

POSTER

DEVELOPMENT OF BIMANUAL MANIPULATION IN CAPUCHIN MONKEYS: ARE THERE PARALLELS WITH HUMAN INFANTS?

Guilbert Araujo^{1*}, Valentina Truppa², Patrícia Izar¹

¹University of São Paulo, São Paulo, Brazil

²Italian National Research Council, Roma, Italy

*guilbert.araujo@usp.br

ABSTRACT

How non-human primates develop their object manipulation skills has been considered an important aspect for understanding the evolution of motor and cognitive abilities in humans. During early development, human infants typically use symmetrical bimanual actions to touch and hold objects. As they gain greater manual dexterity and postural control, they begin to display behaviors involving more complex motor patterns, such as asymmetrical bimanual actions. Few studies have explored whether other primates — especially in naturalistic settings — follow a similar developmental trajectory. In this study, we aimed to describe the development of bimanual actions during object manipulation in bearded capuchin monkeys (*Sapajus libidinosus*), platyrrhine primates well known for their highly manipulative skills, which partly resemble those observed in humans. For this purpose, eight infants from a wild population of bearded capuchin monkeys were studied in the North-East of Brazil. Data were coded from focal-day recordings of these infants from birth to six months of age. In the early stages of development, capuchin infants used gentle movements to touch and hold objects. Symmetrical bimanual actions were first observed in the second month of life, and, like humans, appeared before the acquisition of the sitting posture. As the infants acquired dexterity and postural control, their repertoire expanded, with asymmetrical bimanual actions emerging by the third and fourth month of life. Our findings suggest that, despite millions of years of evolutionary divergence, humans and capuchin monkeys share similar motor development patterns in bimanual manipulation.