Epistemic Paradise Lost: Saving What We Can with Stable Support

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Abstract

I focus on the No-Paradise Dilemma, which results from some initially plausible epistemic ideals, coupled with an assumption concerning our evidence. Our evidence indicates that we are not in an epistemic paradise, in which we do not experience cognitive failures. I opt for a resolution of the dilemma that is based on an evidentialist position that can be motivated independently of the dilemma. According to this position, it is rational for an agent to believe a proposition on the agent's total evidence just in case the (total) evidence stably supports the proposition. Based on this evidentialist position, I argue that it is not an epistemic ideal in the actual world that we hold rational beliefs that are logically equivalent to our rational beliefs. The dilemma is resolved by giving up this ideal for the actual world and adopting the evidentialist position in terms of stable evidential support.

§1 Introduction

Imagine an epistemic paradise, but one in which the inhabitants are not omniscient. They do not know everything already—a state which might after all be dreadfully boring—and they still want to figure out things about the world. However, the inhabitants are *logically* omniscient:[1] they believe all logically true propositions and disbelieve all logically false propositions. And if they hold a rational belief, they also hold all logically equivalent beliefs.[2] They believe all the logical consequences of their rational beliefs, that is, their belief set is logically closed. Furthermore, their beliefs are always properly based on their total evidence. And on top of all that, in this epistemic paradise they have perfect self-knowledge about their own doxastic states. This paradise is lost—or perhaps it never existed. Nevertheless, in epistemology we still theorize about aspects of it. We theorize about epistemic ideals;[3] and we do so in the hope that we can thereby illuminate the notion of ideal epistemic rationality, and as a further outcome learn something about epistemic rationality in general. We theorize about epistemic ideals, for instance, when we take the ideals as reference points for our judgements of rationality.[4] Epistemic ideals have been challenged for being cognitively too demanding, or for not taking self-doubt into account.[5]In this paper, I focus on a challenge for epistemic ideals that is rooted in the fact that we have evidence about our cognitive failures. I present the *No-Paradise Dilemma*, which makes use of such

[1] Here I am assuming that logical omniscience concerns knowledge and rational belief.

[2] Throughout the article I only consider the epistemic dimension, so I often leave out the qualification 'epistemic' when referring to rationality.

[3] For an instructive discussion of epistemic idealizations in epistemology, see (Yap, 2014).

[4] See, similarly, (Christensen, 2004).

[5] For challenges of the latter kind, see e.g. (Christensen, 2007 and 2010), and (Smithies, 2016).

evidence: evidence which suggests that we are not in epistemic paradise. According to the dilemma one ought and ought not to believe a specific proposition. I resolve the dilemma by arguing that it is not an epistemic ideal *in the actual world* that we hold rational beliefs that are logically equivalent to our rational beliefs. This resolution is based on an evidentialist position for which I provide a formal specification.[6] I refer to the position as 'the stability account of evidentialism'. According to this evidentialist position, it is rational for an agent to believe a proposition on the agent's total evidence if and only if the proposition is *stably* supported by the evidence for the agent. And the total evidence stably supports a proposition for the agent—roughly— just in case the proposition remains supported by the total evidence for the agent, even by the total evidence of the agent after believing the proposition in question and when the agent believes the proposition.

I proceed as follows: in Section 2, I introduce the *No-Paradise Dilemma*. In Section 3, after discussing possible resolutions to the dilemma, I opt for a resolution that is based on the stability account of evidentialism. Based on this evidentialist position, for which I give a formal specification, I argue against the epistemic ideal that we hold rational beliefs that are logically equivalent to our rational beliefs.[7] By giving up this ideal for the *actual world* and adopting the evidentialist position in terms of stable evidential

[6] See also my paper (Eder, 2020) for this position, where I present it in an informal way. An earlier position in a similar spirit, but which differs in details can be found in (Conee, 1994). I'll address Conee's position in Section 3.2. My position is more specific and in contrast to Conee's not in terms of reason and knowledge. However, I leave it to another opportunity to compare both positions in more detail.

[7] Christensen (2007) and Conee (1994) also question such an ideal. Unfortunately there is no room here to compare their approaches to mine. However, I say a little bit on their approaches in Footnote 22 and 23.

support, the dilemma can be resolved in a plausible way.[8] I summarize my results in Section 4.

§2 The No-Paradise Dilemma

Our notion of rationality is normative. When we say that it is rational for an agent to believe a proposition we often also intend to say that the agent ought to believe the proposition. This is sometimes so even in case the agent is not cognitively able to form the respective belief. In such cases, 'ought' is used to express what would be ideal, disregarding whether this ideal can be cognitively achieved by the agent. I follow Christensen, who says:

> ´Clearly, we don't want to blame anyone for failing to live up to an unattainable ideal. But there are certainly evaluative notions that are not subject to 'ought'implies-'can'. I would argue that our ordinary notion of rationality is one of them: when we call a paranoid

[8] Smithies (2016: 416) writes the following about the standards for ideal and non-ideal agents:

> ´Ideal standards require that one is perfectly responsive to the logical facts, and hence that one is never mistaken or uncertain about logic. But since non-ideal agents cannot satisfy these ideal standards, we can evaluate them by non-ideal standards of rationality that take their limited capacities into consideration. These non-ideal standards sometimes require non-ideal agents to depart from ideal standards by being uncertain or mistaken about logic´ (Smithies, 2016: p. 416).

