Are debunking arguments internally coherent?

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Introduction

In her 'A Darwinian Dilemma for Realist Theories of Value', Sharon Street argues that realist theories of morality in metaethics are not compatible with contemporary science, specifically not with the theory of evolution.[1] In the following years a growing amount of articles emerged, many of which replied to Street's argument. In this paper, I will defend Street's evolutionary debunking argument (EDA) against recent criticism.

Moral realists have tried to refute Street's EDA in various ways. There are realists who deny the underlying causal empirical assumption of Streets argument, by drawing from theoretical biological models and empirical scientific evidence.[2] Others appeal to the existence of refined moral capacities and the force of rational reflection to conclude that objectivist moral beliefs are not off-track.[3] Some critics take a more conventional epistemological route, and interpret Street's EDA as possibly reflecting negatively upon the sensitivity or safety of moral beliefs. Moral realist supporting this view either deny that sensitivity or safety is necessary for the justification of a belief, or they reject that Street's EDA shows that objectivist moral beliefs are insensitive or unsafe.[4]

Although much could be said about any of these arguments, the focus of this thesis lies elsewhere. In this thesis, I will review whether Street's EDA is internally coherent. In particular, critics of Street's EDA have argued that her argument is internally incoherent in two ways. Firstly, Street's EDA is said to overgeneralize to forms of knowledge which are necessary for her argument to debunk moral beliefs.[5] This argument is called *the epistemic incoherence objection*. Secondly, it is claimed that Street's EDA cannot undermine moral beliefs, as the argument is itself dependent on substantial moral claims.[6] This is *the objection of self-defeat*. The main question I will address in this thesis is whether the epistemic incoherence objection and the objection of self-defeat succeed in showing that Street's EDA is internally unstable.

The structure of my thesis is as follows. In section 1, I will explain Street's Darwinian dilemma. Section 2 contains a discussion of the objection of epistemic incoherence. I will

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[1] Street, "A Darwinian Dilemma", 109.
[2] Arnon Levy, Yair Levy, "Evolutionary Debunking".
[3] FitzPatrick, "Debunking evolutionary".
[4] Bogardus, "Only All Naturalists", Srinivasanm, "The Archimedean", Clarke-Doane, "Debunking Arguments" and Clarke-Doane, "Objectivity and Reliability".
[5] See Severini and Sterpetti, "Darwinism", De Cruz et. al., "Evolutionary approaches".
[6] See Vavova, "Debunking", Kyriacou, "Are Evolutionary", Sterpetti, "Are Evolutionary Debunking".

propose a way for Street to maintain a deflationary stance towards morality and a realist' stance towards perception, and conclude that the epistemic incoherence objection fails. Lastly, in section 3, I provide a solution to the objection of self-defeat, by introducing a non-evidentialist, state-given reasons account of the epistemic significance of higher order belief. I conclude that if Street endorses this account, her EDA turns out to be internally coherent.

1. Street's Darwinian Dilemma

In this section, I will give a concise explanation of Street's Darwinian Dilemma (DD), which will serve as the basis of my argument. Before I get into the steps of her argument, four preliminary remarks are in order.

Firstly, a few words on the context in which Street's argument arose. Street's DD is an evolutionary debunking argument, which is a particular form of a debunking argument. Debunking arguments undermine the status of a belief by appealing to its distorted origin.[7] The origin of the belief has been shown to be unreliable, as the belief has not been shaped by a process that tracks the truth.[8] Because of this, the initial justification of the belief is undermined. For EDA's, the distorting process is the evolutionary forces that influenced our (moral) beliefs.

Secondly, EDA's can be used to debunk any type of belief, but most often, they have been employed to discredit *moral* beliefs. Some EDA's target moral beliefs in normative ethics. In contrast, Street's DD aims to debunk moral realism, a metaethical theory that posits the existence of moral facts which are independent of our evaluative attitudes.[9]

Thirdly, Street aims her argument at realist theories of value.[10] However, in this paper, I am only concerned with the debunking of *moral* realism, which has as its defining feature that at least some moral facts exist stance-independently of all of our evaluative attitudes.[11] Therefore, for the purposes of this paper, I take her argument only to apply to our moral judgements, instead of our evaluative beliefs in general.

Fourthly, Street starts her argument with a strong empirical assumption, namely that 'the forces of natural selection have had a tremendous influence on the content of human evaluative judgements'.[12] She narrows her claim by specifying that the forces have had a *direct* effect on our 'more basic evaluative tendencies', and thereby an *indirect* effect on the moral tendencies we currently affirm.[13] By basic moral tendencies Street alludes to tendencies that have not been altered by our reflective capacity. There have been several articles which have tried to show that there is not enough empirical evidence to substantiate the truth of this claim.[14]

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[7] Kahane, "Evolutionary Debunking", 105, Sauer, *Debunking Arguments,* 30.
[8] Kahane, "Evolutionary Debunking", 105.
[9] Street, "A Darwinian Dilemma", 110.
[10] Street, "A Darwinian Dilemma", 109.
[11] Street, "A Darwinian Dilemma", 110.
[12] Street, "A Darwinian Dilemma", 113.
[13] Street, "A Darwinian Dilemma", 120.
[14] For example, see Levy et. al., "Evolutionary Debunking".

However, whether there is enough evidence for the claim or not is not of essential importance to Street's argument. Her argument should be seen as a conditional: if it turns out to be true that the forces of natural selection have had the influence Street claims it had, then her argument debunks moral realism. If it turns out her claim is incorrect, that would be lucky for the realist. However, if science supports her empirical assumption, her argument (if correct) would change the meta-ethical discourse as it is known today significantly. Therefore, it is important to review her argument, even if we are not able to determine the truth of her empirical claim at this time. For the purposes of this paper, I will simply assume Street's empirical claim to be true.

1.1. The first horn of the dilemma

Street confronts the realist with a choice. Either the realist denies that there is some sort of relation between the forces of natural selection that affected our basic moral tendencies and the moral truths, or the realist asserts that there is a relation. These two options form the two horns of her argument.

To begin, let's look at the first option, in which the realist denies a relation. FI we combine the denial of a relation with the premise that the forces of natural selection have had an effect on our moral judgements, we can conclude that the forces had a distorting influence on our judgements. After all, if there is no relation, the forces of natural selection did not guide our judgements towards the truths. And if they did not nudge us towards the truths, then they could only have had a distorting influence.[15]

Street asserts that the realist might claim that it is still *possible* that (a portion of) our moral judgements coincided with the moral truths, by complete accident.[16] However, Street thinks that this is highly unlikely. She appeals to the enormous amount of possible moral judgements and truths. Since there are so many possible systems or moral beliefs and truths, it would be extremely lucky for the realist if our system of moral judgements corresponds to the truths. Therefore, Street concludes that if the realist denies a relation, our moral judgements are mostly off-track.

Now, the realist might object, what about the influence of rational reflection? Even though there is no relation between the forces of natural selection and the moral truths, the influence of rational reflection can compensate for the distorting influence of the forces of

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[15] Street, "A Darwinian Dilemma", 122.
[16] Street, "A Darwinian Dilemma", 122.

natural selection.[17] If our capacity to reflect would stir our moral judgements towards the moral truths, then our judgements might reflect the moral truths after all.

According to Street, this route will not vindicate the realist. The process of rational reflection is not independent of our moral judgements. It concerns some moral judgements being weighed and possibly revised in light of other normative judgements.[18] Because of this, rational reflection relies on our moral judgements, which are mostly off-track. Therefore, according to Street, rational reflection cannot compensate for the distorting influence of natural selection, since it is itself influenced by the evolutionary forces.

