Moral Progress and Evolution: Knowledge Versus Understanding

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Abstract

The paper explores the interplay among moral progress, evolution and moral realism. Although it is nearly uncontroversial to note that morality makes progress of one sort or another, it is far from uncontroversial to define what constitutes moral progress. In a minimal sense, moral progress occurs when a subsequent state of affairs is better than a preceding one. Moral realists conceive “it is better than” as something like “it more adequately reflects moral facts”; therefore, on a realist view, moral progress can be associated with accumulations of moral knowledge. From an evolutionary perspective, on the contrary, since there cannot be something like moral knowledge, one might conclude there cannot even be such a thing as moral progress. More precisely, evolutionism urges us to ask whether we can acknowledge the existence of moral progress without being committed to moral realism. A promising strategy, I will argue, is to develop an account of moral progress based on moral understanding rather than moral knowledge. On this view, moral progress follows increases in moral understanding rather than accumulations of moral knowledge. Whether an understanding-based account of moral progress is feasible and what its implications for the notion itself of moral progress are, will be discussed.

Keywords Moral progress · Evolution · Moral understanding · Moral realism · Moral knowledge

1 Introduction

It is widely agreed that morality makes progress of some sort insofar as some transitions in the moral convictions throughout history can be regarded as morally progressive. Essentially everyone agrees that the abolition of slavery, women’s emancipation, animal rights, constitute examples of moral progress in human history. Nevertheless, it is far from uncontroversial what

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moral progress consists in. This lack of consensus about what moral progress is, is, perhaps, a consequence of the deep and wide division among and within the different normative traditions about the nature and the scope of morality.¹

Moral progress, indeed, can be explained as the combination of two elements: (a) the descriptive component and (b) the normative component.² The descriptive component (a) in the notion of progress is supplied by empirically observable changes that have occurred between two historical eras, and also by empirically observable differences that exist between two contemporaneous societies or countries or cultures. These changes or differences are used to support or justify claims that progress of some particular sort has taken place. The normative component (b) in the notion of progress consists in the positive assessment expressed when any judgment is made that progress of some sort has occurred. The most important feature is that progress is believed to be a positive thing. The changes or the differences occurred between eras or cultures are seen as “changes for the better”. Thus, progress requires some change (descriptive component), but it is different from mere change (normative component). Jamieson affirms that, in a minimal sense, “[m]oral progress occurs when a subsequent state of affairs is better than a preceding one”.³ Now, the question is the following: How can we determine that a state of affairs is morally *better* than another? Once some change has occurred, we need indeed a normative criterion or standard in order to assess whether this change is positive and can then count as progressive. How to describe the normative aspect of the concept of progress depends on the metaethical view endorsed. Several and quite divergent metaethical views are available. However, what unites all those views in accounting for moral progress is the claim that any judgement of the form “x is more morally progressed than y” is a positive normative judgement.

The present paper attempts to provide an answer to the question about how moral progress should be construed, by exploring the interplay among moral progress, moral realism and evolution. The strategy in this essay will proceed as follows. First, (§ 2) after having discussed some pertinent similarities between progress in science and morality, I will introduce the realist account of moral progress. Second, (§ 3) I will argue that this account, though compelling and respectful towards our common intuitions about progress, is not consistent with the evolutionary explanation of morality. Then, (§ 4) given the discussion so far conducted, I will present an account of moral progress which is an alternative to the realist one. This account will be based on the notion of moral understanding rather than moral knowledge; in this respect, some points have to be considered: first, (§ 4.1) the ways in which moral understanding differs from moral knowledge have to be clearly pointed out; second, (§4.2) in order that the understanding-based account of moral progress can really count as an alternative to the realist account, understanding – unlike knowledge – has not to be factive. Finally, (§ 5.1) whether such an understanding-based account of moral progress is feasible will be discussed and (§ 5.2) some of its implications for the notion of moral progress itself will be outlined.⁴

¹ Evans 2017.

² Macklin 1977.

³ Jamieson 2002: 318.

⁴ For a perspective that acknowledges the existence of moral progress without being committed to moral realism, see Wilson (2010). For an influential understanding-based account of moral progress, see Moody-Adams (1999, 2017).

2 Moral Progress and Moral Realism

It has been stressed that progress, though requires change, is different from mere change. In this sense, the problem is that of deciding when a change can be regarded as progressive, insofar as, one might say, the life conditions after such a change are better than those before it. In the moral domain, things are even more problematic than that. Indeed, some moral philosophers depict as highly controversial not only how human beings can improve morally, but even whether they can really do it.⁵ On the contrary, in other domains, such as technology, economy, medicine, politics and, perhaps, even art, it is largely uncontroversial that over time some sort of progress has occurred.⁶ To fix this difficulty and provide us with a “robust” conception of moral progress, some authors have attempted to model progress in morality on progress in science.⁷ In science, generally, an episode constitutes progress when there is more scientific knowledge at the end of the episode than at the beginning. In particular, “[w]ithin scientific realism, scientific theories are regarded as attempts to describe reality, and scientific statements as having truth-value. – Therefore, – Progress occurs when theories become more successful in describing reality and when the statements derived from these theories have a higher truth value”.⁸ In an analogous way, realist moral philosophers might conceive of moral progress as greater success in describing “moral reality”. According to moral realists, indeed, it is impossible to speak of moral progress without accepting that there is a moral reality. In other words, moral progress necessarily presupposes moral realism. Moral realism is the metaethical view according to which there are moral facts or properties that are stance-independent and knowable, i.e. facts or properties that exist independently of any particular perspective and can be known by us.⁹ Consequently, our moral beliefs are true insofar as they accurately depict those moral facts or properties.¹⁰ Now, recall Jamieson’s minimal definition of moral progress: “[m]oral progress occurs when a subsequent state of affairs is better than a preceding one”; here, moral realists conceive “it is better than” as something like “it more adequately reflects moral facts”. Thus, on a realist view, moral progress can be associated with accumulations of true moral beliefs, i.e. with accumulations of moral knowledge. In other words, an episode in morality would constitute progress when there is more moral knowledge at the end of the episode than at the beginning.

Along this line of reasoning, it seems that in order to account for moral progress, we need to endorse moral realism. To strengthen this view, the realist argues that there are some positive moral changes in the human history that cannot be explained through non-realist accounts of morality. According to Huemer, for instance, we might ask: “Why was slavery abolished?”; and the most obvious answer is the following: “Because slavery was unjust”. And so on, “Why have human beings become increasingly reluctant to go to war? Because war is horrible. Why has liberalism in general triumphed in human history? Because liberalism is correct. These

⁵ See, e.g., Macklin (1977: 170).

⁶ In this respect, it is worth stressing that even in those non-moral domains progress has not always been linear, nor it has to be understood as inevitable, and that we have seen also regression in many of those domains. However, what is less controversial is that there is an asymmetry between how we look at progress in such non-moral domains and how we look at progress in the moral one. Indeed, although most of the people would agree that some sort of progress has occurred in those non-moral domains, that there can be moral progress remains a more debated issue.

⁷ See, e.g., Boyd (1988).

