

Publication**Post-learning intranasal oxytocin modulates human memory for facial identity****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 1194989**Author(s)** Savaskan, Egemen; Ehrhardt, Rike; Schulz, André; Walter, Marc; Schächinger, Hartmut**Author(s) at UniBasel** [Walter, Marc](#) ;**Year** 2008**Title** Post-learning intranasal oxytocin modulates human memory for facial identity**Journal** Psychoneuroendocrinology**Volume** 33**Number** 3**Pages / Article-Number** 368-74**Keywords** oxytocin, memory, facial expression, identity

The nanopeptide oxytocin has physiological functions during labour and lactation. In addition, oxytocin is known to modulate aggression, anxiety, social behaviour and cognition. Little is known about its effects on memory for emotional stimuli. In the present single-blind, placebo-controlled, randomised study we have investigated the short- and long-term effects of a single post-learning dose (20 IU) of intranasal oxytocin on memory for facial identity and expression in 36 healthy young females and males using a face portrait recognition test. In the acquisition phase of the test, 60 different male faces with happy, angry or neutral expressions were presented to the volunteers. Thirty minutes and 24h after oxytocin administration, recognition memory tests were performed using portraits with neutral facial expressions, only. Oxytocin improved identity recognition memory independently of participant's gender, for neutral and angry faces, whereas this effect was not present for happy faces. Oxytocin-treated subjects had a lower bias to judge not previously seen faces as being previously seen. Oxytocin had no effect on facial expression memory. In conclusion, oxytocin has distinct effects on memory performance for facial identity and may contribute to the modulation of social behaviour.

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