Time and Events in Natural Language Semantics

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Abstract: This talk will argue for the thesis that the cognitive construction of time via plan–goal structures determines at least partly principles used to organize temporal discourse. The hierarchical nature of planning is formally captured by a specific logic programming formalism combined with a theory of reification which allows to derive terms denoting eventualities. This event calculus based on logic programming is ideally suited to represent the hierarchical or recursive nature of planning. A goal is to be achieved by means of actions which are themselves composed of actions.

In order to express the semantics of tensed sentences so called integrity constraints are used in combination with the event calculus. Intuitively integrity constraints allow a tensed sentence to to be viewed as a goal (make S true) to be achieved by updating the discourse model.

Linguistic applications of the combined cognitive semantic theory will include tense, Aktionsart, aspect, and certain cases of coercion and if time allows nominalizations and anaphora resolution.