⁸ Musschenga, Meynen 2017: 5.

⁹ Shafer-Landau 2003.

¹⁰ Sinnott-Armstrong 1996.

(...) are the most simple and natural explanations”.¹¹ In other words, the moral realist believes that there is a systematic tendency for human moral beliefs to become more accurate over time; and, therefore, it was probable that in the course of time we would come to figure out that, for instance, slavery or war are morally wrong. Thus, moral realism explains moral progress as a gradual and continuous accumulation of moral knowledge.

Moral realism has therefore two components: an ontological one, according to which there are some independent moral facts, and an epistemological one, usually called cognitivism,¹² according to which we can form true beliefs about those moral facts. Here, when I talk about realism, I will refer precisely to the position defined by the conjunction of mind-independence about the ontology of moral facts and cognitivism about moral epistemology. This position is the one I am challenging; and the argument I wish to develop is epistemological rather than solely ontological. On this realist view, genuine moral progress can be understood as an accumulation of moral knowledge insofar as “[it] is not just a matter of changing practices but of changing moral beliefs”.¹³ It is precisely these kinds of epistemic changes that I wish to address. Consider again, for instance, the abolition of slavery. It is certainly possible that much of that moral change was due to changes in technological or economic conditions rather than to moral arguments on the wrongness of such a practice.¹⁴ But this does not affect my argument. Indeed, what I take to be the crucial change which can be seen as progressive, is not the mere fact that slavery has been officially banned in many societies, but that an increasing number of people has begun to believe that keeping human beings in slavery is morally unacceptable. Thus, in order to account for moral progress, I will focus on the changing of moral beliefs rather than on the changing of moral practices. In this respect, I adopt the distinction between “moral progress in beliefs” and “moral progress in practice” that has been developed by Moody-Adams. Moody-Adams has indeed put forward an influential understanding-based account of moral progress (Moody Adams 1999, 2017). On her account, moral progress in beliefs consists in “deepening our grasp of existing moral concepts”, while moral progress in practice entails “realizing deepened moral understandings in behaviour or social institutions” (Moody Adams 1999, p. 168). Along this line of reasoning, for instance, a crucial change that triggered the abolition of slavery involved people gaining a novel and deepened understanding of some moral concepts such as freedom, justice and equality. Although Moody-Adams does not explicitly say that moral progress in beliefs comes before moral progress in practice, her conceptualization of the two forms of moral progress requires that they occur in that order (see Hermann 2019). In this respect, my account of moral progress is less intellectualistic than hers insofar as it is not committed to the view that moral progress in beliefs necessarily comes first. In my view, it will be shown (see especially § 5.2), it cannot be excluded that we can arrive at improving our moral understanding by being involved in a certain situation, “thereby

¹¹ Huemer 2016: 2000.

¹² It should be specified that although not all of those who support moral cognitivism subscribe to moral realism (consider, for instance, error theorists), almost all of those who support moral realism tend to subscribe to cognitivism. Indeed, non-cognitive approaches to moral epistemology are not attractive for moral realists insofar as those approaches imply charges of moral skepticism (Sinnott-Armstrong 2006). Moreover, not only do moral realists need cognitivism, but they also need that there is a reliable way of gaining moral knowledge. If there is no such a way, realists are in the same position of error theorists: either way, our moral beliefs are false. If one adopts error theory, on one side, our moral beliefs are false because there are no moral facts to know; if one adopts moral realism but moral facts cannot be known, on the other side, moral beliefs cannot be true, nor can they be recognized as true even in the case they happen to be true by chance.

¹³ Huemer 2016: 11–12.

¹⁴ See, e.g., Pleasants (2010).

experiencing (un)freedom, (in)justice, (in)equality and so forth” (Hermann 2019: 5). However, although it has to be acknowledged that the process of moral understanding is not neatly separable from the practice, the conception of moral progress I am concerned with here has to be understood as consisting of changes in moral beliefs.¹⁵

Now, we may ask: Do we really know that slavery is morally wrong? In other words, even granting the controversial claim that morality is a matter of knowledge, we may question how and whether such kind of knowledge can be attained by us.

3 Moral Epistemology and Evolution

A common objection to the realist conception of moral progress is that one cannot account for our having moral knowledge in a realist sense, i.e. our having true moral beliefs. A skeptical objection which has recently gained notable attention, hinges on evolutionary considerations. So-called Evolutionary Debunking Arguments,¹⁶ indeed, aim at undermining the likelihood that moral beliefs are true and, hence, the possibility of moral knowledge. Contrary to moral realism, evolutionism provides us with an alternative account of morality, according to which moral beliefs are best explained by their evolutionary origins. Following the evolutionary explanation of morality, moral beliefs have been promoted by natural selection not because they were true, but because they were advantageous; therefore, they emerged through natural selection because this way of thinking provided our ancestors with some sort of survival and reproductive advantage.¹⁷ If so, the evolutionary explanation of morality undermines the epistemic standing of moral beliefs by showing that those beliefs were formed by an unreliable process, insofar as natural selection aims at fitness, not at detecting some mind-independent moral facts. Thus, once we recognize that evolutionary forces have shaped our moral beliefs, we become less confident that those beliefs are true; and we legitimately come to doubt that we can have moral knowledge.¹⁸ The argument runs as follows:

¹⁵ Suppose that a slaveholder comes to the conclusion that slavery is morally wrong. It could be objected that we are allowed to speak of moral progress only if the slaveholder also sets his slaves free. This objection is related to the problem as for how a new moral insight (e.g. “slavery is morally wrong”) could inform changes at the level of institutions (e.g. “slavery is forbidden”) and practices (e.g. “the slaveholder sets his slaves free”). Although this issue cannot be thoroughly addressed here, such discussion could benefit, at least indirectly, from the present work. The present work focuses on how changes in our moral beliefs may occur. Once we have formed beliefs about what is morally right or wrong, these beliefs generally have a grip on us. Although we do not always behave as we think we ought, our moral beliefs tend to motivate us to act in accordance with them. In other words, once we have formed the belief that slavery is morally wrong, we are encouraged to act accordingly. Given that here moral progress is understood as a form of self-improvement, coming at the belief that slavery is morally wrong is the necessary condition in order to attain moral progress. On the contrary, consider the case in which the slaveholder sets his slaves free because institutions make other options (e.g. wage labour) more attractive. Even granting that this case is a form of moral progress, it is certainly not a form of self-improvement. Therefore, it is not the form of moral progress I am interested in here.

¹⁶ Although the debate on Evolutionary Debunking Arguments is relatively new, the literature on it is already rather wide. Among all the reputable and interesting works on Evolutionary Debunking Arguments, a seminal paper is Kahane (2011); for a more recent and updated discussion, see Wielenberg (2016).

¹⁷ Ruse, Wilson 1986.

¹⁸ There can be found various ways to respond to the evolutionary challenge in the literature. Some authors aim to secure moral realism from Evolutionary Debunking Arguments (e.g., Enoch 2010, Skarsaune 2011, or Graber 2011). Some argue that evolution gives us no reason to think that our moral cognition is unreliable (FitzPatrick 2015; or Sterelny, Fraser 2017). Some maintain that at least some of our moral beliefs are immune to this kind of debunking arguments (e.g., de Lazari-Radek, Singer 2012; or Pellegrino 2017.). Some hope to show that Evolutionary Debunking Arguments are self-defeating (e.g., Vavova 2014).

