



NIMBioS

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NIMBioS Interdisciplinary Seminar

3:30 p.m.*, Tuesday, October 8, 2013

Dr. Matt Zimmerman
NIMBioS Postdoctoral Fellow

“Cultural evolution of human cooperation and conflict”

Humans seemingly have a greater capacity for altruistic cooperation with non-relatives than any other species. For example, in experiments humans cooperate more than one would expect either from cross-species comparisons or by calculating payoff-maximizing behavior. Two main hypotheses have sought to explain this - the mismatch hypothesis, where humans evolved genetically-inherited rules for cooperation in small kin groups and misapply them in modern contexts, and the norm psychology hypothesis, where humans evolved the capacity for to learn cooperative norms. I show that a model developed to support the former hypothesis actually better supports the latter. Similarly, in warfare humans take large risks to benefit group members who are mostly non-relatives. Quite a few hypotheses have been proposed to explain this, however these hypotheses are fundamentally incomplete when they do not account for both cultural inheritance and group-structure. Finally, explaining cooperation in larger-scale complex human societies has been difficult since many of the institutions that work in small-scale societies become less effective as group size increases. Hierarchical organization seems a potential solution to increasing group size, though the basic theory of has not been established. I present a preliminary model of hierarchy's origins that I will develop as a NIMBioS post-doc.

Location: Room 105 at NIMBioS, Claxton Education Bldg, 1122 Volunteer Blvd.

**Join us for refreshments at 3 p.m.*

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