1.2. The second horn of the dilemma

Even though we established that denying a relationship between the forces of natural selection and the moral truths will result in most of our moral judgement being off-track, the realist can take another route, and assert a relation between the two after all. The realist would have to postulate a tracking relation: she would claim that the forces of natural selection track the truth.[19] How would the realist explain the plausibility of the tracking relation? According to Street, the realist would have to rely on the tracking account (TA), which entails that our ancestors' ability to recognize moral truths gave them evolutionary advantages. To defend the TA, the realist might appeal to similar situations, in which grasping a truth is beneficial from an evolutionary point of view. For example, grasping perceptual truths gave our ancestors' evolutionary advantages, since it helped them evade predators and other dangers. In a similar manner, understanding the moral truths might have been useful. If the TA were true, this would enable the realist to explain that our moral judgements are not off-track.

Street objects to the TA. To do so, she first states that the TA is a scientific account.[20] Next, she asserts that scientific accounts are susceptible to comparison with competing scientific accounts, attempting to explain the same phenomenon. So, to evaluate the TA, it must be compared to other plausible accounts.

Consequently, she advances a different account, namely the adaptive link account (ALA).[21] The adaptive link account posits that our ancestors made the specific moral judgements they made at the time, because the judgements forged adaptive links between the

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[17] Street, "A Darwinian Dilemma", 123, FitzPatrick, "Debunking Evolutionary", 888
[18] Street, "A Darwinian Dilemma", 124.
[19] Street, "A Darwinian Dilemma", 125.
[20] Street, "A Darwinian Dilemma", 126.
[21] Street, "A Darwinian Dilemma", 127.

situations they were in and their reactions.[22] These judgements are the equivalent of our bodily reflexes.[23] For example, when an insect approaches your eye, you automatically blink. Your blinking, every time an insect is near, occurs because of the automatic reflex, which pairs your situation with your response. According to Street, moral judgements serve the same function. Moral judgements make sure that you perform the appropriate response every time you are confronted with a specific situation.

We now have two competing scientific accounts that can be compared. According to Street, the ALA is the superior scientific account, on the basis of three criteria. The ALA is more parsimonious, since it does not posit moral truths.[24] It is clearer, since the TA does not explain why grasping the moral truths leads to reproductive success.[25] Lastly, the ALA sheds more light on the phenomenon that is to be explained, namely the fact that humans tend to make some moral judgements, instead of different ones.[26]

Before concluding that this horn of the dilemma will not help the realist either, Street makes an important addition to the argument. If the TA fails to aid the realist, Street argues that the realist cannot turn to another account of the relation between the forces of natural selection and the moral truths. Employment of another account is not possible, since the only way in which the evolutionary forces are not distortive influences on our moral judgements, is if they track the truths.

Concluding, as the ALA is more parsimonious, clearer and sheds more light on the subject in question, the ALA is a better account than the TA of why human beings tend to make some moral judgements rather than others. Since the TA is a better account than the ALA, the realist cannot depend on the TA to argue that the forces of natural selection do not have a distorting influence.

The Darwinian Dilemma is problematic for the moral realist, since the dilemma establishes that our moral beliefs are mainly off-track. According to Street, it does not matter whether the realist asserts a relation between the evolutionary forces and the moral truths or not, since the conclusion is the same. After familiarizing ourselves with the outlines of Street's argument, the epistemic incoherence objection is discussed in the next section.

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[22] Street, "A Darwinian Dilemma", 127.
[23] Street, "A Darwinian Dilemma", 127-128.
[24] Street, "A Darwinian Dilemma", 129.
[25] Street, "A Darwinian Dilemma", 129.
[26] Street, "A Darwinian Dilemma", 132.

2. The Problem of Incoherence

Some moral realists' claim that Street's evolutionary debunking argument (EDA) is not internally coherent, because her argument undermines certain forms of knowledge which it needs to debunk moral beliefs to start with. Specifically, according to the epistemic incoherence objection, Street can only debunk moral beliefs if she also debunks perceptual beliefs. Perceptual beliefs are necessary for Street's EDA to be valid, as they support the empirical claim of Street's EDA. Therefore, if perceptual beliefs are debunked by Streets EDA, Street's EDA is internally instable.

I will argue that Street is able to adopt a deflationary stance towards morality, while endorsing a realist stance towards perceptions. If perceptual beliefs are not debunked, the empirical assumption of Street's EDA is supported, and therefore, her argument is internally coherent.

The structure of this section is as follows. First, I will introduce the *epistemic incoherence* objection, and argue that it rests on a misconception of the adaptive link account and the truth tracking account.[27] Second, I will show that the adaptive link account is a better explanation for the evolutionary advantage of perceptions than the truth tracking account. Although this implies that Street has to adopt a deflationary stance towards perception, I will argue that Street should adopt an indirect truth tracking relation based on the adaptive link account. If Street accepts the tracking relation, she can maintain a realist stance towards perception and a deflationary stance morality.

2.1. The epistemic incoherence objection

According to the epistemic incoherence objection, perceptual beliefs are debunked as well if Street's EDA debunks moral beliefs. To understand why, we must first assess the difference between the adaptive link account (ALA) and the truth tracking account (TA).

Street argues that the ALA is a better explanation for beliefs in the moral domain than the TA. For other domains like perception, Street endorses a TA. Because she uses the TA and ALA for different domains, the ALA and the TA must be clearly distinct from each other. If they are not, Street cannot adopt a realist view towards perceptions and a deflationary view towards morality, but must adopt a deflationary view towards both domains. The epistemic

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[27] Severini and Sterpetti, "Darwinism in Metaethics"

incoherence objection, as constructed by Severini and Sterpetti, is concerned with the distinction between the TA and the ALA. According to the objection, Street cannot clearly differentiate between the two accounts.[28]

The difference between the TA and the ALA consists in the relevance of truth tracking considerations. To explain the occurrence of certain beliefs in our belief system, truth tracking considerations may be relevant. This is the case for perceptual beliefs: 'In order to explain why it proved advantageous to form judgements about the presence of fires, predators, and cliffs, one will need to posit in one's best explanation that there *were indeed* fires, predators, and cliffs, which it proved quite useful to be aware of […]'.[29] Street argues that moral beliefs do not track the truth but serve as adaptive links.

The core problem with Street's approach is that in employing an ALA, truth tracking considerations are still relevant.[30] The ALA explains how certain judgements are evolutionarily advantageous because they link certain circumstances to adaptive responses. In order for a response to occur, an individual must register the change in its surroundings. To do so, the organism has to be able to track the truth of the state of affairs it is in.

Consider again the example of an insect approaching your eye. When the insect is near your eye, your eye automatically blinks. Severini and Sterpetti's reasoning is that in order for the mechanism to cause the blinking response, the individual has to at least track the state of affairs to some extent. Otherwise, the individual is not able to notice a change in its surroundings, and the adaptive response will not be initiated. Therefore, they argue, truth tracking considerations are still relevant in cases where, according to Street, an ALA should be employed.

If the ALA involves truth considerations as well, the distinction between the ALA and the TA collapses. It complicates Street claim that natural selection helped us discover the truths about facts in some domains, and not in others.[31] Therefore, according to Severini and Sterpetti, Street has to adopt either a realist stance or a deflationary attitude for all domains.[32] The first option will render her EDA ineffective, since she would be forced to adopt a realist stance toward morality. The second option implies that Street has to take on a non-realist stance towards domains like perception. In that case, the empirical assumption of Street's EDA is not supported, which renders her argument internally incoherent.

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[28] Severini and Sterpetti, "Darwinism in Metaethics", 11.
[29] Street, "A Darwinian Dilemma", 161
[30] Severini and Sterpetti, "Darwinism in Metaethics", 11.
[31] Severini and Sterpetti, "Darwinism in Metaethics", 15.
[32] Severini and Sterpetti, "Darwinism in Metaethics", 16.