According to moral realism:

- (1). There are some moral facts;
- (2). and, our moral beliefs are true insofar as they track moral facts.
- (3). We have moral knowledge if our moral beliefs are true.

According to evolutionism:

- (4). evolutionary influences are viewed as “a purely distorting influence”¹⁹ on our moral beliefs;
- (5). then, our moral beliefs are off-track.

Therefore [from 3 and 5],

we do not have moral knowledge.

That being so, since from an evolutionary perspective there cannot be something like moral knowledge, there cannot be such thing as moral progress:

According to evolutionism,

- (1). moral beliefs are off-track and do not amount to knowledge.
- (2). Moral progress is based on moral knowledge (according to moral realism);

Therefore,

moral progress does not exist.

That there cannot be moral progress is a very counterintuitive outcome. This worry is by no means irrelevant in this discussion. Indeed, we generally have a strong intuition that some changes in human history not only have led to some sort of amelioration of human conditions of life, but they also have represented fundamental turning points from which we can only hardly imagine going back. This strengthens the view that a change perceived as morally progressive, e.g. the abolition of slavery, is not a matter of mere taste or preference, but contains some normative urgency insofar as this change is also perceived as morally compulsory: Could we ever be able to renounce the claim that slavery has to be abolished? On the other hand, evolutionary considerations undermine our common intuitions about moral progress, showing that a fundamental ingredient of it, i.e. moral knowledge, is seriously in danger. Jamieson clearly stigmatizes this impasse: “[m]oral realism may respect our intuitions about moral progress but it violates our metaphysical sensibilities. The evolutionary perspective, on the other hand, provides metaphysical comfort but at the cost of our views about moral progress”.²⁰

Now, assume that we admit – as we actually do – that the evolutionary lesson about the origins of moral beliefs cannot be rejected²¹; then, in order to avoid the unpalatable upshot that moral progress does not exist, we should revise the realist idea that moral progress is based on moral knowledge. Along this line of reasoning, we should seek a feasible and evolutionary informed alternative to the realist conception of moral progress. In other words, from an

¹⁹ See Street (2006).

²⁰ Jamieson 2002: 321–322.

²¹ One of the most challenging topics in contemporary metaethics is precisely making sense of morality in a wholly natural world (on this, see, e.g., Flanagan, Sarkissian, Wong 2016; and Kitcher 2016).

evolutionary perspective, the challenge is whether we can acknowledge the existence of moral progress without being committed to moral realism and, in particular, to the realist conception of moral knowledge.

4 Moral Understanding Vs. Moral Knowledge

An alternative strategy may consist in arguing that moral progress can be understood in terms of moral understanding rather than moral knowledge.²² Understanding requires that the subject grasps the relationship between relevant pieces of information about the issue at hand. As it will become clear, moral understanding is a species of understanding why relative to moral propositions. Consider for instance the following case: “capital punishment is wrong” (p) because “it is a form of murder” (q). Here, whether a subject S understands (or knows) why p depends on how she relates towards q, i.e. the reason why p. More precisely, according to Hills,²³ when p is why q, understanding why p requires that S can successfully:

- i. follow an explanation of why p given by someone else;
- ii. explain why p in S’s own words;
- iii. draw the conclusion that p (or that probably p) from the information that q;
- iv. draw the conclusion that p’ (or that probably p’) from the information that q’ (where p’ and q’ are similar to but not identical to p and q);
- v. given the information that p, give the right explanation, q;
- vi. given the information that p’, give the right explanation, q’.

In other words, to possess moral understanding, S needs to exhibit a certain set of abilities that amount to exerting a “cognitive control” over p.²⁴ So far, the relevance of such concept of moral understanding has been generally overlooked; contrary to this trend, understanding should play a pivotal role in moral epistemology and can shed new light on a number of traditional subjects, such as moral progress. On this view, moral progress would follow increases in moral understanding rather than accumulations of moral knowledge. In order to shore up such an understanding-based account of moral progress, we need to clearly point out how moral understanding differs from moral knowledge. In this respect, two claims will be argued for: (1) that understanding is not a species of knowledge, and (2) that understanding is not factive.

4.1 Understanding Is Not a Species of Knowledge

Two different approaches on moral understanding can be recognized: the reductionist and the non-reductionist approach. According to the latter, the mental state of understanding why an action is right and the mental state of knowing why it is right are two different mental states. Thus, moral understanding cannot be reduced to moral knowledge, since an agent can be in the former state without being in the latter. In particular, as Hills argues, “understanding why p (...)

²² An analogous move has been advanced in philosophy of science: see Dellsén (2016).

²³ Hills 2009.

²⁴ Hills 2016: 663.

differs from both knowledge that *p* and knowledge why *p* (as they are standardly understood).²⁵ Following this argument, moral understanding differs from moral knowledge, i.e. from both knowledge that *p* and knowledge why *p*. Consider the following case:

“Eleanor has always enjoyed eating meat but has recently realized that it raises some moral issues. Rather than thinking further about these, however, she talks to a friend, who tells her that eating meat is wrong. Eleanor knows that her friend is normally trustworthy and reliable, so she believes her and accepts that eating meat is wrong”.²⁶

In this case, as Hills underlines, since Eleanor trusts her reliable friend, then she comes to know that eating meat is wrong. However, Eleanor’s beliefs that eating meat is wrong relies just on her confidence in her friend’s beliefs, and thus Eleanor is by no means aware of why eating meat is wrong. Eleanor, for instance, has no answers to the following questions: “Is it eating or killing that is wrong?”; “Do animals have rights, or is it a question of maximizing welfare?”. In short, “Eleanor may know that eating animals is wrong, but she does not understand why”.²⁷ Therefore, this story shows that understanding why *p* is different from knowledge that *p*. Now, consider the following case:

“Eleanor’s friend [Mary] offered her an explanation: eating animals is wrong because of the suffering of animals under modern farming methods. If this is correct and Eleanor believes her, she knows not just that eating animals is wrong but she knows why too”.²⁸

What should be noticed here is that, even if Eleanor knows why eating animal is wrong – e.g., because of the modern farming methods –, there is still an epistemic asymmetry between Eleanor and Mary. Eleanor, unlike Mary, cannot examine analogous cases and, on the basis of her knowledge that eating animal is wrong, draw correct conclusions. What about eating animals which have been reared under better conditions? What about killing animals for other purposes, such as medical experimentation? Again, Eleanor has no answers to this kind of questions. And this shows that, not only understanding why *p* is different from knowledge that *p*, but also understanding why *p* is different from knowing why *p*.