Although I agree with this in spirit, I think that it is better not to speak of ideal agents, arguing in (Eder, 2019) that we should avoid reference to them. Comparing Smithies's approach concerning idealizations to mine is beyond the scope of the present paper. However, I'll say a bit on his approach towards evidentialism and rationality in Section 3.2.

schizophrenic 'irrational', we in no sense imply that he has the ability to do better′ (Christensen, 2007: p. 5).

In this paper, I have this idealized notion of rationality in mind. We may refer to the notion as 'ideal rationality' if preferred, but for simplicity I use the unqualified term 'rationality' and leave out 'ideal' unless it is required for clarity. The *No-Paradise Dilemma* arises when one combines certain epistemic principles—which are commonly considered to be epistemic ideals—with an assumption concerning our evidence about our cognitive failures. In the following, I present the principles and the assumption concerning our evidence, and show how they lead to the dilemma. The dilemma evolves from Williamson's (2000) argument against credence interpretations of evidential probabilities and my (Eder, 2019) reconstruction and criticism of the argument. It is, however, crucially different to both, as those familiar with (Williamson, 2000) and my (Eder, 2019) will perceive, and as I discuss in more detail at the end of Section 2.

§2.1 Evidentialism, Propositional and Doxastic Rationality

In this paper, I adopt an evidentialist position and distinguish between two kinds of rationality: *propositional rationality* and *doxastic rationality*. To begin with, I adopt the following evidentialist position:

> ***Propositional Rationality*** It is propositionally rational for an agent s to believe a proposition p on s's total evidence tev(s) just in case p is supported by tev(s) for s.
>
> Formally: $PR_s(p,\text{tev}(s)) \leftrightarrow S_s(p,\text{tev}(s))$.

I specify neither what evidence is nor the nature of the evidential support relation; for my core argument an intuitive understanding of both will suffice. However, note that I disregard inconsistent total evidence and I assume that the following minimal conditions hold for evidence and evidential support: evidence is understood as a proposition, and when an agent's total evidence supports a proposition (i.e. is evidence *for* the proposition), then the proposition is more plausible, given the evidence, than its negation is, given the evidence.

Sometimes we do not believe what is supported by our total evidence. Sometimes agents don't believe propositions even when it is propositionally rational for them to believe the propositions (on their total evidence). And even when the agents believe the propositions, sometimes the beliefs are not properly based on their total evidence —which is, for example, the case when the agents disregard some relevant pieces of evidence. This has led epistemologists to bring *doxastic rationality* into the picture, commonly understood as follows:[9]

> ***Doxastic Rationality*** An agent s holds a doxastically rational belief in a proposition p given s's total evidence tev(s) just in case s believes p and s's belief in p is properly based on tev(s).
>
> Formally: $\mathrm{DR}_s(p,\mathrm{tev}(s)) \leftrightarrow \mathrm{B}_s(p) \wedge \mathrm{PB}_s(p,\mathrm{tev}(s))$

There is no room here to dig deep into the debate on when an agent's belief is properly based on the agent's total evidence. What I shall argue for is neutral with respect to the right understanding of this relation. In this paper, again, an intuitive understanding of it will suffice.

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[9] See (Smithies, 2016: p. 405) for, at first glance, a similar understanding of propositional and doxastic rationality. I say more on Smithies on propositional and doxastic rationality in Section 3.2.

To elucidate both kinds of rationality—propositional and doxastic—let us consider the following two cases where propositional and doxastic rationality come apart. Think of a scientist whose total evidence supports that the measles vaccine is safe. Given *Propositional Rationality* it is propositionally rational for the scientist to believe that *the measles vaccine is safe*. Unfortunately, the scientist does not believe that *the measles vaccine is safe*. As a consequence, the scientist does not hold a doxastically rational belief in the proposition, because the scientist does not even hold a belief in the proposition. Or, alternatively, it is propositionally rational for the scientist to believe the proposition that the measles vaccine is safe and the agent actually believes that the measles vaccine is safe, but the scientist believes that only because to believe otherwise would make the scientist unpopular in the scientist's scientific community. In this latter case, the belief that *the measles vaccine is safe* is not doxastically rational either, because the belief is not properly based on the scientist's total evidence.

Even though propositional and doxastic rationality can come apart, it is often assumed that there is a tight connection between them. According to the notion of propositional and doxastic rationality that I advocate, it is excluded that it is propositionally rational for an agent to believe a proposition on the agent's total evidence but the evidence makes it impossible for the agent to have a doxastically rational belief in the proposition. For example, the following is excluded: on your total evidence, it is propositionally rational for you to believe a proposition that is a logical truth, and at the same time it is impossible that you should have a doxastically rational belief in the proposition because of your higher-order evidence that is included in your total evidence, where this higher-order evidence prevents you from properly basing your belief in the logical truth on your total evidence.[10] Such higher-order evidence could be

[10] Regarding the assumption of a close connection between propositional and doxastic rationality, I follow Christensen (2018).

evidence that a pill in the coffee you drank would likely cause you to make mistakes when forming a belief.[11]

According to the understanding of propositional and doxastic rationality in focus here, there is a tight link between these kinds of rationality. With Christensen, I think that something like the following 'is behind our idea of propositional rationality':

> ´in general, the propositions that are rational for an agent to believe, given certain evidence, are those that would be believed as part of an ideally rational doxastic response to that evidence´ (Christensen, 2018).

