

In context: emotional intent and temporal immediacy of contextual descriptions modulate affective ERP components to facial expressions

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Abstract

In this study, we explored how contextual information about threat dynamics affected the electrophysiological correlates of face perception. Forty-six healthy native Swedish speakers read verbal descriptions signaling an immediate vs delayed intent to escalate or deescalate an interpersonal conflict. Each verbal description was followed by a face with an angry or neutral expression, for which participants rated valence and arousal. Affective ratings confirmed that the emotional intent expressed in the descriptions modulated emotional reactivity to the facial stimuli in the expected direction. The electrophysiological data showed that compared to neutral faces, angry faces resulted in enhanced early and late event-related potentials (VPP, P300 and LPP). Additionally, emotional intent and temporal immediacy modulated the VPP and P300 similarly across angry and neutral faces, suggesting that they influence early face perception independently of facial affect. By contrast, the LPP amplitude to faces revealed an interaction between facial expression and emotional intent. Deescalating descriptions eliminated the LPP differences between angry and neutral faces. Together, our results suggest that information about a person's intentions modulates the processing of facial expressions.

Key words: face processing; context; VPP; P300; LPP

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