

Uniqueness and Modesty: How Permissivists Can Live on the Edge

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There is a divide in epistemology between those who think that, for any hypothesis and set of total evidence, there is a unique rational credence in that hypothesis (Uniqueness), and those who think that there can be many rational credences (Permissivism). [Schultheis \(2018\)](#) offers a novel and potentially devastating objection to Permissivism, on the grounds that Permissivism permits dominated credences. I will argue that Permissivists can plausibly block Schultheis' argument. The issue turns on getting clear about whether we should be certain whether our credences are rational.

1. Introduction

There is a divide in epistemology between those who think that, for any hypothesis and set of total evidence, there is a unique rational credence in that hypothesis (Uniqueness), and those who think that there can be many rational credences (Permissivism). [Schultheis \(2018\)](#) offers a novel and potentially devastating objection to Permissivism on the grounds that Permissivism permits dominated credences. I will argue that Permissivists can plausibly block Schultheis' argument.¹ One moral is that Permissivism should be understood as a view about ideal rationality, not about non-ideal agents.

§2 explains Permissivism, §3 explains Schultheis' argument, §4 explains how the Permissivist can block the argument by holding that one should be *uncertain* which credences are permissible, §5 explains how the Permissivist can block the argument by holding that one should be *certain* which credences are permissible, and §6 concludes.

¹ I am actually inclined towards Uniqueness ([Bradley 2018, 2020](#)). Still, I don't think Schultheis' argument for Uniqueness is successful.

2. Permissivism

Let's start with an example to motivate Permissivism:

Matt and Abby are members of a jury for a murder case. They have all the same evidence and review it separately. When they convene to discuss their conclusions, they discover that they disagree. Matt is confident that Jones is innocent; Abby is confident that Jones is guilty. When they learn of their disagreement, what do they discover about themselves? Clearly, they learn that one of them is confident in a falsehood: either Jones is guilty or he isn't. But do they also learn that one of them has been less than fully rational, that one has failed properly to assimilate the evidence before him? (Schultheis, p. 863)

An answer of 'no' motivates:

Permissivism

Given some sets of total evidence, there are some hypotheses which do not have a unique rational credence.²

Permissivism has the pleasing result that we need not condemn either Matt or Abby as guilty of irrationality. But Schultheis argues that Permissivism is untenable.

Clarification: I will exclusively be discussing credence, that is, probabilistic belief, focusing on the distinction between certainty (credence 1) and uncertainty (credence less than 1). Schultheis talks about credence, but also live options, knowledge and (perhaps) full belief. I think these concepts introduce complications which are orthogonal to the central issue of rationality, so I set them aside.³

3. Schultheis' Argument

Let's distinguish first-order credences about whether the defendant is guilty from second-order credences about the permissibility of one's own first-order credences. According to Permissivism there is a range of permissible first-order credences. Suppose Matt considers the evidence and becomes certain that the rational permissible range for the

² Compare Schultheis (p. 863). See [Greco and Hedden \(2015\)](#), [Horowitz \(2013\)](#), and [White \(2005, 2013\)](#) for arguments against versions of Permissivism; see [Ballantyne and Coffman \(2012\)](#), [Douven \(2009\)](#), [Kelly \(2013\)](#), [Kopec \(2015\)](#), [Meacham \(2014\)](#), and [Schoenfield \(2014\)](#) for defences.

³ See [Hawthorne and Isaacs \(forthcoming\)](#) for a discussion of some of these issues.

defendant's guilt is no wider than 0.3 to 0.7. Call this 'the range', that is, the range of first-order credences that Matt thinks (with credence above 0) might be permissible. (It will do no harm to assume that this is indeed where the permissible range actually is.⁴)

Schultheis' argument focuses on the question of how confident the agent should be that credences at the edge and at the centre of the range are permissible. We can reconstruct Schultheis' argument as follows:⁵