Accordingly, the tight link between propositional and doxastic rationality is reflected in the case in which things are ideal. Let's assume that the belief being part of an ideally rational doxastic response amounts to the belief being properly based. Then, Christensen's considerations in the quotation, I think, suggest the following bridge principle, which connects propositional and doxastic rationality:

> ***Bridge*** It is propositionally rational for an agent *s* to believe a proposition *p* on *s*'s total evidence tev(*s*) just in case it ought to be the case that *s* holds a doxastically rational belief in *p* given tev(*s*).
>
> Formally: $PR_s(p,\mathrm{tev}(s)) \leftrightarrow O[DR_s(p,\mathrm{tev}(s))]$

It is thereby relevant to keep in mind that 'ought' is used to express what would be epistemically ideal, disregarding whether the agent in question has the cognitive

[11] Smithies (2015 and 2016) presents an interesting and appealing account that allows that propositional and doxastic rationality can come apart in such cases. The pill-example here traces back to Christensen's (2010: p. 187) famous drug example.

abilities to achieve the ideal. Accordingly, 'ought' or 'ought to be the case that' is applied to propositions, which should be understood as describing ideal states. This is how 'ought' or 'ought to be the case that' is often understood, especially in standard deontic logic.

§2.2 Logical Equivalence

One of the epistemic ideals that is widespread in epistemology, and especially in formal epistemology, is logical omniscience; the epistemic ideal that we hold rational beliefs that are logically equivalent to our rational beliefs is related to this. It is assumed that if two propositions are logically equivalent, then it is ideal for an agent to hold a doxastically rational belief in a proposition given the agent's total evidence just in case the agent holds a doxastically rational belief in the proposition's equivalent proposition given the same evidence. The following is in accordance with this:[12]

> ***Logical Equivalence*** If a proposition p and a proposition q are logically equivalent, then it ought to be the case that an agent s holds a doxastically rational belief in p given s's total evidence tev(s) just in case s holds a doxastically rational belief in q given tev(s).
>
> Formally: $(p \dashv\vDash q) \rightarrow \mathrm{O}[\mathrm{DR}_s(p,\mathrm{tev}(s)) \leftrightarrow \mathrm{DR}_s(q,\mathrm{tev}(s))]$

Logical Equivalence is commonly considered to be an epistemic ideal and it reflects what would hold in epistemic paradise.

§2.3 No Belief in Moore-Paradoxical Propositions

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[12] See (Williamson, 2000: p. 210) for an analogous principle.

Having focused on an epistemic ideal that concerns logical relations among beliefs, let us turn to an ideal that concerns beliefs about oneself. Many epistemologists agree that it is ideal not to believe Moore-paradoxical propositions of the form: *p and I don't believe p*. This kind of Moore-paradoxical proposition is of the *omissive form*. In the literature, one distinguishes Moore-paradoxical propositions of the *omissive form*, which have the form *p and I don't believe p*, and Moore-paradoxical propositions of the *commissive form*, which have the form: *p and I believe not-p*.[13] One can also find discussions of propositions that are like Moore-paradoxical propositions of the mentioned forms except that they are expressed not merely in terms of belief but in terms of evidential support, knowledge, rationality (of believing), etc.[14] While it might be controversial whether one can hold doxastically rational beliefs in Moore-paradoxical propositions of the commissive form or some other forms in terms of evidential support, knowledge, rationality, etc., most epistemologists think that beliefs in Moore-paradoxical propositions of the omissive form are never doxastically rational. That said, I set aside Moore-paradoxical propositions of the commissive form or some other forms in terms of evidential support, knowledge, rationality, etc. In this paper, I am not concerned with Moore-paradoxical propositions in general; hence I do not focus on whether, and if so why, beliefs in other kinds of Moore-paradoxical propositions can be doxastically rational. My focus is on a specific dilemma that arises from an assumption about our evidence together with a combination of principles, one in terms of a specific Moore-paradoxical proposition. To discuss the dilemma, and resolve it, I can put other Moore-paradoxical propositions on one side.

In the literature one finds different motivations for thinking that it is ideal not to hold beliefs in Moore-paradoxical propositions of the omissive form. I think it is safe to say

[13] For the omissive-/commissive-form distinction, see for example (Smithies, 2016).

[14] See for example (Lasonen-Aarnio, 2019).

that the following two belong among the most popular motivations.[15] They go roughly as follows: first, it is assumed that it is ideal to have self-knowledge such that an agent is aware of the agent's beliefs in a proposition *p* and by doing so does not believe *I don't believe p*. And since the agent does not believe one of the conjuncts, the conjunction *p and I don't believe p* is not believed by the agent either. Second, as is well-known it is impossible to know Moore-paradoxical propositions of the omissive form[16], and, since it is impossible, one cannot hold a doxastically rational belief in such propositions. It is impossible to know such propositions, because by believing them they become false. They are so-called self-destroying. One's belief in *p and I don't believe p* cannot be true. By believing *p* the belief that *I don't believe p* becomes false. The belief in the conjunction *p and I don't believe p* can never be true and so can never be known. It is thus not rational to believe it.[17] It is ideal not to believe Moore-paradoxical propositions.

The same applies to the proposition *p and no one believes p*. Thus, I accept the following:[18]

> ***No Moore-Paradoxical Belief*** It ought to be the case that agent *s* does not believe the proposition *p and no one believes p*.
>
> Formally: $O[\neg B_s(p \wedge \neg\exists s' B_{s'}(p))]$

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[15] See (Smithies, 2016) for a detailed discussion of motivations.

