

# **An epigenetic approach aids the study of primate social cognition**

**Kim Bard**

University of Portsmouth, UK

## **Abstract**

In this talk, I will discuss my developmental studies of emotion, socialization, and social cognition in chimpanzees. I've found that the behavior of newborn chimpanzees, within the first 30 days of life, changes in response to the social environment, in predictable ways. For example, the emotional expression of joy, the playface, is seen more often in chimpanzees raised in a nursery in which human faces are visible than in one where human faces are masked. Patterns of eye gaze, within the first 3 months of life, are determined by socialization practices. For example, more (or less) mutual gaze is encouraged by mother chimpanzees as a function of less (or more) physical contact with their infants. Nine to twelve months of experience of emotional engagement with social partners and with objects, provides the foundation for joint attention. For example, in nursery-raised chimpanzees, I've found that emotion and sociability account for a significant 50% of the variance in joint attention outcomes. I will speak about the value of applying comparative perspectives to the study of development and of applying developmental perspectives to the study of other species. This comparative developmental approach is, in a general sense, an epigenetic approach that aids in the study of the evolution of social cognition.

## **Short bio**

Kim A. Bard is Professor of Comparative Developmental Psychology and Director of the Centre for the Study of Emotion at the University of Portsmouth, UK. Prior to arriving at Portsmouth, she was Research Scientist at Yerkes National Primate Research Center of Emory University, where she investigated the roles of emotion and socialization in early development, and designed a Responsive Care Nursery for chimpanzees to enhance their species-typical development. Kim Bard has a distinctive perspective, which concerns understanding the process of development in evolution. She conducts empirical studies with an eye to clarifying universal and species-specific characteristics of humans and great apes. Her studies of social cognition suggest that humans and great apes share a large degree of plasticity, especially in early socio-emotional communicative abilities. These social cognitive abilities include intentional and referential communication, and social referencing (i.e., the ability to seek information from a caregiver about novel objects and use that emotional information to regulate behavior). The study of these abilities across species leads to better understanding of the precursors, contexts, and sequelae of social cognition in human development.