

# Experimental Emergence of Conventions in Humans: Emergence, stability and cognitive implications

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## Abstract

Conventions are arbitrary and self-sustaining practices that emerge in a population and facilitate solving coordination problems. A recent study (Formaux et al. 2021) traced the formation of simple conventions in captive baboons in a touch-screen-based colour-matching ‘game’. We replicated this task with human pairs under different conditions (varying the instructions given, visual access to partner’s screen, and subjects’ previous experience) to assess their effects on convention formation. We found that more information delayed the formation of conventions (arbitrary rankings of colours). Interestingly, pairs maintained their conventions even when given visual access to their partner’s screen, despite the availability of a potentially simpler strategy (copying). Although experienced subjects did not transmit their conventions to naïve subjects, they enabled more rapid establishment of a new convention. We hypothesise that these effects are rooted in whether human subjects are prompted to employ cognitively less or more sophisticated processes during behavioural coordination.