Contrary to these non-reductionist approaches, one may object that understanding and knowledge are more closely related. This is the so-called reductionist approach, according to which moral understanding is a pure matter of knowing right from wrong. As Sliwa argues, “reductionism is committed to the claim that when an agent understands why an action is right or wrong this is in virtue of having knowledge about why it’s right or wrong”.²⁹ In other words, whether an agent understands *p* depends just on whether she knows why *p* and on how much she knows about *p*. If we consider the previous case about Eleanor’s vegetarian choice, the reductionist argues that we can account for the difference between Eleanor and Mary in terms of what they know or, more precisely, of how much they know. One might suppose, Sliwa writes, that “Eleanor may well know that eating animals is wrong because of the cruelty of animal farming. *But there is plausibly much that she does not know.* For example, she may not know why it is cruel. (...) Mary, in contrast, has researched the issue extensively. And so, she plausibly knows

²⁵ Hills 2016: 661.

²⁶ Hills 2009: 94.

²⁷ Hills 2009: 100.

²⁸ Hills 2009: 100.

²⁹ Sliwa 2017: 526.

not only that it's cruel but also why and how it's cruel".³⁰ Following this line of reasoning, if Eleanor is not in the epistemic state of understanding why eating meat is wrong, whilst Mary stands in such state, there is something that Eleanor, unlike Mary, still does not know about the wrongness of eating meat. Therefore, according to the reductionist, the difference between Eleanor and Mary can be explained in terms of a difference in the accuracy of the beliefs they have: in order to achieve the epistemic parity with Mary, Eleanor needs just more knowledge.

If the reductionist account is correct, then moral understanding is not substantially different from moral knowledge. Moreover, if so, moral understanding cannot constitute an alternative to the concept of moral knowledge, but, as a species of knowledge, it will incur the same difficulties. However, it might be argued, that the difference between Eleanor and Mary is deeper and is a difference in the kind of epistemic success reached, insofar as Eleanor merely "assents" some propositions whilst Mary "grasps" those propositions. In this respect, for instance, Grimm argues that "it seems clear that one can pile up assents as high as you like without getting a grasping"; but, in order that Eleanor reaches a moral understanding about the moral permissibility or impermissibility of eating meat, "[a] new kind of cognitive achievement seems to be needed".³¹ More precisely, "[u]nderstanding why p (...) requires more than the correct belief that p because q. It requires a grasp of the reason why p, or more precisely, a grasp of the relationship between p and q".³²

In order to strengthen the claim that moral understanding and moral knowledge are different in a relevant sense, we should be able to provide examples of moral understanding without moral knowledge (and vice versa).³³ Consider this case:

"Elizabeth Anscombe argued that dropping the atomic bomb on Hiroshima was wrong because intentionally killing innocent civilians in war is absolutely wrong".³⁴

Suppose that she was wrong about that since intentionally killing innocent civilians in wartime can be justified when the benefits are sufficiently great. Suppose also that in Hiroshima the benefits were not sufficiently great and therefore dropping the atomic bomb on it was wrong. Suppose finally that these assumptions, though controversial, are correct. We should conclude that Anscombe was right to condemn dropping the bomb on Hiroshima, but she did not understand why it was wrong. Indeed, even though Anscombe's belief about the wrongness of dropping the atomic bomb on Hiroshima is correct, she does not have a moral understanding of that wrongness. Therefore, one might say, in this case Anscombe has moral knowledge without having moral understanding.

On the other hand, consider this story:

"Suppose that your school has been sent a set of extremely inaccurate textbooks, which have been handed out to your class. But you are very lucky because there is only one that is accurate, and by chance you have it. You read in your book that Stalin was responsible for the deaths of millions of people. You draw the obvious conclusion that he was an evil person".³⁵

Here, we might say that (according to standard conceptions of propositional knowledge) you do not know that Stalin was responsible for the death of millions of people, since your

³⁰ Sliwa 2017: 531.

³¹ Grimm 2006: 532.

³² Hills 2016: 663.

³³ Another strategy to support the claim that understanding and knowledge are different consists of claiming that moral understanding, unlike moral knowledge, cannot be easily acquired and passed on through testimony. On this, see McGrath (2011).

³⁴ Hills 2009: 103.

³⁵ Hills 2009: 104.

textbook is unreliable and might be inaccurate precisely in this respect (suppose, e.g., that Stalin has been accidentally substituted with Gandhi and now you believe that Gandhi was an evil person). Nevertheless, it is hard to deny that you have a moral understanding that Stalin (or Gandhi!) was evil. Indeed, you believe that he was evil because he killed millions of people, and this is correct. Moreover, you have also the ability to draw the same conclusion in similar cases and to reject it in opposite cases. In other words, this is an example of moral understanding without moral knowledge.

In conclusion, these examples show that moral understanding differs from moral knowledge insofar as they do not necessarily go hand in hand. Moreover, the second example not only shows that understanding, unlike knowledge, is consistent with certain types of epistemic luck, but also that moral understanding does not necessarily require moral knowledge to be achieved.³⁶ Therefore, moral understanding is not a species of knowledge.

4.2 Understanding Is Not Factive

For the aim of the present paper, i.e. to develop an account of moral progress alternative to the realist one, that moral understanding is substantially different from moral knowledge is not enough. A second point should be discussed, and it concerns the relation between understanding and truth. In this sense, in philosophy of science, “the received view seems to be that understanding is (...) factive just as knowledge is”.³⁷ Here, to say that knowledge is factive is to say that, if *S* knows that *p*, then *p* is true; accordingly, to say that understanding is factive, is to say that *S* cannot understand why *p* if *p* is false. As Elgin suggests, “understanding is a grasp of a comprehensive body of information that is grounded in fact, is duly responsive to evidence, and enables non-trivial inference, argument, and perhaps action regarding that subject the information pertains to”.³⁸ However, in order that the understanding-based account of moral progress can count as an alternative to the realist account, it should be disentangled from truth; in other words, understanding does not have to be factive.³⁹

Understanding, like knowledge, is without any doubt a kind of cognitive success. What should be examined is whether this success can be achieved only when our beliefs are true. In that case, to occur, understanding has to be factive. The debate on understanding in philosophy of science can be of some help here, insofar as we might find some interesting accounts of understanding in it. Elgin, for instance, argues that “understanding somehow answers to facts. The question is how it does so”.⁴⁰ According to Elgin, a factive conception of understanding is too restrictive: “I will propose a more generous, flexible conception of understanding that

³⁶ It may seem that on this view one could have almost no knowledge of any domain but full understanding of it, and thus it may be objected that this is a very counterintuitive outcome. In many cases, indeed, having some knowledge of a domain is the necessary requisite for having some understanding of it. So, for instance, high school students understand why flicking the switch turns on the light because they have acquired some knowledge of physics. But this is not the case of the moral domain because here, I argue, there cannot be such thing as moral knowledge. This fact, however, does not prevent us from having any moral understanding. In other words, what I am defending is the claim that, although one cannot have moral knowledge, one can still have moral understanding.

³⁷ Mizrahi 2012: 237.

³⁸ Elgin 2007: 39.

³⁹ Another option, which will not be examined in this work but is worthy of attention, is that understanding can be construed as quasi-factive (see, e.g., Mizrahi 2012). This is one of the different conceptions of understanding, most of which are drawn from the debate in philosophy of science, that might have crucial implications in moral philosophy.

