Arbitrariness and Uniqueness

Christopher J. G. Meacham

Forthcoming in Pacific Philosophical Quarterly

Abstract

Evidential Uniqueness is the thesis that, for any batch of evidence, there's a unique doxastic state that a subject with that evidence should have. One of the most common kinds of objections to views that violate Evidential Uniqueness are arbitrariness objections – objections to the effect that views that don't satisfy Evidential Uniqueness lead to unacceptable arbitrariness. The goal of this paper is to examine a variety of arbitrariness objections that have appeared in the literature, and to assess the extent to which these objections bolster the case for Evidential Uniqueness. After examining a number of different arbitrariness objections, I'll conclude that, by and large, these objections do little to bolster the case for Evidential Uniqueness.

1 Introduction

Let a subject's *doxastic state* be a complete characterization of all of the doxastic attitudes (beliefs, credences, etc) that the subject does and does not have. Let *Evidential Uniqueness* be the thesis that for any collection of evidence, there's a unique doxastic state that any subject with that total evidence is permitted to have.¹ Proponents of Evidential Uniqueness have offered several kinds of objections to views that violate Evidential Uniqueness.² One of the most prominent kind of objections – what I'll call *arbitrariness*

¹Evidential Uniqueness is identical to what Kopec & Titelbaum (2016) call "Interpersonal Uniqueness" (that for any batch of evidence *E*, there's some doxastic state *D* that every possible subject with total evidence *E* is required to adopt), not what they call "Intrapersonal Uniqueness" (that for any batch of evidence *E*, and any possible subject with total evidence *E*, there's some doxastic state that this subject is required to adopt, though what that doxastic state is may vary from subject to subject).

²In addition to the arbitrariness objections discussed in the text, there are at least two other prominent kinds of objections to Evidential Uniqueness-violating theories. The first is that such theories commit you to thinking that your evidence could both support a proposition and its negation, which is absurd (e.g., see White (2005) and Sosa (2010) for versions of this objection, and Kelly (2013), Meacham (2013), and Schoenfield (2013) for replies). The second is that such theories would sometimes permit you to either believe a proposition or its negation, and thus couldn't provide prescriptions that direct you toward the truth (e.g., see White (2005) for several versions of this objection, and Meacham (2013) for some replies).

objections – are that views which violate Evidential Uniqueness lead to unacceptable arbitrariness.³ A standard version of this objection goes as follows. Consider the following claim:

Arbitrariness: It's problematically arbitrary to believe there are multiple doxastic states you could permissibly have, and yet to have just one of them.

If one rejects Evidential Uniqueness, then it seems one should reject Arbitrariness. But it seems like we should accept Arbitrariness. So we should accept Evidential Uniqueness.

Note that an arbitrariness objection needn't target *every* view which violates Evidential Uniqueness. The arbitrariness objections that have received the most discussion have aimed to do so, and so these objections are put forth as establishing Evidential Uniqueness. But one can formulate arbitrariness objections that are less ambitious, and merely attempt to rule out *some* Evidential Uniqueness-violating views. In this paper we'll consider both more and less ambitious kinds of arbitrariness objections.

The goal of this paper is to examine a variety of arbitrariness objections that have appeared in the literature, and to assess the extent to which these objections bolster the case for Evidential Uniqueness. My verdict will be largely negative. After looking at several kinds of arbitrariness objections that have been discussed in the literature, I'll conclude that, by and large, these objections do little to bolster the case for Evidential Uniqueness.

This paper will proceed as follows. In section 2 I'll present a way of framing these issues that will helpful in the discussion that follows. In section 3 I'll consider the arbitrariness objection that's been most discussed in the literature – what I'll call the *standard arbitrariness objection*. In section 4 I'll consider a new arbitrariness objection that's been suggested by a number of authors, including Simpson (forthcoming), Smith (2017) and Weisberg (forthcoming). In section 5 I'll look at a version of the standard arbitrariness objection which avoids several criticisms by narrowing the scope of the views it targets. In section 6 I offer some further remarks about the new arbitrariness objection discussed in section 4. In section 7 I summarize my results.

2 Evidential Uniqueness

To begin, note that there are a number of different ways in which something might be permissible – it might be morally permissible, epistemically permissible, legally permissible, and so on. Focus on some particular notion of permissibility. We can represent this notion of permissibility with a *permission function* – a function which takes as inputs whatever is relevant to what's permissible, and which spits out as outputs whatever is, in fact, permissible.⁴ So, for example, the permission function corresponding to what's morally permissible according to a bare-bones rights theory might take as inputs the

³See White (2005), Christensen (2007), and Feldman (2007) for versions of this objection, and Simpson (forthcoming), Smith (2017) and Weisberg (forthcoming) for somewhat sympathetic discussions (though each of these authors take there to be at least some Evidential Uniqueness-violating views which escape the objection). For a largely critical discussion of this objection, see Schoenfield (2013).

⁴This way of setting up the debate borrows heavily from Meacham (2019).

available acts, and yield as outputs the subset of those acts that don't violate anyone's rights. The permission function corresponding to what's epistemically permissible according to a radical subjective Bayesian might take as inputs a subject's total evidence and their prior beliefs, and yield as outputs the set of doxastic states that are compatible with the relevant Bayesian norms (Probabilism and Conditionalization) given those inputs. And so on.

Let's focus our attention on a particular permission function, the *epistemic permission function*.⁵ In broad strokes, this function takes as inputs whatever's relevant to what's epistemically permissible for a subject at a time, and yields as outputs the set of doxastic states that could be permissibly held by that subject at that time.

One can fill in the details regarding what the epistemic permission function is like in different ways. For example, one can adopt different stances regarding what the inputs of the epistemic permission function are. On one extreme, someone might adopt a strict stance which takes all and only a subject's total evidence to be relevant to what doxastic states are epistemically permissible. We might call this view:

Evidential Inputs: The epistemic permission function's inputs supervene on the total evidence of a subject at a time.

By contrast, those who adopt a more relaxed stance might allow things other than one's evidence – like one's prior beliefs, or one's desires – to be relevant to what doxastic states are epistemically permissible. We might call this contrasting view:

Non-Evidential Inputs: The epistemic permission function's inputs don't supervene on the total evidence of a subject at a time.

Likewise, one can adopt different stances regarding what the outputs of the epistemic permission function are. On one extreme, someone might adopt a strict stance which takes the relevant inputs – whatever those are – to always pick out a single permissible doxastic state. We might call this view:

Unique Outputs: The epistemic permission function's output is always a single doxastic state.

