

Ignorance and Indifference

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Abstract

The epistemic state of complete ignorance is not a probability distribution. In it, we assign the same, unique ignorance degree of belief to any contingent outcome and each of its contingent, disjunctive parts. That this is the appropriate way to represent complete ignorance is established by two instruments, each individually strong enough to identify this state. They are the principle of indifference ("PI") and the notion that ignorance is invariant under certain redescriptions of the outcome space, here developed into the "principle of invariance of ignorance" ("PII"). Both instruments are so innocuous as almost to be platitudes. Yet the literature in probabilistic epistemology has misdiagnosed them as paradoxical or defective since they generate inconsistencies when conjoined with the assumption that an epistemic state must be a probability distribution. To underscore the need to drop this assumption, I express PII in its most defensible form as relating symmetric descriptions and show that paradoxes still arise if we assume the ignorance state to be a probability distribution. By separating out the different properties that characterize a probability measure, I show that the ignorance state is incompatible with each of the additivity and the dynamics of Bayesian conditionalization of the probability calculus.

Keywords: Indifference ignorance invariance prior probability Bayes paradox

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