

TRANSMISSION OF EXPERIMENTALLY-SEEDED INFORMATION IN FREE-LIVING COMMON MARMOSETS

T. Gunhold, T. Bugnyar

University of Vienna, Vienna, Austria

Presenter's Email: tina.gunhold@univie.ac.at

Primates are renowned for their social learning skills and behavioral traditions; yet experimental studies on the formation of traditions have focused almost entirely on captive populations. We here investigated experimentally seeded information transmission of foraging techniques in the field (a condominium in a fragment of Atlantic Forest in Brazil where wild marmosets live and routinely feed in the garden of the inhabitants). We tested family groups of wild common marmosets (*Callithrix jacchus*) (i) in which the majority of individuals, (ii) one individual or, (iii) as a control, no one showed a preferred foraging technique in an artificial fruit task (push or pull a pendulum door to gain access to banana pieces). Seven groups with a majority of skilled individuals (n=22) had participated in a study using this set-up in 2007; only those monkeys born/immigrated to these groups during the last two years were considered task naïve (n=41). In groups with one skilled demonstrator (n=4), the alpha male received individual training before all monkeys of the group (n=34) got access to the apparatus. We hypothesized that in both experimental conditions (multiple and single demonstrators), naïve individuals should be better/faster in getting a reward than individuals in the control groups and, notably, that they should adopt the demonstrated technique. Both predictions were met. However, confounding effects such as the age of observers and the consistency in the performance of models could be also observed. Their potential influence on the acquisition and the maintenance of socially transmitted information is discussed.

Keywords: social learning, tradition, field experiment, *Callithrix jacchus*