Comments on "Augustin's Concessions"

Abstract:

… undermine the original case for …

…hands-on examples to ~~demonstrate~~ argue that rational agents always…

1. Introduction

p. 1

The claim defended in this paper is that…

~~…to address problems which sharp credences~~ …to address problems with sharp credences as a tool used to reflect an agent's doxastic state. [END PARAGRAPH]

p. 2

…who do not believe that a rational agent's credences need to be sharp…

Question: is it necessary for the doxastic state to represent preferences among outcomes (as well as beliefs)? I don't see preference orderings playing a role in this paper.

This question is relevant later in the paragraph. I can't see how a credal state could be sufficient for decision-making without also having information about the agent's preferences, and maybe that is what you mean.

Question: The paragraph on reconciliation ("There is a sense…") seems to interrupt the flow of the paper – could it be eliminated, or at least moved elsewhere?

p. 4

Consider the paragraph that starts "To put it provocatively": is there a way to leave the first sentence where it is, but to split off the second sentence and the quotations that follow? All of that material, which is supportive of instates, seems to belong just PRIOR to the point ("Against the force of RANGE, INCOMPLETE and INFORMATION…") where you start to motivate sharp credences.

Same point: just move the material where you indicate your own view ("Against the force…" paragraph, plus the one sentence "To put it provocatively…") to the end of section 1.

p. 5

There are four sections to come.TBD – fix the "TBD".

2. Dilation, Learning and Entropy

p. 6 …dilates to [0, 1] {corrects [0.1] in the current version}

p. 7 Replace "quoted verbatim from White 2010" to "White 2010".

p. 8 I follow your analysis of Example 5 perfectly, but you might wish to enlarge, if you hope for a wide audience.

p. 8 Line 9: first reference to (AC1) and (AC2), but these have not appeared yet. Insert a forward reference, something like: "it is not directly addressed by (AC1) and (AC2), the two concessions made by Augustin and Joyce (see below) to deal with DILATION and OBTUSE."

Line 11: I shall show that (AC1), (AC2), and an independent argument… [your point here is about the dialectical structure of your paper]

Line 21: I have not succeeded in solving it…

Question: Joyce does allude (2010, p. 288) to the idea that a set of credences C_1 encodes more information than C_2 whenever C_1 is a subset of C_2. He admits that he hasn't really made this precise, but it is at least relevant to your claim that we should not assign more information to a sharp credence such as {0.5} than to an instate such as [1/3 , 2/3].

In general: Unlike DILATION and OBTUSE, I'm not quite sure what the objection is here to instates. I guess you are ignoring ENTROPY for the rest of the paper, but if you keep section 2.3, can you clear it up a little?

3. Augustin's Concessions

p. 9

…disagree with Joyce about what this means…

…Let us begin by looking more closely at how (AC1) and (AC2)…

Section 3.1: (AC1)

You need to be crystal clear here, and I also think you need to include at least one quotation from Joyce that proves he endorses your version of (AC1).

Indeed, you have defined an instate as a *set* of sharp credence functions -- not as the set of possible credence values for each proposition in the algebra.

So in the three-sided die example, C′ and C″ are *not* the same instates, and Joyce does not claim that they are – he says the generate the same range of possible probabilities for propositions in the algebra. You don't want to slip into this alternative meaning of instate!

p. 10 Three-sided die example: important addition. Following Joyce, C″ contains all credence functions *c* in C′ for which c(X) = c(Y).

While on this example: I am sorry to say that I don't see how it makes Joyce's point. I must be missing something obvious. It seems that the range of possible probabilities for X within C′ is [0, ½], while the range of possible probabilities for X within C″ is [0, ¼].

Upon reflection: it may be that you noticed this very problem, since in your version (which leaves out in C′), the range of possible values for X within C″ is indeed [0, ½].

In short: a little effort is needed to clean up this important example. First, you need to explain that the tiny change just noted is required to get it to do what Joyce wants: two different instates can correspond to the same ranges of possible probabilities. So "range of probabilities" does not represent a doxastic state. Second, you need to correct your own claim that C′ and C″ represent the same instates but different doxastic states: they are NOT the same instates, by your own definition of instate. CRUCIAL POINT: what happens to (AC1) with this correction?

"Joyce's contention is that Example 3 shares features with Example 6 in the sense that …": there is too much packed into this one sentence. First, you are introducing a new idea: that $H_{iv} \equiv H_v$ is inadmissible evidence and PP does not hold. This was not explained earlier, so you need to explain it now – as in fact, you do, though I think it could be clearer (e.g., state in plain English the intuition that the conditional chance should still be ½ because we've learned something irrelevant). I would postpone the point that "Example 3 shares features with Example 6" until at least the next paragraph.

The two paragraphs in the bottom two-thirds of page 10 are really important to your argument, and they need to be very clear. Given the confusion about instates, I'm not quite sure how that bears on your argument. (At the very least, the analogy with Example 6 is gone.) In Example 3, does the set C of credence

functions change when we conditionalize on $H_{iv} \equiv H_v$? This seems to be crucial to your argument. And I thought that it does change! Initially, C is just {1/2} – or better, C is a joint distribution over H_{iv} and H_v which is sharp for H_{iv} and an instate for H_v. But after we conditionalize, $C(\cdot / H_{iv} \equiv H_v)$ is no longer sharp for H_{iv}, so the credence does change.

Now it may still be that, for Joyce, there is more to the doxastic state than is represented by the instate. But this "extra something" does not seem to be what he needs for responding to the problem of dilation.

Section 4 The Double Task

p. 13

Re Example 9:

Could the instate be $(.3 - \delta, .3 + \delta) \cup (.6 - \varepsilon, .6 + \varepsilon)$, where $\varepsilon < \delta$ to represent the greater precision of QCT?

Or could we get the final instate by starting with one of these two intervals (whichever broadcaster we heard first) and conditionalizing all of the credence functions on the report of the second broadcaster?

p. 14

Re Example 11:

I can't fully understand the objection here. I guess you are raising doubts about how the Booleans will accommodate instates within a theory of belief revision, noting that belief revision is unproblematic for Laplaceans. I'm not sure I appreciate how serious the problem is for Booleans. Why can't a Boolean just replace {45, 46, 47} with {49}? Or why can't a Boolean start with a single sharp credence function (degenerate instate) that assigns non-negative probability to each age between 40 and 55, spiking around 46?

p. 15

"It is important not to confuse…": I'm not sure what this means. How is it connected with the preceding discussion of Example 11? Much of the ensuing discussion (pages 15 and 16) eludes me – you seem to be making many important points, but not clearly and not in a connected fashion.

p. 17

Good examples; they suggest good arguments against instates as basis for decision theory. Joyce's remarks on the pragmatics of decision-making don't seem to help much. It might help to bring back the "committee member" image here: in Example 12 (and in the hand urn version), at least one committee member wants to make the $9,999 bet.

p. 17-18

Although I agree with you about the Three Prisoners problem, the case against dilation probably needs to be made a little more strongly. Joyce will otherwise pull out some analogous case, much as he does in dealing with White's "chocolates" example. Indeed, he gives an example involving execution.

Can you explain more fully the point about independence? It needs to be expanded.

p. 20

Should Elga be in the list of References?