Contemporaneous embodied experience influences metaphor comprehension

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Research on embodied simulation has hinted that action repertoires and language related to those repertoires may be mutually reinforcing. For example, Tomasino and Rumiata have noted how the "task-related feature retrieval" (2013: 8) capability of a verbal stimulus positively correlates with the potential of that stimulus to lead to activation in (non-language-related) sensorimotor areas of the brain. In light of this and other similar research, Strack (2019: 116-128) has asserted that an individual's goal-oriented embodied experiences will crucially affect how that person interprets language they encounter. The hypothesis is that people with extensive exposure to a given goal-oriented task set will have such a thorough understanding of the semantic implications of concepts involved in that task set that they will naturally be predisposed to interpret language in ways that align with it.

To test whether a person's task-oriented embodied experiences actually affect interpretational outcomes, a simple experiment was conducted: survey participants (18 Japanese university students) were asked to complete sentences by choosing from two apt response options, at least one of which includes a metaphor associated with a specific task-oriented embodied experience. For example, one survey question (administered in Japanese) offered the incomplete statement, "If children are shut up inside a room all day they get frustrated. Once in a while, they need to be _____." Forced choice response options included the dog-walking metaphor "taken for a walk" (expressed as "*sanpo saseru*," a metaphorical phrase when used with reference to humans in Japanese) and the sometimes literal, sometimes metaphorical expression "made to run around" ("*hashiraseru*"). While a significant number of participants who self-reported owning dogs chose the response option "taken for a walk" (r=.612, p<.01), responses of non-dog owners were non-significant (that is, more or less evenly distributed between "taken for a walk" and "made to run around"). Similarly, on another question, participants with driver's licenses were observed to be significantly more likely to choose a driving-related metaphorical response option (r=.478, p<.05) than non-drivers.

On the other hand, not all task-oriented embodied experience-related metaphors generated similar significant results. For example, a participant's past "participation in team sports" and past experience "going to school by bicycle" failed to receive a significant number of responses for metaphors that reflected such experiences. One reason might be that one's current embodied activities may affect linguistic understanding to a much greater extent than one's past activities. Another possibility is that the sports-related metaphorical response option offered might not have exactly matched the type of team sport participated in.

In any case, the results of this small-scale survey are intriguing. If contemporaneous task-oriented embodied experiences are found to positively influence metaphor comprehension relating to those experiences, then the extent to which such goal-oriented experiences inform language interpretation will need to be further explored.

References

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