

# **Whoa! Aww ... Ohh ... Hee! and Mmm: Infants' nuanced distinctions about the probable causes of emotional expressions**

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**Abstract:** Can infants map diverse positive emotional expressions to their probable causes? Across two studies (including one pre-registered experiment), we used a preferential-looking task to find that infants as young as 12-17 months (mean: 14.8 months) successfully matched non-verbal vocalizations elicited by funny, exciting, adorable, sympathetic, and delicious images to their probable causes (Experiments 1 and 2). Do infants also posit unobserved causes of emotional expressions? In both exploratory and pre-registered experiments, an adult peeked into a box and made one of two distinct positive emotional vocalizations (Experiment 3: “Aww!” or “Mmm!”; Experiment 4: “Aww!” or “Whoa!”). Infants reaching into the box retrieved either a probable or improbable cause of the reaction. Infants were more likely to search again on incongruent trials. These results suggest that infants make nuanced distinctions among emotions, and infer probable causes of emotional reactions.