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Title: Probability Theory as Logic-Dependent

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Abstract: I intend to discuss how probability theory can be seen as logic-dependent, viewing probability as a branch of logic in a generalized way. A kind of meta-axiomatics permits us to define probability measures that are either classical, paraconsistent, intuitionistic, or simultaneously intuitionistic and paraconsistent, just by parameterizing on consequence relations. In particular, I intend to discuss theories of probability built upon the paraconsistent Logic of Formal Inconsistency C_i , and upon the paraconsistent and paracomplete Logic of Evidence and Truth LET_j , I argue that C_i very naturally encodes an extension of the notion of probability able to express probabilistic reasoning under an excess of information (contradictions), while LET_j encodes an extension of the notion of probability able to express probabilistic reasoning under lack of information (incompleteness), and thus naturally connected to the notion of probability of evidence. I also discuss how interesting non-standard Bayesian updating can be defined in both cases.