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Dr. CATHERINE CROCKFORD
HOW MUCH ARE CHIMPANZEE SOCIAL SKILLS DETERMINED BY EARLY LIFE EXPERIENCE?

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DR. CATHERINE CROCKFORD, HOW MUCH ARE CHIMPANZEE SOCIAL SKILLS DETERMINED BY EARLY LIFE EXPERIENCE?

Social bonding success in life impacts on health, survival and fitness. It is proposed that early and later social experience as well as heritable factors determine social bonding abilities in adulthood, although the relative influence of each is unclear. In humans, the resulting uncertainty likely impedes psychological and psychiatric assessment and therapy. Here, we use chimpanzees, another long-lived species with a complex social system, as a model species to try to unravel these uncertainties. We use relatively large datasets from two wild chimpanzee populations from Tai and Budongo forests. Compared to chimpanzees with mothers, we first determined that orphans loss out on developmental growth and later, on reproductive success. Second, we assessed whether these detrimental impacts are underpinned by stress hormone dysfunction associated with early adversity, as is shown in humans. Third, we examine whether maternal style and oxytocinergic function impact on offspring social behaviour. In this talk I share these results and discuss the far-reaching impact of mothers on the social behaviour of humans and other animals.

Dr. Catherine Crockford is group leader at the Max Planck Institute for Evolutionary Anthropology at Leipzig. Together with Roman Wittig, she co-directs the Tai Chimpanzee Project, Tai National Park, Ivory Coast, which currently has three habituated chimpanzee groups with a fourth under habituation, as well as one habituated sooty mangabey group. This is a dynamic group encompassing topics ranging from behavioural ecology and conservation to psychology and health and disease. Together with her research group, Catherine Crockford investigates questions related to the evolution of sociality, social cognition, communication and the brain. I examine these from a) comparative and b) developmental perspectives addressing questions of a) sociality, health and fitness; b) maternal effects on the development of sociality, cognition and communication; c) species and individual variation in communication and cognition and correlated neural correlates. I use long-term data sets of behavioural observations, non-invasive hormone sampling and field experiments to address these questions in chimpanzees and other wild primates, including bonobos, baboons and sooty mangabeys. In terms of the evolution of sociality, we examine underlying physiological and cognitive mechanisms that may explain links between stress, social bonds and cooperation, between non-kin as well as kin.