Does the result justify the means?
The representation of resultative events in Mandarin and Spanish

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Languages differ as to how they verbally encode resultative events (i.e. events in which actions are directed towards the achievement of a result, e.g. "burn the paper"). Mandarin and Spanish differ prominently: Mandarin has resultative verb compounds (RVCs) separately encoding manner of action in the main verb and result in a resultative morpheme: *shao-hui le zhi* (burn-destroy PERF paper) (Chen, 2016). Spanish, as a result-oriented language (Slobin, 1996), uses main verbs which encode either manner of action: *quemó el papel* (burned the paper), or result of events: *destruyó el papel* (destroyed the paper) (García del Real, 2015). We compared Mandarin and Spanish native speakers in two experiments (Verbal & Non-verbal) to investigate to what extent habituation to the use of different verbal structures influences the representation of resultative events in memory.

Participants saw 24 short movies: 12 events progressing towards a clear result, 12 without such a result. The events were shown in different stages of completion: either as ceased (action came to an end) or as ongoing (action was still in progress at the end). In the event encoding stage of the Verbal experiment, participants described the events in their native language (Spanish n=22; Mandarin n=21). In the encoding stage of the Non-Verbal experiment participants had to detect event repetition (a screenshot appeared and participants indicated whether the image matched the last video they had seen) (Spanish n=20; Mandarin n=21). After the encoding task, a surprise recall task was carried out: participants were shown screenshots of the videos' final frames, depicting events either as ceased or ongoing, and they had to judge, by pressing a button, whether the screenshots showed the actual ending of the videos watched during the encoding phase.

In the production data Mandarin speakers distinguished the four types of movies, using RVC structures almost exclusively to describe *ceased resultative events* (60% of the cases), whereas Spanish speakers produced no specific patterns. Results of the memory tasks are shown for the two crucial conditions in Table 1. Overt verbalization of results by way of using RVCs boosted the memory of event endings in Mandarin speakers, supporting *thinking for speaking* (Slobin, 1996). In contrast, Spanish participants were equally good at remembering *ceased resultative events* in both encoding conditions with a similar accuracy as the Mandarin Verbal group. Given that Spanish is a result-oriented language (but Mandarin is not), the Spanish are more focused on the representation of result states of events. We argue that this supports *linguistic relativity*.

Table 1 Recall accuracy (%) of resultative events in the memory task of experiment 1 and 2

Condition per language group	Verbal experiment	Non-verbal experiment
Ceased resultative (Mandarin)	76.2%	60.3%
Ongoing resultative (Mandarin)	47.6%	50.8%
Ceased resultative (Spanish)	79.5%	72.5%
Ongoing resultative (Spanish)	58.3%	47.5%

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