestre. Durante el trimestre 18-O también apoyé al Dr. Maximiliano Martínez en los siguientes cursos: UEA: Ética y UEA: Epistemología y Metodología.



Soy parte del Comité Tutorial del alumno Alberto Carlos Morales Mendoza, inscrito en el Doctorado del Posgrado de Ciencias Sociales y Humanidades de la UAM-Cuajimalpa. Fui parte del comité del examen de candidatura de Alberto y de Carmen Yadira Pinedo Romero. También me he involucrado en los proyectos de investigación de Eduardo García Vázquez sobre evolución de la cooperación, y de Ana Patricia Melchor sobre contractualismo moral.

Participé durante todo el segundo periodo de mi estancia posdoctoral en el Seminario Cognición y Sociología de la Moral, coordinado por el Dr. Maximiliano Martínez, el Dr. Jorge Galindo y el Dr. Bernardo Bolaños. También realicé las minutas del 1er Coloquio Doctorantes (generación 2017-2021) del Posgrado en Ciencias Sociales y Humanidades de la UAM-C.


10. Cronograma de las actividades generales desarrolladas (Se deben incluir las actividades descritas en el punto 9):

Periodo: de 01/09/18 a 31/08/19
mes / año mes / año

Actividad	Fecha de inicio	Fecha de término	Meta, producto y/o impacto en el Posgrado receptor
Investigación	01/09/18	31/08/19	Artículo conjunto con el Dr. Maximiliano Martínez sobre metaética y filosofía de biología.
Asesorías a estudiantes sobre temas de filosofía e investigaciones en curso	01/09/18	31/08/19	Fortalecer los proyectos y la investigación de los alumnos que



Vo.Bo.



Dr. Maximiliano Martínez Bohórquez

Nombre, firma y cargo del Responsable del Proyecto



Dr. José Luis Sampedro Hernández

Nombre y firma del Coordinador del Posgrado Receptor



Cuernavaca, Morelos, 11 de julio de 2019

Dr. Maximiliano Martínez Bohórquez
Profesor - Investigador
Departamento de Humanidades
Universidad Autónoma Metropolitana (UAM)
Presente

Estimado Dr. Martínez,

Por este medio me es grato informarle que ha sido invitado como **Responsable del Simposio "Moralidad, Well-being y Cognición"** por el Comité Organizador del 5º Coloquio Internacional de Ciencias Cognitivas, el cual se llevará a cabo del 25 al 27 de septiembre del año en curso, en el Centro de Investigación en Ciencias Cognitivas, CINCCO-UAEM, en Cuernavaca, Morelos, México.

Cabe mencionar que han sido aceptados como integrantes del Simposio "Moralidad, Well-being y Cognición" los siguientes participantes, con sus correspondientes ponencias y afiliaciones:

1. Cassandra Canales. "Cognición moral y enactivismo". UNAM
2. Laura Mojica. "Enactivismo, ética y deseo". UAM-Cuajimalpa.
3. Claudia Alarcón. "Las normas morales y las consecuencias de su transgresión: el caso de la culpa". UAM-Cuajimalpa.
4. Patricia Melchor. "Las normas morales y las consecuencias de su transgresión: el caso de la culpa". UAM-Cuajimalpa.
5. Jorge Oseguera. "Well-being X-Phi". Florida State University
6. Michael Bishop. "Well-being X-Phi". Florida State University
7. David Rose. "Well-being X-Phi". Florida State University

Le recordamos atentamente que los ponentes del Coloquio, deberán cubrir una cuota preferencial de registro de \$500.19, la cual deberán realizar a través del siguiente link <https://www.cienciascognitivas.org/registroqcc>

Para mayor información del Coloquio puede consultar el siguiente link <https://www.cienciascognitivas.org/5coloquio>

Quedando atentamente a sus órdenes, le envío cordiales saludos,



Dr. Juan C. González
Presidente del Comité Organizador y Director del CINCCO