

Davila-Ross, M., Allcock, B., Thomas, C., and Bard K.A. 2011 Aping expressions? Chimpanzees produce distinct laugh types when responding to laughter of others. *Emotion*, 11 (5): 1113-1120. doi: 10.1037/a0022594

Humans have the ability to replicate the emotional expressions of others even when they undergo different emotions. Such distinct responses of expressions, especially positive expressions, play a central role in everyday social communication of humans and may give the responding individuals important advantages in cooperation and communication. The present work examined laughter in chimpanzees to test whether nonhuman primates also use their expressions in such distinct ways. The approach was first to examine the form and occurrence of laugh replications (laughter after the laughter of others) and spontaneous laughter of chimpanzees during social play and then to test whether their laugh replications represented laugh-elicited laugh responses (laughter triggered by the laughter of others) by using a quantitative method designed to measure responses in natural social settings. The results of this study indicated that chimpanzees produce laugh-elicited laughter that is distinct in form and occurrence from their spontaneous laughter. These findings provide the first empirical evidence that nonhuman primates have the ability to replicate the expressions of others by producing expressions that differ in their underlying emotions and social implications. The data further showed that the laugh-elicited laugh responses of the subjects were closely linked to play maintenance, suggesting that chimpanzees might gain important cooperative and communicative advantages by responding with laughter to the laughter of their social partners. Notably, some chimpanzee groups of this study responded more with laughter than others, an outcome that provides empirical support of a socialization of expressions in great apes similar to that of humans.