[16] For the most prominent explanation for why it is impossible to know Moore-paradoxical propositions of the omissive form, see (Williamson, 2000: pp. 253f).

[17] See (Smithies, 2016: Sect. 2.4) for this second kind of motivation. Smithies attributes such a motivation to Williamson (2000: pp. 253f).

[18] Again, see (Williamson, 2000: p. 210) for an analogous principle.

p and no one believes p is not strictly speaking a Moore-paradoxical proposition of the omissive form (i.e. *p and I don't believe p*). However, a moment's reflection reveals that the mentioned motivations for thinking that one cannot hold doxastically rational beliefs in Moore-paradoxical propositions of the omissive form can be applied to Moore-paradoxical propositions of the form *p and no one believes p* as well. In this paper, I assume that the epistemic ideal *No Moore-Paradoxical Belief* holds. Things might be different with respect to other forms of Moore-paradoxical propositions.

§2.4 Your Total Evidence

Nothing I have said so far is incompatible with us being in epistemic paradise. Now, however, having presented evidentialist principles with respect to propositional rationality (i.e. *Propositional Rationality*) and doxastic rationality (i.e. *Doxastic Rationality*), portrayed the relation among these kinds of rationality (i.e. *Bridge*), and introduced two epistemic ideals (i.e. *Logical Equivalence* and *No Moore-Paradoxical Belief*), it is time to look at the actual world, which is inhabited by humans—us. Once we focus on ourselves, we promptly recognize that we are not in epistemic paradise. It is uncontroversial that our present evidence supports that there are some logically true propositions, very complex ones, that we, human agents, do not believe. We have evidence of our cognitive failures. Assume that *a* is such a logical truth, *b* that *no one believes a*, and you are s^*. The following is unquestionable:[19]

> ***Your Total Evidence*** *b* is supported by your total evidence tev(s^*) for you, s^*.
>
> Formally: $S_{s*}(b,\text{tev}(s^*))$

[19] And again, see (Williamson, 2000: p. 210) for an analogous principle.

With this assumption in place we can now present what I refer to as the *No-Paradise Dilemma*.

§2.5 The Dilemma

From *Propositional Rationality*, *Doxastic Rationality*, *Bridge*, *Logical Equivalence*, *No Moore-Paradoxical Belief*, and *Your Total Evidence* one can derive the *No-Paradise Dilemma*:

> ***Conclusion/No-Paradise Dilemma*** It ought to be the case that you, s^*, believe the proposition *p and no one believes p* while at the same time it also ought to be the case that you do not believe it.
>
> Formally: $O[B_{s*}(a \wedge b)] \wedge O[\neg B_{s*}(a \wedge b)]$

According to the conclusion, you ought and ought not to believe a specific proposition, and this puts you in a dilemma. The conclusion can be shown by the following derivation:

1. $PR_s(p,\text{tev}(s)) \leftrightarrow S_s(p,\text{tev}(s))$	*Propositional Rationality*
2. $DR_s(p,\text{tev}(s)) \leftrightarrow B_s(p) \wedge PB_s(p,\text{tev}(s))$	*Doxastic Rationality*
3. $PR_s(p,\text{tev}(s)) \leftrightarrow O[DR_s(p,\text{tev}(s))]$	*Bridge*
4. $(p \dashv\vDash q) \rightarrow O[DR_s(p,\text{tev}(s)) \leftrightarrow DR_s(q,\text{tev}(s))]$	*Logical Equivalence*
5. $O[\neg B_s(p \wedge \neg\exists s' B_{s'}(p))]$	*No Moore-Paradoxical Belief*
6. $S_{s*}(b,\text{tev}(s^*))$	*Your Total Evidence*
7. $PR_{s*}(b,\text{tev}(s^*))$	1. and 6.
8. $O[DR_{s*}(b,\text{tev}(s^*))]$	3. and 7.
9. $O[DR_{s*}(a \wedge b,\text{tev}(s^*))]$	4. and 8.
10. $O[B_{s*}(a \wedge b) \wedge PB_{s*}(a \wedge b,\text{tev}(s^*))]$	2. and 9.

11. $O[B_{s^*}(a \wedge b)]$	10.
12. $O[\neg B_{s^*}(a \wedge b)]$	5. (recall b is the proposition that *no one believes a*)
$\therefore O[B_{s^*}(a \wedge b)] \wedge O[\neg B_{s^*}(a \wedge b)]$	11. and 12.

It is well known that evidentialist positions such as *Propositional Rationality* can stand in conflict with Moore-paradoxical propositions. However, this formally precise derivation of the *No-Paradise Dilemma* illuminates the exact structure of the present problem by formally specifying the principles, assumptions, and the dilemma. This makes it easier to resolve the latter. Here I won't take a stand on whether there are epistemic dilemmas that cannot be resolved. However, I think that one should try one's best to avoid dilemmas and to look for possibilities to resolve them. As it turns out, the present dilemma can be resolved. In the following section, I show how.

Before I proceed to resolve the *No-Paradise Dilemma*, I would like to roughly compare my approach here with Williamson's (2000) and mine in (Eder, 2019). As I mentioned earlier, the dilemma evolves from Williamson's (2000: Sect. 10.1) argument against credence interpretations of evidential probabilities and my (Eder, 2019) reconstruction and criticism of the argument.

