

In comparison with animal cultural diffusion experiments what additional questions do human cultural diffusion experiments answer?

Give examples of research for each of the questions.

Cultural diffusion in humans and other animals

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Cultural diffusion:

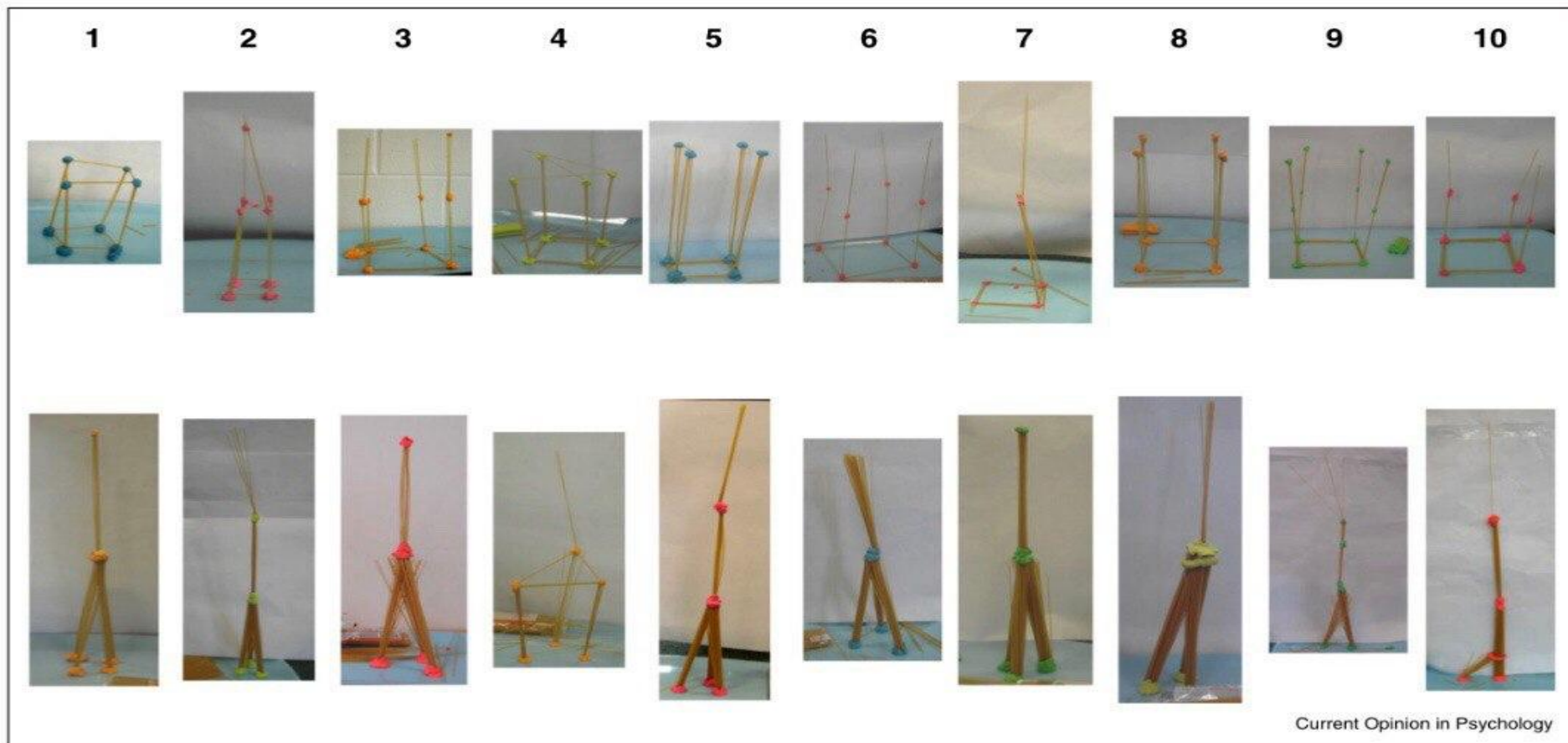
Process whereby entities including behavior patterns, ideas, and artifact designs spread between or within generations.

Cultural diffusion field studies on animals:

- Special form of **ant-fishing** among chimpanzees in neighboring communities
- Local preferences in the selection of **hammer materials for nut-cracking** among female chimpanzees
- Local referential **vocalization styles signaling high-quality foraging** options among chimpanzees
- Similar **songs of humpback whales** across large areas of ocean (Australia to French Polynesia)

The multiple roles of cultural transmission in understanding human cultural evolution.

Mesoudi A, Whiten A



Cultural differences transmitted along laboratory diffusion chains: spaghetti towers created by participants in Caldwell and Millen (2010a, cited in Table S2). Each row displays the complete set of towers that were produced by one chain of participants. The towers are ordered from left to right, in the order in which they were produced (i.e. the first participant's tower is on the far left, and the tenth on the far right).

Human Cultural Diffusion

Research Examples

Human experiments go further in asking a variety of questions about the **'what, who, when and how'** of diffusion.

- The transmission and evolution of experimental microcultures in groups of young children.

Whiten A, Flynn A

- Experimental “microcultures” in young children: identifying biographic, cognitive and social predictors of information transmission.

Whiten A, Flynn A

- The maintenance of cultural stereotypes in the conversational retelling of narratives.

Kashima Y, Lyons A, Clark A

Social learning

Imitation / Teaching

- Social learning mechanisms and cumulative cultural revolution. Is imitation necessary?

Cadwell CA, Millen AE

- Experimental evidence for the co-evolution of hominin tool-making teaching and language.

Morgan TJ, Uomini NT et al.

Experimental evidence for the influence of group size on cultural complexity.

Dereux M, Beugin MP et al.

This study used a computer-based fishing task to show that larger groups can maintain more complex cultural traits than smaller groups, illustrating the importance of demography on cumulative cultural evolution.