**The Limits of Probabilism: Belief in Non-Empirical Propositions**

An important insight motivating Probabilism in epistemology is that our beliefs come in degrees. Not only are we more confident in the truth of some propositions than others, but we recognize we have more justification (better evidence) for some propositions rather than others. Instead of (or, perhaps, in addition to) belief or disbelief in a proposition, we speak of ‘credences’, which represent the strength of belief in a proposition on the closed unit interval, using 1 for full belief and 0 for the negation of full belief. (

Probabilists argue that our belief state can be modeled and rationally governed (whether these two claims are independent is a point of contention) by treating these credences as probabilities: in particular, they must satisfy Kolmogorov’s axioms of the probability calculus. Thus, an agent’s doxastic state, i.e. her credal state, should be a probability function.

This paper argues that Probabilism, the view that credences should be probabilities, only holds for propositions and hypotheses that are (or at least are taken to be by the agent) empirical and contingent. This means that when modeling a credal state, we should distinguish between empirical claims, for which credences and confirmation are apt, and other claims, such as metaphysical, moral, or mathematical hypotheses for which they are not. While we can speak of higher or lower degrees of psychological confidence in hypotheses of this latter sort, attention to how they are confirmed or disconfirmed shows that their role is importantly distinct from standard empirical hypotheses.

This raises some interesting limitations in managing our credal states for metaphysical beliefs, particularly for empirically equivalent hypotheses. It can be easily shown using standard Bayesian machinery that *any pair* of empirically equivalent hypotheses will be confirmed by the very same magnitude (their ‘Bayesian multiplier’) on all possible subsequent evidence. In this sense, the non-empirical component of any hypothesis cannot be confirmed on any contrastive standard of confirmation. While non-contrastive accounts of confirmation can formally confirm the proposition itself (the posterior probability of ‘I have a hand’ is higher upon seeing my hand) the difference between competing non-empirical hypotheses (‘I have a hand’ versus ‘I am a brain in a vat hallucinating a hand’) can never change or be determined. The difference between the competing hypotheses is entirely determined by the priors.

I argue that Probabilism as both a descriptive and as a normative theory is only persuasive as a constraint on (rational) belief when the relevant belief fits into a network of interdependent beliefs. Credences in empirical hypotheses, as long as they are not zero or one, make sense because they allow for coherent revision in the face of new evidence. On the other hand, if a belief is impervious to subsequent evidence, then there is no meaningful way in which its particular probability assignment can either (a) infect belief and action or (b) impede rational deliberation. In other words, it is both unclear in what sense such a belief state is a probability and, more importantly, it is unclear what cost (epistemic or pragmatic) would be incurred in an agent’s violating the probability calculus in respect to such a credence. In other words, a non-probabilistic credence in a non-empirical hypothesis would be inert (at least as long as logical coherence is maintained). This is crucial because the standard arguments for Probabilism depend on showing what would go wrong in a credal state that violated the probability axioms or in what benefits adhering to them might have. Looking more closely at the various justifications for Probabilism (Dutch Books, Representation Theorems, Convergence, Joyce’s argument for accuracy), I claim that they only apply in empirical domains, where confirmation is possible. Non-empirical claims cannot be Dutch-Booked, they do not converge, etc. In other words, the arguments for Probabilism don’t apply to inert credences. It is a mistake, therefore, to treat such inert doxastic states as credences in the first place. Simply put: there are no arguments for such ‘credences’ to be probabilities, since the arguments for Probabilism fail with respect to them. An agent whose ‘credences’ in such hypotheses failed to obey the probability calculus is not thereby irrational.

The argument will be established by demonstrating that the adequacy conditions that White, in his (2006) criticism of Dogmatism, suggests a theory of justification must meet are irrelevant to deciding between empirically equivalent hypotheses. Bayesian confirmation is ineffective in attempting to justify skeptical or anti-skeptical hypotheses and that the assignment of distinct credences to hypotheses that are metaphysically distinct but empirically equivalent is unwarranted, regardless of which justification the Bayesian endorses for assigning credences in general. Credences should be assigned to the entire family of empirically equivalent hypotheses without a specific assignment to the individual hypotheses. Confirmation, therefore, is only relevant to the entire family of hypotheses. Skeptical and anti-skeptical hypotheses with the same empirical content, cannot be decided between using Bayesian machinery: if we are to justify one as against the other, that justification must be independent of Bayesian criteria.

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