

Processing of literary metaphors in English as a foreign language – an eye tracking study

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Experimental research on the processing of literary metaphors in a foreign language (L2) is scarce, as well as research on how non-native speakers perceive the aesthetic value of such metaphors. Therefore, it is essential to gain a deeper insight into the topic.

Theoretical background: There is no scholarly consensus on whether comprehending metaphors in a foreign language requires additional cognitive effort and a longer time to process. While some researchers consider that we process them slower due to the non-literal meaning (Columbus 2015), others believe that we process them faster due to the stimulation of imagination and emotions (Ifantidou, Hatzidaki 2019). There is also no consensus on how we process them. There are two research perspectives: 1) a three-stage model where the non-native speaker first considers the literal meaning (1 step), then assess plausibility based on the context (2), and at the end reject the literal interpretation and create new metaphoric meaning (Clark and Lucy, 1975; Grice, 1975; Searle, 1979 etc.); 2) a universal pattern of metaphor comprehension where the metaphor is processed directly - regardless of whether it is the user's native language or a foreign language (e.g., Gibbs, 1984, 1987, 1994, 2001; Blank, 1988; Way, 1991; Cacciari and Glucksberg, 1994; Goldvarg and Glucksberg, 1998). Little empirical research supporting either approach exists.

The team experiment was conducted in 2022 at the University of Warsaw. The methodology consisted of both online (eye tracking) and offline (comprehension tests, appreciation ratings) methods. We formulated the following research questions: a) How do we process literary metaphors in L2? b) Is their processing cognitively demanding? c) How well people understand literary metaphors in foreign language? d) How do we evaluate their aesthetic value? The participants were Polish EFL students (English level = B2 and higher) who were given an excerpt from “The Picture of Dorian Gray” by Oscar Wilde. The experimental group read the original text with metaphors, and the control group an adapted text where metaphors were rewritten in plain language.

Results: 1) Non-native readers process metaphors significantly slower than they do non-metaphorical expressions (which is why we favour a three-stage model of metaphor processing in L2). 2) All eye tracking parameters (dwell time, fixation count, fixation duration, revisits) were much higher for metaphors, indicating increased cognitive load. 3) Non-native readers rate the aesthetic value of metaphors in L2 higher than they do the corresponding non-metaphorical expressions. Interestingly, we found a correlation: the more difficult the metaphor was for the respondents, the higher they rated it aesthetically.