

# Bilingual Nonliteral Language Processing

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How do bilingual speakers comprehend figurative language? In this presentation, we address the theoretical issue of bilingual nonliteral language processing, focusing on anaphoric metaphor and literally plausible idioms. First, we explore anaphoric metaphor, where a metaphoric description (e.g., ... *be careful with those SHARKS*) makes reference to an antecedent describing a "vicious and cunning lawyer" during the on-line comprehension of spoken language and an eye movement study. In two cross-modal experiments, lexical activation (i.e. priming) for literal and nonliteral meaning was measured at metaphor offset (0 ms) and 1000 (Experiment 1), and 300 ms (Experiment 2) post metaphor offset. For the eye movement study bilinguals read English passages in conditions in which the critical metaphoric referential description was followed by a literal or a nonliteral biasing context. In the second part of the presentation, we report on the meaningfulness judgment (Experiment 1) and lexical decision (Experiment 2) studies employing the rapid serial visual presentation (RSVP) technique, which looked at the activation of literal and figurative meanings of English idiomatic expressions in the course of their processing by Spanish-English bilinguals. Participants saw an idiomatic sentence, displayed one word after another, at the center of a computer screen. Following the sentence, a target item was displayed in the center of the screen. Participants were to decide, as quickly as possible, whether the displayed target was meaningfully related to the preceding sentence (the congruency task), or whether a target was a legitimate English word (the lexical decision task). Idioms were presented in two types of sentence: 1) the literal, biasing the literal interpretation of the idiom (e.g., *I was told that bone marrow is good for you, so I grabbed a chicken bone in order to try it and break a leg*), and 2) the figurative, biasing the idiom's figurative meaning (e.g., *I was feeling nervous about going up on stage, but my fellow actors all told me to take a deep breath and break a leg*). Each sentence was paired with two target words, one of which was congruent or meaningfully related with the sentence (e.g., LUCK was a target word congruent with the idiom *break a leg* used in the figurative sentence) and another incongruent (e.g., DAMAGE was a target not meaningfully related to the idiom *break a leg* used figuratively). Based on previous research showing different processing patterns of idioms by fluent native speakers and less proficient nonnative language users (e.g., Abel, 2003; Liontas, 2002; Siyanova-Chanturia & Conklin, 2011), the prediction for the experiment was that there would be a difference in the literal and figurative activation as a function of language dominance. The results confirmed this prediction, indicating significant activation of idiom figurative meaning for English-dominant bilinguals and a compositional, literal-based processing in

Spanish-dominant bilinguals. Overall, bilingual nonliteral language processing is discussed in terms of direct vs. indirect access models (e.g., Gibbs, 1990; Heredia & Muñoz, 2015), Giora's (2003) *graded salience hypothesis*, as well as Cieśllicka's (2006, 2015) *literal salience hypothesis* of bilingual nonliteral language processing.

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