

Why There Cannot Be a Single Probabilistic Measure of Coherence

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Abstract

Bayesian Coherence Theory of Justification or, for short, Bayesian Coherentism, is characterized by two theses, viz. (i) that our degree of confidence in the content of a set of propositions is positively affected by the coherence of the set, and (ii) that coherence can be characterized in probabilistic terms. There has been a longstanding question of how to construct a measure of coherence. We will show that Bayesian Coherentism cannot rest on a single measure of coherence, but requires a vector whose components exhaustively characterize the coherence properties of the set. Our degree of confidence in the content of the information set is a function of the reliability of the sources and the components of the coherence vector. The components of this coherence vector are weakly but not strongly separable, which blocks the construction of a single coherence measure.

Keywords: Bayesianism, Coherentism, coherence measures, coherence ordering

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