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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 47(0)

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Publication Date

2025

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Quantifying the context-level valence and arousal in children's written language

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Abstract

Analysis of adult language shows positive correlations between a word's affective features (valence, arousal) and those of its surrounding language context, but whether this extends to children's language remains unclear. To address this, we quantified the emotional context of words within a large corpus of children's written stories (N > 100,000, ages 7-13). Following Snefjella and Kuperman's (2016) procedures, we defined a word's context as the five content words immediately preceding and following it (10 in total). Context valence and arousal were computed for each occurrence and averaged across all occurrences in the corpus, yielding affective values for 24,383 words and their contexts. We found positive correlations between context-level and word-level affective variables (valence: r = 0.46, arousal: r = 0.32), consistent across the 7-13 age range. This study extends adult findings to children's written language and provides a resource for future research on emotional contexts in language development.

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