

Foundations for Structural Preferences

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Abstract

Structural rationality (Siniscalchi, 2022) is a notion of optimality that reflects a player's ex-ante perspective in a dynamic game, and formalizes the notion of "robust caution." The player is cautious in the sense that she takes all possible observable occurrences in the game under consideration, including those she regards implausible ex-ante. However, she does so robustly, without committing to an exogenous ranking of implausible events. The present paper provides an axiomatic foundation for structural preferences, and argues that this optimality criterion is an effective model of surprises in general dynamic decision problems. It also draws connections between robust caution and Knightian uncertainty (Bewley, 1986).