Luckily, the debunker does not have to accept this conclusion, as Severini's and Sterpetti's argument is based on a misconception of the ALA and the TA. The aim of the ALA and the TA is to explain *why certain beliefs are fitness enhancing*. The TA explains this by reference to the truth of the beliefs in question, while the ALA suggests that the beliefs served as adaptive links. Just because an organism might have true perceptions or beliefs about the state of affairs it is in, the principled difference between the ALA and the TA is not obscured. Imagine a case in which an individual has a true belief about the situation it is in (belief A). Based on belief A, the individual forms a second belief (belief B), which initiates in turn certain behavior of the organism. The fact that belief A tracks the truth, does not entail that belief B cannot be well explained by the adaptive link account. It may still be that an ALA is the best explanation for the evolutionary advantage of belief B, even though the preceding belief (belief A) is best explained by the TA. Therefore, Severinis and Sterpettis criticism does not negatively affect the distinction between the ALA and the TA.

In this section, I have explained the epistemic incoherence objection. This objection states that because the difference between the TA and the ALA is not clear, Street has to either accept a deflationary or a realist stance towards every domain. Therefore, to debunk moral beliefs, Street is forced to debunk perceptual beliefs as well, which makes her argument internally incoherent. Afterwards, I have argued that the epistemic incoherence objection does not obscure the difference between the ALA and the TA. Therefore, Streets EDA is internally stable.

Nevertheless, Severini and Sterpetti are correct in stating that Street's application of the TA to perception and the ALA to moral beliefs is problematic. This is because the evolutionary advantage of our perceptual system is better explained by the ALA than the TA. In the next section, I will explain why the TA is not the right explanation for the evolutionary advantage of our perceptions. Furthermore, I will argue that this does not lead to internal incoherence in Streets EDA.

2.2. Perceptions and the tracking account

2.2.1. Truth and biological fitness

To understand why the TA is not the best explanation for the fitness enhancement of perceptions, it is first important to realize that there is no necessary relation between the truth of a belief and its fitness enhancement. There are various cases in which a false belief or

perception coincides with evolutionary success, or a true belief with evolutionary disadvantage.[33]

For example, rabbits can have misperceptions of possible threats.[34] They perceive a predator, in the absence of an actual predator in their environment, and react by fleeing into their burrow. One might expect their inaccurate perceptions to impair their chances of survival, as they could have used their energy more efficiently. However, the opposite is true. By engaging in flight, the rabbits improve their adeptness at fleeing, and therefore enhance their chances of survival.[35] An example of a true belief decreasing an organism's chances of survival occurs in humans. By grasping certain truths, individuals may become depressed, which can affect their will to live.[36] These examples show that the notions of biological fitness and truth are distinct, and sometimes come apart.

The previous examples indicate that it is not the truth of the perception or belief itself that benefits the chances of survival of the organism. Instead, it is the organism's response to perceptions or beliefs, true or false, which help it survive. For example, in the case of the rabbit, it is the rabbit's fleeing which causes its evolutionary advantage, irrespective of the truth or falsity of its perception.[37] Initiations of behavior, like the rabbit's response, are fitness enhancing because they help organisms react to their environment.

Because it is not the *truth* of our perceptions or beliefs which is fitness enhancing, it is not correct to apply the truth tracking account to our perceptual beliefs. In order for the truth tracking account to be successfully applied, the truth of the perceptual beliefs would have to make perceptions fitness enhancing in some way. However, as I indicated in the previous paragraph, the responses to the perceptions advance an organism's chances of survival, not the perceptions themselves. Thus, the adaptive link account correctly seems to describe why our perceptual beliefs are fitness enhancing, as perceptions forged adaptive links between certain circumstances and adaptive responses.

However, if the ALA is the best explanation of the evolutionary advantage of our ancestors' perceptions, can Street still maintain a truth tracking relation (TR) for perceptions? If she cannot, her EDA is at risk of being internally incoherent. According to Street, the truth tracking account (TA) is the only way to support a TR between evolutionary forces and

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[33] Burge, "Perception", 395 and Burge, *Origins*, 301.
[34] Burge, "Perception", 395.
[35] Burge, "Perception", 395
[36] Burge, "Perception", 395.
[37] Burge, *Origins*, 301.

objective truths.[38] So, if she adopts an adaptive link account (ALA), how can she maintain the TR? How can there still be a relation between the evolutionary forces and the objective truths, if our true beliefs were not evolutionarily advantageous *because* they were true?

2.2.2. A tracking relation without a tracking account
To answer that question, first, it should be noted that Street makes an important assumption. She assumes that the tracking relation between truths and evolutionary forces must be direct. If this assumption is abandoned, and Streets accepts an indirect relation between the truths and the evolutionary forces, the TR can be maintained without the TA.

Although both true perceptions as well as false perceptions may establish adaptive responses in organisms, true perceptions lead more often to adaptive responses than false perceptions. In case of a false perception, the organism has to be lucky to have a suitable response for the circumstances it is in. The organism is not able to react to the real state of affairs, because it does not have a perception of the state of affairs. It has another, incorrect perception. Therefore, it is not able to adjust its reaction to the reality. This does not mean it cannot have an adaptive response. However, in the case of a true perception, the organism is able to accommodate its response to its surroundings. Therefore, it seems more likely that the organism's response will be adaptive in the case of a true perception.

Because true perceptions will increase the chance of adaptive responses, there is a relationship between the truth of a perception and the evolutionary advantage of the perception. The relation is indirect, as the truth of the perception itself does not lead to fitness enhancement. Instead, the truth helps the organism to develop adaptive responses, which is beneficial for its survival. Due to the TR, the influence of the evolutionary forces on our perceptions has not been distorting. Consequently, the debunker is not forced to adopt a deflationary stance towards perception.

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[38] Street, "A Darwinian Dilemma", 134

If there is an indirect relation between the truths and the evolutionary forces for perceptual beliefs, there might also be an indirect relation for moral beliefs. However, it is less clear why true moral beliefs would be more advantageous than false moral beliefs, if it is not the truth itself which provides the advantage. Without making substantial moral assumptions, how would a true moral belief help an individual to generate an adaptive response?[39] True moral beliefs do not allow individuals to react to the real state of affairs, like true perceptions do. Therefore, it seems harder to establish an indirect relation between the moral truths and the evolutionary forces than in the case of perceptions. However, if such an indirect relation can be substantiated, it would be problematic for Street's EDA.

The issue of an indirect relation for moral beliefs deserves more attention than I can afford to spend on it here. However, to the best of my knowledge, no argument advancing an indirect relation between the moral truths and evolutionary forces is available in the literature. Therefore, in the absence of such an argument, I will assume there is no indirect relation for moral beliefs. If such an argument becomes available, this calls for re-evaluation.

In this section, I have reviewed the epistemic incoherence objection against Street's EDA, according to which the ALA and the TA are not clearly demarcated. Consequently, to debunk moral beliefs, Street is forced to adopt a deflationary stance towards perceptual beliefs as well, which renders her argument internally incoherent. I countered the epistemic incoherence objection by showing that the objection is based on a misconception of the ALA and the TA. However, I agreed with proponents of the objection that Street's application of the TA to perception and the ALA to moral beliefs is problematic, as the evolutionary advantage of our perceptual system is better explained by the ALA than the TA. I argued that if an ALA is adopted for perceptual beliefs, there is an indirect tracking relation between perceptual truths and evolutionary forces. Because of the indirect relation, Street can uphold a realist stance toward the perceptual domain, while maintaining a deflationary stance towards moral beliefs. Therefore, the epistemic incoherence objection does not show that Street's EDA is internally incoherent.