A crucial difference is that Williamson's argument concerns interpretations of evidential probabilities, credences, and ideal agents, while the assumption about our evidence that lead to the *No-Paradise-Dilemma*, the principles, and the dilemma itself concern none of these. The latter concern categorical beliefs, propositional and doxastic rationality, and epistemic normativity. In particular, whereas Williamson's argument focuses on the credences of ideal agents, I frame my argument in normative terms, in terms of what one ought to believe, and I focus on the connection between propositional and doxastic rationality.

In more detail, both Williamson's argument and my derivation of the dilemma do in part rely on similar principles. Principles like *Logical Equivalence* and *No Moore-Paradoxical Belief* are well-known assumptions in the literature, and Williamson and I merely use different versions of these principles in line with our different foci. In addition, I adopt *Your Total Evidence* from an ingenious assumption by Williamson that is analogous to it. However, the *No-Paradise Dilemma*, *Propositional Rationality*, *Doxastic Rationality*, and *Bridge*, play no role at all in (Williamson, 2000) or my (Eder, 2019) not even in an analogous way. Note, furthermore, that a comparison between the approaches in his 2000 and my 2019, and my approach here, requires a thorough examination of how rational categorical belief and rational credences are related. Since there is no room for such an examination here, I must leave it to another occasion.

§3 A Resolution

In the following, I introduce two ways to resolve the dilemma. The first consists of revising *Bridge* by restricting it to certain kinds of evidence. The second, more attractive, way consists of revising *Propositional Rationality* and rejecting *Logical Equivalence* as a principle for the *actual world* but keeping the other principles untouched. I opt for the latter way.

§3.1 Revising Bridge

As mentioned before, I assume that there is a tight connection between propositional and doxastic rationality. To reject a principle such as *Bridge* once and for all is not an option. However, one might revise *Bridge* by restricting it to total evidence that does not support that we commit cognitive failures such as not believing logical truths. A moment's reflection makes clear that one can thereby block the derivation of the *No-Paradise Dilemma*. However, the revised *Bridge* principle would then be very restrictive in nature. It would not be very helpful outside epistemic paradise, where our total evidence supports that there are logical truths that are not believed by us. Even if such a restricted principle is correct, an unrestricted principle would be preferable. Let's keep looking. As it will turn out, *Propositional Rationality* is a good candidate for a principle that we should revise.

§3.2 My Specification of the Stability Account of Evidentialism

In this subsection I present my specification of what I call 'the stability account of evidentialism'. I propose to revise *Propositional Rationality* in terms of stable evidential support, and in the subsequent subsections I show why the revision of *Propositional Rationality* leads to giving up the epistemic ideal *Logical Equivalence* (for the *actual world*) and so resolving the *No-Paradise Dilemma*.

I propose a revision of *Propositional Rationality*. This revision together with a specification of stable evidential support amount to my specification of the stability account of evidenitalism. The revised principle is not motivated merely by the need to provide a solution to the *No-Paradise Dilemma*. More precisely, the principle is motivated by considerations that are independent of Moore-paradoxical propositions. This has the advantage that my resolution of the dilemma is not simply a piecemeal solution to a philosophical problem. The principle is not just an ad hoc hypothesis, but sits at the centre of a theory of rationality that is robustly applicable to various cases of so-called self-destroying propositions.

To see that the revision of *Propositional Rationality* is appealing independently of the dilemma let's put the dilemma on one side for a moment. The following example shows the limits of *Propositional Rationality* regardless of the *No-Paradise Dilemma*:

> **Footrace Example** 'I can have adequate evidence for believing that I will win a footrace in a situation in which, if I believed I will win, I would become overconfident, acquire evidence of the overconfidence, and thereby cease to have adequate evidence that I will win. When we are in this kind of situation, we can seem to be in an epistemic dilemma' (Odegard, 1993: p. 161).

In the example, a dilemma arises because by believing the proposition that *one will win the footrace* the proposition, which is supported by the evidence is not supported anymore. Considering such examples, Conee says the following:

> 'Instrumental considerations aside, it is impossible for us to have epistemic reason to believe something that we know would not be supported by the balance of our evidence when we would believe it. When believing would result in a loss of crucial evidence for the believed proposition, adopting the belief would not bring about knowledge of the proposition. Foreseeing this sort of loss excludes having an epistemic reason to believe when contemplating the proposition' (Conee, 1994: p. 478).

Conee's observation above leads us in the right direction. However, let's put the diagnosis of the problem a little differently. What goes wrong in Footrace Example is not that one loses 'crucial evidence' but that the evidential support for the target proposition (i.e. that *one will win the footrace*) is not stable; where I understand 'stable' in the sense that— roughly—the proposition remains supported by the total evidence for the agent, even by the total evidence of the agent after believing the proposition in question and when the agent believes the proposition. Conee does not phrase his position in terms of the instability of the evidential support relation, nor does he present a formal specification of his position, but shortly after the comments quoted above he makes a claim that suggests that he thinks that 'the quality of one's evidence for a proposition' is diminished or weakened by believing the proposition in question in cases such as Footrace Example (Conee, 1994: p. 478). And this is exactly the case when the evidential support for a proposition is not stable. One loses the evidential support for the proposition that *one will win the footrace* as soon as one believes the very same proposition. This is also in accordance with the following quotation by Conee:

> ′there is the conditional fact that a considered proposition is supported by evidence which would be adequate for knowing the proposition, but only if the quality of the evidence were undiminished upon adoption of the belief. This sort of fact on its own is not an epistemic reason to believe the proposition. Coming to believe such a proposition usually constitutes coming to know it, since usually the quality of one's evidence for a proposition is not weakened by believing it. But if we are in the peculiar situation in question, then we foresee that believing would be accompanied by a decisive deterioration in our evidence for the truth of the belief′ (Conee, 1994: p. 478).

