DO CHIMPANZEES AND ORANGUTANS USE COMMUNICATION IN A COOPERATIVE TASK?

Africa de las Heras 1,2, Dan Sperber 3,4, Josep Call 1,2

- 1. Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany
- 2. School of Psychology and Neuroscience, University of St Andrews, St Andrews, U.K
- 3. Departments of Cognitive Science and of Philosophy, CEU, Budapest, Hungary
- 4. Institut Jean Nicod, Ecole Normale Supérieure, Paris, France

Presenter's email: africa_heras@eva.mpg.de

Keywords: Cooperation - Chimpanzees - Orangutans - Visual perspective taking

Previous experimental studies show that captive chimpanzees (Pan troglodytes) and orangutans (Pongo abelii) cooperate with conspecifics but communication does not seem to play a crucial role. We presented a coordination task in which pairs of conspecifics had to communicate to succeed. Participants faced each other from opposite sides of an apparatus playing either a communicator or an operator role. At the beginning of each trial, the communicator was provided with a tool that could only be used from the operator's side. If the operator inserted the tool into the baited tube the apparatus delivered food for both apes. Successful cooperation required that the communicator pass the tool to the operator and indicate the location of the baited tube so that the operator could insert it into the baited tube. In the experimental condition, only the communicator could see which one of four tubes was baited, while in the control condition both individuals had visual access to the baited tube. Data collection is currently ongoing. Participants are chimpanzees (1 male, 5 females; mean age= 22 years) and orangutans (2 males, 5 females; mean age= 18 years) housed at the Wolfgang Köhler Primate Research Center in Leipzig (Germany). So far, four dyads of chimpanzees have cooperated to solve the task. Preliminary results indicate that the communicator typically transfers the tool near the location of the food. In the experimental condition, success rate varies from 25% to 81% (compared to 94-100% in the control condition). Communicators pass the tool, touch or point at the food location, whereas operators request the tool, and both use attention getters aimed at their partners. We are currently analyzing whether these behaviors are independent of the operator's visual access to the baited location.