

SOCIAL ATTENTION AND THE BRAIN IN PRIMATES

M.L. Platt¹, K.K. Watson¹, J.T. Klein¹, R.O. Deaner², S.V. Shepherd³

¹*Duke University, Durham, NC, USA*, ²*Grand Valley State University, Grand Rapids, MI, USA*, ³*Princeton University, Princeton, NJ, USA*

Presenter's Email: platt@neuro.duke.edu

Humans and other animals pay attention to other members of their groups to acquire valuable social information about them, including information about their identity, dominance, fertility, emotions, and likely intent. In primates, attention to other group members and the objects of their attention is mediated by neural circuits that transduce sensory information about others, translate that information into value signals, and motivationally scale motor control signals to bias orienting behavior. This process unfolds via a subcortical route mediating fast, reflexive orienting to animate objects and faces and a more derived route involving cortical orienting circuits mediating nuanced and context-dependent social attention. Ongoing studies probe individual and species differences in the neural mechanisms that mediate social attention, the genetic origins of these differences, and their implications for differences in social behavior and social structure using naturalistic, ecologically valid social contexts.

Keywords: Gaze, macaques, lemurs, status, reward