According to evidentialist positions, what is rational to believe and which beliefs are rational depends on—or is even determined by—the evidential support provided to them. What indeed makes evidentialist positions attractive is that the available evidence can indicate the truth of a proposition in question. If there is such an indicator, it stands to reason that it is rational to believe the proposition, which then, given the indicator, is plausibly, or likely, to be true. However, this attractiveness disappears when the support is not stable, when the support vanishes once one forms the belief in the proposition in question. Support that vanishes in this way turns out to be superfluous. Thus, I suggest that for propositional rationality to hold, mere evidential support does not suffice. The support has to be stable. Unstable support is unusual, which is in line with what Conee claims above. However, due to examples such as Footrace Example, a stability requirement must be added. The following revised version of *Propositional Rationality* takes this requirement into account:

> ***Propositional Rationality**** It is propositionally rational for an agent s to believe a proposition p on s's total evidence tev(s) just in case p is *stably* supported by tev(s) for s.
>
> Formally: $PR_s(p,\text{tev}(s)) \leftrightarrow SES_s(p,\text{tev}(s))$

I specify stable evidential support as follows:

> ***Stable Evidential Support*** p is *stably* supported by tev(s) for s just in case p is supported by tev(s) for s and p is also supported for s by the conjunction that consists of the conjunct that *s believes p* and s's total evidence after believing that p, tev($s_{Bs(p)}$).
>
> Formally: $SES_s(p,\text{tev}(s)) \leftrightarrow S_s(p,\text{tev}(s)) \land S_s(p,B_s(p) \land \text{tev}(s_{Bs(p)}))$

Before I discuss the consequences of *Propositional Rationality** for *Logical Equivalence* and *No Moore-Pradoxical Belief*, let me clarify the following two things.

First, I assume that the agent's total evidence after believing the proposition in question (i.e. tev($s_{Bs(p)}$)) does not include that the agent does not believe the proposition. This ensures that the conjunction $B_s(p) \land \text{tev}(s_{Bs(p)})$, which is supposed to support p, is not inconsistent. For example, suppose the agent initially did not believe that p and on the basis of introspective powers received higher-order evidence that she does not believe that p. Then her initial total evidence together with $B_s(p)$ would be inconsistent. For this reason, we focus on the agent's total evidence after believing the proposition in question and assume that it is consistent with $B_s(p)$.

Second, in this paper the focus is on rationally believing (or rational beliefs in) first-order propositions about the world or about logical truths, and higher-order propositions of the simplest form, namely, higher-order propositions about us believing or not believing such first-order propositions. For this narrow focus the formalization of stable support is apt. However, things might be more complicated when we consider other higher-order propositions, such as propositions about evidential relations, about basing our beliefs, and about the epistemic statuses of our beliefs. For such propositions, one might need to revise *Stable Evidential Support*. I leave it to future research to provide a more comprehensive account of stable evidential support. For the points I am going to make this is not necessary.

Smithies (2016: Sect. 2.6) defends a view that is similar to Conee's and mine. His propositional-/doxastic-rationality distinction is similar to that presented in Section 2.1 here. He says that '[w]ithin the framework of evidentialism, this is the distinction between having evidence that makes it rational for one to believe a proposition and believing the proposition in a way that is properly based on the evidence' (Smithies, 2016: p. 205). Considering (omissive) Moore-paradoxical propositions he introduces the conception of 'finkish evidence'. This is evidence that 'is destroyed or undermined in the process of attempting to form a doxastically rational belief that is properly based on the evidence' (Smithies 2016: 205). Such a belief is a belief in propositions such as Moore-paradoxical propositions or the proposition that *one will win the footrace*. Finkish evidence has as a consequence that, in my terminology, the evidential support is unstable. Smithies (2016)—in contrast to me—does not adopt a conception of propositional rationality in terms of stable evidential support. Instead he claims that (omissive) Moore-paradoxical propositions can be supported by one's total evidence, and when they are they are propositionally rational, but since they are supported by finkish evidence the belief in such propositions is not doxastically rational because one cannot base the belief properly on such evidence. He allows for the case where there is propositional rationality on some total evidence although the available evidence excludes that one can have the corresponding doxastically rational belief based on the evidence. As mentioned in Section 2.1 here, I prefer a tight connection between propositional and doxastic rationality, where the evidence cannot exclude that there is doxastic rationality given that there is corresponding propositional rationality. Smithies (2016: pp. 205f.) is aware that on his view the connection between propositional and doxastic rationality is less close than others assume or demand.

§3.3 Rejecting Logical Equivalence

Let's focus on the implications of *Propositional Rationality**. The requirement of stable evidential support has important implications for our epistemic ideals, as I show in the present and following subsections.

