Beyond tense: Processing temporal relations in discourse

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Temporal relations are constrained in many ways beyond those imposed directly by the interpretation of tense per se. We will look at a few of them.

Frazier and Clifton (2018, submitted, Clifton and Frazier, submitted) explore the hypothesis that initial temporal (and locative) PPs introduce a topic situation. Subsequent material is preferentially included in the topic situation, and the topic situation provides a preferred context for interpretation, e.g., of implicit domain restrictions. This hypothesis predicts there will be difficulty in a sentence like: At the defense, they asked tough questions last week. “Last week” has a duration that is too long to fit inside the normal ‘defense’. The prediction is confirmed in written rating studies. Further, interpretive studies show that initial temporal PPs are more likely to restrict the interpretation of a DP than the same PPs when they appear elsewhere in the sentence (e.g., In the 1960s, the senator smoked Cuban cigars/The senator smoked Cuban cigars in the 1960s.)

Cases of ambiguity in domain selection, ‘quantificational variability’, will also be discussed. Harris et al., 2013 showed that ambiguities like The army was mostly in the capital are preferentially resolved to their ‘parts’ interpretation rather than an interpretation quantifying over times (most of the time, the army was in the capital). This was attributed to a processing principle of No Extra Times (originally proposed by Majewski in the domain of reciprocal processing). The idea is that the processor does not postulate potentially unnecessary times. Harris et al presented the results of interpretation studies and eye tracking studies in support of their analysis. A recent study provides additional support for the No Extra Times explanation of their results.

Göbel, Frazier and Clifton (in progress) investigated ‘coordinate’ vs ‘subordinate’ relations expressed by medial appositives. In acceptability judgment, subordinate relations (elaboration) were rated higher than coordinate (narrative) relations, especially in sentence-medial appositives. This was attributed to difficulty when an event is ordered after an event whose description is not yet finished. If instead the problem were just that the speaker is disorderly (mentioning the main event, then a later event, and then returning to the main event), we would expect an interruption of the description of the main event would be equally bad if it did not follow the main event on the narrative timeline. An experiment testing the interpretation of an interrupting phrase as occurring either before or after the main event showed a clear preference for the eventuality in the interrupting phrase to be classified as taking place prior to the main clause event.

These case studies suggest that the temporal cohesion of a discourse is achieved through many disparate mechanisms: inclusion in a topic situation, domain restriction preferences, avoidance of postulating unnecessary times, and constraints on moving the narrative timeline forward.
