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SOCIAL LEARNING OF A VOCAL SIGNAL IN WILD CHIMPANZEES

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One characteristic feature of human speech is its highly flexible acquisition pattern. In contrast, most non-human primate communication is considered genetically hardwired, with little social input required for normal development. However, only a small number of species have been studied and surprisingly little is known on how chimpanzees, our closest relative, learn to produce and comprehend their vocal repertoire. In this study, we describe the acquisition of a unique vocal signal in a community of wild chimpanzees, the pant-grunt. In adults, the vocalisation is clearly directed to particular individuals and for this reason has been interpreted as a greeting signal. Apart for the alpha male, who obtains a disproportionally large share of all pant-grunts, females have individual preferences in term of which higher-ranking group members obtain pant-grunts. The development of this call type in infants is thus of broad relevance in our understanding of how social and communicative competence emerges and interacts in these primates living in their natural habitat. Grunt production in chimpanzee babies and infants starts as a simple and reflex-like behaviour and are progressively given in response to the sight of individuals, turning into social grunts. With increasing social specificity, we observed a simultaneous decrease in the number of calls produced, with a negative peak in juveniles, before call rates increased again in early adulthood. Overall, the acquisition of the pant-grunting behaviour in chimpanzees is a long-lasting process involving both maturational and learning processes with the mother playing a key role.

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