By contrast, those who adopt a more relaxed stance might allow for cases in which the relevant inputs – whatever those are – pick out multiple permissible doxastic states. We might call this contrasting view:

Permissive Outputs: The epistemic permission function's output sometimes consists of multiple doxastic states.

Note that the Evidential/Non-Evidential Inputs and Unique/Permissive Outputs distinctions are logically independent. So we can divide the landscape into four camps, each corresponding to a different permutation of these claims.⁶ The permutation that's

⁵The intended notion of "epistemically permissible" corresponds to what's typically called "propositionally justified" – roughly, what one has reason to believe. (See Matheson (2011).) It does not correspond to what's typically called "doxastically justified" – roughly, what one has reason to believe and believes on the basis of those reasons. (If Evidential Uniqueness were understood as a claim about doxastic justification it would be clearly false – for while a subject's evidence alone might entail what they have reason to believe, it transparently doesn't entail whether their beliefs are held on the basis of those reasons.)

⁶That is, we can divide the space of views into the following four camps:

received the most attention is the conjunction of Evidential Inputs and Unique Outputs, which I'll call *Evidential Uniqueness*. This position is sometimes simply called "Uniqueness" in the literature, but I'll stick with the more descriptive label "Evidential Uniqueness" to avoid any potential confusion with views that accept Unique Outputs but reject Evidential Inputs. The other three permutations are typically lumped together and called "Permissivism". But this is a somewhat awkward label, since some views that reject Permissive Outputs will fall in this camp. So I'll simply refer to these views as ones that reject Evidential Uniqueness.

A note before we proceed. In what follows, I'll be discussing a number of claims about doxastic states, and what one should believe regarding doxastic states. All of these claims should be understood to be about doxastic states understood *de re* – that is, about particular qualitative states.⁷ Thus the claim that "It's impermissible to believe some other doxastic state is better than your own" should be understood as the claim that it's impermissible to believe some other particular qualitative state is better than your own" should be understood as the claim that it's impermissible to believe some other particular qualitative state is better than your own. It should not be understood as entailing that, e.g., it's impermissible to believe that God's doxastic state (whatever it is) is better than your own.

3 The Standard Arbitrariness Objection

The standard arbitrariness objection discussed in the literature is ambitious, aiming to rule out every view which violates Evidential Uniqueness. Although this standard objection has received a fair amount of discussion, it's generally presented in an informal manner that leaves the precise form of the argument unclear. Before we can assess the objection, we need to spell out this argument in more detail. Let's start by looking at a couple of typical presentations of the standard arbitrariness objection:

"With more than one equally rational credence available, how can I favour one? It seems that as long as I recognize more than one credence in P as rational, I must see my choice of credence in P as arbitrary. In permissive cases, it looks as though an agent has no reason for preferring the credence that they do prefer – that is, that it would be irrational for her to choose .4 knowing that .6 is also rationally permissible. Thus, permissivism appears to be an internally unstable position: as soon as an agent realizes she is in a permissive case, she is no longer rational to prefer one credence to another."⁸

"What TAO [The Arbitrariness Objection] is homing in on, to put it another way, is the quasi-akratic stance of the agent who, in addition to saying 'there's

Evidential Uniqueness: Evidential Inputs and Unique Outputs.

Non-Evidential Uniqueness: Non-Evidential Inputs and Unique Outputs.

Evidential Permissiveness: Evidential Inputs and Permissive Outputs.

Non-Evidential Permissiveness: Non-Evidential Inputs and Permissive Outputs.

⁷See Carr (2015) and Schoenfield (2015) for discussions of this distinction.
⁸Smith (2017), p1.

a plurality of belief states which it would be rational to hold towards P on the basis of E', also wants to say 'and as far as I'm concerned, my belief about P is a credence of 0.6'. For the proponent of TAO, it is this pair of attitudes that spells trouble for Permissivism. I cannot hold fast to just one of the doxastic attitudes, DA_1 , that can be rationally formed based on E, while at the same time thinking that this attitude lacks any general rational better-ness relative to another attitude, DA_2 , which I could have easily arrived at instead."⁹

Both of these presentations start with the following premise:

Arbitrariness: It's problematically arbitrary to believe there are multiple doxastic states you could permissibly have, and yet to have just one of them.

We can flesh this out into an argument for Evidential Uniqueness by identifying the further premises we need to add to Arbitrariness to make the derivation of Evidential Uniqueness go through.

The first step is to derive that it's impermissible to believe that more than one doxastic state is permissible. Arbitrariness itself doesn't entail this, for Arbitrariness only says that it's impermissible to hold a doxastic state while believing both *it* and some other doxastic state are permissible. But Arbitrariness is compatible with believing there are multiple permissible doxastic states when none of them are your own.

A natural way to get this first step to go through is to add a premise that says it's impermissible to have a doxastic state you don't believe to be permissible. Given this premise we can infer that you should believe that your doxastic state is permissible, and given Arbitrariness we can further infer that you shouldn't believe any other doxastic state is permissible. *A fortiori*, you shouldn't believe more than one doxastic state is permissible.

The second step is to derive that there aren't multiple permissible doxastic states; i.e., to derive Unique Outputs. And it doesn't follow from the fact that you shouldn't *believe* there are multiple permissible doxastic states that there *aren't* multiple permissible doxastic states. But we can get this second step to go through by adding a premise that says that if a given epistemic view is true, then it should be permissible to believe it. Given this premise, we can infer that since you shouldn't believe there are multiple permissible doxastic states you could have, then there aren't multiple permissible doxastic states you could have. I.e., we can infer Unique Outputs.

The third step is to derive Evidential Uniqueness. Note that Unique Outputs (the claim that in any epistemic situation there's a unique permissible doxastic state) does not entail Evidential Uniqueness. For Evidential Uniqueness is the conjunction of Unique Outputs and Evidential Inputs. And there are many ways to accept Unique Outputs while rejecting Evidential Inputs, since these two claims are independent of one another. For example, one might hold that your background beliefs and your evidence bear on what it's permissible for you to believe, while also holding that your background beliefs and your evidence always determine a unique permissible doxastic state. So in order to derive Evidential Uniqueness, we must add Evidential Inputs as a premise in the argument.

⁹Simpson (forthcoming), p2.