⁴⁰ Elgin 2007: 33.

accommodates the deliverances of science, is reflective of our practices, and shows a sufficient, but not slavish, sensitivity to the facts it concerns”.⁴¹ An interesting example of non-factive understanding is that of “idealizations” in science which are defined by Elgin as felicitous falsehoods: “Nothing in the world exactly answers to them, so as descriptions, they are *false*. They are *felicitous* in that they afford epistemic access to matters of fact that are otherwise difficult or impossible to discern”; in other words, such “idealizations are not true, do not purport to be true, and do not aspire to be replaced by truths. But it is hard to deny that they are cognitively valuable”.⁴²

Thus, even if at a first sight understanding and truth seem to go hand in hand, this is not necessarily the case. This match has certainly been supported by realist philosophers in order to defend their position. On the contrary, de Regt, for instance, invokes some episodes from the history of science to challenge the realist view: “Newton’s theory of gravitation has been abandoned in favor of Einstein’s theory of general relativity. Newton’s theory is, from today’s perspective, false and does not describe reality: the attractive forces that Newton postulated do not exist according to Einstein”; and then he asks: “But does this mean that Newton had no understanding of gravitational phenomena?”.⁴³ According to de Regt, here we face a dilemma between (a) giving up the claim that understanding requires truth or (b) allowing for the possibility that in many cases of very successful theories, as the Newtonian one, we do not have any scientific understanding. If we take (a), we can explain how Newton’s theory of gravitation, though today has been overtaken, could provide us with some sort of understanding of gravitational phenomena; on the other hand, if we do not want to abandon the link between understanding and truth, we are forced to endorse (b) and conclude that Newton had not any understanding of gravitational phenomena. But this is unacceptable. It would be hard to deny that Newton’s theory of gravitation, which is still studied in high-school and university as a fundamental part of physics education, did not contribute to scientific progress. Thus, in order to avoid this conclusion, according to de Regt we should endorse the first horn (a) and abandon the realist view that understanding is factive.⁴⁴

Therefore, a non-factive conception of understanding seems to be not only available but even necessary. More precisely, to say that understanding is not factive, is to say that S can understand why p even if p, from a realist point of view, is false. To sum up, along this line of reasoning, understanding is different from knowledge, insofar as understanding does not consist in having true beliefs; moreover, once the link between understanding and truth is severed, understanding comes to be more similar to having some abilities rather than propositional knowledge, i.e. knowledge that some proposition is true. Indeed, as de Regt writes, “The quintessence of [...] understanding lies in the ability to perform a difficult task rather than in knowing the answer to a difficult question”.⁴⁵ It is precisely this characteristic of understanding that allows for the possibility that unrealistic theories, as the Newton’s example

⁴¹ Elgin 2007: 33.

⁴² Elgin 2007: 39, emphasis mine.

⁴³ de Regt 2015: 3782.

⁴⁴ It has to be noticed that the conception of (scientific) understanding employed by de Regt, though related, is slightly different from the conception of (moral) understanding discussed here. Indeed, de Regt addresses understanding as understanding a natural phenomenon by using a theory, rather than standard conception of understanding why. Therefore, even the ability needed – given that de Regt’s account for understanding, as well as the one discussed here, requires some abilities – is different and consists mainly in the ability to use a theory to explain a given phenomenon. However, for the purpose of the present paper, his proposal is relevant insofar as de Regt suggests a non-factive version of understanding.

⁴⁵ de Regt 2015: 3791.

shows, can still provide understanding. Moreover, that understanding depends on having some abilities might have, as we will see in a while, crucial consequences in the moral domain. What is important to stress is that the ability needed for moral understanding is not to be thought of as a kind of practical know how (e.g. knowing how to play the piano or how to make a cake). There can rather be a kind of “intellectual know how”⁴⁶ (e.g. knowing how to draw conclusions, how to articulate moral explanations into your own words, how to answer “what if things were different” questions and so on). Understanding why requires precisely this intellectual know how.

5 Towards an Understanding-Based Account of Moral Progress

So far, it has been argued that understanding indicates a specific kind of cognitive achievement. More precisely, the following two claims have been discussed and supported: it is not possible to explain understanding why *p* in terms of knowing why *p*; and, understanding, unlike knowledge, does not require truth. If these claims are correct, then an understanding-based account of moral progress can truly count as alternative to the realist, knowledge-based account of moral progress. In the rest of the paper, I will point out what are (§ 5.1) the theoretical gains and (§ 5.2) the philosophical implications of embracing the alternative, understanding-based account of moral progress.⁴⁷

5.1 Evolutionary Debunking Arguments and Moral Understanding

The main theoretical gain of the understanding-based account of moral progress lies in its being perfectly consistent with the evolutionary explanation of morality. After all, it has been precisely the incompatibility between evolutionism and the realist, knowledge-based account of moral progress, which has inspired the present discussion. The aforementioned Evolutionary Debunking Arguments do not apply to moral understanding. Those arguments, indeed, do not undermine morality *tout court*, but only the realist conceptions of it. The main idea underlying the evolutionary challenge is that it is the combination of moral realism and the evolutionary account of morality which leads to skeptical conclusions. Thus, in order to avoid skeptical conclusions, we should abandon realism and endorse a competing metaethical view.⁴⁸ More precisely, I argued, in the face of evolutionism we should abandon the realist conception of moral knowledge. In this respect, evolutionary considerations fit well with moral understanding and, in particular, with the claim that moral understanding is not factive (see § 4.2). The evolutionary account of our moral beliefs, indeed, does not require that they are the results of dispositions that are truth-conducive; and, on the contrary, it assumes that “[moral] dispositions have been selected because they helped our ancestors to cooperate and to handle

⁴⁶ Hills 2016: 661.

⁴⁷ Here, it is important to stress that this work does not aim to exhaust all the discussion of moral progress by affirming that whatever moral progress may occur, it can be entirely traced back to an increase in moral understanding. To know whether some moral progress occurred, we need to determine whether the current state of affairs is morally better than the preceding one. Given that morality is built of different components (e.g. beliefs, motivations, behaviour, etc.) (see, Musschenga, Meynen 2017: 5), we have to decide on which of those components we want to focus our analysis. In this respect, the present discussion focuses on a single, though a particularly challenging and salient, aspect of moral progress and, more precisely, aims to investigate how our moral beliefs may change in a way that we deem to be an amelioration.

⁴⁸ See, e.g., Street (2006).

certain collective actions problems by constraining their concern for their self-interest”.⁴⁹ Here, it should be noted that, “as radically different convictions could serve that role [...], the forces of natural selection have allowed for greater latitude regarding the contents of the convictions the capacity gives rise to”.⁵⁰ Thus, from an evolutionary point of view, we should not expect some easy overlap over moral issues, insofar as there is no moral truth to discover (*contra* moral realism). Rather, we should admit of a certain *pluralism* in moral beliefs, insofar as there can be different solutions to the same problem; moreover, new problems might always arise and call for new solutions to be developed. Such a pluralism elicited by the evolutionary account of morality, allow us to explain the dynamicity of moral beliefs, i.e. the fact that moral beliefs change over time. That moral beliefs can change over time is the fundamental mechanism so that moral beliefs, sometimes, change for the better, i.e. so that moral progress, sometimes, occurs. Thus, whereas the evolutionary informed view does not leave room for moral knowledge, it does not exclude moral progress.

