

**TESTING FOR TRADITIONS OF FOOD CLEANING IN 6 GROUPS OF VERVET MONKEYS**

E. van de Waal<sup>1,2</sup>, J. Goudet<sup>3</sup>, R. Bshary<sup>1,2</sup>

<sup>1</sup>University of Neuchâtel, Institute of Biology, Emile-Argand 11, 2009 Neuchâtel, Switzerland, <sup>2</sup>UNISA, Applied Behavioural Ecology & Ecosystem Research Unit, Private Bag X6, Florida 1710 South Africa, <sup>3</sup>University of Lausanne, Department of Ecology and Evolution, Biophore, 1015 Lausanne, Switzerland

*Presenter's Email: [erica.vandewaal@unine.ch](mailto:erica.vandewaal@unine.ch)*

Social learning is the basis for allowing the transmission of specific behaviours inside a social unit, i.e. the formation of traditions. Observational studies indicate that traditions may be relatively common among primates. However, diffusion experiments on primates are mostly done only in captive contexts. Field conditions are different, and therefore field experiments are necessary to confirm that social learning is responsible for the behavioural variations found among groups of wild primates. Here, we present a novel approach, using an experiment to induce traditions in wild primates, where we monitored spreading patterns, innovation rates and the maintenance of traditions within and between six groups of vervet monkeys (*Chlorocebus aethiops*). The experiment was based on the well-known examples of food cleaning traditions in Japanese macaques. We offered the monkeys grapes covered with sand and noted if and how they cleaned the food before eating. Each group was subjected to 15 trials. Vervets either did not clean the grapes or either rubbed with their hands, rubbed on substrates, or opened the fruit with their teeth or hands to eat the inside only. We found strong variance between individuals of the same group as well as between groups with respect to the techniques used. Matrilineal rather than entire groups appeared to be the key unit for social transmission. To our knowledge this is the first study allowing for quantitative analyses of this subject in the wild.

Keywords: social learning, cognition, traditions, vervet monkeys