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[8] Synchronic Dutch Book Arguments (ctd.)

0. Outline

1. **Objections (2): DBA's and prudential rationality**
2. **'Inconsistent valuation' versions of the DBA**

1. Objections (2): DBA's and prudential irrationality

- As presented so far, the DBA aims to be a *prudential* argument for probabilistic constraints on degrees of belief.
- Reminder: prudence = 'concern for one's future well-being' according to the *Oxford Dictionary of Philosophy.*
- More specifically: the argument involves a certain specific kind of bad outcome (being Dutch booked) being claimed to be metaphysically/logically possible iff one's d.o.b.s violate the rules of probability.
- There are other prudential arguments for belief, most famously:

  Pascal's Wager, which purports to show that one should believe in God on the basis of practical considerations alone.
- Call this version of the DBA the 'prudential' version.

1. Objections (2): DBA's and prudential irrationality

- Now people object to this version on various grounds.
- *Complaint (1)*: prudential irrationality hasn't been established until we consider *S*'s d.o.b in the occurrence of the various betting scenarios (Christensen [1991], Hajek [2005],…).
- According to this view:

  (a) A choice can only be prudentially irrational if it is *perceived by the subject* as leading to prudentially undesirable outcomes.

  (b) The DBA fails to establish that this condition is met.
- To see why (b) holds:
  - Assume *S* is probabilistically incoherent.

1. Objections (2): DBA's and prudential irrationality

- *DB* (*CB*) = the set of worlds in which *S* is subjected to a Dutch (Czech) book.
- If $Bel_S(DB) = 0$, it would seem that, from *S*'s point of view at least, there is no good prudential reason for her to switch to a coherent function: she is subjectively *certain* that her neighbourhood is Dutch-free.
- In fact, even if $Bel_S(DB) \neq 0$ but fairly low, it may be the case that $Bel_S(CB)$ is rather high: so on balance, incoherence could look like a prudentially good move to *S*.

- Conceivable response: *S* is actually rationally required to have the kinds of d.o.b.s wrt *DB*/*CB* that would make coherence prudentially preferable.

1. Objections (2): DBA's and prudential irrationality

- Rebuttal: '[r]ationality does not require the agent to have particular opinions about any contingent matter' (Hajek [2005: 11]).
- Or better (because weaker) : even if rationality *did* require an agent to have particular opinions about contingent matters, it isn't clear that it would require *these* particular opinions about *these* particular matters.
- Another response:
  - Deny premse (a) and distinguish between *subjective* prudential irrationality and *objective* prudential rationality.
  - Argue that *S*'s incoherence *is* prudentially irrational, albeit only in the latter sense.

1. Objections (2): DBA's and prudential irrationality

- Two possible ways in which prob. incoherence this might be held to be objectively prudentially irrational:
  - Opening up the mere metaphysical possibility of being Dutch-bookable suffices.
  - Although exposure to metaphysical possibility of sure loss isn't sufficient, *as a matter of actual fact* we happen to live in a 'bad neighbourhood', in which Dutch books abound and Czech books are scarce, and this is sufficient.

    (This second line of argument obviously requires supplementing the premises of the DBA, as I presented it.)
- Rebuttal (Hajek [2005]):

  (a) This supplementary empirical premise is dubious.

1. Objections (2): DBA's and prudential irrationality

(b) If this is all the probabilist has to offer, he doesn't fully capture the irrationality of probabilistic incoherence, which seems independent of matters of contingent fact.

Christensen [1991:238]: if people were tortured by the Thought Police for not believing contradictions, it would *still* remain that believing contradictions is somehow irrational.

- *Complaint (2)*: the connection between graded belief and behaviour in BET can be read in either of two ways. On one reading it is false; on the other it doesn't do the job it should.
- *Option 1*: the connection is taken to be metaphysically necessary.
- Many don't buy this, for various reasons familiar to those who have followed the debate on logical behaviourism.

1. Objections (2): DBA's and prudential irrationality

- Example: Strawson's *Weather Watchers* (Strawson [1994], Chp 9) - individuals who have the same mental lives as ours but lack our behavioural dispositions - are often thought to be logically / metaphysically possible.
- See Hajek & Eriksson [2007] for further discussion and relevant references.
- *Option 2*: the connection is taken to be contingent.
- This again makes the irrationality of incoherence depend on matters of contingent fact: incoherence is irrational so long as graded belief is hooked up to behaviour in the right way. Some may find this unacceptable.

