Reading Fictive Motion Across Languages: Experimental data from a self-paced reading task
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Fictive Motion (FM): involves “the conceptizer’s mental tracing along a path for the purpose of computing the configuration or location of the entity expressed in the subject NP” (Matsumoto, 1996: 184)

Matsumoto (1996) : English and Japanese FM Expressions (FMEs)

Similarities:
- The PATH condition: a FME must always include some path-related information
e.g. “the road runs vs the road runs along the coast
- The MANNER condition: when a FME includes a manner-conflicting verb, the manner information must be somehow related to some specific feature of the path
e.g. the road zig-zagged/*tip-toed along the valley

Differences:
- In English, there is a distinction between ‘travellable’ and ‘non-travellable’ paths
- Some ‘non-travellable’ paths are not amenable to a Fictive Motion description (e.g. walls.)
- In English, all paths are amenable to fictive motion description

Our research questions
1. How is the distinction between travellable and non-travellable paths reflected in Spanish?
2. Does the Manner condition affect Spanish FM verbs in the same way as English and Japanese?

Experimental paradigm: a self-paced reading task
- Subjects read sentences divided into different periods; to see each period, they had to press the Space Bar
- To ensure correct understanding, every four sentences were followed by a drawing, which could correspond or not to one of the previous sentences.

Experiment 1
- Subjects: 45 Spanish native speakers from the University of Murcia
- Stimuli: 32 Spanish sentences, divided into four syntactic periods, with two types of subjects:
  - Travellable subjects: carretera (road), camino (path), sendero (track), jardin (garden), pradera (meadow), prado (field), lago (lake), terraza (terrace), jardín (garden), mata (wood), río (river), barranco (valley), arroyo (brook), acequia (irrigation ditch), camino (track), sendero (path), calle (street), manzana (block), naranjo (orange tree), camino (road), terreno (field), campo (field), zona (area), mancha (patch), línea de árboles (line of trees), frontera (frontier), parque (park), valla (fence), texto (text), camino (road), terraza (terrace), jardín (garden), casa (house).
  - Non-travellable subjects: pared (wall), muro (wall), álamo (almond tree), jardín (garden), mata (wood), río (river), barranco (valley), arroyo (brook), acequia (irrigation ditch), camino (track), sendero (path), calle (street), manzana (block), naranjo (orange tree), camino (road), terreno (field), campo (field), zona (area), mancha (patch), línea de árboles (line of trees), frontera (frontier), parque (park), valla (fence), texto (text), camino (road), terraza (terrace), jardín (garden), casa (house).
- Results: subjects took longer to read sentences with non-travellable subjects than with travellable ones (see Figure 1).

Experiment 2
- Subjects: 65 Spanish native speakers from the University of Murcia
- Stimuli: 24 Spanish sentences, divided into three syntactic periods, with two types of verbs: Path-related manner verbs and Non-Path related manner verbs
  - Path-related manner verbs: reptar (sweep), tobillero (snake), zigzaguar (zigzag), deambular (roam), vagar (wander), precipitarse (fall)
  - Non-path related manner verbs: deslizarse (slide), rodar (roll), adepurrarse (hurry), embalsar (embalze)
  - Subjects were divided into two groups: one group read an experimental sentence (with a manner verb and a FM subject) and the other group read its ‘control’ counterpart, i.e. the same sentence in the ‘real motion’ context.
  - A group of travelling subjects was divided into three different categories: ease of progress, speed and motor pattern. As can be seen in Figure 1, subjects took longer to process non-path related manner verbs than with manner related ones (see Figure 3).

Conclusions
- Spanish FMEs with non-travellable subjects take longer to process than those with travellable entities.
- Further research would be required to see which types of objects are amenable to a FM description.
- Non-path related manner verbs also take longer to process, suggesting that Matsumoto’s Path and Manner condition are psychologically real.
- Further research would be needed in other languages to test the universal validity of the conditions and the role of the different manner features in FMEs.