However, it should be asked why we should think that moral understanding yields some sort of cognitive achievement rather than just another evolutionary illusion. In other words, it may be asked why we should not regard moral understanding as an evolutionary fiction put in place to promote reproductive success, as we do in the case of the realist view of morality. In this respect, some clarifications on the impact that evolutionism may have on our conception of morality are needed. We have to distinguish the task of explaining the existence of a certain phenomenon from the task of describing its content; moreover, we have to distinguish both of these tasks from yet another one, the one of justification. In this way, we have to distinguish the task of explaining why we judge some things as morally relevant from the task of pointing out which things are morally right or wrong; both tasks, finally, have not to be confused with the justification of our moral beliefs about what is right or wrong. After having recognized these three different tasks, it has to be clarified that evolutionism can contribute only to the first task: indeed, evolutionism can contribute to explain the existence of a phenomenon like moral beliefs or judgements.⁵¹ Then, the evolutionary account can be understood just as explaining why our moral attitude evolved, but it cannot be construed as characterizing the content of our moral beliefs, i.e. it cannot be construed as determining what is right or wrong. That said, the evolutionary illusion lies in the origins itself of morality, as for instance Michael Ruse depicts it: “[...] morality is a collective illusion foisted upon us by our genes”.⁵² But this is not a problem for moral understanding insofar as, unlike moral knowledge, understanding does not require our moral beliefs to be true or, more precisely, it does not require our moral beliefs to be true in a realist sense.⁵³ Therefore, whichever (non-realist) metaethical view one wishes to adopt, moral understanding can play an important role in order to *secure* our moral beliefs in the face of evolutionism. In other words, “[o]ur moral beliefs cannot be *off track* if”, *contra* moral realism, “there is no track to be on”.⁵⁴

⁴⁹ Tersman 2014: 65.

⁵⁰ Tersman 2014: 65.

⁵¹ Jamieson 2002: 322.

⁵² Ruse 1986: 253.

⁵³ Non-realist accounts of moral truth have been developed, for instance, by some philosophers who support constructivist approaches to morality. Though there are several varieties of constructivism (see Bagnoli 2017), the main difference between constructivism and realism concerns the problem of stance-dependence. On a constructivist view, insofar as there are moral truths, they do not hold independently of any perspective, but they are rooted in our evaluative attitudes.

⁵⁴ Sauer 2018: 209.

5.2 Moral Progress and Moral Understanding

The philosophical implications of an understanding-based account of moral progress can be many. At first, since understanding is not factive, it is also open-ended; and this means that if one endorses an understanding-based account of moral progress, one cannot specify in advance which conclusions one will need to draw in order for those conclusions to count as moral progress. In other words, contrary to moral realism, there is not any trend in how moral beliefs change that can be predicted in advance. To make this point clearer, compare the following cases of changing moral beliefs⁵⁵:

- a) John used to believe that one is sometimes permitted to lie, but now he has come to believe that lying is always wrong.
- b) John used to believe lying was always wrong, but now he has come to believe that it is sometimes permitted to lie.

What is interesting to stress here is that in both cases the changes of beliefs can count as morally progressive even though the conclusions that are reached, i.e. “lying is always wrong” and “it is sometimes permitted to lie”, are just opposite. In particular, the fact that John’s belief changes into “Lying is always wrong” (a) can be explained through a process in which John comes to be more sensitive to other people’s distress and realizes that others can be offended by opportunistic lying. On the other hand, the fact that John’s belief changes into “It is sometimes permitted to lie” (b) can be explained through a process in which John starts to pay more attention to other people’s feelings, and so he becomes better able to grasp the complexity of those social situations in which telling the truth can be pointlessly harmful. Thus, it should be noted that not only both cases constitute an example of moral progress, but also that the progress achieved in both cases can be accounted for as an increase in moral understanding. The change of beliefs is in both cases a change for the better, insofar as John improves his understanding about lying, regardless of whether or not John comes to believe that lying is permissible.

Another philosophical implication of an understanding-based account of moral progress is that, since understanding requires that the subject grasps the relationship between relevant pieces of information about the matter at hand and depends on her having certain abilities,⁵⁶ it can be greatly improved by a direct involvement of the subject in a certain situation. Thus, “[h]aving a certain experience – being directly involved in or witnessing a morally significant situation firsthand – can expand one’s capacity of moral understanding”.⁵⁷ For example, the best way for understanding the moral permissibility or impermissibility of eating meat would involve, among other things, witnessing animal suffering

⁵⁵ The example is taken from Wilson 2010: 109.

⁵⁶ Here, as we have seen, the concept of “ability” has not to be understood in its standard meaning, i.e. as the practical ability to perform a certain task. Moral abilities can instead be described in a broader sense as the capacity to deal with a certain class of events; on this view, what expands one’s moral understanding by making one more able to address a certain class of events, is one’s experience. It is hard to deny that, for instance, working in a particularly sexist environment may lead a woman to have a better understanding of what it is like to be the subject of sexual discrimination.

⁵⁷ Sliwa 2017: 543.

in a slaughterhouse.⁵⁸ This point is strictly related to a common question that arises when we talk of moral progress, namely whether the key to its achievement depends on the capacities of individuals or the circumstances in which they act, think and feel morally.⁵⁹ The discussion so far conducted may allow us to disentangle even this issue. Of course, individual improvement and changes in the circumstances are both relevant and mutually supportive. But, since moral understanding is much favored by a first-hand involvement in a certain situation, the understanding-based account of moral progress has to be regarded primarily, though not exclusively, in terms of moral self-improvement. To sum up, once we recognize the importance of moral understanding over moral knowledge in accounting for moral progress, we can sketch at least two relevant consequences: (a) moral progress is an open-ended process, and there is no trend in the changes of moral beliefs to be established in advance; (b) the key to progressing morally is to enhance individual's capacity of moral understanding.