1. Objections (2): DBA's and prudential irrationality

- These considerations have led many (most) to refrain from holding that the irrationality involved in being probabilistically incoherent lies in the practical threat of a sure loss…

2. 'Inconsistent valuation' versions of the DBA

- One popular suggestion: the irrationality involved in probabilistic incoherence simply lies in having *different valuations of one same state of affairs* under different modes of presentation.
- This avoids the previous objections to the prudential version.
- Note: although not demand is made here that graded beliefs translate into behavioural dispositions, they must still translate into certain kinds of valuations.
- So how does incoherence lead to inconsistent evaluation?
- Take for instance violations of [P3].
- If $P \cap Q = \emptyset$ and $Bel_S(P \cup Q) \neq Bel_S(P) + Bel_S(Q)$, then S would:
  - value getting £1 if P and 0 if not at £$Bel_S(P)$.
  - value getting £1 if Q and 0 if not at £$Bel_S(Q)$.

2. 'Inconsistent valuation' versions of the DBA

  - value getting £1 if P or Q and 0 if not at £$Bel_S(P \cup Q)$.
- Clearly the conjunction of the two first situations amounts to the third.
- However, the sum of S's valuations for the first two (£$Bel_S(P)$ + £$Bel_S(Q)$) differs from his valuation of the third (£$Bel_S(P \cup Q)$).
- Brian Skyrms famously endorses this 'inconsistent valuation' version of the DBA (see also Armendt [1993]):

> 'What is basic is the consistency condition that you evaluate a betting arrangement independently of how it is described… The cunning bettor is simply a dramatic device… to emphasize the underlying issue of coherence.' (Skyrms [1984])

2. 'Inconsistent valuation' versions of the DBA

- Ramsey is also generally interpreted as pushing this line:

  'If anyone's mental condition violated [the laws of probability], his choice would depend on the precise form in which the options were offered, which would be absurd' (Ramsey [1931:182])

- *Complaint (1)*: why exactly is it that *inconsistent valuations* are irrational?
  - Is it supposed to be a brute fact that they are?
  - Is this irrationality itself derivative? If so, how?
- In connection with this, note that Ramsey immediately follows up his comment on the absurdity of inconsistent valuations with:

  'He could have a book made against him by a cunning bettor and would then stand to lose in any event.'

2. 'Inconsistent valuation' versions of the DBA

- But this *could* suggest that on his view, inconsistent preferences are irrational not intrinsically, but *because* a practical liability ensues.
- *Complaint (2)*: the connection posited between graded belief and valuations can be read in either of two ways. On one reading it is false; on the other it doesn't do the job it should.
- *Option 1*: the connection is taken to be metaphysically necessary.
- Hajek & Eriksson [2007:14]: at least logically/metaphysically possible to have beliefs but no desires (Buddhist/Apathetic e.g.s).

2. 'Inconsistent valuation' versions of the DBA

- Christensen [2004:113] takes a different tack. He argues that:

  'The entire interest in taking the probability calculus as a normative constraint on belief depends on countenancing the real possibility that... I might strongly believe P but not have a sufficiently strong degree of belief in $(P \vee Q)$.'

- He then says:

  'Once we countenance this possibility, do we have any justification for refusing to countenance the following possibility: that I strongly believe P but do not have a strong preference for receiving a prize conditional on P's truth? It seems to me that we do not.'

- I.e: (a) probabilism presupposes that prob. incoherence is possible, (b) prob. incoherence is possible → the putative connection between d.o.b.s and valuation isn't metaph. necess.

2. 'Inconsistent valuation' versions of the DBA

- *Option 2*: the connection is contingent.
- Here again we make the irrationality of probabilistic incoherence hinge on contingent matters (here: having one's d.o.b.s and preferences being connected in the right way).
- Christensen [2004:115] objects that this seems counterintuitive.

Reference

- Armendt, B. [1993]: 'Dutch Books, Additivity and Utility Theory', *Philosophical Topics*, 21(1).
- Christensen, D. [1991]: 'Clever Bookies and Coherent Belief', *The Philosophical Review* 100(2): 229-247.
- Christensen, D. [2004]: *Putting Logic in its Place*. Oxford: OUP.
- Hajek, A. [2005]: 'Scotching Dutch Books?', *Philosophical Perspectives 19, Epistemology*. Pp 139-151.
- Hajek, A. & L. Eriksson [2007]: 'What Are Degrees of Belief?' *Studia Logica* 83(2): 183-213.
- Ramsey F. [1931]: 'Truth and Probability', in his *The Foundations of Mathematics*. London: Routledge.

Reference

- Skyrms, B. [1984]: *Pragmatics and Empiricism*. New Haven: Yale University Press.
- Strawson, G. [1994]: *Mental Reality*. Camb. MA: MIT Press.

Next lecture: 'Other justifications for probabilism'

- No set reading (though I will provide relevant references during the course of the lecture)