Let *D* and D^* be arbitrary doxastic states. Putting this all together, we can construct a valid argument for Evidential Uniqueness as follows:^{10,11}

The Standard Arbitrariness Objection (v1) (SAO1):

- **P1. (Arbitrariness)** It's impermissible for anyone to have *D* and believe both *D* and *D*^{*} are permissible for them.
- **P2.** It's impermissible for anyone to have *D* and not believe *D* is permissible for them.
- **L1.** It's impermissible for anyone to believe multiple doxastic states are permissible for them. [From P1, P2.]
- **P3.** If it's impermissible for anyone to believe multiple doxastic states are permissible for them, then multiple doxastic states aren't permissible for them.
- L2. (Unique Outputs) Multiple doxastic states aren't permissible. [From L1, P3.]

The Standard Arbitrariness Objection (v1) (SAO1)):

P1. (Arbitrariness) $\forall c \forall D, D^* \neq D (I[D(c) \land B(c, P[D(c)] \land P[D^*(c)])])$

P2. $\forall c \forall D (I[D(c) \land \neg B(c, P[D(c)])])$

T. $\forall c \exists ! D (D(c))$

L1. $\forall c \forall D, D^* \neq D (I[B(c, P[D(c)] \land P[D^*(c)])])$ [From P1, P2, T.]

P3. $\forall c \forall D, D^* \neq D (I[B(c, P[D(c)] \land P[D^*(c)])] \rightarrow \forall c \forall D, D^* \neq D \neg (P[D(c)] \land P[D^*(c)]))$

L2. (Unique Outputs) $\forall c \forall D, D^* \neq D (\neg (P[D(c)] \land P[D^*(c)]))$ [From L1, P3.]

P4. (Evidential Inputs)

C. (Evidential Uniqueness) [From L2, P4.]

(This argument is presented assuming something like standard deontic logic, but we can run the same argument using a Kratzer (1991)-style approach, with the default modal base being the space of metaphysically possible doxastic centered worlds, and P3's conditional understood not as a material conditional but as the assertion that the consequent holds if we restrict the modal base to the worlds compatible with the antecedent.)

¹¹An anonymous referee has helpfully pointed out that one might replace P1 and P2 with the premise that it's impermissible for anyone to have D and believe some other doxastic state D^* is permissible. I think the formulation given in the text to better fits the informal descriptions of the argument given in the literature. But I take the main points I make in this paper to be independent of these details.

¹⁰When turning this into a logically valid argument, several technical details need to be filled in – e.g., the scope of the modal operators, the indexical nature of these claims, and the like. I spell out these details here for reference. Let a *centered world* be an ordered triple $\langle w, s, t \rangle$ consisting of a world w, a subject s and a time t. Let a *centered proposition* be a set of centered worlds; intuitively, the set of centered worlds at which that centered proposition is true. Let a *doxastic state* be a one place predicate that applies to a centered world $\langle w, s, t \rangle$ *iff* s has that doxastic state at t in w; I take doxastic states to be mutually exclusive. Let a *doxastic centered world* be a centered world whose "center" – the subject s at time t in world w – has a (unique) doxastic state. Let c be a variable that ranges over doxastic centered worlds, and let D and D^* be variables ranging over one-place predicates that apply to a centered world *iff* the individual at that centered world is in the doxastic state corresponding to that predicate. Let $B(\cdot, \cdot)$ be a binary belief predicate that applies to a doxastic centered world and centered proposition pair *iff* the individual at that centered world believes that centered proposition. Let $P[\cdot]$ and $I[\cdot]$ be epistemic permission and impermission operators that apply to centered propositions. Note that it follows from the above that $\forall c \exists ! D (D(c))$ is a theorem. Then the argument goes as follows:

- **P4. (Evidential Inputs)** One's evidence determines which doxastic states are permissible.
- **C. (Evidential Uniqueness)** One's evidence determines a unique permissible doxastic state. [From L2, P4.]

One might raise concerns regarding each of the premises of SAO1, but in this paper I'll restrict my attention to the two key premises, Arbitrariness (P1) and Evidential Inputs (P4).¹² I'll look more carefully at Arbitrariness in section 5. For now, let's focus on Evidential Inputs.

Taking Evidential Inputs to be a premise seems problematic in an argument for Evidential Uniqueness. After all, Evidential Uniqueness is the conjunction of Evidential Inputs and Unique Outputs, and many opponents of Evidential Uniqueness reject it precisely because they reject Evidential Inputs. Thus assuming Evidential Inputs in an argument for Evidential Uniqueness seems question begging. So SOA1 does not provide a compelling argument for Evidential Uniqueness.

One could avoid begging the question in this way by dropping Evidential Inputs (P4) from the argument:

The Standard Arbitrariness Objection (v2) (SAO2):

- **P1. (Arbitrariness)** It's impermissible for anyone to have *D* and believe both *D* and *D*^{*} are permissible for them.
- **P2.** It's impermissible for anyone to have *D* and not believe *D* is permissible for them.
- **P3.** If it's impermissible for anyone to believe multiple doxastic states are permissible for them, then multiple doxastic states aren't permissible for them.
- **C. (Evidential Uniqueness)** One's evidence determines a unique permissible doxastic state.

In some ways, this truncated argument better fits the discussion of the standard arbitrariness objection in the literature. But SAO2 is invalid. So SOA2 does not provide a compelling argument for Evidential Uniqueness either.

Let me pause to highlight that this worry about the standard arbitrariness objection – that it needs to assume Evidential Inputs in order to yield a valid argument for Evidential Uniqueness – is not an artifact of this particular way of formulating the argument. Rather, it's a direct consequence of the thought that motivates the standard arbitrariness objection. The motivating thought is that anyone who believes there are multiple permissible doxastic states is going to get into trouble because they can only hold one doxastic state, and picking any one of these permissible doxastic states over the others would be problematically arbitrary. And this thought has nothing to do with

¹²Some opponents of Evidential Uniqueness – those who adopt what Kopec & Titelbaum (2016) call "Unacknowledged Permissivism" – will reject P3; e.g., see Cohen (2013). And since P2 is a strong anti-akratic principle, those who take akrasia to be rationally permissible would reject P2 (e.g., see Coates (2012) and Lasonen-Aarnio (2014); for a defense of anti-akratic principles see Horowitz (2014)). Likewise, those who would only want to commit themselves to a weaker anti-akratic principle that would allow one to be agnostic about the status of D, such as a principle stating that it's impermissible to have D and believe D is impermissible, would reject P2.

