

AREA FIVE: EVOLUTIONARY PERSPECTIVES ON OTHER-REGARD

Evolutionary biology has a unique relationship to the issue of unlimited love for two reasons. First, from Darwin on, sacrificial behavior has been recognized as a crucial question for evolutionary theory. Many contemporary accounts have tended to dismiss altruism as an end, or even a possibility, of human existence, because this has been understood to be a core entailment of evolutionary theory. Second, over the last generation, evolutionary theory has dramatically influenced other academic disciplines, and has been turned to by popular media for authoritative exegesis of the human condition. Thus, evolutionary biology is crucially important to popular and scholarly discussions of love. Recent promising approaches to the evolutionary elucidation of altruism include multilevel selection theory, econometric and evolutionary game theory, comparative anthropology, and behavioral studies of non-human primates. IRUL is funding seminal work in each of these four areas.

Research Area Consultant

Jeffrey P. Schloss, Ph.D., serves as IRUL research consultant in this area. He received his Ph.D. in Ecology & Evolutionary Biology from Washington University, and has taught at the University of Michigan, Wheaton College, Jaguar Creek Tropical Research Center, and is now Professor and Chair of Biology at Westmont College in Santa Barbara. He has been awarded a Danforth Fellow, a AAAS Fellow in Science Communication, and serves on the editorial and advisory boards of numerous journals and organizations relating science and religion. He is interested in evolutionary theories of human nature. His most recent projects include a collaborative volume just released from Oxford University Press, *Altruism and Altruistic Love: Science, Philosophy, and Religion in Dialogue*, and coediting a two-volume *Journal of Psychology & Theology*, focusing on biological and theological perspectives on human nature.

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1. Altruistic Love, Evolution, and Individual Experience

Evolutionary theory tends to be theory rich, but data poor: in comparison, the human behavioral sciences are data abundant, but lack a unifying theoretical foundation. David Sloan Wilson will apply the theoretical perspective of multilevel selection to the interpretation of data of life experience in one of the most voluminous databases available – the experience sampling method (ESM) of Mihaly Csikszentmihalyi. ESM is to psychological life experience what integrated cross-cultural databases are to anthropological assessment. Wilson's group selectionist model posits that human groups are significant functional units that facilitate the emergence of capacities for both genuine

sacrifice and defection. This allows a variety of testable predictions about the relationship among altruism, religion, life stress, and other variables. Wilson's proposal is the first attempt to test these predictions on a large scale with highly regarded data. This study is likely to be landmark in its use of data that poll life experience and establish its relationship to altruism.

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2. Unlimited Love in the Laboratory: Evaluating the Effect of Religion on Sharing and Cooperative Behavior

Peter Richerson proposes to test the relationship among religious experiences, beliefs, and involvements in cooperative sacrifice by unifying two well-developed and never before integrated approaches of research: game theory experiments and psychometric religious assessment. In two different phases involving student subjects and members of religious and non-religious communities, subjects will be given a variety of standardized measures of religious experience, belief, and involvement, and subjected to two classic game theoretic experiments: the Ultimatum Game (which measures cooperative fairness and altruistic punishment), and the Commons Game (which assesses commitment or detraction from the common good). These tools will be used to examine how sacrificial behavioral patterns relate to self-reported varieties of religious experience, religious belief, and religious involvements. Group selection theory suggests that increased intra-group commitment will result in more in-group sacrifice and out-group rejection. This theory will be tested with an experimental design intended to illuminate the relationship between group loyalty and expansive sympathy.

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3. Cross Cultural Survey of Altruistic Behavior

Christopher Boehm proposes to compile, tabulate, and assess a landmark cross-cultural database of cooperative behaviors in Paleolithic-representative hunter-gatherer societies. Out of 339 available h-g cultures, he has chosen 154 that are credible as representatives of Paleolithic ancestry due to lack of contact with agricultural or industrial influences. He will scan and code ethnographies for a wide variety of kin, reciprocal, non-reciprocal in-group/out-group cooperation, plus variables relating to religion and moral social

controls. This work is important because the empirical basis for sociobiological theories of human nepotism and strict reciprocity is largely untested or relies on a limited selection of available ethnographies. Boehm will assemble an exhaustive database, with extensive coding for altruism and related parameters, in order to test competing theories of the origin, nature, and maintenance of altruism. This work may provide empirical basis for an understanding of human love.

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4. An Evolutionary Perspective on the Emotional Prerequisites for Love

Love requires that one examine the situation of the other; while empathy may not be sufficient, it is certainly a necessary building block for other regard. Capacities underlying altruistic love and compassion build upon a human psychological architecture that has been shaped by evolutionary history. If we wish to learn more about the evolution of constituent capacities of love, it is important to understand expressions of empathy and sympathy in other animals. The chimpanzee, our closest relative, exhibits evidence for “consolation behavior,” defined as a bystander providing reassuring contact to a distressed conspecific. We don’t, however, understand the underlying motivation, which could entail simple emotional contagion or extension of sympathetic concern. Behavioral predictions for these two models differ. The proposed research involves a behavioral study – with both observational and experimental components – designed to distinguish between different sources of empathic response in this closely-related primate.

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