Belief and Indeterminacy

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1 Introduction

Some responses to the Liar paradox:

Classical: Either deny $\lambda \models T(\lambda)$, or deny $T(\lambda) \models \lambda$, (or both).

Paraconsistent: Accept $T(\lambda) \wedge \neg T(\lambda)$.

Paracomplete: Deny the validity of excluded-middle, and in particular the validity of: $T(\lambda) \vee \neg T(\lambda)$. In such cases we say that it is indeterminate whether λ is true.

We'll be interested in the paracomplete account.

Target Question: If one ought to believe that ϕ is indeterminate, what attitude should one take towards ϕ?

A Puzzle: If ϕ is a proposition that one ought to believe is indeterminate, then, *prima facie* the following claims are all plausible:

(a) One should not believe ϕ.

Justification: In standard cases, if ϕ is indeterminate, it will entail a contradiction. Thus, belief in ϕ will mandate belief in a contradiction. But one should not believe a contradiction.

(b) One should not be agnostic about ϕ.

Justification: In standard cases of indeterminacy we do not think that there is some fact of the matter about which we are ignorant.

(c) One should not reject, i.e., disbelieve, ϕ.

Justification: If one rejects ϕ, then one should believe $\neg\phi$. This, however, again mandates belief in a contradiction.

A solution to this puzzle should tell us which of (a)-(c) to reject.

A Putative Solution: Reject (c). This requires rejecting the claim that if one rejects ϕ, then one should believe $\neg\phi$.

This proposed solution to the puzzle leads to the following orthodox answer to our question:

(Rejection): If one ought to believe that ϕ is indeterminate, then one ought to reject, i.e., disbelieve, ϕ.

I'm going to argue that we should reject (Rejection) and instead accept:

(Indeterminacy): If one ought to believe that ϕ is indeterminate, then one ought to be such that it is indeterminate whether one believes ϕ.

2 Epistemic Paradox

A Strange Sentence: I don't believe that this sentence is true

Using this type of sentence we can argue that the following three principles are (classically) inconsistent:

(Evidence): For any proposition ϕ, if an agent's evidence makes ϕ certain, then the agent is rationally required to believe ϕ.

(Consistency): For any proposition ϕ, it is a rational requirement that an agent be such that if it believes ϕ then it not believe $\neg\phi$. (Read: $O(B\phi \rightarrow \neg B\neg\phi)$)

(Possibility): Given a set of mutually exclusive and jointly exhaustive doxastic options (e.g., $\{B\phi, \neg B\phi\}$), there must always be some option such that it is possible for an agent, who is not already guilty of a rational failing, to realize that option and not incur rational criticism in so doing.

Let B mean 'I believe that...'. Let 'b' name the sentence '$\neg BT(b)$'. As an instance of the T-schema we have:

(1) $T(b) \leftrightarrow \neg BT(b)$

We assume:

(2) $BT(b) \leftrightarrow BBT(b)$

(3) $\neg BT(b) \leftrightarrow B\neg BT(b)$

We assume further:

(4) $B(T(b) \leftrightarrow \neg BT(b))$

Given (2) - (4), we can prove that the following hold given (Evidence) and (Consistency):

Fact 1: On the assumption that I believe that b is true, it follows that I ought not believe that b is true.

Fact 2: On the assumption that I do not believe that b is true, it follows that I ought to believe that b is true.

Facts 1 and 2 show that (Evidence) and (Consistency) are (classically) inconsistent with (Possibility).

3 The Paracomplete Solution

Represent my doxastic state using a set of (paracomplete) possible worlds. To capture the stipulated facts about me we let the accessibility relation on this set of worlds be an equivalence relation. Taking B to be a universal quantifier over the set of such worlds we have:

- I satisfy (2) - (4)

  Justification: (2) and (3) are guaranteed to hold given that accessibility is an equivalence relation. Since $T(b) \leftrightarrow \neg BT(b)$ is a theorem, it holds at every point, thus (4) holds.

- I satisfy (Consistency)

  Justification: $B\phi \rightarrow \neg B\neg\phi$ holds in any such space (assuming B is a universal quantifier over possible worlds).

- I satisfy (Evidence)

  Justification: (Evidence) is essentially a restricted closure requirement. It says that an agent should believe all of the logical consequences of a restricted set of its beliefs, viz., its evidential base. It is a trivial consequence of our representing my doxastic state by a set of possible worlds that my beliefs are closed under logical consequence. I will, therefore, satisfy the restricted closure requirement imposed by (Evidence).

Moral: If we allow that excluded-middle fails for the claim that I believes that b is true, I can satisfy both (Consistency) and (Evidence). Indeed, this is the only way that I can satisfy (Consistency) and (Evidence) by paracomplete lights.

Claim: One way to rationally satisfy (Consistency) and (Evidence) is for it to be indeterminate whether I believe that b is true.

4 An Argument Against (Rejection)

If we want to hold on to (Consistency), (Evidence) and (Possibility), we should reject (Rejection).

Justification: The following is a theorem:

(5) $I\neg BT(b) \rightarrow IT(b)$

We assume:

(6) $B(I\neg BT(b) \rightarrow IT(b))$

(7) $I\neg BT(b) \leftrightarrow BI\neg BT(b)$

Claim: I cannot, in the same way, satisfy (Consistency), (Evidence) and (Rejection).

Argument:

- We've assumed that in meeting (Consistency) and (Evidence) we have: $I\neg BT(b)$.
- By (7) we have: $BI\neg BT(b)$.

- Together with (6), this ensures that my evidence makes it certain that $IT(b)$.
- If I satisfies (Evidence) we have: $BIT(b)$.
- Assuming that I satisfy (Rejection) we have: $RT(b)$ and so $\neg BT(b)$.
- But as we have seen on the assumption that $\neg BT(b)$ it follows that I must violate (Evidence).

This argument cannot be blocked in the same way as our earlier epistemic paradox. No appeal is made to excluded-middle or any other logical laws or inferences that are contentious by paracomplete lights.

Claim: If we need to choose between giving up either (Consistency), (Evidence), (Possibility) or (Rejection) we should give up (Rejection).

5 An Argument for (Indeterminacy)

Consider again our original puzzle. The orthodox solution to this puzzle is to reject the claim that rational disbelief in ϕ rationally mandates belief in $\neg\phi$. But we have seen that this leads to a problematic conclusion.

A Second Solution to our Puzzle: Reject each of (a) - (c). Instead, I claim that if ϕ is a proposition that one rationally believes is indeterminate, we should accept the following:

(a′) One should not *determinately* believe ϕ.

(b′) One should not be *determinately* agnostic about ϕ.

(c′) One should not *determinately* reject ϕ.

An Error Theory: We are not good at distinguishing between something being the case and its *determinately* being the case. It should not be unexpected, then, that we should confuse the true principles (a′) - (c′) for the incorrect (a) - (c).

Claim: (Indeterminacy) is a consequence of (a′) - (c′).

Claim: I can satisfy (Consistency), (Evidence), and (Indeterminacy).