UC Merced

Proceedings of the Annual Meeting of the Cognitive Science Society

Title

Factors Influencing the Adoption of Temporal Metaphors

Permalink

https://escholarship.org/uc/item/8bd718v6

Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 29(29)

ISSN

1069-7977

Authors

Chrysikou, Evangelia G. Ramey, Christopher H.

Publication Date

2007

Peer reviewed

Factors Influencing the Adoption of Temporal Metaphors

Evangelia G. Chrysikou (evangelg@psych.upenn.edu)

Department of Psychology, Center for Cognitive Neuroscience, University of Pennsylvania 3720 Walnut St., Solomon Lab, Room B51, Philadelphia, PA 19104 USA

Christopher H. Ramey (cramey@flsouthern.edu)

Department of Psychology, Florida Southern College 111 Lake Hollingsworth Drive, Lakeland, FL 33801 USA

Keywords: conceptual metaphors; time metaphors; language and thought; embodiment.

Priming Temporal Perspective

The abstract concept of time has been described with respect to two space-to-time metaphorical systems: the ego-moving (EM) metaphor and the time-moving (TM) metaphor (e.g., Boroditsky, 2000; Clark, 1973; Gentner, 2001; Gentner, Imai, & Boroditsky, 2002; Lakoff & Johnson, 1980; McGlone & Harding, 1998; Núñez, Motz, & Teuscher, 2006). In the EM metaphor the person moves toward a stationary event, whereas in the TM metaphor an event moves toward a stationary person.

Recent research has demonstrated that primes of real, imagined, or fictive motion can bias responses to an ambiguous question about a future temporal event (Alloway, Ramscar, & Corley, 2001; Boroditsky, 2000; Boroditsky & Ramscar, 2002; Matlock, Ramscar, & Boroditsky, 2005). Specifically, if one believes that next Wednesday's meeting has been *moved forward* two days, priming by stimuli or experiences that are TM- or EMconsistent biases participants' responses to an earlier (Monday) or a later (Friday) date, respectively.

The Influence of Additional Factors in the Adoption of Temporal Perspective

Even though previous studies provide support for spatial-domain-to-temporal-domain mappings, they do not address whether other personally-relevant factors may be implicated in and influence the adoption of temporal perspective. In particular, the present paper discusses ways in which a series of factors that are related to one's personal regard for a future event in a disambiguation paradigm may critically influence and significantly moderate the adoption of a particular TM or EM time metaphor.

The evidence from our lab suggests that participants' earlier or later responses to an ambiguous question regarding the rescheduling of a future event may be biased by the event's valence and the magnitude of the event's rescheduling. Thus, the present paper argues that the adoption of time metaphors may be decisively influenced by variables that exist at the person-level, beyond any experimentally introduced spatial primes that have been repeatedly reported in the literature. That is, one is not indifferent toward the timing of an event that may affect their lives in some way. Thus, the perception of time may be

determined by a complex interaction of an array of variables. This possibility may have significant implications for research on time metaphors specifically and the relation between language and thought generally, insofar as it would suggest that subjective factors can modulate one's perception of time and they may interact with other personality and spatial variables.

References

- Alloway, T. P., Ramscar, M., & Corley, M. (2001). The roles of thought and experience in the understanding of spatio-temporal metaphors. In *Proceedings of the Twenty-third Annual Cognitive Science Society*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Boroditsky, L. (2000). Metaphoric structuring: Understanding time through spatial metaphors. *Cognition*, 75, 1-28.
- Boroditsky, L., & Ramscar, M. (2002). The roles of body and mind in abstract thought. *Psychological Science*, 13, 185-189.
- Clark, H. H. (1973). Space, time, semantics, and the child. In T. E. Moore (Ed.), *Cognitive development and the acquisition of language*. New York: Academic Press.
- Gentner, D. (2001). Spatial metaphors in temporal reasoning. In M. Gatis (Ed.), *Spatial schemas in abstract thought*. Cambridge, MA: The MIT Press.
- Gentner, D., Imai, M., & Boroditsky, L. (2002). As time goes by: Evidence for two systems in processing space → time metaphors. Language and Cognitive Processes, 17, 537-565
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: Chicago University Press.
- Matlock, T., Ramscar, M., & Boroditsky, L. (2005). On the experiential link between spatial and temporal language. *Cognitive Science*, *29*, 655-664.
- McGlone, M. S., & Harding, J. L. (1998). Back (or forward?) to the future: The role of perspective in temporal language comprehension.
- Núñez, R. E., Motz, B. A., & Teuscher, U. (2006). Time after time: The psychological reality of the ego- and timereference-point distinction in metaphorical construals of time. *Metaphor and Symbol*, 21, 133-146.