

Semantic Theory 2010, Exercise 9

1 (Neo-)Davidsonian Event Semantics again

Consider Sentence (1):

(1) *John saw a boy play in the street*

- Give a plausible Davidsonian analysis for sentence (1). Hint: John saw an event rather than a person. (Just target representation, no derivation!)
- Provide a neo-Davidsonian analysis of (1). Assume that *see* comes with the roles “exp(eriencer)” and “theme”, *play* with an agent role.
- Try to look up the “correct” frame and role (frame element) labels for the uses of the verbs in sentence (1) in the FrameNet database. Report results and experiences.

2 ... and again

Try to derive the representation of (b) compositionally. Assume the constituent structure (1a) for (1):

(1a) $[_S [_S \text{John} [_{VP} \text{saw} [_S [_S [_{NP} \text{a boy}] [_{VP} \text{play}]]] [_{PP} \text{in the-street}]]] \text{INF}]] \text{PAST}]$

Assume the following types for translations of the words and operators:

John: $((e,t),t)$
saw: $((((e,t),t),(((e,t),t),(e,t)))$
a, boy: as usual
play: $((((e,t),t),(e,t)))$
in: $(e,((e,t),(e,t)))$
the-street: e
INF: $((e,t),((e,t),t))$
PAST: $((e,t),t)$

Translate INF to $\lambda E \lambda E' [\exists e (E(e) \wedge E'(e))]$: The semantics of the infinitive operator (in this position) takes an event predicate and makes it an indefinite event description. Type-logic representations for all other elements should be taken from or built in analogy to examples in the slides or previous exercises.

3 Plurals and Collectives

(2) *John, Bill, and Mary commented a paper.*

- What are the readings of sentence (4)? Represent the distributive and collective readings by using predicate logic conjunction and summation operator, respectively.
- How many commenting events and how many papers may be involved in the situations described by the respective readings?

4 Mass Terms

- (1) *The ring is new, but the gold in the ring is not new.*
- (2) *Part of the rings are made of gold, part are made of silver*
- (3) *The rings contain gold and silver.*
- (4) *The rings are composed of gold and silver.*

- (a) Give appropriate logical representations of sentences (1) to (4). For simplicity, use “the_ring” and “the_rings” as a type e translation of the ring and the rings, respectively.
- (b) Compute truth conditions for the representations.