

### Increased facial mimicry after administration of intranasal Oxytocin

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Among other things, oxytocin (OT) is relevant for caregiving and social cognition [1]. For example, intranasal administration of OT improves the recognition of emotional facial expressions [2-6], and increases gazing to the eye regions [7] (Guastella, Mitchell, & Dadds, 2008). Recently, OT administration was shown to increase automatic imitation of finger movements [8] (De Coster, Mueller, T'Sjoen, De Saedeleer, & Brass, 2014). To test the hypothesis that OT administration can also modulate facial mimicry, 60 healthy male participants self-administered, in a double-blind between-subjects design, 24 international units (IUs) of nasal spray containing either OT or placebo (PLA). Facial mimicry and emotion judgments were recorded in response to movie clips depicting changing facial expressions in adult and infant faces. Facial mimicry was increased in the OT group only, but effects were strongest for angry infant faces. These results provide further evidence for the importance of OT for social cognition skills, and suggest that increased facial mimicry might be the mechanism underlying improved emotion recognition after OT administration.

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