It’s all about you: An ERP study of the interaction of self-relevance and emotional valence in discourse

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Accurately communicating self-relevant and emotional information is a vital function of language. Despite this, we have little idea about how these factors impact normal discourse comprehension, either independently or in combination. In an event related potential (ERP) study, we fully crossed self-relevance and emotional valence in a discourse context. Two-sentence scenarios were either in 3\textsuperscript{rd} or 2\textsuperscript{nd} person (previous work has shown grammatical person modulates the perspective from which mental models are built; Brunyé et al., 2009). A critical word toward the end of the second sentence was pleasant, neutral, or unpleasant, e.g. \textit{A man knocks on Sandra's/your hotel room door. She/You see that he has a gift/tray/gun in his hand.} ERPs recorded on this critical word showed a larger P2 in self-relevant than non-self-relevant scenarios, suggesting that, regardless of emotional valence, self-relevant discourse can enhance attention to words during early stages of processing. In addition, unpleasant words evoked a larger Late Positivity than pleasant or neutral words, indicating that, regardless of self-relevance, negatively valenced words can capture attention and trigger additional analysis at post-lexical stages of processing. Finally, self-relevance and valence interacted on the Late Positivity: whereas a larger Late Positivity was evoked by neutral words in self-relevant than non-self-relevant scenarios, no such effect of self-relevance was seen on pleasant or unpleasant words. This suggests that self-relevance can lead to further attentional allocation and additional analysis at post-lexical stages of processing, but only when such resources have not already been captured by emotional valence.