Bearing in mind the remarks made so far, the idea of moral progress which emerges from our discussion can be illustrated by a well-known example given by Iris Murdoch.⁶⁰ A mother, M, resent her daughter-in-law, D, finding her "pert and familiar, insufficiently ceremonious, brusque, sometimes positively rude, always tiresomely juvenile".⁶¹ This feeling, however, does not affect M's outward behavior, which is always correct. But, it happens that M "reflects deliberately about D until gradually her vision of D alters"; then, "D is discovered to be not vulgar but refreshingly simple, not undignified but spontaneous, not noisy but gay, not tiresomely juvenile but delightfully youthful, and so on".⁶² Now, M's changing beliefs toward D, from hostility to loving

⁵⁸ In this respect, a reviewer urged me to clarify the following point. It might be objected that behind moral understanding there always are some fundamental moral claims or premises that one either accepts or does not accept (e.g., killing is wrong). In this view, understanding why p is morally wrong would involve accepting some moral premises as true, and then deducing that p is wrong as a conclusion of our reasoning. But the acceptance of such moral claims as premises of our reasoning seems to be related more with moral knowledge than moral understanding. Indeed, the objection goes, if we wish to explain moral understanding, we cannot just assume that understanding is about making sensible inferences from certain premises to certain conclusions, since this is not enough to account for the normativity of morality: we have to take moral premises as the starting point of our reasoning. Now, the assumption that seems to lurk in the background of this objection is that those premises have to be true, and so that moral progress can occur only if the moral premise one accepts as the starting point of one's reasoning is true. But this is, in the ultimate analysis, a realist view of morality and moral progress, while as I made explicit in the previous section, my account of moral understanding fits with non-realist metaethical perspectives, since evolutionism rules out as inadequate the realist ones (see especially § 3). The conception of moral understanding I am concerned with here has its starting point in one's experience, rather than in one's accepting some general moral claims as true. So, representing how moral understanding occurs in terms of a deductive inference from some moral premises to some conclusion is quite misleading. Indeed, on my account what can improve one's moral understanding of a certain situation consists of being actually (or imaginatively) involved in that situation firsthand. So, for instance, after having witnessed animal suffering in a slaughterhouse, we gained a better understanding of why killing animals is wrong. It is the experience of the unpleasantness of the animal suffering which leads you to believe that killing animal is wrong and not the other way round, i.e. it is not the case that the general claim that killing animal is wrong makes you aware that the animal suffering you witnessed is wrong. In other words, in this perspective, if it is possible to make some general moral claims starting from our experience, it is not the case that something is wrong because it can be derived from some moral premise that it is wrong. Moral claims are not given once and for all, since in this view a general moral claim is not normative because it reflects some moral fact that exists independently of us. Contrary to the realist account of morality, even basic moral claims can be explained through understanding but above all they do not need to be known.

⁵⁹ See on this, Hermann (2017: 42).

⁶⁰ Murdoch 1970.

⁶¹ Murdoch 1970: 16–17.

⁶² Murdoch 1970: 17.

attention, is not an episode of mere change, but it can be construed as an episode of moral progress. Here, even more important is the nature of that moral progress. The activity in which M has been involved is that of refining the way in which she sees the world: she perceives previously unnoticed features of D, she gains a novel appreciation of how various elements are related to each other and, thus, she gets a better grasping of the situation. In other words, we might say that M, after reflecting by herself on D, improves her moral understanding of D. In this respect, it should be noted that this kind of progress is purely internal and hinges on an individual effort and moral improvement. An externalist or behaviorist approach lacks the resources to account for this example of progress in which there is no outward change.

Moreover, Murdoch's story shows that in order to account for moral progress, we need a moral view which is able to acknowledge the dynamicity and historicity of our moral beliefs. In this respect, Bagnoli underlines how Murdoch's account of how our moral beliefs can change does not need to presume the truth of moral realism, but it rather shows its inadequacy.⁶³ According to Bagnoli, indeed, the relevant progress that Murdoch underscores in the change of M's moral vision requires that we focus on the constructive activity of the individual. This remark is of notable importance, since this purported non-realist nature of moral progress fits well with the understanding-based account advanced in this essay. In particular, it fits well with the above-discussed claim that moral understanding has to be regarded as non-factive.

What about moral progress, then? If we endorse a non-realist position, we have to admit that there are no moral facts against which moral progress could be measured. However, we can still speak of moral progress, even though in a more humble sense than the sense in which the realists speak of it. Here, I argued, accounting for moral progress requires shifting the focus from how things stand in the world to our ability to improve ourselves through moral understanding. Moreover, as there is no moral truth to rely on, moral understanding has to be found within experiencing. More precisely, moral understanding has to be understood as a process which leads us to transform our current moral outlook, i.e. our current way of experiencing, into some other moral outlook that we deem to be better. In other words, it consists in the reflective activity of "thinking beyond our current convictions and practices to find ways of living that might be better than what is currently seen as possible".⁶⁴

Now the question is the following: How can we acknowledge that a moral view has been improved, i.e. changed in a way that represents an amelioration upon the earlier held view? In this respect, that the key to progressing morally is to enhance individual understanding of a certain situation through first-hand involvement and reflection, does not amount to say that moral progress is an isolated process, nor that it is a matter of mere subjective preferences. On the contrary, our moral claims and habits – like, for instance, the choice to not eat meat after a careful reflection – "must be, imaginatively or actually, defended in front of the social context into we live in. Therefore, moral reflection [...] is also a process of finding justifications for our moral sentiments that could be shared by other moral agents".⁶⁵ Thus, moral understanding aims at establishing moral claims that can pass this test: we must be able to explain and justify, at least in principle, our moral claims to other moral agents.⁶⁶ So, what distinguishes better claims from

⁶³ Bagnoli 2011.

⁶⁴ Martela 2017: 68.

⁶⁵ Pollo 2017: 119.

⁶⁶ A similar view can be found in Darwall, who underscores the interpersonal nature of moral claims, i.e. that the concept of moral claim has an irreducibly second-person aspect. More precisely, "[c]all the *second-person standpoint* the perspective you and I take up when we make and acknowledge claims on one another's conduct and will" (Darwall 2006: 3).

worse ones is whether we can use our capacity for moral reflection to produce answers to certain moral demands or problems that we can explain and justify to others.⁶⁷ This remark is significant since it makes clearer in which sense moral progress can be best regarded as a form of self-improvement but, at the same time, it does not amount to be a purely arbitrary process.⁶⁸

6 Conclusions

Some authors have acknowledged that “a centrally important concept in moral epistemology is not moral knowledge, but [...] ‘moral understanding’”.⁶⁹ This insight has been implemented throughout the present work, whose aim has been to develop a new, understanding-based account of moral progress. This account, I argued, is indeed able to face some difficulties affecting the standard, knowledge-based account of moral progress. In particular, the first theoretical gain implied by the understanding-based account of moral progress concerns its consistency with a wholly natural account of moral beliefs. In other words, such account respects our common intuitions about moral progress, without placing morality outside the familiar natural world. In this sense, this discussion constitutes an example of how scientific comprehension of the world and the moral phenomena can foster us to improve and refine our philosophical reflection about morality.

Moreover, this conception of moral progress has been shored up by identifying the differences between moral understanding and moral knowledge. In particular, first, it has been argued that moral understanding is not a species of moral knowledge, but it requires a specific epistemic achievement. This claim assured that the understanding-based account of moral progress is different from the knowledge-based one. Second, inspired by the debate in philosophy of science on understanding, it has been specified that understanding is not factive. This claim assured that the understanding-based account of moral progress can avoid the problems which undermine the realist account of it.

Finally, some of the consequences of such alternative strategy for the conception of moral progress itself have been presented and discussed. Those consequences concern the various possibilities of conceiving of moral progress. Whether and how those possibilities can become actual is a distinct question. However, refining and improving our conception of moral progress is an important step towards its actual fulfillment.

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⁶⁷ The explanations and justifications to be provided for our conducts can take a variety of forms, and they depend on the metaethical view that one endorsed. The present proposal fits well, for instance, with non-realist forms of constructivism (see, e.g., Arruda 2017 and Dorsey 2018), as well as forms of pragmatism (see, e.g., Kitcher 2011 and Martela 2017).