- (1) For a credence at the *boundary* of the range, the agent should *not* be certain that it is permissible;
- (2) For a credence at the *centre* of the range, the agent *should* be certain that it is permissible;
- (3) It is irrational to have a credence that you think might be impermissible rather than a credence that you are certain is permissible (that is, a dominated credence);
- (4) Therefore it is irrational to have a credence at the edge of the range.⁶

The argument applies to any range, so (4) contradicts the most plausible version of Permissivism:⁷

⁴ It doesn't matter where the permissible range really is. The argument concerns only the relation between Matt's first and second-order beliefs. So an alternative way to block Schultheis' argument is to hold that Permissivism is true, but agents cannot believe it is (see [Ballantyne and Coffman 2012](#)). Thanks to Adam Elga for discussion.

⁵ '[W]hat should Matt believe about the boundaries of the permissible range? That, it seems, depends on what they actually are. If the lower bound is actually 0.3, then he should believe that it is between (say) 0.2 and 0.4 – that is, he should believe that it is roughly 0.3 . . . But if he believes that, it would be irrational for him to adopt credence 0.3. Why? Because Matt is not certain that .3 is rational, but there are other credences whose rationality Matt does not doubt – he is certain that (say) .5 is rational' (Schultheis, p. 865).

⁶ More explicitly:

1. For a credence (first-order) at the boundary of the range believed (second-order) to be permissible, the agent should not be certain (second-order) that it is permissible;
2. For a credence (first-order) at the centre of the range believed (second-order) to be permissible, the agent should be (second-order) certain that it is permissible;
3. It is irrational to have a credence (first-order) that you think might be impermissible (second-order) rather than a credence that you are certain (second-order) is permissible (that is, a dominated credence);
4. Therefore it is irrational to have a credence (first-order) at the edge of the range believed (second-order) to be permissible.

⁷ Technically, Permissivism allows that one might have either a-credence-of-precisely-0.3 or a-credence-of-precisely-0.7 in some proposition. Such a credence would be immune from Schultheis' argument.

There is some range such that any credence in that range is permissible.

I grant (3), so will not discuss it further. I will argue that the Permissivist should deny either (1) or (2). Agents should be certain that all credences in the range are permissible (deny 1), or they should be less than certain whether any are (deny 2).

A diagram might be useful. The problem case for Permissivism is where credences in the centre of the range have a second-order credence that they are permissible of 1, and credences at the boundary of the range have a second-order credence that they are permissible of less than 1. We get something like the following shape:

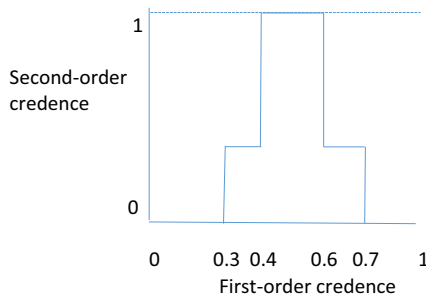


Figure 1

The agent is certain that credences between 0.4 and 0.6 are permissible and uncertain whether credences between 0.3 and 0.4 (and between 0.6 and 0.7) are permissible. This combination of certainty and uncertainty is what generates the problem for the Permissivist. I will argue that the Permissivist can and should avoid this combination. They just need to pick a side – either be certain that all the credences in the range are permissible, or be uncertain whether any of them are.

To be clear about the dialectic, there is logical space for the intermediate position Schultheis attacks, according to which agents are certain that some first-order credences are permissible and uncertain that others are. But I will argue that this position is implausible and unmotivated.

4. STRONG MODESTY: Deny (2)

The most plausible Permissivist position is to hold that agents should be less than certain whether any first-order credence is permissible. This follows from the following principle:⁸

STRONG MODESTY

For any set of total evidence E and any hypothesis H:

for any credence *c* in H it is irrational to be certain that *c* is permissible.

Applying this to the example above, STRONG MODESTY entails that Matt should be less than certain that *any* given credence is in the range. This makes 2 false. (Recall that 2 says that for a credence at the centre of a range, the agent should be certain that it is rational.)