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[39] If the moral realist could make substantial moral assumptions, a variety of third factor explanations would be available, which could explain why true moral beliefs will lead to adaptive responses. For example, Enoch argues that 'survival is at least somewhat good'.[39] If so, true moral beliefs would lead to responses that promote survival, in which case the organism's responses will be adaptive. In section 3, I will explain why the moral realist cannot depend on substantial moral claims. Therefore, I will disregard the option of third factor explanations.

3. The Problem of Self-Defeat

In the previous section, I advanced that the epistemic incoherence objection fails to demonstrate that Street's EDA is internally unstable. Next to the epistemic incoherence objection, critics have employed a second argument to advance that Street's EDA is internally incoherent. The objection of self-defeat entails that Street's EDA cannot undermine moral beliefs, as the argument is itself dependent on substantial moral claims.[40] Because Street relies on substantial moral claims to support one of her premises, her argument is internally instable. The objection of self-defeat has been most forcefully developed by Katia Vavova. [41]

My strategy in replying to the objection of self-defeat is as follows. In her EDA, Street implicitly endorses the theory of conciliationism.[42] Conciliationism is the view that if one has higher order evidence of the error of a belief, the justification for a belief is defeated. In order to avoid the objection of self-defeat and achieve higher order defeat of moral beliefs, Street has to reject conciliationism. Instead, she must adopt a theory about higher order defeat which takes first order beliefs into account. I argue that only by adopting a non-evidential reason-given theory of higher order defeat, Street can avoid the objection of self-defeat, which renders her EDA internally incoherent.

In this section I begin by taking a closer look at Vavova's objection of self-defeat.[43] Afterwards, I discuss a possible solution to the objection of self-defeat by Wittwer, however, the solution is found wanting.[44] Next, I propose a non-evidential reasons-given theory of higher order defeat, based on Dipaolo's and Reisner's work.[45] I conclude by showing that if Street adopts the non-evidential account, Street's EDA is vindicated.

3.1. Street's evolutionary debunking argument and self-defeat

Vavova reconstructs Street's argument as follows:[46]

[GOOD REASON]:
1. INFLUENCE. Evolutionary forces have influenced our moral beliefs.

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[40] Vavova, "Debunking".
[41] Vavova, "Debunking". For other versions of the argument that Street's EDA is self-defeating, see: Kyriacou, "Are Evolutionary", Sterpetti, "Are Evolutionary Debunking".
[42] Street, "A Darwinian Dilemma".
[43] Vavova, "Debunking Evolutionary", 13.
[44] Wittwer, "Evolutionary Debunking".
[45] Dipaolo, "Higher-Order", Reisner, "Weighing".
[46] Vavova, "Debunking Evolutionary", 10.

2. MISTAKEN. We have good reason to think that our moral beliefs are mistaken.
3. GOOD. If you have good reason to think that your belief is mistaken, then you cannot rationally maintain it.
4. REVISION. We cannot rationally maintain our moral beliefs [2, 3]

By endorsing GOOD, the debunker has to provide good reason why your specific belief is mistaken. Therefore, the burden lies on her to raise the probability of error of our beliefs.

According to Vavova, Street's argument is problematic because the realist does not have to accept the move from INFLUENCE to MISTAKEN.[47] The influence of evolutionary forces is only distortive if the moral truths are different from the moral beliefs promoted by evolutionary forces. However, if the moral truths express adaptive moral beliefs, the influence of evolutionary forces does not lead to off-track moral beliefs. In that case, MISTAKEN does not follow from INFLUENCE.

To rebut this line of reasoning, GOOD REASON should be modified, so it becomes GOOD REASON*.[48]

[GOOD REASON*]:
1. FITNESS. Evolutionary forces select for creatures with characteristics that increase fitness.
2. APART. The true evaluative beliefs and the adaptive evaluative beliefs (can) come apart.
3. OFF-TRACK 1. Evolutionary forces are off-track: they do not track the evaluative truth. [1, 2]
4. INFLUENCE. Evolutionary forces have influenced our evaluative beliefs.
5. OFF-TRACK 2. Off-track forces have influenced our evaluative beliefs. [3, 4].
6. MISTAKEN. We have good reason to think that our evaluative beliefs are mistaken.
7. GOOD. If you have good reason to think that your belief is mistaken, then you cannot rationally maintain it.
8. REVISION. We cannot rationally maintain our evaluative beliefs [2, 3]

APART blocks the move previously made by the moral realist. Because the true evaluative beliefs and the adaptive beliefs come apart, the moral truths cannot consist of the moral beliefs that were most adaptive. If the debunker can show that APART is plausible, the move from INFLUENCE to MISTAKEN is sound. If the adaptive moral beliefs and the moral truths do not overlap, it follows that the evolutionary forces are off-track, which means to off-track

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[47] Vavova, "Debunking Evolutionary", 14.
[48] Vavova, "Debunking Evolutionary", 14.

forces have influenced our moral beliefs, giving us good reason to think our moral beliefs are mistaken.

Why does the moral realist have to accept APART? Why is it not possible for the realist to deny APART, and maintain the view that the moral beliefs that proved to be most adaptive correspond to the true moral beliefs? To reject APART, the moral realist must make certain assumptions about substantive moral beliefs, namely, for example, that pain is bad and survival is good. However, this move is discredited by the debunker.

The reason why the realist cannot argue against APART, is because the debunker asserts an independence requirement. According to the requirement, neither the debunker nor the realist can depend on our substantial moral beliefs in assessing whether there is good reason to think that our moral beliefs are mistaken. Instead, the debunker and the realist have to provide an appropriately independent reason. An appropriately independent reason for your belief p, does not depend on p or the evidence on which p is founded.[49] Because of the independence requirement, the moral realist cannot rely on substantial moral beliefs to refute APART. Therefore, she cannot reject APART.

However, Vavova argues that to substantiate APART, the debunker herself has to rely on substantive moral claims. In order to know that the adaptive moral beliefs and the true moral beliefs come apart, the debunker needs to have some knowledge of the content of the set of adaptive moral beliefs and the set of true moral beliefs.[50] If the debunker cannot make any assumptions regarding the content of the set of moral beliefs, because of the independence requirement, how can she argue the sets come apart? Without depending on substantive moral claims, the possibility that the adaptive moral beliefs and the moral truths correspond cannot be ruled out.

The debunker has two choices: she can either accept the independence requirement or reject it. If the debunker accepts the independence requirement, her argument cannot depend on substantive moral claims. However, to reach the conclusion that moral beliefs are debunked, the debunker relies on substantive moral claims to explain why the moral truths and the adaptive beliefs come apart. Therefore, her argument is self-defeating and internally incoherent.

If instead, the debunker chooses to reject the independence requirement, she can adopt APART and sustain her argument against the realist. However, the realist may also employ

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[49] Vavova, "Debunking Evolutionary", 10.
[50] Vavova, "Debunking Evolutionary", 15.

substantive moral claims, which the realist can use to refute APART and argue that the adaptive moral beliefs correspond to the moral truths. If so, the evolutionary influences are not off-track, and the justification of our moral beliefs is not debunked.

Both options are problematic. If the debunker accepts the independence requirement, Street's EDA is internally incoherent. However, if she rejects the requirement, the moral beliefs are not debunked. In the next section, I will introduce a possible solution, which may allow Street's EDA to debunk moral beliefs without being internally incoherent.

3.2. A solution?

A strategy to rebut the objection of self-defeat and avoid internal incoherence, is to reject the independence requirement, while finding a way to refute or silence the moral realist's argument against APART. In that case, we can conclude that the justification of our moral beliefs is nonetheless defeated. Whether this is possible, depends on the debunker's view on the epistemic significance of higher order evidence.[51]

In this section, I will introduce a promising account of the epistemic significance of higher order evidence, which possibly solves the problem of self-defeat. However, before I discuss the theory and its implications, I will explain some relevant concepts.

