

UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

The cognitive neuroscience of social learning in human evolution

Permalink

<https://escholarship.org/uc/item/09x001cx>

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 44(44)

Authors

Øhrn, Heidi

Mendoza Straffon, Larissa

Bender, Andrea

Publication Date

2022

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

The cognitive neuroscience of social learning in human evolution

Heidi Øhrn

Department of Psychosocial Science, Bergen, Norway

Larissa Mendoza Straffon

university of Bergen, Bergen, Norway

Andrea Bender

University of Bergen, Bergen, Norway

Abstract

Cumulative culture is believed to be a uniquely human form of social learning, and is therefore believed to be key in understanding how humans evolved such complex social organization and technologies. It is reasonable to believe that our capacity for cumulative culture is the result of a series of interconnected, complex evolutionary processes, but humans abilities for teaching, imitation and communication are believed to play a central role. We plan on combining brain imaging techniques and a transmissions chain design with transmission of evolutionary relevant tasks (knot tying and symbol-production) in order to look at the mechanisms of cumulative culture in a new way. By looking at the brain activation involved in acquiring and transferring these skills we aim to offer new insight on the cognitive and behavioral demands of these technologies and their effect on cultural evolution.