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## **Evolution of Emotions and Empathy in the Primates**

Emotions suffuse much of the language employed by students of animal behavior -- from "social bonding" to "alarm calls" -- yet are still regularly avoided as explicit topic in scientific discourse. Given the increasing interest of human psychology in the emotions, and the neuroscience on animal emotions such as fear and attachment, the taboo that has hampered animal research is outdated. It is crucial to separate emotions from feelings, which are subjective experiences that may accompany the emotions. Whereas science has no access to animal feelings, animal emotions are as observable and measurable (face, voice, physiology, neural activity) as human emotions. I will further draw upon research on empathy and the perception of emotions in primates to make the point that the study of animal emotions is a necessary complement to the study of behavior. Empathy is an old mammalian mechanism that probably started with parental care but then spread to other social relationships. While the emotions serve as organizers of adaptive responses to environmental stimuli, empathy rests on the capacity to perceive another's emotions and to match these emotions, which may lead to helping responses. A remarkable degree of directed altruism and cooperation is observable in the primates.