3.2.1. Types of defeat

If an individual acquires new information which results in a loss of the justification of a belief, the justification of the belief is *defeated*.[52] Defeat can occur by obtaining first order evidence or higher order evidence. First order evidence is evidence that bears directly on the truth of a target proposition or hypothesis.[53] In contrast, higher-order evidence regards the relation between an individual's evidence and beliefs.[54]

Two types of defeat that depend on first order evidence are rebutting and undercutting defeat. Rebutting defeat occurs if one receives evidence that supports the negation of one's original belief.[55] In contrast to rebutting defeat, undercutting defeat targets the justification of the belief indirectly, by attacking the connection between the evidence and the belief.[56] The

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[51] Wittwer, "Evolutionary Debunking", 38.
[52] Dipaolo, "Higher-Order", Reisner, "Weighing", 249.
[53] Klenk, "Change", 2.
[54] Klenk, "Change", 3, Dipaolo, "Higher-Order 248 Klenk, "Change", 3, Dipaolo, "Higher-Order, 248.
[55] Dipaolo, "Higher-Order", Reisner, "Weighing", 249.
[56] Paulo, "Moral Intuitions", 56, Dipaolo, "Higher-Order", Reisner, "Weighing", 250.

evidential relation holds in specific circumstances, however, the new information shows that these circumstances do not obtain for the belief.[57]

Higher order defeat is distinct from other types of defeat. To see this, consider an exemplary case of higher order defeat in which a pilot has hypoxia (from now on referred to as 'Hypoxia'). Imagine that Andy, an aircraft pilot, is flying an airplane to Hawaii. Andy calculates whether she has enough fuel to make it to Hawaii, which, according to her calculations, she has. After she has completed her calculations, she receives the message that the oxygen levels in the airplane have dropped the last few minutes, which probably distorted her reasoning without her knowing it. Because of this, she is no longer justified in believing that she has enough fuel to fly to Hawaii.

Like in Hypoxia, higher order defeat of beliefs is normally brought about by a malfunctioning cognitive process.[58] In contrast to other types of defeat, higher order evidence does not bear directly on the first order belief, but reveals a fact about the cognitive process producing the beliefs. Next to that, higher order defeat has a revisionary aspect.[1] In the case of Hypoxia, Andy was never justified in her belief, as the evidential relation she had taken to obtain never obtained.[1]

With her EDA, Streets aims to achieve higher order defeat. She argues that evolutionary considerations are higher order evidence of the error of moral realists' moral beliefs, as the beliefs are formed by an unreliable process.[59] Therefore, the influence of evolutionary forces defeats the justification of moral beliefs. In section 3.2.2 and 3.3, I will discuss whether Street's EDA successfully accomplishes higher order defeat of moral beliefs, without her EDA being internally incoherent.

3.2.2. Kelly's total evidence view

To avoid the problem of self-defeat and internal incoherence, the debunker may reject the independence requirement. In that case, she has to find a way to defeat the justification of moral beliefs without depending on the requirement. To explore whether this is possible, I will first discuss how the independence requirement and the theory of epistemic significance endorsed by Street are related.

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[57] Klenk, "Change", 6.
[58] Paulo, "Moral Intuitions", 57
[59] Wittwer, "Evolutionary Debunking", 33.

In her dilemma, Street implicitly asserts conciliationism, the view that if one has higher order evidence of the error of a belief, the justification of the belief is defeated.[60] Her commitment to conciliationism follows from her assertion of the independence requirement. According to the independence requirement, (the evidence for) our moral beliefs should be disregarded in evaluating whether our moral beliefs are mistaken. If the independence requirement is accepted, our first order moral beliefs cannot be taken into account. Only our higher order evidence, the fact that evolutionary forces unreliably influenced our moral beliefs, is relevant in evaluating whether we have good reason to think that our moral beliefs are mistaken.[61] Therefore, the higher order evidence defeats the first order evidence, which entails that the justification of the moral beliefs is debunked.

If conciliationism and the independence requirement are rejected, the debunker could possibly avoid the objection of self-defeat and debunk moral beliefs. For this purpose, the debunker has to endorse a different theory about the epistemic significance of higher order evidence.

The theory of the epistemic significance of higher order evidence has to satisfy two claims. First, the theory should deny the independence requirement (requirement A), so the debunker's argument can depend on substantial moral claims to argue for APART. Secondly, the theory has to give enough importance to higher-order evidence in weighing the evidence, compared to first order evidence, so the justification of moral beliefs is defeated.

A theory that potentially fulfils both requirements is Kelly's total evidence view.[62] Kelly's total evidence view is an example of an evidentialist theory. According to evidentialism, it is rational for an individual to believe a proposition if and only if her evidence suggests that it is true.[63] The theory can also be presented as a supervenience thesis, according to which normative facts about what one is justified in believing supervene on facts about the individual's evidence.

According to Kelly's total evidence view, your total evidence determines whether your belief is justified or not.[64] Therefore, both higher order evidence as well as lower order evidence is taken into consideration.

Kelly's total evidence view allows the debunker to reject the independence requirement. However, the question is whether in employing Kelly's theory, the debunker can conclude that

[60] Wittwer, "Evolutionary Debunking", 31.
[61] Wittwer, "Evolutionary Debunking", 34.
[62] Kelly, "Peer Disagreement", Wittwer, "Evolutionary Debunking", 32.
[63] Whiting, "Whither", 3.
[64] Wittwer, "Evolutionary Debunking", 32, Kelly "Peer Disagreement", 177

the moral beliefs are defeated. This depends on how the available evidence is weighed. If emphasis is given to the higher order evidence, the justification of the first order moral beliefs is defeated. However, if the first order moral evidence is found to be more important, our moral beliefs are justified.

Although the total evidence view seems to be a potential solution to the objection of self-defeat, Wittwer argues it cannot fulfil its promise.[65] The problem with the total evidence view is that it is unclear how the higher order evidence can defeat the first order evidence.

A possible way to weigh the evidence is to rely on our intuitions. However, our intuitions about the epistemic consequences of evolutionary influence on our moral beliefs seem moot.[66] People have different intuitions, as is visible in the disagreement in the literature regarding the impact of evolutionary debunking arguments. Therefore, our intuitions cannot provide a conclusive answer to how the evidence should be weighed.

Instead, a theoretical notion of evidential weight might be helpful. For example, Joyce argues that the weight of the evidence is determined by what ordered sequence of propositions can reasonably be expected to contain a higher number of truths.[67]

However, if Joyce's view is applied to EDA's, practical problems arise. In case of EDA's, it is impossible to independently estimate the number of truths for different sequences of propositions. This is because the number of truths in one strand of evidence is dependent on the number of truths in the other strand. If the higher order evidence contains a large number of truths, the first order moral evidence will contain less, and vice versa. Next to that, it is tricky to estimate the number of basic moral truths, as there is no consensus about what they are.

In the previous paragraphs, I proposed a possible solution to Vavova's objection of self-defeat, which renders Street's EDA internally incoherent. If Street adopts a theory about the epistemic significance of higher order evidence that rejects the independence requirement (A), and according to which the higher order evidence is weighed in such a way, that it takes precedence over first order evidence (B), Street's argument can withstand self-defeat. Following Wittwer, I advanced Kelly's total evidence view as a possible solution to the objection of self-defeat. However, the theory is found wanting. Kelly's total evidence view cannot simultaneously fulfil requirement A and B, which is necessary for the Street's argument to succeed.

