

## **The effect of affect: Visual emotional input properties may influence the acquisition of verb meanings in 24-months-old monolingual German learning children**

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There is evidence that emotional properties of the input like +/-happy intonation or facial expression of a speaker, referring to an object or action (Moses et al., 2001), influence children's learning and memory of words for these referents. These properties we call extrinsic emotional properties. The present study focuses on the unexplored question, whether we will find similar influences on word acquisition when these emotional properties are features of the referents of the words to be acquired, like the +/-happy facial expression of an actor who is acting on an object, which we call intrinsic emotional properties.

A first experiment, using Waxman's et al. (2009) variant of the intermodal preferential looking paradigm, tested 24-months-old monolingual German-learning children (n = 72) to investigate whether intrinsic emotional properties influence the learning and memory of novel verbs just as extrinsic ones do. In a familiarization session children were presented with novel verbs while watching short actions, resembling natural situations of word learning, with either a negative or neutral facial expression of the actor. Successful learning and memory was assessed by monitoring children's looking behavior through eye-tracking immediately after familiarization and seven days later. Our results revealed an enhancing effect of the negative emotional input on verb learning and memory indicated by a significantly increased attention to the familiarization scene when asked to retrieve the verb to be acquired.

A second experiment (n = 48) investigated whether intrinsic emotional properties influence the content of what is learned, that is, whether children faced with an identical action but different emotional input might construct different verb meanings. That is, if the emotional input property affects the mental representation children construct while learning a verb, then we expect this mental representation to constrain children's interpretation of that verb in later use. The results seem to confirm our hypothesis, i.e., children who attended to the displayed emotional input more frequently during learning showed more looks towards the familiar scene at memory test than children who focused less on the emotional information during learning.

Summarizing our findings, we may assume that intrinsic emotional properties influence the verb learning process in two different ways: on the one hand, they might influence the processing system, i.e., the learning and memory mechanisms, on the other they influence what we may call the interpretative system. Driven by the assumption of the intentionality of human actions, we may conceive of the latter one as the system that creates conceptual structures constituting the meaning of novel verbs.

### **References:**

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