Evidential Inputs. Someone who accepts that evidence is the only epistemic input (i.e., accepts Evidential Inputs) will still be subject to this complaint if they reject that one's evidence always determines a unique permissible doxastic state (i.e., reject Unique Outputs). And someone who rejects that evidence is the only epistemic input (i.e., rejects Evidential Inputs) won't be subject to this complaint if they accept that the inputs always determine a unique permissible doxastic state (i.e., accept Unique Outputs). So, if we take a step back, we can see that the idea motivating this appeal to arbitrariness is a complaint that's entirely about Permissive Outputs. And while such a complaint might make a case for Unique Outputs, it won't make a case for Evidential Uniqueness.

Schoenfield's (2013) criticism of the standard arbitrariness objection essentially points out that SAO2 is invalid. Schoenfield takes the standard arbitrariness objection to be something like SAO2, and shows that an argument like SAO2 doesn't establish Evidential Uniqueness. To do this, Schoenfield has us consider a "Standards Theory" that takes both your evidence and your epistemic standards to uniquely determine what you ought to believe, and which takes many different standards to be permissible. This Standards Theory satisfies Unique Outputs (by taking there to always be a single permissible doxastic state given one's inputs), but violates Evidential Inputs (by denying that your evidence is the only input to the epistemic permission function). And since the Standards Theory violates Evidential Inputs, it violates Evidential Uniqueness. But the Standards Theory isn't ruled out by the premises of SAO2, since P1-P3 only entail Unique Outputs, which the Standards Theory satisfies.

The standard arbitrariness objection was motivated by the ambitious thought that arbitrariness considerations alone could provide a compelling argument for Evidential Uniqueness. The discussion above seems to dash this hope, for the standard arbitrariness objection seems to be either question begging (SAO1) or invalid (SAO2). Now, one could avoid both of these objections if one weakened the argument, and merely took it to be an argument for Unique Outputs. For, as we've seen, one can derive Unique Outputs from P1-P3, and this derivation doesn't require the question begging premise P4:

The Standard Arbitrariness Objection (v3) (SAO3):

- **P1. (Arbitrariness)** It's impermissible for anyone to have D and believe both D and D^* are permissible for them.
- **P2.** It's impermissible for anyone to have *D* and not believe *D* is permissible for them.
- **P3.** If it's impermissible for anyone to believe multiple doxastic states are permissible for them, then multiple doxastic states aren't permissible for them.

C. (Unique Outputs) Multiple doxastic states aren't permissible.

But SAO3 gives up the ambitions of the standard arbitrariness objection. For while this argument would rule out some views which violate Evidential Uniqueness, there are many others (like the Standards Theory) which are untouched by the argument.

We'll look more carefully at SAO3 in section 5. For now, let's turn to consider whether there's any way in which this more ambitious project might be revived. Can arbitrariness considerations alone yield a compelling case for Evidential Uniqueness?

4 The New Arbitrariness Objection

Recently a number of people, including Simpson (forthcoming), Smith (2017) and Weisberg (forthcoming), have targeted the Standards Theory directly, suggesting that while the Standards Theory might escape the standard arbitrariness objection, it's subject to an arbitrariness objection of a different kind. Roughly, the thought is that while the doxastic state one adopts isn't arbitrary on the Standards Theory, the *standards* one adopts are. If this objection works, it revives the hope that arbitrariness considerations alone can provide a compelling argument for Evidential Uniqueness. For while it might not be the case that every view that violates Evidential Uniqueness is ruled out by the standard arbitrariness objection, it could still be the case that every view that violates Evidential Uniqueness is ruled out *by some arbitrariness objection or other*. And this new arbitrariness objection (and in particular SAO3) could be used to rule out some of the views that violate Evidential Uniqueness (namely, views that don't satisfy Unique Outputs), and this new arbitrariness objection could be used to rule out the rest (namely, views that satisfy Unique Outputs but not Evidential Inputs).

Let's look more carefully at this new arbitrariness objection. First, let's see how this new arbitrariness objection applies to the Standards Theory. Here's a typical presentation of the objection:

"The permissivist... is in the position of having a choice among equally rational standards. One might think she must say something more about what justifies her in choosing the rational standard she does. The impermissivist may argue that the permissivist's choice of standards is unacceptably arbitrary, not because there is no justification for the standard *tout court* (after all, its being a rational standard is a reason to prefer it to many other, nonrational standards), but because there is no justification for your choosing it rather than some other rational standard that doesn't rely on a prior commitment to that very standard."¹³

The objection begins by assuming a relative of Arbitrariness that applies to standards:

Standards-Arbitrariness: It's problematically arbitrary to believe there are multiple standards you could rationally have, and yet to have just one of them.

And we can use Standards-Arbitrariness to construct an argument against the Standards Theory that mirrors the standard arbitrariness objection:

The New Arbitrariness Objection (standards) (NAO-S):

- **P1. (Standards-Arbitrariness)** It's impermissible for anyone to have standards *S* and believe both *S* and *S*^{*} are permissible for them.
- **P2.** It's impermissible for anyone to have standards *S* and not believe standards *S* are permissible for them.

¹³Smith (2017), p3.

- L1. It's impermissible for anyone to believe multiple standards are permissible for them. [From P1, P2.]
- **P3.** If it's impermissible for anyone to believe multiple standards are permissible for them, multiple standards aren't permissible for them.
- **C. (Unique Standards)** Multiple standards aren't permissible. (And *a fortiori* theories which say multiple standards are permissible, like the Standards Theory, are false.) [From L1,P3.]

One might challenge each of the premises of this objection (and I'll discuss the plausibility of P1 (Standards-Arbitrariness) more in section 6), but for now let's put these concerns aside. Recall that we're looking for a new arbitrariness objection that will rule out all of the Evidential Uniqueness-violating views that escape the standard arbitrariness objection. For this is what would vindicate the hope that *some* kind of arbitrariness objection will apply to every view that violates Evidential Uniqueness. But NAO-S is too weak to do this. For even if NAO-S rules out the Standards Theory Schoenfield considers, it fails to rule out similar theories that replace the appeal to standards with an appeal to background beliefs, priors, schmandards, or what have you. If we want the objection to rule out these other kinds of theories as well, we need to expand the scope of the objection.