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[65] Wittwer, "Evolutionary Debunking", 42.
[66] Wittwer, "Evolutionary Debunking", 41.
[67] Joyce, "How Probabilities"

3.3. A non-evidentialist theory of higher order defeat

In the last paragraph, I argued that Kelly's evidentialist theory cannot provide a solution to the objection of self-defeat. In this section, I will advance that Dipaolo's account of higher order defeat can help the debunker to rebut the objection of self-defeat.[68] Dipaolo gives a non-evidentialist theory of higher order defeat. If Dipaolo's view is combined with Reinders 'defeasing function' account of comparing evidential and non-evidential normative reasons for belief, requirement A and B are fulfilled. Therefore, Vavova's objection of self-defeat can be rebutted by the debunker. My strategy in replying to the objection of self-defeat is as follows. Firstly, I will describe Dipaolo's account of higher order defeat. Secondly, I will discuss Reinder's 'defeasing function' account. Lastly, I will show that by combining the theories, the independence requirement is rejected, while the justification of our moral beliefs is defeated.

3.3.1. Dipaolo's account of higher order defeat

Dipaolo argues that higher order defeat, in contrast to rebutting and undercutting defeat, is object independent.[69] Because higher order defeat is object-independent, higher order defeat is brought about by non-evidential, state-given reasons for belief, instead of evidential object-given reasons for belief.[70]

Why is higher order defeat object-independent? To see why, compare two versions of Hypoxia. In the first version, Andy's calculations bring her to believe that she has enough fuel to make it to Hawaii. In the second version, her reasoning leads her to believe that her fuel supply is too low. In the first version, following the message that she has hypoxia, Andy should revise her belief. After all, she suffers from a cognitive malfunctioning, which defeats the justification of her belief that she has enough fuel. However, in the second version, the higher order evidence has the same effect. If Andy believes her fuel supply is not sufficient, she also has to revise her belief because of hypoxia. This suggests that whether Andy should revise her belief is not dependent on the content of her belief. Therefore, the higher order defeat of her belief is object-independent.[71] According to Dipaolo, this is a standard feature of higher order defeat.

Why does the object-independence of higher order defeat suggest a non-evidential, state-given reasons account of higher order defeat?

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[68] Dipaolo, "Higher-Order".
[69] Dipaolo, "Higher-Order", 355.
[70] Dipaolo, "Higher-Order", 259.
[71] Dipaolo, "Higher-Order", 259.

To answer this question, it is important to understand the difference between a state-given reason and an object-given reason. An object-given reason discloses something about the object of a belief.[72] For example, the fact that the environment is harmed by eating meat, is evidence for my belief that humans should not eat meat. The evidence indicates that the object of my belief is true, namely that what I believe, that humans should not eat meat, is true. In contrast, state-given reasons indicate something about the attitude of believing. For example, imagine that believing that the environment is not harmed by eating meat makes me happy. In that case, my state of believing makes me happy, which leads to a positive value being associated with believing the proposition. As the value bears on my attitude of believing and not on the object of my belief, it is a state-given reason.

Object-given reasons, in contrast to state-given reasons, are analogous to evidence. Consider the following example (from now on referred to as 'Grandmother'). When going to the supermarket, I see my grandmother leave the store with two cartons of milk in the pockets of her coat. Afterwards, I find out that two cartons of milk are missing from the store, which are believed to be stolen. The fact that my grandmother walked out of the store with two cartons of milk, is evidence for the belief that my grandmother stole milk from the supermarket. At the same time, it is an object-given reason for the same belief.

Compare this to state-given reasons. Believing that my grandmother did not steal milk from the supermarket makes me happy, as I find stealing unacceptable. The fact that believing it makes me happy, is no evidence for believing that my grandmother did not steal the milk. The example suggests that object-given reasons are analogous to evidence for beliefs, while state-given reasons are not.

The state-given reason in Grandmother is a pragmatic state-given reason. Pragmatic state-given reasons stem from the fact that there is a pragmatic (dis)value associated with the state of believing. In contrast, for epistemic state-given reasons, the (dis)value associated with the state of believing is epistemic. For an example of an epistemic disvalue associated with the state of believing, imagine that P entails Q. This is not evidence against the belief that P is true and Q is false, but bears negatively on the attitude of believing that P is true and Q is false. This gives rise to an epistemic state-given reason against the belief. In the following paragraphs, we are concerned with epistemic state-given reasons.

Now we are in a position to answer the question why the object-independence of higher order defeat substantiates a non-evidential, state-given reasons account of higher order defeat.

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[72] Whiting, "Whither", 11.

According to Dipaolo, defeat is brought about by reasons to revise the belief, which are based on facts about the disvalue of maintaining a belief.[73] For object-given (epistemic) reasons to revise a belief, the disvalue is located in the falsity of the belief's content. State-given reasons to revise a belief indicate that there is a disvalue in holding the belief, irrespective of its content.[74] State-given reasons to revise a belief show that in certain respects, having the belief is bad.[75]

Because higher order defeat is object-independent, it cannot be realized by object-given reasons for belief. Object-given reasons locate the disvalue of maintaining a belief in the content of the belief. However, higher order defeat does not depend on the content of the belief in question. How can object-given reasons bring about higher order defeat, if the defeat is established independently of the content of the belief? Therefore, higher order defeat is best characterized as grounded in state-given epistemic reasons of belief, indicating that there is a disvalue in having the belief.

It is important to understand that ultimately, in the non-evidentialist picture provided by Dipaolo, higher order defeat can be traced back to evidence. Even so, this does not mean that the defeat is evidential. Epistemic state-given reasons against maintaining a belief are based on higher order evidence of the epistemic disvalue of maintaining the belief.[76] The defeat is not explained by the evidence not supporting the belief. Instead, the content-independent disvalue of maintaining a belief gives rise to the defeat.

In this section I have argued, following Dipaolo, that higher order defeat is object-independent, which means that whether a subject should revise his or her belief does not depend on the content of his or her belief. Next, I explained that the object-independence of higher order defeat indicates that higher order defeat cannot be realized by object-given reasons of belief. Therefore, I concluded that higher order defeat is brought about by non-evidential, state-given reasons for belief, instead of evidential object-given reasons for belief.

3.3.2. Reisner's 'defeasing function' account

By itself, Dipaolo's account of higher order defeat cannot help the debunker in rebutting the objection of self-defeat. Dipaolo's account rejects the independence requirement, but does not ensure that the justification of our first order moral beliefs is defeated. According to Dipaolo's

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[73] Dipaolo, "Higher-Order", 260.
[74] Dipaolo, "Higher-Order" & Whiting, "Whither", 11.
[75] Whiting, "Whither", 11.
[76] Dipaolo, "Higher-Order", 262.

theory, if the independence requirement is rejected, object-given reasons (first order evidence) should be taken into account in evaluating the justification of moral beliefs. However, the theory does not offer an account of how the object-given reasons and the state-given reasons are weighed. If we assume a simple weighing account, as in our discussion of Kelly's total evidence view, it is not clear why the state-given reason would outweigh the object-given reasons.

Reisner's formal account of how to relate evidential and non-evidential reasons offers a solution. According to Reisner, a simple weighing account of evidential and non-evidential reasons is incorrect, because of the nature of evidential and non-evidential reasons.[77] Instead, there is a defeasing relation between evidential and non-evidential reasons. In the next paragraphs, I will first explain why a simple weighing account of evidential reasons and non-evidential reasons is not promising. Then I will discuss why there is a defeasing relation between the types of reasons. Lastly, I will apply Reisner's theory to Street's evolutionary debunking argument, and show that because requirement A and B are fulfilled, Vavova's argument of self-defeat is rebutted.

Two observations suggest that the simple weighing account of evidential and non-evidential reasons is problematic.

