

---

# The role of analogy in cultural transmission and human dispersal

Marshall Abrams\*<sup>1</sup>

<sup>1</sup>University of Alabama at Birmingham (UAB) – 900 13th Street South, HB 414A, Birmingham, AL 35294-1260, United States

## Abstract

Research on evolution and cultural transmission has focused on mathematical and computer models, on field work on effects of social network structure, and on laboratory experiments on cultural transmission. However, there's been little focus on how adoption of some cultural variants might affect the adoption of others (apart from occasional mention of this idea, and some experimental work in which background culture influences transmitted variants). The importance of interactions between cultural variants is suggested by anthropological views of culture as constituted by interacting thought processes, linguistic elements, behaviors, or practices; by research on reasoning and cognitive dissonance in psychology; and by research on the role of logical or explanatory coherence in justification. Research in anthropology and cognitive science also suggests that analogical relationships can mediate interactions between cultural elements. While analogy sometimes seem like mere embellishment, and sometimes helps to motivate spurious inferences, it's been argued that it plays an essential role in scientific practice and in problem solving. I argue that analogies between cultural variants can bias cultural transmission, and that analogies may have played an important role in human dispersal, facilitating adaptation to new environments. I illustrate these possibilities using agent-based models that incorporate cognitive models of analogy processing, and discuss empirical methods that may allow further investigation.

---

\*Speaker