To do so, we need to replace Standards-Arbitrariness with something stronger. The strongest Arbitrariness-style principle in the vicinity is one that applies not just to standards, but to *any* input of the epistemic permission function, be it standards, schmandards, background beliefs, or priors:

Inputs-Arbitrariness: It's problematically arbitrary to believe there are multiple values of an input to the epistemic permission function that you could rationally have, and yet to have just one of them.

By replacing Standards-Arbitrariness with Inputs-Arbitrariness we can construct a stronger version of the new arbitrariness objection:

The New Arbitrariness Objection (inputs) (NAO-I):

- **P1. (Inputs-Arbitrariness)** It's impermissible for anyone to have an input value *I* and yet believe both values *I* and *I*^{*} are permissible for them.
- **P2.** It's impermissible for anyone to have input value *I* and not believe *I* is permissible for them.
- **L1.** It's impermissible for anyone to believe multiple input values are permissible for them. [From P1, P2.]
- **P3.** If it's impermissible for anyone to believe multiple input values are permissible for them, then multiple input values aren't permissible for them.
- **C. (Unique Inputs)** Multiple input values aren't permissible. [From L1,P3.]

As before, one might challenge each of the premises of this argument (especially

Inputs-Arbitrariness), but let's put such concerns aside.¹⁴ For even if we grant all of the premises of NAO-I, the argument is still too weak to "close the gap" left by the standard arbitrariness objection. SAO3 – the only viable version of the SAO – can be used to rule out any view that violates Unique Outputs. To rule out the rest of the views that violate Evidential Uniqueness, this new arbitrariness objection needs to rule out any view that satisfies Unique Outputs but violates Evidential Inputs. But NAO-I doesn't rule out every view of this kind. For there are views that satisfy Unique Outputs but not Evidential Inputs that are compatible with the conclusion of NAO-I, Unique Inputs.

To see this, let's look more closely at Unique Inputs. We've focused our attention on the epistemic permission function, but let's now consider another permission function – call it the *x-input permission function* – which takes as inputs whatever's relevant to the permissibility of some input x to the epistemic permission function, and yields as outputs the set of values of input x that could be permissibly held by that subject at that time. To satisfy Unique Inputs, a view needs to hold that the *x*-input permission functions all yield unique input values. (This is the analog of Unique Outputs with respect to the *x*-input permission functions.)

Now consider a view which (a) takes one's standards and one's evidence to be the inputs of the epistemic permission function, (b) takes the epistemic permission function to always yield a unique permissible doxastic state, (c) takes the standards-input permission function to always yield a single input value (i.e., takes the facts that determine which standards are permissible for a subject to always pick out a unique permissible set of standards), and (d) likewise takes the evidence-input permission function to always yield a single input value. This view satisfies Unique Outputs (by only permitting unique doxastic states) and violates Evidential Inputs (by taking standards to be one of the inputs). But this view is not ruled out by Unique Inputs (since the facts that determine what evidence/standards are permissible always pick out unique sets of evidence/standards). So NAO-I fails to rule out this view.¹⁵

¹⁴One can raise challenges to P2 and P3 similar to those one can raise to P2 and P3 of the standard arbitrariness objections (cf. footnote 12), but the most contentious premise of this argument is P1 (Inputs-Arbitrariness). To see why, consider a view which takes, say, one's shoe size (or desires, or intentions, or any other feature that we generally take to be orthogonal to epistemic concerns) to be one of the inputs of the epistemic permission function. Then Inputs-Arbitrariness entails that it's problematically arbitrary to believe there are multiple permissible shoe sizes one could have, and yet to have just one of them. But this seems obviously false – there *are* multiple permissible shoe sizes one could have, even though you can only have one of them.

¹⁵More abstractly, note that Unique Inputs is orthogonal to Unique Outputs. For a view could hold that there are multiple permissible values for the inputs of the epistemic permission function, but only one permissible doxastic state given those inputs (satisfying Unique Outputs but not Unique Inputs). And a view could hold that there's only one permissible value for each input of the epistemic permission function, but many permissible doxastic states given those inputs (satisfying Unique Inputs but not Unique Outputs). Likewise, note that Unique Inputs is orthogonal to Evidential Inputs. For a view could hold that evidence is the only input to the epistemic permission function, but multiple permissible batches of evidence one could have (satisfying Evidential Inputs but not Unique Inputs). And a view could hold that there are non-evidential inputs to the epistemic permission function, but all of these inputs have unique permissible values (satisfying Unique Inputs but not Evidential Inputs). Once we see that Unique Inputs is independent of Unique Outputs and Evidential Inputs, it shouldn't surprise us that it won't rule out a permutation of these views.

Let's sum up. The original proponents of arbitrariness objections had the ambitious goal of showing that arbitrariness considerations alone provided a compelling case for Evidential Uniqueness. As we saw in section 3, the standard arbitrariness objection fails to achieve this goal, for at best it only rules out some of the views which violate Evidential Uniqueness – those that violate Unique Outputs. And Evidential Uniqueness-violating views which satisfy Unique Outputs but not Evidential Inputs, like the Standards Theory, are untouched by such objections.

Recently, several authors have suggested that we might be able to raise a different kind of arbitrariness objection against the Standards Theory. If successful, these new arbitrariness objections revive the hope of accomplishing the original ambitious goal, by showing that any Evidential Uniqueness-violating view runs afoul of some arbitrariness objection or other. For these new arbitrariness objections might serve to close the gap left by the standard arbitrariness objections. But as we've seen in this section, these new arbitrariness arguments fail to close the gap. For even if these arguments work against the Standards Theory (a question we'll revisit in section 6), there are other theories which satisfy Unique Outputs but not Evidential Inputs which are untouched by these arguments. Thus, at the end of the day, the attempt to use only arbitrariness considerations to establish Evidential Uniqueness is unsuccessful.¹⁶

5 The Case for Arbitrariness

At the end of section 3, we saw that the standard arbitrariness objection could be formulated in a way that avoids the charges of being question begging or invalid by giving up on some of the ambitions of the original objection. In particular, SAO3 avoids these charges by merely providing an argument for Unique Outputs, not Evidential Uniqueness. But this weakening hardly robs SAO3 of interest, for Unique Outputs is a contentious thesis, and providing a compelling argument for Unique Outputs would be an impressive achievement.