For the first problem associated with the simple weighing account, consider the case of Jones.[78] Jones hometown Grodno was originally in Poland but became part of Belarus after Jones moved to a different country. As Jones does not keep up with the news, he is not aware that Grodno has become part of Belarus. After finding out that Grodno is in Belarus by looking at Google Maps, Jones becomes severely depressed, which disrupts his whole life. The only way for Jones to recover, is to believe that Grodno is part of Poland. According to the simple weighing account, the evidential reasons and the non-evidential reasons should be weighed against each other to determine what Jones ought to believe. An example of one of Jones' evidential reasons is that Google Maps indicates that Grodno is in Belarus. A non-evidential reason is the disvalue associated with maintaining the belief that Grodno is in Belarus, stemming from Jones' depression.

For argument's sake, let us assume that the non-evidential reasons outweigh the evidential reasons, by a small degree. According to the simple weighing account, if Jones has additional evidential reasons to believe that Grodno is in Belarus (for example, because Jones

[77] Reisner, "Weighing", 21-23.
[78] Reisner, "Weighing", 21.

looked up Grodno in an atlas), weighing the reasons would support the belief that Grodno is in Belarus. Again, if a new non-evidential reason would come up, the balance would be tipped back to the non-evidential reasons.

The example shows that if non-evidential and evidential reasons interact, what we should believe is very sensitive to the amount of evidential evidence. However, this result does not reflect our intuitions regarding this case.

 Jones' life is to such an extent disrupted by the belief that Grodno is in Belarus, that the non-evidential reasons weigh heavy, and outweigh the evidential reasons. Therefore, it seems incorrect that seemingly unimportant additional evidence, like the fact that Grodno is located in Belarus according to an atlas, changes whether Jones should believe that Grodno is in Belarus.

Secondly, there is an asymmetry between evidential and non-evidential reasons.[79] For evidential reasons, if there is sufficient reason to believe a proposition, additional evidence will not provide further reason for the belief. To return to the example of Jones, once Jones believes Grodno is in Belarus, checking a second atlas will not provide additional reason for Jones to believe Grodno is in Belarus. Therefore, evidential reasons are limited in the amount of weight they can give to a proposition. In contrast, non-evidential reasons do provide additional reason for belief, even if the subject already believes the proposition. If Jones will also receive a promotion if he believes Grodno is in Poland, this will provide additional reason to believe Grodno is in Poland, even if he already maintains this belief. Therefore, the amount of weight non-evidential reasons can provide is not limited. The difference between the two types of reasons makes it hard to see how the reasons can be weighed directly against each other.

If a simple weighing theory cannot account for the relation between non-evidential reasons and evidential reasons, how do evidential and non-evidential reasons relate to each other? According to Reisner, if the weight of the non-evidential reasons is low, the evidential reasons are the only reasons for belief.[80] However, if the weight of the non-evidential reasons is high, the evidential reasons do not count as reasons for belief. In this manner, the non-evidential reasons sometimes silence the evidential reasons.

Why is this a plausible theory? Consider the example of Patrick, who has been studying for his high school exams.[81] Patricks capacity to perform and his confidence are highly connected. If he gets nervous, his confidence decreases, which leads him to perform worse on

[79] Reisner, "Weighing", 23.
[80] Reisner, "Weighing", 24.
[81] Reisner, "Weighing", 22.

tests. Because he gets nervous during exams, he suffers from a condition such that his actual performance on tests is 10% lower than what he believes his performance will be. Up till now, Patrick was not aware of his condition. However, when he realizes his condition, according to his evidential reasons, he has reason to believe he will receive the lowest grade possible on his exam. Every time he has a belief about his performance on the exam, he will have to subtract 10%, until he has reason to believe he will get a 1 out of 10.

Patrick is a motivated do-gooder, and to motivate him, his father has promised to donate ten thousand euros to a charity if he will do well on his exams. As the money will relieve the suffering of a large group of people, Patrick has a very strong non-evidential reason to believe he will excel in his exams. In this case, it seems that no number of evidential reasons can change the fact that Patrick should believe that he will perform well on his exam. Because of the strength of the non-evidential reasons, his evidential reasons seem to be silenced. To see this, imagine before the exam, Patrick receives a pep talk from his father. His father shows him that he got an 8 on average on his exams this last month, a seven point five on his exams this last half year, and a seven point six for all his exams during his high school years. Although this is relevant evidence for Patrick's belief regarding his test performance, the evidential reasons do not seem to be important in determining his belief.

However, the evidential reasons are not silenced anymore when the non-evidential reasons become less powerful. Imagine instead of donating to a charity, Patrick's father will take him out for dinner if he passes his exams. In this scenario, the evidential reasons determine what Patrick should believe. In addition, the non-evidential reasons do not contribute at all to what Patrick ought to believe.

Reisner formalizes his account in the following manner.[82] Let x be the weight of the evidential reasons for believing that Patrick will do well on his exam, and y be the weight of the non-evidential reasons. Let x and y take on positive and negative values, and zero. If x is positive, the evidential reasons are for believing that Patrick will do well on his exam. If x is negative, the evidential reasons are against believing that Patrick will do well on his exam. If x is zero, the evidential reasons are neither for nor against believing that Patrick will do well on his exam. For y, the positive, negative values and zero indicate the same, only for the non-evidential reasons. y is a negative number, while $\bar{y}$ and $\bar{x}$ are non-negative numbers.

If $y < y < \bar{y}$, then if $x > \bar{x}$, Patrick ought to believe that Patrick will do well on his exam,

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[82] The formalisation of the function is directly taken from Reisner, "Weighing". The explanation is added by the author, based on the previous example.

and if $x \leq x$, Patrick ought not to believe that Patrick will do well on his exam.

If $y \leq y$, then Patrick ought not to believe that Patrick will do well on his exam.

If $y \geq \bar{y}$, then Patrick ought to believe that Patrick will do well on his exam.

The formalization expresses that if the non-evidential reasons are above a certain level, the evidential reasons are silenced. If the non-evidential reasons are below the level, the evidential reasons determine what Patrick ought to believe.

3.3.3. Rebuttal of Vavova's objection

To recapitulate, the objection of self-defeat is as follows. According to Vavova, the debunker has to assert that the adaptive moral beliefs and the true moral beliefs come apart. To block the moral realist from (successfully) arguing against APART, the debunker has to endorse the independence requirement, which entails that in evaluating whether there is good reason to think that our evaluative beliefs are mistaken, neither the debunker nor the realist can depend on (evidence for) our evaluative beliefs. However, to argue for APART, the realist depends on moral beliefs herself. Therefore, the debunker's argument is self-defeating and internally incoherent.

In the previous paragraphs, I argued for a non-evidential state-given reasons account of higher order defeat. Next to that, following Reisner, I proposed an account of relating evidential and non-evidential reasons, according to which non-evidential reasons silence evidential reasons under certain circumstances.

How do these accounts help the debunker avoid the objection of self-defeat? Firstly, the non-evidential state-given reasons account I proposed does not endorse conciliationism. To reiterate, this is the view that the justification for a belief is defeated if one has higher order evidence of the error of a belief. Therefore, if Diapolo's account of higher order evidence is applied to Street's evolutionary debunking argument, the debunker does not adopt the independence requirement. Her rejection of the independence requirement allows the debunker to depend on substantial moral beliefs to substantiate APART.

However, how can the debunker conclude that the moral realists' moral beliefs are debunked, if the moral realist can employ substantial moral beliefs in her argument against the debunker? If we apply Diapolo's theory to Street's EDA, the influence of evolutionary forces on our moral beliefs leads to a non-evidential, state-given reason. This state-given reason has to be weighed against the first order evidence available, to evaluate whether there is good reason to believe the moral beliefs are defeated. Reisner's formal account provides us with an

understanding of the relation between the two types of reasons. If a non-evidential reason is strong enough to be above a certain threshold, it silences the evidential reasons for a belief.

