

Abstract

We consider coherent choice functions under the recent axiomatisation proposed by De Bock and de Cooman that guarantees a representation in terms of binary preferences, and we discuss how to define conditioning in this framework. In a multivariate context, we propose a notion of marginalisation, and its inverse operation called weak (cylindrical) extension. We combine this with our definition of conditioning to define a notion of irrelevance, and we obtain the irrelevant natural extension in this framework: the least informative choice function that satisfies a given irrelevance assessment.