

THE EVOLUTION OF COOPERATIVE BEHAVIOR IN HUMAN

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ABSTRACT

Our civilization has depended largely on cooperation among human beings. However, our science is yet to figure out ‘How did cooperative behavior evolve?’ This question from ‘What don’t we know’ series from the *Science* journal has been awaiting physical reasoning for a long time. We generalize the classical field theories for an ensemble of human beings and propose a new theory. The social field theory formalizes the energy of an individual in the social field. We underpin this new energy as a physical basis for cooperation among human and the evolution of human society.

A fundamental understanding of why cooperation evolved may have a resounding effect on our understanding of social, political and economic rationale. Indeed, Darwin uncovered some general rationale of the cooperation. However, the science of evolution doesn’t provide physical reasoning, and also not adequate for the 21st century human consciousness. Biologists are refining the Darwin’s ideas a bit by bit. Here, engineers aspire to uncover cooperative behavior in the terms of energy to be acknowledged by the learned societies. The human cooperation is not much different literally from cooperation that takes place between an electron and nucleons in a model of an atom. It is our consciousness that makes cooperative behavior special among social beings.

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