

Linguistic Contributions to Reasoning about Causal Agents

Caitlin M. Fausey (cmfausey@psych.stanford.edu)

Lera Boroditsky (lera@psych.stanford.edu)

Department of Psychology, 450 Serra Mall, Bldg 420
Stanford, CA 94305 USA

Introduction

How are causal language and causal reasoning related? The present study examined causal event descriptions in English and in Spanish, as well as the relationship between these descriptions and reasoning about causal agents.

One source of variation in causal event descriptions is illustrated by the following expressions that could describe the same event:

- (1) *Jon broke the vase.* (agentive)
- (2) *The vase broke.* (non-agentive)

Though both English speakers and Spanish speakers may describe causal events using agentive language or non-agentive language, it has been suggested that English speakers describe accidental events using agentive language while Spanish speakers talk about these same events using non-agentive language (Maldonado, 1992; Martinez, 2000). The non-agentive expression in Spanish is marked by the clitic *se* (e.g., *Se rompió el vaso/ The vase broke*).

To the extent that agentive expressions highlight the agent of a causal event more so than do non-agentive expressions, agents of events that are typically described by agentive language may receive stronger attributions of blame than agents of events that are typically described by non-agentive language. If accidental events are described agentively in English but non-agentively in Spanish, agents of such events may receive stronger attributions of blame by English speakers than by Spanish speakers. Do English speakers and Spanish speakers describe causal events differently? If so, do these different descriptions align with differences in blame attribution mapped to causal agents?

The Blame Game

Participants

English monolinguals (Stanford students) and Spanish monolinguals (Chilean university students) participated for course credit or reimbursement.

Materials and Procedure

Videos depicted causal change-of-state events. 18 video pairs were constructed such that the two videos in one pair depicted the same end-state (e.g., a popped balloon), but varied according to the intention with which the end-state occurred (intentional, accidental).

Participants viewed 18 different events (9 intentional, 9 accidental) in pseudo-random order. After each video, participants answered the question: *How much is the man to blame for what happened?* (*¿Cuán culpable es el hombre*

por lo que ocurrió?). Participants responded using a scale from 1 (0 percent) to 9 (100 percent). Following the blame game task, participants described each video that they had seen.

Results

While both English and Spanish speakers described intentional events using agentive language, the two groups diverged in their descriptions of accidental events. English speakers described accidental events using agentive language more so than did Spanish speakers (see Figure 1).

Similarly, English and Spanish speakers attributed comparable amounts of blame to intentional agents, but diverged in their blame attributions to accidental agents. English speakers attributed more blame to accidental agents than did Spanish speakers (see Figure 2).

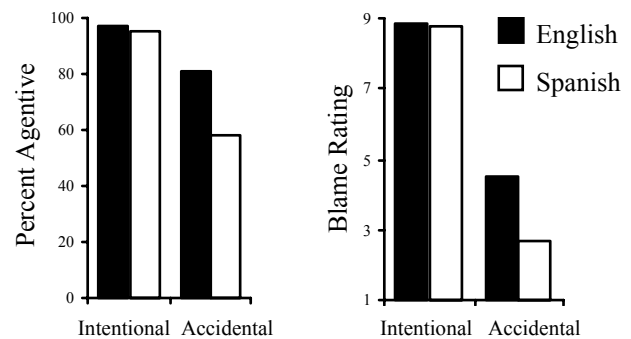


Figure 1: Descriptions.

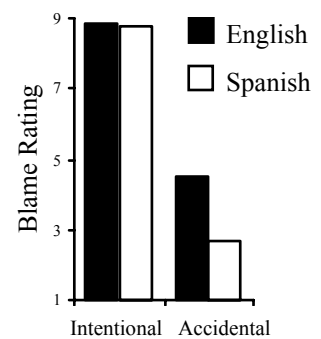


Figure 2: Blame Ratings.

Discussion

Reasoning about accidental agents varied in a manner consistent with accidental event descriptions. Spanish speakers, who described accidental events using non-agentive language, attributed less blame to accidental agents than did English speakers who described these same events agentively. Research in progress suggests that language may play a causal role in reasoning about causal agents.

References

- Maldonado, R. (1992). *Middle voice: The Case of Spanish se*. Unpublished doctoral dissertation, University of California, San Diego.
- Martinez, I. (2000). *The effects of language on children's understanding of agency and causation*. Unpublished doctoral dissertation, University of Michigan.