Probabilistic Measures of Coherence and the Problem of Belief Individuation

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Abstract

Coherentism in epistemology has long suffered from lack of formal and quantitative explication of the notion of coherence. One might hope that such probabilistic accounts of coherence as those proposed by Lewis, Shogenji, Olsson, Fitelson, and Bovens and Hartmann will finally help solve this problem. We will however show all of them have a serious common problem. The coherence degree that any such account assigns to an information set or its verdict as to whether the set is coherent tout court depends on the way how propositions (or beliefs) are individuated to represent the set. Indeed, we will demonstrate that logically equivalent belief sets that represent the same information set can be given drastically different degrees of coherence. This feature clashes with our natural and reasonable expectation that the coherence degree of a belief set does not change unless the believer adds essentially new information to the set or drops old information from it – or, to put it simply, that the believer cannot raise or lower the degree of coherence by pure deductive reasoning. None of the accounts in question can adequately deal with coherence once logical inferences get into the picture. An appropriate formal explication of the general notion of coherence has yet to come.

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