So let's turn to examine this question: does SAO3 provide a compelling argument for Unique Outputs? Here again is SAO3:

The Standard Arbitrariness Objection (v3) (SAO3):

¹⁶This section has addressed the question of whether the new arbitrariness objection discussed by Simpson (forthcoming), Smith (2017) and Weisberg (forthcoming), or some natural extension of it, can close the gap left by the standard arbitrariness objection – as a way to close the gap left by the standard arbitrariness objection – is one that people have actually entertained. I think that the most plausible reading of the literature is that people have, indeed, been thinking of the new arbitrariness objection have arbitrariness objection have arbitrariness objection have discussed this new arbitrariness objection have taken it to be a *reply* to Schoenfield. But what is this a reply to? It can't be a reply to Schoenfield's demonstration that arguments like SAO2 are invalid. After all, raising some *other* arbitrariness objection to Schoenfield's claim that arbitrariness considerations fail to establish Evidential Uniqueness. And if one takes the new arbitrariness objection make sense as a *reply*: for it would follow from these two arbitrariness objections that arbitrariness considerations *do* establish Evidential Uniqueness.

- **P1. (Arbitrariness)** It's impermissible for anyone to have *D* and believe both *D* and *D*^{*} are permissible for them.
- **P2.** It's impermissible for anyone to have *D* and not believe *D* is permissible for them.
- **P3.** If it's impermissible for anyone to believe multiple doxastic states are permissible for them, then multiple doxastic states aren't permissible for them.
- C. (Unique Outputs) Multiple doxastic states aren't permissible.

This argument is valid, so the only question is whether its premises are true. As we saw earlier, one might question P2 and P3 (cf. footnote 12), but I think most opponents of Unique Outputs will grant these assumptions. So the key premise of the argument is P1, Arbitrariness. And the question of whether SAO3 provides a compelling argument for Unique Outputs largely boils down to whether Arbitrariness is ultimately plausible.

While Arbitrariness seems plausible at first glance, upon further reflection it's a bit puzzling. After all, claims like Arbitrariness seem clearly false in other normative contexts. Consider, for example, the moral analog of Arbitrariness:

Moral Arbitrariness: It's problematically arbitrary to believe there are multiple acts you could permissibly perform, and yet do just one of them.

And consider a case where you can either save the life of Smith or the life of Jones, and where no moral considerations favor saving one over the other. If you know that both options are permissible, and choose to save *A*, then there's a sense in which your choice to save Smith is arbitrary – after all, there's just as much reason to save Jones as to save Smith. But it doesn't seem *problematically* arbitrary to save Smith. Since you know you can only save one of them, and have no reason to favor saving one over the other, choosing to save Smith seems perfectly acceptable. And whatever arbitrariness saving Smith commits you to seems unproblematic. Thus Moral Arbitrariness seems false.

It's tempting to offer a similar response to Arbitrariness. E.g., suppose you know that both doxastic states D and D^* are permissible for you to adopt. If you know that adopting either D or D^* is permissible, and you adopt D, there's a sense in which your adoption of D is arbitrary. But it doesn't seem *problematically* arbitrary to adopt D. Since you know you can only adopt one of these doxastic states, and have no reason to favor adopting one over the other, adopting D seems perfectly acceptable. And whatever arbitrariness adopting D commits you to seems unproblematic. Thus Arbitrariness seems false.

While most proponents of arbitrariness objections will endorse the above response to Moral Arbitrariness, they'll reject the corresponding response to Arbitrariness. This leaves us with a pressing question: what makes these two cases different? Why should we believe Arbitrariness in the epistemic context when analogous claims in other normative contexts, like Moral Arbitrariness, are clearly false?

Here, perhaps, is a natural way to defend Arbitrariness without committing oneself to anything like Moral Arbitrariness. One might make a case for Arbitrariness as follows:

The Informal Case for Arbitrariness: It's impermissible to hold a doxastic state while not believing that it's strictly better than any other doxastic state. And it's impermissible to believe a doxastic state is permissible while not believing

it's at least as good as any other doxastic state. But then you can't hold some doxastic state D while believing both D and D^* are permissible – for that would require both believing that D is better than D^* (since you hold D), and believing that no doxastic state is better than D^* (since you believe D^* is permissible).

This case for Arbitrariness is *prima facie* plausible. And there's no analogous case for Moral Arbitrariness that's *prima facie* plausible. To see this, consider the moral analog of the claim that it's only permissible to hold a doxastic state if you believe it's strictly better than any other. The analogous claim in a case for Moral Arbitrariness is that it's only permissible to perform an act if you believe it's better than any other act. But that is clearly implausible. For you can permissibly perform an act when you think there are other acts that are just as good; when forced to choose between saving Smith and saving Jones, you can save Smith while recognizing that doing so is no better than saving Jones.

We can turn this informal case for Arbitrariness into a valid argument as follows:¹⁷

The Case for Arbitrariness (CFA):

- **S.** Suppose (for *reductio*) that someone could permissibly have D and believe both D and D^* are permissible for them.
- **P1.** It's impermissible for anyone to have *D* and not believe *D* is better than any other doxastic state.
- **P2.** It's impermissible for anyone to believe that *D* is permissible for them and believe some other doxastic state is better.
- **L1.** Someone could permissibly both believe *D* to be better than *D*^{*}, and believe *D* is not better than *D*^{*}. [From P1,P2,S.]
- **P3.** It's impermissible for anyone to believe a contradiction.
- **C.** By *reductio*, it's impermissible for anyone to have *D* and believe both *D* and *D*^{*} are permissible for them. [From L1,P3.]

What should we think about CFA? The argument is valid, and it's third premise is uncontentious, so we just need to assess whether its first two premises are true.

The first premise, P1, states that it's impermissible to hold a doxastic state D and not take D to be better than any other doxastic state. To assess this premise, we need

The Case for Arbitrariness (CFA):

S. $\exists c \exists D, D^* \neq D (P[D(c) \land B(c, P[D(c)] \land P[D^*(c)])))$

- **P1.** $\forall c \forall D (I[D(c) \land \neg B(c, \forall D^* \neq D (D(c) > D^*(c)))])$
- **P2.** $\forall c \forall D (I[B(c, P[D(c)] \land \exists D^* \neq D (D^*(c) > D(c)))])$

L1. $\exists c \exists D, D^* \neq D (P[B(c, D(c) > D^*(c) \land D(c) \neq D^*(c))])$ [From P1,P2,S.]

