

Cambridge Elements

Elements in the Philosophy of Biology

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GAMES IN THE PHILOSOPHY OF BIOLOGY

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Abstract: This Element surveys the most important literature using game theory and evolutionary game theory to shed light on questions in the philosophy of biology. I focus on two branches of literature. I begin the book with a short introduction to game theory and evolutionary game theory. After that, I turn to work using signaling games to explore questions related to communication, meaning, language, and reference. The second part of the Element addresses prosociality – strategic behavior that contributes to the successful functioning of social groups – using the prisoner's dilemma, stag hunt, and bargaining games.

Keywords: game theory, philosophy of biology, evolutionary theory, signaling, prosociality.

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