
The Relevance of Human Evolutionary History to Evolutionary Game Theory

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Abstract

This paper explores problems regarding the use of moral language in game theoretic models intended to illuminate the evolutionary origins of human cooperation. Interpretations of such models often include not only misrepresentations of the relationship between the phenotypic 'strategies' that they are tracking and *moral* behaviours, but also fail to recognize the role of language, cultural knowledge and expectations, as well as early human social structures in solidifying moral norms and attitudes. The highly contextual nature of early human social interactions precludes meaningful discussions of human actions as mere phenotypic expressions—this holds despite our increasing knowledge of the complex interactions between genetic and extra-genetic information. I argue that these omissions are not only problematic for existing game theoretic models, but may be so also for the field of evolutionary game theory as a whole since there is currently no apparent method of reconciling our knowledge of human evolution with economic models. In particular, I argue that evolutionary game theory has thus far provided us with models representing general trends in evolving biological populations, but no models that represent early human populations as such. Drawing from anthropology, evolutionary biology, and philosophy, I point to information that could be used to model early human interactions with greater accuracy and explanatory potential.

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