Given *Propositional Rationality**, *Logical Equivalence* does not hold. Recall:

> ***Logical Equivalence*** If a proposition p and a proposition q are logically equivalent, then it ought to be the case that an agent s holds a doxastically rational belief in p given s's total evidence tev(s) just in case s holds a doxastically rational belief in q given tev(s).
>
> Formally: $(p \dashv\vDash q) \rightarrow \mathrm{O}[\mathrm{DR}_s(p,\mathrm{tev}(s)) \leftrightarrow \mathrm{DR}_s(q,\mathrm{tev}(s))]$

To show that *Logical Equivalence* does not hold, let's consider the logical truth a and the proposition b (i.e. the proposition that *no one believes* a), and let us revise *Your Total Evidence* in terms of stable evidential support as follows:

> ***Your Total Evidence**** b is *stably* supported by your total evidence tev(s^*) for you, s^*.
>
> Formally: $\mathrm{SES}_{s^*}(b,\mathrm{tev}(s^*))$

*Your Total Evidence** is uncontroversial. Your total evidence does not only support that *no one believes a*, but it *stably* supports it. Believing that *no one believes a* (i.e. b) does not have any influence on the truth-value of the proposition that *no one believes a* itself. Things look different with respect to the logically equivalent proposition that *a and no one believes a* (i.e. $a \wedge b$). In the following, I explain why tev(s^*) does not stably support $a \wedge b$ for you, s^*. tev(s^*) does not stably support $a \wedge b$ because for stable evidential support the following conjunction $\mathrm{B}_{s^*}(a \wedge b) \wedge \mathrm{tev}(s^*_{\mathrm{B}s^*(a \wedge b)})$ should also support $a \wedge b$. But s^* *believes that* (*a and no one believes a*) *and* $\mathrm{tev}(s^*_{\mathrm{B}s^*(a \wedge b)})$ does not support that (*a and no one believes a*):[20] from s^* *believes that* (*a and no one believes a*) *and* $\mathrm{tev}(s^*_{\mathrm{B}s^*(a \wedge b)})$ it follows that s^* *believes a*.[21] And this certainly contradicts that *a and no one believes a*. Therefore, $\mathrm{B}_{s^*}(a \wedge b) \wedge \mathrm{tev}(s^*_{\mathrm{B}s^*(a \wedge b)})$ contradicts $a \wedge b$ and does not support it. I refer to this as *Analytical Truth*. *Analytical Truth* establishes that tev(s) does not stably support $a \wedge b$ for s^*. As I show in the following, *Analytical Truth* leads to the rejection of *Logical Equivalence*:

1. $\mathrm{PR}_s(p,\mathrm{tev}(s)) \leftrightarrow \mathrm{SES}_s(p,\mathrm{tev}(s))$	*Propositional Rationality**
2. $\mathrm{PR}_s(p,\mathrm{tev}(s)) \leftrightarrow \mathrm{O}[\mathrm{DR}_s(p,\mathrm{tev}(s))]$	*Bridge*
3. $\mathrm{SES}_{s^*}(b,\mathrm{tev}(s^*))$	*Your Total Evidence**
4. $\neg\mathrm{SES}_{s^*}(a \wedge b,\mathrm{tev}(s^*))$	*Analytic Truth*
5. $\mathrm{PR}_{s^*}(b,\mathrm{tev}(s^*))$	1. and 3.

20 I add the brackets to make the logical structure clear.

21 I think it is safe to assume here that if one believes a conjunction, one believes each of the conjuncts as well.

6. $\neg PR_{s^*}(a \wedge b, tev(s^*))$	1. and 4.
7. $O[DR_{s^*}(b, tev(s^*))] \wedge \neg O[DR_{s^*}(a \wedge b, tev(s^*))]$	2., 5. and 6.
8. $O[DR_{s^*}(b, tev(s^*))] \nleftrightarrow O[DR_{s^*}(a \wedge b, tev(s^*))]$	7.
9. $\neg O[DR_{s^*}(b, tev(s^*)) \leftrightarrow DR_{s^*}(a \wedge b, tev(s^*))]$	8.
$\therefore (b \dashv\vDash a \wedge b) \wedge \neg O[DR_{s^*}(b, tev(s^*)) \leftrightarrow DR_{s^*}(a \wedge b, tev(s^*))]$	9.

This conclusion displays a counterexample to *Logical Equivalence*, which results from the fact that although b and $a \wedge b$ are logically equivalent, the former is stably supported by your total evidence (i.e. tev(s^*)) while the latter is not.[22]

Although we have to give up *Logical Equivalence* in its unrestricted version, there is still the possibility that *Logical Equivalence* holds in a restricted form.[23] As mentioned before, it is after all very uncommon that propositions that are supported by some evidence are not stably supported by it. I leave it to another occasion to examine alternatives to *Logical Equivalence* that are more restrictive in nature than *Logical Equivalence*.

§3.4 Keeping No Moore-Paradoxical Belief

In contrast to *Logical Equivalence*, *No Moore-Paradoxical Belief* holds given *Propositional Rationality**. Recall, *No Moore-Paradoxical Belief*, claims the following:

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[22] When discussing the Footrace Example, Conee defends that ´ideal thinkers´ do not believe all logical consequences of their beliefs nor equivalent beliefs. While this is in in accordance with my criticism of *Logical Equivalence*, his discussion, which is different to mine, involves ideal thinkers and withholding judgement. His defends is neither in terms of the stability of evidential support nor formal. Of course, it doesn't refer to my specification of the stability account of evidentialism.

[23] Christensen (2007), who also challenges such an ideal but based on considerations about self-doubt, seems to think that ideals such as *Logical Equivalence* still hold in a restricted form, under *ceteris paribus* conditions.