⁶⁸ Along this line of reasoning, we are able to pinpoint moral claims that rely on non-valid explanations and reasons, i.e. those claims that do not amount to improvements in moral understanding. Consider a person that does not eat cow meat because there is a holy spirit in cows. Given that experience plays a crucial role in my account of moral understanding, it is legitimate to expect that not all moral agents would accept this kind of justification. Indeed, if everyone can experience, for instance, the animal suffering in a slaughterhouse, not everyone can experience holy spirits.

⁶⁹ Hills 2009: 97.

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References

- Arruda C (2017) The varieties of moral improvement, or why Metaethical constructivism must explain moral Progress. *Ethical Theory Moral Pract* 20(1):17–38
- Bagnoli C (2011) The exploration of moral life. In: Broackes J (ed) *Iris Murdoch, philosopher*. Oxford University Press, Oxford
- Bagnoli C (2017) Constructivism in Metaethics. In: Zalta EN (ed) *The Stanford encyclopedia of philosophy*. <<https://plato.stanford.edu/archives/win2017/entries/constructivism-metaethics/>>
- Boyd R (1988) How to be a moral realist. In: Sayre-McCord G (ed) *Essays on moral realism*. Cornell University Press, Ithaca, pp 181–228
- Darwall S (2006) *The second person standpoint: morality, respect, and accountability*. Harvard University Press, Cambridge
- de Lazari-Radek K, Singer P (2012) The objectivity of ethics and the Unity of practical reason. *Ethics* 123(1):9–31
- Dellsén F (2016) Scientific Progress: knowledge versus understanding. *Stud Hist Philos Sci Part A* 56(1):72–83
- de Regt H (2015) Scientific understanding: truth or dare? *Synthese* 192(12):3781–3797
- Dorsey D (2018) A perfectionist Humean constructivism. *Ethics* 128(3):574–602
- Elgin C (2007) Understanding and the facts. *Philos Stud* 132(1):33–42
- Enoch D (2010) The epistemological challenge to Metanormative realism: how best to understand it, and how to cope with it. *Philos Stud* 148(3):413–438
- Evans J (2017) A working definition of moral Progress. *Ethical Theory Moral Pract* 20(1):75–92
- FitzPatrick WJ (2015) Debunking evolutionary debunking of ethical realism. *Philos Stud* 172(4):883–904
- Flanagan O, Sarkissian H, Wong D (2016) Naturalizing ethics. In: Sinnott-Armstrong W (ed) *Moral psychology. Volume 1, The evolution of morality: adaptations and innateness*. The MIT Press, Cambridge, pp 1–25
- Graber A (2011) Medusa's gaze reflected: a Darwinian dilemma for anti-realist theories of value. *Ethical Theory Moral Pract* 15(5):589–601
- Grimm S (2006) Is understanding a species of knowledge? *Br J Philos Sci* 57(3):515–535
- Hermann J (2017) Possibilities of moral Progress in the face of evolution. *Ethical Theory Moral Pract* 20(1):39–54
- Hermann J (2019) The dynamics of moral progress. *Ratio* 32(4):300–311
- Hills A (2009) Moral testimony and moral epistemology. *Ethics* 120(1):94–127
- Hills A (2016) Understanding why. *Noûs* 49(2):661–688
- Huemer M (2016) A Liberal realist answer to debunking Dkeptics: the empirical case for realism. *Philos Stud* 173(7):1983–2010
- Jamieson D (2002) Is there Progress in morality? *Utilitas* 14(3):318–338
- Kahane G (2011) Evolutionary debunking arguments. *Noûs* 45(1):103–125
- Kitcher P (2011) *The ethical project*. Cambridge University Press, Cambridge
- Kitcher P (2016) Evolution and ethical life. In: Livingstone Smith D (ed) *How biology shapes philosophy*. Cambridge University Press, Cambridge, pp 184–203
- Macklin R (1977) Moral Progress. *Ethics* 87(4):370–382
- Martela F (2017) Moral philosophers as ethical engineers: limits of moral philosophy and a pragmatist alternative. *Metaphilosophy* 48(1–2):58–78
- McGrath S (2011) Skepticism about moral expertise as a puzzle for moral realism. *J Philos* 108(3):111–137
- Mizrahi M (2012) Idealizations and scientific understanding. *Philos Stud* 160(2):237–252
- Moody-Adams M (1999) The idea of moral Progress. *Metaphilosophy* 30(3):168–185
- Moody-Adams M (2017) Moral Progress and human agency. *Ethical Theory Moral Pract* 20(1):153–168

- Murdoch I (1970) The idea of perfection. In: Murdoch I (ed) *The sovereignty of good*, Routledge, London-New York pp. 1–44
- Musschenga AW, Meynen G (2017) Moral Progress: an introduction. *Ethical Theory Moral Pract* 20(1):3–15
- Pellegrino G (2017) Evolutionary debunking of normative realism. Not a real threat for realists. *Ethics and Politics* 19(2):105–140
- Pleasants N (2010) Moral argument is not enough: the persistence of slavery and the emergence of abolition. *Philos Top* 38(1):139–160
- Pollo S (2017) Biology, ethics and moral reflection. *Teoria Rivista di filosofia* 37(2):115–126
- Ruse M (1986) *Taking Darwin seriously*. Basil Blackwell, Oxford
- Ruse M, Wilson EO (1986) Moral philosophy as applied science. *Philosophy* 61(236):173–192
- Sauer H (2018) *Debunking arguments in ethics*. Cambridge University Press, Cambridge
- Shafer-Landau R (2003) *Moral realism: a Defence*. Oxford University Press, Oxford
- Sinnott-Armstrong W (1996) Moral skepticism and justification. In: Sinnott-Armstrong W, Timmons M (eds) *Moral knowledge? New Readings in Moral Epistemology*. Oxford University Press, Oxford, pp 3–48
- Sinnott-Armstrong W (2006) Moral intuitionism meets empirical psychology. In: Horgan T, Timmons M (eds) *Metaethics after Moore*. Oxford University Press, Oxford, pp 339–366
- Skarsaune KO (2011) Darwin and moral realism: survival of the fittest. *Philos Stud* 152(2):229–243
- Sliwa P (2017) Moral understanding as knowing right from wrong. *Ethics* 127(3):521–552
- Sterelny K, Fraser B (2017) Evolution and moral realism. *Br J Philos Sci* 68(4):981–1006
- Street S (2006) A Darwinian dilemma for realist theories of value. *Philos Stud* 127(1):109–166
- Tersman F (2014) Disagreement: ethics and elsewhere. *Erkenntnis* 79(S1):55–72
- Vavova K (2014) Debunking Evolutionary Debunking. In: Shafer-Landau R (ed) *Oxford studies in Metaethics* 9. Oxford University Press, Oxford, pp 76–101
- Wielenberg EJ (2016) Ethics and evolutionary theory. *Analysis* 76(4):502–515
- Wilson C (2010) Moral Progress without moral realism. *Philos Pap* 39(1):97–116

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