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Introduction

Cognitive Scientists have long debated the connection between abstract concepts like happiness, integrity, and time, and experiential concepts, like moving, eating, and physical space (Barsalou, 1999; Clark, 2001; Prinz, 2002).

In this poster we focus on space/time metaphors, which have been the subject of much previous research on the role of metaphor in conceptual understanding (Boroditsky, 2000; McGlone & Harding, 1998) In particular, there are two distinct metaphors in English for describing the passage of time: the *ego-moving* and *time-moving* metaphors. In this poster, we point out that these space/time metaphors have an implied agency within the grammar of the metaphors. This implicit agency is to be found in all schemas in which these metaphors appear, and so implicit agency is confounded with the spatial metaphor. We present a study demonstrating that the degree to which the concept of agency or passivity is active influences the interpretation of temporal metaphors.

Experiment

Participants

84 University of Texas at Austin undergraduates participated in this study for partial course credit.

Materials

In order to prime subjects we asked them to unscramble sentences, where the sentences were constructed with either the first person subject pronoun, "I" or the first person object pronoun, "me". We hypothesized that the grammatical subject/object of the SvO sentence construction would prime representations of agency for those subjects who unscrambled "I" sentences and passivity for those subjects who unscrambled "me" sentences.

Design

The experiment design was between subjects, with subjects either running in either the "I" or the "me" priming condition. Immediately following the sentence unscrambling primes subjects were asked to answer the temporally ambiguous target question: Next Wednesday's meeting has been moved forward two days. What day is the meeting now that it has been rescheduled?

Procedure

Subjects were run solely on Wednesdays, in order to maintain the same reference point for answering the temporally ambiguous question. Subjects completed the three pages of scrambled sentences in about 20 minutes. Only the page with the target question was presented for those in the control group.

Results

As predicted, for the "I" prime 12/42 of the subjects selected Friday – the ego-moving frame of reference, while for the "me" prime 25/42 selected Monday – the time-moving frame of reference. A Pearson Chi-Square confirmed that this difference was significant, $(1, N=84) = 8.163$, $P < .01$. Control participants who had not participated in the sentence unscrambling primes were about evenly split between Monday (19/42) and Friday.

Acknowledgments

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