The diagram of Matt’s credences might look something like this:

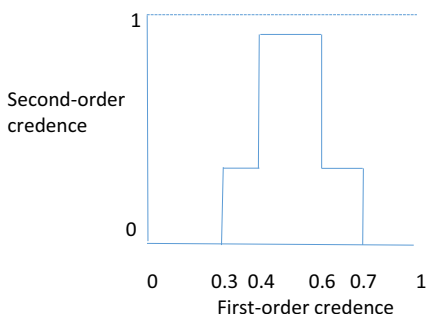


Figure 2

The key point is that the second-order credence is always below 1.

⁸ I call it STRONG MODESTY to differentiate it from Elga’s:

‘MODESTY In some possible situations, it is rational to be uncertain about what degrees of belief it is rational for one to have’ (Elga 2013, p. 132). As written, this is ambiguous between a) in some possible situations it is rational to be uncertain, for *any* credence *c*, whether *c* is rational, and b) in some possible situations it is rational to be uncertain, for *some* credence *c*, whether *c* is rational. I need something at least as strong as (a), which is stronger than (b). In fact, STRONG MODESTY is even stronger than (a), as it quantifies over all situations. The first clause of STRONG MODESTY could be limited to permissive situations, that is, situations where a range of credences in H is permissible given E.

The agent is not certain that any credence is permissible, so no credence is dominated.⁹

It isn't crucial to the dialectic that STRONG MODESTY is true. Indeed, the next section assumes that it isn't. Still, I think STRONG MODESTY is very plausible. In the Bayesian framework, certainty always remains despite any evidence that may arrive,¹⁰ yet surely Matt can discover that he is mistaken about what the evidence supports. He might believe that he has made such mistakes in the past, and even if not, he may discover that he is under the influence of a drug that disrupts his ability to make simple inferences, yet is undetectable from the inside.¹¹ Leaving this open as an epistemic possibility requires that he *not* be certain that any first-order credences are permissible, as required by STRONG MODESTY.

How might one argue that Matt should be certain that some credences are permissible? A referee imagines that an infallible oracle comes down from the sky and tells Matt that 0.5 is in the range. Should Matt be certain?

I don't think so. For Matt to be certain of what the infallible oracle says, he would have to be certain that the oracle was indeed infallible. I see no way for Matt to be rationally certain of that. A heavenly voice from the sky claiming to be an infallible oracle could be a malevolent demon. Indeed, anything the infallible oracle does to convince Matt that he speaks the truth could be mimicked by a malevolent demon. (This type of worry is the source of Cartesian scepticism.)

Are there any hypotheses of which we should be certain? There are two main candidates – logico-mathematical truths and hypotheses about our own experiences. The most important point to note here is that certainty about such hypotheses is compatible with the position of this section. Permissivists can allow that we should be certain of *some* hypotheses, while maintaining that we should always be less than certain of hypotheses about the permissibility of credences.

Still, let's consider the thesis that agents should be certain that some credences are permissible. This involves a kind of immodesty. I will argue in the next section that on the most plausible way to reject STRONG MODESTY, premise 1 is false.

⁹ I have left a right-angle at 0.4 and 0.6. A smooth curve might fit better with STRONG MODESTY.

¹⁰ Because if $P(H) = 1$ then $P(H|E) = 1$ for any E.

¹¹ See [Christensen \(2007\)](#) – more on this below.

5. STRONG IMMODESTY: Deny (1)

Assume STRONG MODESTY is false. Thus there are some credences that agents should be certain are permissible. This is most plausibly motivated by the thought that we have a strong form of access to the principles of rationality. However, if this access justifies certainty that some credences are permissible, then, by symmetry, it seems it will also justify certainty that some credences are *im*permissible. For example, if I have sufficiently direct and indubitable access to the principles of rationality to be certain that, say, 0.5 is in the permissible range, it seems that this direct and indubitable access to the principles of rationality would justify certainty that, say, 0.1 is outside the permissible range. The result is the following:

*STRONG IMMODESTY*¹²

For any set of total evidence E and any hypothesis H:

for any credence *c* it is rationally required to be certain whether *c* is permissible.

