

TALK

DOES ORPHANHOOD AFFECT THE WELLBEING OF INFANT AND JUVENILE CHACMA BABOONS (*PAPIO URSINUS*)?

María Magdalena Gatsch^{1,2*}, Alecia Carter³, Vittoria Roatti⁴, Guy Cowlshaw⁴, Elise Huchard⁵, Axelle Delaunay⁶

¹ICIM, Universidad del Desarrollo, Santiago, Chile

²Escuela de Gobierno, Pontificia Universidad Católica de Chile, Santiago, Chile

³University College London, London, UK

⁴Institute of Zoology, Zoological Society of London, London, UK

⁵University of Montpellier, France

⁶University of Turku, Finland

*magdalena.gatsch@gmail.com

ABSTRACT

Adverse events during early life stages, from the perinatal period to early childhood and puberty, have long-term effects on individual wellbeing and development in humans and non-human animals (Maccari et al., 2014). In primates, including *Homo sapiens*, the early loss of a parental figure—particularly the mother—negatively impacts later life outcomes, such as reproductive fitness and lifespan. Additionally, studies in mammals have found that maternal loss is associated with neurochemical imbalances, which correspond with reduced positive emotions—described by positive psychology as happiness and contentment—and, consequently, a decline in wellbeing. This decline may result in negative long-term outcomes. However, the reasons why early orphanhood leads to these adverse outcomes in adulthood remain unclear. Because of the above, the present study examined whether orphanhood detrimentally affects the wellbeing of infants and juveniles in a wild population of chacma baboons (*Papio ursinus*). The results revealed that, although there was an increase in the frequency of self-directed behaviours in orphaned individuals, other wellbeing indicators, such as time spent alone and the ratio of positive to negative interactions, were not significantly affected. Moreover, indicators such as time spent in positive relationships and the ratio of negative to positive affects suggested that orphanhood had a positive effect on the wellbeing of these individuals. It is proposed that orphaned individuals may develop compensatory social mechanisms to cope with maternal loss. Overall, the study suggests that it is not possible to conclude that orphanhood has a detrimental impact on individual wellbeing.