

Affective Transparency in Compound Word Processing

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Abstract : In the compound word processing literature, much attention has been paid to the relationship between a compound's denotational meaning and that of its morphological whole-word constituents, which is referred to as 'semantic transparency'. However, the parallel relationship between a compound's connotation and that of its constituents has not been addressed at all. For instance, while a compound like 'painkiller' might be semantically transparent, it is not 'affectively transparent'. That is, both constituents have primarily negative connotations, while the whole compound has a positive one. This paper investigates the role of affective transparency on compound processing using two methodologies commonly employed in this field: a lexical decision task and a typing task. The critical stimuli used were 112 English bi-constituent compounds that differed in terms of the effective transparency of their constituents. Of these, 36 stimuli contained constituents with similar connotations to the compound (e.g., 'dreamland'), 36 contained constituents with more positive connotations (e.g. 'bedpan'), and 36 contained constituents with more negative connotations (e.g. 'painkiller'). Connotation of whole-word constituents and compounds were operationalized via valence ratings taken from an off-line ratings database. In Experiment 1, compound stimuli and matched non-word controls were presented visually to participants, who were then asked to indicate whether it was a real word in English. Response times and accuracy were recorded. In Experiment 2, participants typed compound stimuli presented to them visually. Individual keystroke response times and typing accuracy were recorded. The results of both experiments provided positive evidence that compound processing is influenced by effective transparency. In Experiment 1, compounds in which both constituents had more negative connotations than the compound itself were responded to significantly more slowly than compounds in which the constituents had similar or more positive connotations. Typed responses from Experiment 2 showed that inter-keystroke intervals at the morphological constituent boundary were significantly longer when the connotation of the head constituent was either more positive or more negative than that of the compound. The interpretation of this finding is discussed in the context of previous compound typing research. Taken together, these findings suggest that affective transparency plays a role in the recognition, storage, and production of English compound words. This study provides a promising first step in a new direction for research on compound words.

Keywords : compound processing, semantic transparency, typed production, valence

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020