It follows that Matt will be rationally certain that credences on the boundary of the range, for example 0.3, are permissible.

But now it follows that (1) is false. (Recall that (1) says that the agent should *not* be certain that the credence at the boundary is permissible.) So if we endorse STRONG IMMODESTY then we have to reject premise (1). The agent should be certain, for all credences in the range, that they are permissible (and should also be certain, for all credences outside the range, that they are impermissible).

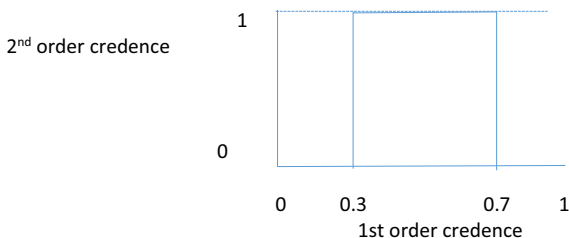


Figure 3

¹² Again, the first clause could be weakened to be restricted to permissive situations.

Schultheis (pp. 869-70) notes this way of blocking her argument, but responds that this defence of Permissivism applies to ideal agents (who are certain of which first-order credences are permissible) and does not apply to non-ideal agents such as ourselves (assuming we are uncertain which first-order credences are permissible). And this conflicts with one motivation for Permissivism – that having a unique rational credence is too demanding for non-ideal agents. Indeed, there is such a conflict. But I will argue that this is a motivation the Permissivist should reject.

Distinguish two purported motivations for Permissivism:

Relaxed rationality

A unique rational credence is too demanding for the concept of rationality;

Relaxed agents

A unique rational credence is too demanding for non-ideal agents.

Schultheis writes:

Epistemic Permissivism is ... about ordinary agents like you and me, with all our human limitations. (p. 869)

Permissivism is a populist epistemology, a view for ordinary folk. Impermissivists ignore the realities of our actual cognitive lives. Permissivists don't. (p. 870)

Clearly Schultheis has in mind the motivation of *Relaxed agents*. Given this motivation provided by *Relaxed agents*, it would indeed be odd if Permissivism ends up applying only to ideal agents.

But Permissivism is not really about non-ideal agents; it is about the relation between evidence and hypothesis. Recall the definition: given some sets of total evidence, there are some hypotheses which do not have a unique rational credence.¹³ There is no reference to agents or non-ideality here. So *Relaxed agents* cannot motivate Permissivism. Schultheis' discussion shows that we should focus on *Relaxed rationality*, which can motivate Permissivism.¹⁴

¹³ Textual evidence that this is indeed Schultheis' target is that she (Schultheis p. 863) takes her formulation from White (2005, p. 447): 'There are possible cases in which you rationally believe P, yet it is consistent with your being fully rational and possessing your current evidence that you believe not-P instead'.

¹⁴ Weisberg (2020) is motivated by *Relaxed agents*. He says that he rejects Uniqueness, and his arguments are based on the limited psychological capacities of humans. At the end of his paper he responds to the objection that Uniqueness concerns ideal rationality by asking why

One might still be troubled by the picture that emerges. Given STRONG IMMODESTY, agents should be certain that the range starts at precisely 0.3 and stops at precisely 0.7, so second-order credences look like a rectangle which jumps vertically from 0 to 1 at the first-order credence of 0.3, and falls vertically to 0 at 0.7 (Figure 3).

Is this odd situation a reason to reject Permissivism? I will argue that it is not; we only get this odd situation from the conjunction of Permissivism and STRONG IMMODESTY, and STRONG IMMODESTY is odd enough all on its own. STRONG IMMODESTY implies that agents should be second-order certain, for all first-order credences, whether they are permissible. I will argue that STRONG IMMODESTY leads to odd results.

