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## EXPERIMENTAL STUDIES OF CUMULATIVE CULTURE IN HUMANS

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Cumulative culture pervades all human societies, but there is still little evidence for ratchet-like (e.g. Tomasello, 1999) social learning in nonhumans, including our primate relatives. In this presentation we will discuss our studies of cumulative culture in humans, the aim of which has been to better understand the mechanisms underlying this ability. We have demonstrated cumulative culture under laboratory conditions, by creating microsocieties in which generational succession is simulated through the removal and replacement of participants within groups. Participants were instructed to complete simple tasks using everyday materials. Information accumulates within the groups such that later generations produce designs which are more successful than earlier ones. In one of our studies we manipulated the availability of opportunities for imitation (reproducing actions), emulation (reproducing end results), and teaching. Emulative learning, as well as imitation and teaching, generated cumulative learning. Our findings suggest that accounts involving species-unique learning mechanisms do not currently provide complete explanations for the unusual complexity of human culture.

Keywords: cumulative culture, imitation, social learning, teaching