The question is whether the non-evidential state-given reason provided by Street's EDA, is strong enough to silence the evidential reasons for belief. To show that the non-evidential reason is powerful enough, a few considerations are of importance.

First, by accepting Dipaolo's account, the independence requirement is rejected, so the debunker can argue successfully for APART. This means that the adaptive and true moral beliefs come apart. Therefore, according to Vavova's own line of reasoning, the evolutionary influence on our moral beliefs is not simply genealogical information. Because our moral beliefs are distinct from the adaptive beliefs, the evolutionary influence is a distortive influence.

Intuitively, there is a large disvalue associated with maintaining a belief which is influenced by a distortive process, like the evolutionary forces. Our intuition resembles other cases of higher order belief, like Hypoxia. Therefore, our intuitions suggest that in cases like Street's EDA, where a flawed process produces our beliefs, the non-evidential reasons are strong. A critic might object that, in our discussion of Kelly's total evidence view, according to our intuitions, the evidential considerations did not outweigh the first order evidence. However, I am not arguing that our intuitions about evolutionary considerations give rise to a state-given non-evidential reason that is strong enough to outweigh our moral beliefs. I am advancing that the state-given reason is strong enough to be above the threshold, so that the evidential reasons are silenced. As our intuition about the disvalue arising from a belief forming process influenced by distortive factors is strong, it is plausible that the threshold is met.

Second, according to Reisner, the circumstances of a case determine the threshold above which the non-evidential reasons silence the evidential reasons. The threshold most likely has a low threshold in cases of higher order defeat. This is because if the strength of the non-evidential reason does not surpass the threshold, the evidential reasons are the only reasons that count. However, it seems counterintuitive to completely disregard a negative epistemic value associated with the belief, stemming from a malfunctioning cognitive process. This is exactly what happens if non-evidential reason, the evolutionary influence, is not strong enough to exceed the threshold.

Because our intuitions support the idea of a strong non-evidential reason, and because it is counterintuitive in this case to fully disregard the non-evidential reason, the non-evidential reason surpasses the threshold. Therefore, I conclude that the non-evidential state-given reason provided by Street's EDA is strong enough to silence the evidential reasons for belief.

How does the silencing of the evidential reasons for belief vindicate Street's EDA? The problem with rejecting the independence requirement was that the moral realist can depend on substantial moral beliefs to argue against Street's EDA. Specifically, the realist can rely on the moral beliefs to advance that we do not have good reason to believe that the adaptive beliefs and the true moral beliefs come apart. To this purpose, the realist assumes that pain is wrong, and survival is right.

In evaluating whether there is good reason to believe that our moral beliefs are mistaken, several reasons for belief are of importance. First, there is the non-evidential state-given reason, which consists of the disvalue associated with believing that our moral beliefs are correct. Second, the moral realist asserts evidential content-given reasons, namely that we ought to believe that our moral reasons are correct, since survival is good and pain is bad.

Because the evidential reason surpassed the threshold, the evidential reasons are silenced. This means that the moral realist may advance evidential reasons against the belief that the moral beliefs are mistaken, but that we do not have to take these reasons into account. Instead, we only consider the state-given reason, according to which we ought to believe that the moral beliefs are mistaken. Therefore, in adopting a non-evidential state-given reasons account of higher order defeat, the moral realists' moral beliefs are debunked, and Street's argument is vindicated.

In this section I introduced Vavova's objection of self-defeat. According to Vavova, Street's EDA is self-defeating because Street endorses the independence principle. According to the principle, we should assess higher order evidence of error with respect to our moral beliefs, without relying on our substantial moral beliefs. However, if Street cannot depend on first order evidence for her argument, her EDA is not valid. Therefore, Street's EDA is self-defeating. Following Wittwer, I argued that Street should reject the independence principle to avoid self-defeat. Furthermore, she should adopt a theory about higher order defeat that yields the verdict that the moral beliefs are defeated. I argued that only a non-evidential reason-given theory of higher order defeat will provide this result. This is because non-evidential reasons for belief can silence evidential reasons, if the non-evidential reason is strong enough. I advanced that in assessing whether our moral beliefs are mistaken, the non-evidential reasons are compelling enough to silence the evidential reasons. I concluded that because the evidential reasons are silenced, the moral beliefs are debunked by Street's EDA.

Conclusion

This thesis was about whether Street's evolutionary debunking argument (EDA) is internally coherent. Critics of Street's EDA have argued that her argument is internally incoherent in two ways. According to the epistemic incoherence objection, Street's EDA overgeneralizes to forms of knowledge which are necessary for her argument to debunk moral beliefs. In contrast, proponents of the objection of self-defeat advance that Street's EDA cannot undermine moral beliefs, as her EDA is itself dependent on substantial moral claims. The main question I answered in this thesis is whether the epistemic incoherence objection and the objection of self-defeat succeed in showing that Street's EDA is internally incoherent.

According to the epistemic incoherence objection, Street cannot adopt an ALA for moral beliefs and a TA for perceptual beliefs, as the difference between the ALA and the TA is not clearly demarcated. Because of this, to debunk moral beliefs, perceptual beliefs are debunked as well, which leads to internal incoherence of Street's EDA. I argued against the epistemic incoherence objection, by showing that the objection rests on a misconception of the ALA and TA, and that the accounts are clearly demarcated.

However, I agreed with proponents of the epistemic incoherence objection that Streets application of the ALA to moral beliefs and the TA to perceptual beliefs is problematic. Specifically, the fitness enhancement of perceptual beliefs is better explained by the ALA. I advanced that the adoption of an ALA for perceptual beliefs is not problematic for the debunker, because there is an indirect relation between the perceptual truths and the evolutionary forces. In contrast, the prospects of an indirect relation between the moral truths and the evolutionary forces are dim. Therefore, Street's EDA debunks moral beliefs without debunking perceptual beliefs. I conclude that the epistemic incoherence objection is refuted and fails to render Street's EDA internally incoherent.

Even though the epistemic incoherence objection is disregarded, Street's EDA is still in danger of being internally incoherent because of the objection of self-defeat. According to the objection of self-defeat, Street endorses an independence requirement, which prohibits the debunker and the realist to depend on substantial moral claims in their arguments. However, Street's EDA is dependent on substantial moral claims to argue that the adaptive moral beliefs and the true moral beliefs come apart. Therefore, Street's EDA is self-defeating and internally incoherent.

I argue that Street can avoid the objection by rejecting the independence requirement. If Street denies the independence requirement, she can depend on substantial moral claims to

debunk moral beliefs. However, in that case, the moral realist can also use substantial moral claims to argue that the adaptive beliefs and moral truths overlap.

To resist this argument by the moral realist, I proposed that Street adopts a non-evidential state-given reasons account of higher order belief. First, I argued that a non-evidential state-given reasons account of higher order belief is to be preferred over an evidential account, because higher order defeat is object-independent. Second, I advanced Reisner's weighing account of evidential and non-evidential reasons for belief, which entails that in certain circumstances, the evidential reasons are silenced by the non-evidential reasons for belief. Lastly, I argued that in case of Street's EDA, the evolutionary forces, which lead to a non-evidential reason for belief, silence the moral realist's argument that the adaptive moral beliefs correspond to the true moral beliefs. Therefore, Street can depend on substantial moral claims in her argument, without her EDA being self-defeating.

In this thesis, I argued against the position that Street's evolutionary debunking argument is internally instable, by refuting the epistemic incoherence objection and the objection of self-defeat. Based on my argumentation, I conclude that Street's evolutionary debunking argument is internally coherent.

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