One reason to deny that ideal agents are certain that any credences are rational comes from Williamson's (2000) thesis that agents might not know what their evidence is.¹⁵ But I think there are problems with STRONG IMMODESTY without Williamson's controversial assumptions, as we saw briefly in the last section.

All we need is the assumption that an ideal agent might not be certain that they are ideal. Indeed, there are many things ideal agents can be mistaken about. Suppose an ideal agent is told by a usually reliable informant that the sky is green. If this is their only source of information about the sky, they will rationally, but falsely, believe the sky is green. Now suppose that an ideal agent is told (falsely) by a usually reliable informant that they have ingested a drug that disrupts their reasoning, making them susceptible to rational error, but that is undetectable from the inside.¹⁶ Such an ideal agent should doubt that they are ideal. So if they have a credence of 0.5 in some hypothesis, their second-order credence that 0.5 is rational should be less than 1. Now consider the agent who has been told no such thing.

questions of ideal rationality are interesting. He suggests that ideal rationality is interesting because it tracks evidential support, and we are interested in evidential support. He then claims that '[i]n that case however, what we're really interested in is Univocity' (p. 20), the claim that facts about evidential support do not depend on supplementary beliefs or values. But this is very odd. Univocity and Uniqueness are very closely connected. And even granting that discussions of Univocity and Uniqueness should be separated, why would we not also be interested in Uniqueness? And anyway the issue is not who is interested in Uniqueness but whether it is *true*. At the end Weisberg concedes: 'So even if Uniqueness is true for ideally rational agents, we should be interested in the ways it fails for everyday rationality' (p. 21). So I think that despite appearances, Weisberg does not reject Uniqueness.

¹⁵ As Schultheis notes in fn. 13.

¹⁶ See Christensen (2007)

Nevertheless, they should allow the epistemic possibility that they have ingested such a drug and not been told about it. So they should not be certain that they are rational.

Those who endorse STRONG IMMODESTY will reject the reasoning of the last paragraph. They hold instead that ideal agents should always be certain that they are ideal.¹⁷ My point is not that such philosophers are wrong. My point is that such philosophers are committed to some odd views, for example, that you should ignore evidence that you are not ideal. Unsurprisingly, further odd views will follow, one of which may be the rectangular-shaped distribution above. Indeed, if we combine STRONG IMMODESTY with Uniqueness, the width of the rectangle collapses to 0, leaving a shape that looks just as odd to me.

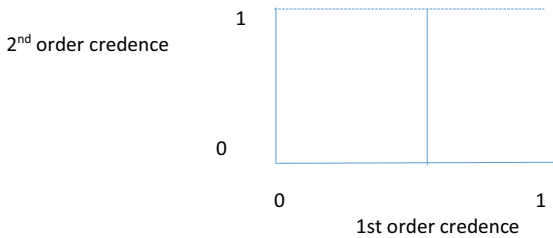


Figure 4

So my suggestion is that if you are bothered by the rectangular-shaped distribution, you need not blame Permissivism – you can blame STRONG IMMODESTY.

6. Conclusion

Schultheis' argument against Permissivism depends on some credences in the range being certainly permissible, and other credences being merely possibly permissible. I have argued that the Permissivist can deny either conjunct – the agent should be uncertain whether any credence in the range is permissible (deny 2) or the agent should be certain that every credence in the range is permissible (deny 1). Permissivism is not refuted.

Schultheis suggests that we should understand Permissivism as an epistemology for non-ideal folk; one might also think that STRONG MODESTY is a principle for non-ideal folk. Perhaps the uncertainty

¹⁷ See [Lasonen–Aarnio \(2014\)](#) and [Titelbaum \(2015\)](#).

which these principles suggest is correct for us, but not for ideal agents. I have argued that these thoughts are misguided. Permissivism and STRONG MODESTY both concern the connection between evidence and hypothesis, making no reference to agents. Uncertainty, even about rationality, may be a rational ideal, not merely a regrettable state for non-ideal agents.¹⁸

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