

POSTER

PEACEFUL WITH AGE? A STUDY ON SOCIAL AGING AND THE QUALITY OF SOCIAL RELATIONSHIPS IN JAPANESE MACAQUES (*MACACA FUSCATA*)

Roy Hammer^{1,2*}, Pia M. Boehm¹, Angela Stojan¹, Mathieu Stribos², Gernot Paulus³, Bernard Wallner¹, Michael Huffman^{4,5}, Lena S. Pflueger¹

¹Department of Behavioral and Cognitive Biology, Affenberg Research Station, University of Vienna, Austria

²Animal Behaviour and Cognition, Department of Biology, Utrecht University, Netherlands

³Department for Spatial Informatics for Environmental Applications (SIENA), Carinthia University of Applied Sciences, Villach, Austria

⁴Institute of Tropical Medicine, Nagasaki University, Nagasaki, Japan

⁵Department of Anthropology, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

*roy.hammer@live.nl

ABSTRACT

As we grow older, we tend to undergo various social changes, such as reducing our social behaviour, maintaining fewer relationships, and gaining a higher preference for positive over agonistic interactions. These developments are collectively referred to as social aging. There are currently several theories as to why we experience this, but the empirical evidence based on studies in humans is not conclusive. However, humans are not the only animal species to experience social aging. Studying the prevalence, impact, and function of this process in non-human primates could therefore be of aid. This is why we investigated social aging in a semi-free ranging population of ~180 Japanese macaques (*Macaca fuscata*) housed at the Affenberg Research Station, Austria. We analysed a longitudinal, focal sampling based dataset containing five years of behavioural data on the social interactions of 68 sexually mature females. We measured the quality of social relations through the use of the composite sociality index and a dyadic agonism index. We found that female Japanese macaques maintained a stable number of relations as they got older. The dyadic agonism index decreased with age, which shows that older female Japanese macaques had a better quality of their relationships. Our study thereby provides empirical support for the Strength and Vulnerability Integration model, which states that social changes related to aging are due to an avoidance of agonism. By supporting this human-based theory, our study highlights the importance of investigating non-human primates to improve our understanding of social processes from an evolutionary perspective.