

020

VOCAL COMMUNICATION IN *CALLICEBUS*: NEW PERSPECTIVES FOR THE STUDY OF HUMAN LANGUAGE EVOLUTION

C. Cäsar^{1,2,3}, R. Young³, R. Byrne¹, K. Zuberbühler¹

¹Scottish Primate Research Group, School of Psychology, University of St Andrews, UK, ²Instituto Inhotim, Rua B 20, 35460-000, Brumadinho, Minas Gerais, Brazil, ³Conservation, Ecology and Animal Behaviour Group, Department of Post-Graduate Studies in Zoology, Pontifícia Universidade Católica de Minas Gerais, Brazil.

Presenter's Email: ccd9@st-andrews.ac.uk

The communication capacities of Old World primates, especially guenons, have been relatively well documented in contrast to those of New World species. A typical finding is that individuals produce a range of alarm calls that are acoustically distinct in response to different predator types and that these calls evoke adaptive responses in recipients. Comparable studies are currently not available for New World primates, which is problematic for understanding the evolutionary origins of language-relevant capacities. *Callicebus* monkeys are known for their large repertoire of vocalizations, and some of their calls are combined into long and complex sequences. However, the monkeys' vocal responses to distinct external events have not been studied systematically. We experimentally elicited anti-predator behaviour in five different undisturbed groups of Black-fronted Titi monkeys, using visual models of predators. Preliminary results show that these monkeys produce two different types of calls when first encountering different types of predators. Subsequently they produce a long sequence of calls, in which some calls can be categorized into four acoustic variants, which are obtained by optional suffixation and duplications of the call stem. We discuss field experiments aimed at establishing the relationship between the various levels of acoustic flexibility and some distinct external events. Overall, our results indicate no fundamental differences in New World monkeys to the acoustic flexibility previously reported from Old World monkeys, suggesting an early origin of these capacities within the primate lineage. Funding: FAPEMIG/Brazil. C.C.' PhD scholarship is funded by CAPES/Brazil.

Keywords: alarm calls, Pitheciidae, field experiments, semantic