> ***No Moore-Paradoxical Belief*** It ought to be the case that agent s does not believe the proposition *p and no one believes p*.
>
> Formally: $O[\neg B_s(p \wedge \neg\exists s' B_{s'}(p))]$

As demonstrated before, your total evidence tev(s^*) does not stably support the Moore-paradoxical proposition *a and no one believes a* (i.e. $a \wedge b$) and as a consequence it is not propositionally rational for you, s^*, to believe $a \wedge b$ given tev(s^*). This can be generalized, and does not only hold for you and your total evidence. Moore-paradoxical propositions of the form *p and no one believes p* are never stably supported by any piece or body of evidence. This suggests that in general one ought not to hold beliefs in Moore-paradoxical propositions of the form *p and no one believes p*. *No Moore-Paradoxical Belief* holds.

§3.5 Avoiding the No-Paradise Dilemma

Let's review the original derivation that led to the *Conclusion/No-Paradise Dilemma*. Recall:

1. $PR_s(p,\text{tev}(s)) \leftrightarrow S_s(p,\text{tev}(s))$	*Propositional Rationality*
2. $DR_s(p,\text{tev}(s)) \leftrightarrow B_s(p) \wedge PB_s(p,\text{tev}(s))$	*Doxastic Rationality*
3. $PR_s(p,\text{tev}(s)) \leftrightarrow O[DR_s(p,\text{tev}(s))]$	*Bridge*
4. $(p \dashv\vDash q) \rightarrow O[DR_s(p,\text{tev}(s)) \leftrightarrow DR_s(q,\text{tev}(s))]$	*Logical Equivalence*
5. $O[\neg B_s(p \wedge \neg\exists s' B_{s'}(p))]$	*No Moore-Paradoxical Belief*
6. $S_{s^*}(b,\text{tev}(s^*))$	*Your Total Evidence*
7. $PR_{s^*}(b,\text{tev}(s^*))$	1. and 6.
8. $O[DR_{s^*}(b,\text{tev}(s^*))]$	3. and 7.

9. $O[DR_{s^*}(a \wedge b, \text{tev}(s^*))]$	4. and 8.
10. $O[B_{s^*}(a \wedge b) \wedge PB_{s^*}(a \wedge b, \text{tev}(s^*))]$	2. and 9.
11. $O[B_{s^*}(a \wedge b)]$	10.
12. $O[\neg B_{s^*}(a \wedge b)]$	5. (recall b is the proposition that *no one believes* a)
$\therefore O[B_{s^*}(a \wedge b)] \wedge O[\neg B_{s^*}(a \wedge b)]$	11. and 12.

By replacing *Propositional Rationality* with *Propositional Rationality** and *Your Total Evidence* with *Your Total Evidence**, one can still derive, analogous to before, line 7 (from 1 and 6) and line 8 (from 3 and 7).[24] However, since *Logical Equivalence* does not hold we cannot derive line 9 from line 4 and line 8. In a further outcome, we cannot derive the conclusion, i.e. the *No-Paradise Dilemma*. The dilemma is successfully resolved by rejecting *Logical Equivalence* in a plausible way that is motivated independently of the *No-Paradise Dilemma*. This rejection is due to the fact that while b is stably supported by your total evidence, the logically equivalent proposition $a \wedge b$ is not.

§4 Conclusion

[24] Recall both:

Propositional Rationality* It is propositionally rational for an agent s to believe a proposition p on s's total evidence tev(s) just in case p is *stably* supported by tev(s) for s.
Formally: $PR_s(p, \text{tev}(s)) \leftrightarrow SES_s(p, \text{tev}(s))$

and

Your Total Evidence* b is *stably* supported by your total evidence tev(s^*) for you, s^*.
Formally: $SES_{s^*}(b, \text{tev}(s^*))$

After introducing the *No-Paradise Dilemma,* I suggested a resolution of it by, first, suggesting a specification of the stability account of evidentialism, which consists of the following two components:

> ***Propositional Rationality**** It is propositionally rational for an agent s to believe a proposition p on s's total evidence tev(s) just in case p is *stably* supported by tev(s) for s.
>
> Formally: $\mathrm{PR}_s(p,\mathrm{tev}(s)) \longleftrightarrow \mathrm{SES}_s(p,\mathrm{tev}(s))$
>
> ***Stable Evidential Support*** p is *stably* supported by tev(s) for s just in case p is supported by tev(s) for s and p is also supported for s by the conjunction that consists of the conjunct that *s believes p* and s's total evidence after believing that p ,tev($s_{Bs(p)}$).
>
> Formally: $\mathrm{SES}_s(p,\mathrm{tev}(s)) \longleftrightarrow \mathrm{S}_s(p,\mathrm{tev}(s)) \wedge \mathrm{S}_s(p,\mathrm{B}_s(p) \wedge \mathrm{tev}(s_{Bs(p)}))$

In a second step I argued for rejecting the following epistemic ideal for the actual world:

> ***Logical Equivalence*** If a proposition p and a proposition q are logically equivalent, then it ought to be the case that an agent s holds a doxastically rational belief in p given s's total evidence tev(s) just in case s holds a doxastically rational belief in q given tev(s).
>
> Formally: $(p \dashv\vDash q) \rightarrow \mathrm{O}[\mathrm{DR}_s(p,\mathrm{tev}(s)) \leftrightarrow \mathrm{DR}_s(q,\mathrm{tev}(s))]$

By adopting *Propositional Rationality** (and *Stable Evidential Support*) and rejecting *Logical Equivalence*, it is no longer possible to derive the *Conclusion/No-Paradise Dilemma*.

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