How Humans Became Outliers in the Natural World

Robert Boyd, Arizona State University
Origins Professor, School of Human Evolution and Social Change

with commentators:
Ruth Mace, H. Allen Orr, Paul Seabright and Kim Sterelny

April 6-7, 2016
4:30-6:15 pm
McCormick Hall, Room 101
A reception will follow each lecture.

Robert Boyd received his bachelor’s degree in physics from the University of California at San Diego and a Ph.D. in ecology at UC-Davis. He has taught at Duke, Emory University and UCLA. He has been at ASU since 2012. Boyd’s research focuses on population dynamic models of culture and is summarized in two books, co-authored with P. J. Richerson, Culture and the Evolutionary Process, and Not by Genes Alone: How Culture Transformed Human Evolution. Boyd has also co-authored an introductory textbook in biological anthropology, How Humans Evolved, with his wife, Joan Silk.

Lecture I: Not by brains alone: The vital role of culture in human adaptation
Since emerging from Africa 60,000 years ago, humans have spread to virtually terrestrial habitat, utilizing a wider range of subsistence and social systems than any other mammal. The standard explanation for our capacity for rapid adaptation is that we have superior cognitive abilities. In this talk I will argue that cultural learning is also essential. Unlike any other animal, people acquire important components of their behavior by observing the behavior of others. This ability allows us to rapidly evolve superb culturally transmitted adaptations to local conditions that are far beyond the inventive capacity of individual human cognition.

Lecture II: Beyond kith and kin: How culture transformed human cooperation
Humans are a highly cooperative species. People in the simplest foraging societies depend on specialization and exchange and cooperate to produce essential public goods. There are many other highly cooperative species, but in every case cooperation in these species is based on kinship. Humans are different because we cooperate with unrelated individuals, sometimes in large groups. Many evolutionary thinkers believe that human cooperation is based on reciprocity. In this talk I will argue that reciprocity cannot explain human cooperation. Instead, human cooperation is regulated by culturally transmitted moral norms, and that rapid cultural adaptation is necessary for the evolution of such norm
COMMENTATORS:

Ruth Mace is a professor of evolutionary anthropology at University College London. Her interests are: evolutionary demography and life history; phylogenetic approaches to cultural evolution, including comparative methods for testing cross-cultural hypotheses; understanding the origins of kinship, family and social systems; co-operation and competition, within families and within wider groups; and the evolution and the establishment of social norms.

H. Allen Orr is University Professor and Shirley Cox Kearns Professor of Biology at the University of Rochester. He is an evolutionary geneticist with several broad interests. Most of his work focuses on the population genetics of speciation, adaptation and extinction. He studies evolution with both theory and experiment. Orr is the author of the book Speciation (with Jerry A. Coyne). He is also a frequent essayist and book reviewer and has written for The New York Review of Books and The New Yorker, among other publications.


Kim Sterelny is a professor at Australian National University. His main research interests are Philosophy of Biology and Philosophy of Psychology. In recent years, his main focus has been on the evolution of human social behavior, and on the cognitive capacities that support it. Two contributions to this project are his Thought in a Hostile World (Blackwell) and The Evolved Apprentice (MIT Press).