Language theorists have an ongoing interest in the semantics of fictive motion sentences, such as (1)(a) and (1)(b). They form an interesting class because they contain a motion verb, but describe no motion.

(1)(a) A fence runs along the road
(b) The trail follows the coastline

On one view, the mental representations underlying these sentences are static, and not unlike those underlying sentences such as The road is next to the coast (Jackendoff, 2002). On another view, they are dynamic: The person interpreting the sentence mentally scans or “moves” along the trajector (or figure), such as the fence in (1)(a) (Talmy, 1983, 1996; Langacker, 1986).

Experimental work supports the dynamic view. In Matlock (2004), people read passages about movement through cluttered terrains and non-cluttered terrains before reading fictive motion sentences. Overall people were slower to process fictive motion sentences after text about cluttered terrains. Critically, no difference was obtained for non-fictive motion sentences. The results of this experiment and others (e.g., Matlock, Ramscar, & Boroditsky, 2005) suggest that people simulate motion in processing fictive motion sentences.

Results from eye-tracking experiments on fictive motion also support the dynamic view. In Matlock and Richardson (2004), people viewed pictures and listened to descriptions of them while their eye movements were recorded. They heard sentences such as The road runs along the lake (fictive) or The road is next to the lake (non-fictive). Fictive motion sentences produced longer gaze durations along the relevant trajector (e.g., road) than did non-fictive motion sentences. This was not because the motion verbs in fictive motion sentences were more interesting or engaging, for in a second experiment (Richardson & Matlock, in press), people first heard descriptions of terrains that were easy (The valley is flat and smooth) or difficult (The valley is bumpy and uneven), and then fictive and non-fictive motion descriptions. In the time course of processing fictive motion descriptions, the difficult (versus easy) terrain information produced longer gaze durations and more eye movements between points along the trajector. There was no such difference between terrain conditions with non-fictive motion descriptions.

In the current eye-tracking study, we begin to explore the finer details in fictive motion conceptualization, especially direction and perspective. We investigate Langacker’s (2005) reconceptualization, a relatively complex conceptualization involving scanning from different perspectives. In our first study, people were presented with spoken sentences such as (2a) and (2b).

(2)(a) The scar runs from his ankle to his knee
(b) The scar runs to his knee from his ankle

While listening to these and other fictive motion sentences, people viewed pictures with linear trajectories between two landmarks (e.g., vertical scar between knee and ankle). Their eye movements varied along the trajector (e.g., scar) in terms of timing, suggesting differences in construal related to perspective.

The current work is important because it provides novel experimental results for reconceptualization and additional evidence for dynamic construal in language processing. It also provides further evidence that even the most subtle differences in language can lead to notable differences in visual processing.
References