P3. $\forall c \forall A (I[B(c, A \land \neg A]))$

C. (Arbitrariness) $\forall c \forall D, D^* \neq D$ ($I[D(c) \land B(c, P[D(c)] \land P[D^*(c)])]$) [From L1,P3.]

 $^{^{17}}$ Letting > stand for the "doxastically better than" relation, and using the notation introduced in footnote 10, we can formally present this argument as follows:

to understand what it means to say that one doxastic state is "better" than another. A particularly natural way to understand betterness here is in terms of accuracy; i.e., that one doxastic state is better than another *iff* it's more accurate. For if we adopt this understanding of betterness, then P1 is just a way of stating Immodesty, the widely accepted principle that rational doxastic states should takes themselves to be more accurate than any other doxastic state.¹⁸ And given this understanding we can grant P1, since most opponents of Unique Outputs will accept it.

The second premise, P2, states that you can't permissibly believe both that *D* is permissible for you and that some other doxastic state is better than *D*. Or, put in terms of accuracy, it's impermissible to believe both that *D* is permissible for you and that some other doxastic state is more accurate than *D*. Whether one accepts P2 turns out to be at the heart of the debate over how to think about the nature of rationality. Is it rational (i.e., permissible) to believe that you could rationally hold some doxastic state while also believing that some other doxastic state you could hold is more accurate? Some will think that anyone with such beliefs misunderstands the nature of rationality, while others will not.

Let's first consider why someone might accept P2. Why might one believe that rationality and accuracy are so tightly linked? One natural way of thinking about these issues that lends itself to this stance goes as follows:

If you think some other doxastic state is more accurate than D, then it's hard to see how you could think holding D is rational. After all, how could you think it's rational for you to hold D when you think it's less accurate than some other doxastic state you could hold? On the flip side, if you think Dis at least as accurate as any other doxastic state, then it's hard to see how you could think holding it isn't rational. After all, how could you think it's irrational for you to hold D when you think it's at least as accurate as any

¹⁸Of course, the phrase "believe to be more accurate" is ambiguous. Here I'm taking it to be shorthand for "has a higher expected accuracy (as assessed by your doxastic state)". Thus I'm taking the claim that it's impermissible to not believe your doxastic state is more accurate than any other doxastic state as equivalent to the claim that it's impermissible to have a doxastic state that doesn't take itself to have a higher expected accuracy than any other doxastic state (which is how Immodesty is usually formulated).

In any case, if one prefers, it's straightforward to reword the discussion that follows to put things in terms of expected accuracy. Likewise, one can reformulate the formal argument from footnote 17 to put things directly in terms of expected accuracy. I.e., letting \succ_D stand for the "has a higher expected accuracy (as assessed by D)" relation, we can reformulate the argument as follows:

The Case for Arbitrariness (CFA), expected accuracy formulation:

S. $\exists c \exists D, D^* \neq D (P[D(c) \land B(c, P[D(c)] \land P[D^*(c)])))$

P1. $\forall c \forall D (I[D(c) \land \neg (\forall D^* \neq D (D(c) \succ_D D^*(c)))])$

P2. $\forall c \forall D (I[B(c, P[D(c)]) \land \exists D^* \neq D (D^*(c) \succ_D D(c))])$

L1. $\exists c \exists D, D^* \neq D \ (P[D(c) \succ_D D^*(c) \land D(c) \not\succeq_D D^*(c)])$ [From P1,P2,S.]

P3. $\forall c \forall A (I[D(c) \land D(c) \succ_D D^*(c) \land D(c) \not\succeq_D D^*(c)])$

C. (Arbitrariness) $\forall c \forall D, D^* \neq D$ ($I[D(c) \land B(c, P[D(c)] \land P[D^*(c)])]$) [From L1,P3.]

other doxastic state you could hold?

If you are drawn to this stance, then you will be inclined to accept P2. For on this stance the doxastic states you think are most accurate and the doxastic states you think it's rational for you to hold are one and the same.

Let's next consider why someone might reject P2. Why might one believe that rationality and accuracy are not so tightly linked? One possibility is that you might take there to be things other than accuracy that have epistemic value, such as knowledge, understanding, the counterfactual robustness of one's beliefs, the cognitive resources required to maintain those beliefs, and so on. And you might take these considerations to bear on whether a doxastic state is rational. If so, then you're unlikely to accept any straightforward link between rationality and accuracy, like the one P2 requires.¹⁹

Another possibility is that you might think of epistemic rationality as encoding something like the epistemic strictures that every truth-seeking subject should agree to, regardless of their biases or beliefs about particular contingent matters of fact. Suppose these epistemic strictures include P1 and the requirement that one know the normative truths. Then, while it will be true of all rational subjects that any doxastic state they believe to be most accurate is one they'll believe to be rational,²⁰ it need not be true that any state they believe to be rational is one they'll believe to be most accurate. Thus this stance lends itself to rejecting the kind of tight link between rationality and accuracy that P2 entails.

So the plausibility of P2 hangs on one's conception of rationality. Those who adopt a conception of rationality that entails that rationality and accuracy are tightly linked will accept P2, while those who do not will reject it.²¹

All told, how compelling is the attempt to use CFA and SAO3 to establish Unique Outputs? It depends. On the one hand, they are compelling when assessed as a way to provide an attractive and coherent account of why Unique Outputs is true for those who are sympathetic to it. For most proponents of Unique Outputs will accept this tight link between rationality and accuracy, and thus will accept CFA and SAO3. On the other hand, these arguments are not very compelling when assessed as a way to put pressure on opponents of Unique Outputs. For most opponents of Unique Outputs will reject this tight link between rationality and accuracy, and thus will reject CFA and SAO3 as unsound.

¹⁹I say "unlikely" because there are ways to take these other factors to be epistemically relevant and still accept P2. In particular, one could accept P2 – and thus hold that one can't believe a doxastic state is rational unless one believes there's no doxastic state which is more accurate – and also hold that when one believes multiple states are equally accurate, these other epistemic considerations come into play and determine which of these states are rational.

²⁰Since these subjects are rational, they'll satisfy all of the strictures, including P1. Since they satisfy P1, their own doxastic state D will be the state they believe to be most accurate. And since D satisfies all of the strictures (because their doxastic state is rational), and these subjects know that satisfying these strictures makes a doxastic state rational (since they know the normative truths), they'll know D is rational.

²¹See Schoenfield (2013) for an instance of someone who explicitly rejects this link. For a defense of this link, see Simpson (forthcoming).

6 The Case for Standards-Arbitrariness

In section 4 I argued that the new arbitrariness objection recently raised by some authors fails to close the gap left by the standard arbitrariness objection. But one might grant that, and still wonder whether this new arbitrariness objection at least succeeds at the more modest task of showing that the Standards Theory Schoenfield's (2013) describes is untenable. Does NAO-S at least succeed at showing that?²²

In light of the discussion of section 5, we can see that the answer is no. In order for NAO-S to provide a compelling argument against the Standards Theory, there needs to be a compelling case for accepting the key premise of the argument, Standards-Arbitrariness. Building on the discussion in section 5, we can construct an argument for Standards-Arbitrariness that mirrors CFA as follows:²³

The Case for Standards-Arbitrariness (CFSA):

- **S.** Suppose (for *reductio*) that someone could permissibly update via *S* and believe both updating via *S* and *S*^{*} would be permissible for them.
- **P1.** It's impermissible for anyone to update via *S* and not believe updating via *S* leads to more accurate doxastic states than any other standard.
- **P2.** It's impermissible for anyone to believe that updating via *S* is permissible for them and believe updating via some other standard leads to more accurate doxastic states.
- **L1.** Someone could permissibly both believe updating via *S* leads to more accurate doxastic states than updating via *S*^{*}, and believe updating via *S* does not lead to more accurate doxastic states than updating via *S*^{*}. [From P1,P2,S.]
- **P3.** It's impermissible for anyone to believe a contradiction.
- **C.** By *reductio*, it's impermissible for anyone to update via *S* and believe both updating via *S* and updating via *S*^{*} would be permissible for them. [From L1,P3.]

But this argument is no more compelling than CFA was. Again, many will grant the first premise, and most will grant the third premise. But proponents of the Standards Theory will not be inclined to accept the second premise. The dialectic here is similar to the dialectic regarding the second premise of CFA. Just as the plausibility of the second premise of CFA hangs on whether one thinks that the doxastic states you believe to be rational and the doxastic states you believe to be most accurate should be one and the same, the plausibility of the second premise of CFSA hangs on whether one thinks that the standards you believe are rational and the standards you believe would lead to the most accurate beliefs should be one and the same. And just as proponents of Unique Outputs will reject this strong link between (beliefs about) rationality and accuracy regarding doxastic states, proponents of the Standards Theory will reject this strong link

 $^{^{\}rm 22}{\rm I}$ owe an anonymous referee for encouraging me to address this question.

²³Where I've assumed we're understanding the CFA in terms of claims about accuracy. As before, I take claims regarding beliefs about accuracy here to be shorthand for claims about expected accuracy; e.g., I take "you believe that updating via *S* leads to more accurate beliefs than updating via S^* " to be shorthand for "the expected accuracy (calculated using your doxastic state) of updating via *S* is greater than that of updating via S^* ".

between (beliefs about) rationality and accuracy regarding standards. So, at the end of the day, even when assessed as just an argument against the Standards Theory, the new arbitrariness argument is not compelling.

7 Conclusion

It's been suggested that arbitrariness considerations, by themselves, provide a compelling case for Evidential Uniqueness. The preceding discussion suggests that this is incorrect. In section 3 we saw that the standard arbitrariness objection is either question begging (SAO1), invalid (SAO2), or only strong enough to entail Unique Outputs, not Evidential Uniqueness (SAO3). In section 4, we saw that the new arbitrariness objection raised by several authors fails to close the gap left by SAO3. And in section 5, we saw that SAO3 fails to even provide a compelling argument for Unique Outputs. Thus, at the end of the day, it appears that arbitrariness considerations do little to bolster the case for Evidential Uniqueness.²⁴

References

Carr, J. R. (2015). Don't stop believing. Canadian Journal of Philosophy, 45(5), 744–766.

- Christensen, D. (2007). Epistemology of disagreement: The good news. *Philosophical Review*, 116(2), 187–217.
- Coates, A. (2012). Rational epistemic akrasia. *American Philosophical Quarterly*, 49(2), 113–24.
- Cohen, S. (2013). A defense of the (almost) equal weight view. In D. P. Christensen, & J. Lackey (Eds.) *The Epistemology of Disagreement: New Essays*, (p. 98). Oxford University Press.
- Feldman, R. (2007). Reasonable religious disagreements. In L. Antony (Ed.) *Philosophers Without Gods: Meditations on Atheism and the Secular*, (pp. 194–214). Oxford University Press.

Horowitz, S. (2014). Epistemic akrasia. Noûs, 48(4), 718–744.

Kelly, T. (2013). Evidence can be permissive. In M. Steup, & J. Turri (Eds.) *Contemporary Debates in Epistemology*, (p. 298). Blackwell.

Kopec, M., & Titelbaum, M. G. (2016). The uniqueness thesis. *Philosophy Compass*, 11(4), 189–200.

²⁴I'd like to thank Maya Eddon, Sophie Horowitz, Julia Smith, the participants of the 2016 UMass Brown Bag, and an anonymous referee, for helpful comments and discussion.

- Kratzer, A. (1991). Modality. In D. W. Arnim von Stechow (Ed.) Semantics: An International Handbook of Contemporary Research, (pp. 639–650). W. de Gruyter, Berlin.
- Lasonen-Aarnio, M. (2014). Higherorder evidence and the limits of defeat. *Philosophy* and *Phenomenological Research*, 88(2), 314–345.
- Matheson, J. (2011). The case for rational uniqueness. *Logic and Episteme*, 2(3), 359–373.
- Meacham, C. J. G. (2013). Impermissive bayesianism. *Erkenntnis*, (S6), 1–33.
- Meacham, C. J. G. (2019). Deference and uniqueness. *Philosophical Studies*, 176(3), 709–732.
- Schoenfield, M. (2013). Permission to believe: Why permissivism is true and what it tells us about irrelevant influences on belief. *Noûs*, 47(1), 193–218.
- Schoenfield, M. (2015). Bridging rationality and accuracy. *Journal of Philosophy*, 112(12), 633–657.
- Simpson, R. M. (forthcoming). Permissivism and the arbitrariness objection. *Episteme*, (pp. 1–20).
- Smith, J. (2017). Are epistemic standards arbitrary. Eastern APA.
- Sosa, E. (2010). The epistemology of disagreement. In A. Haddock, A. Millar, & D. Pritchard (Eds.) *Social Epistemology*. Oxford University Press.
- Weisberg, J. (forthcoming). Could've thought otherwise. *Philosophers' Imprint*, (pp. 1–36).
- White, R. (2005). Epistemic permissiveness. *Philosophical Perspectives*, 19(1), 445–459.