

Syntactic Effects of Conjunctivist Interpretation: On the Argument/Adjunct Distinction



Tim Hunter — timh@umd.edu

University of Maryland

1 Overview

I propose a novel account of adjunction, independently motivated by the Conjunctivist theory of the composition of neo-Davidsonian logical forms, that provides a natural explanation for some of the basic syntactic differences between arguments and adjuncts.

The pattern to explain is that some non-head constituents, such as ‘Caesar’ in (1a), contribute crucially to making a projection maximal and therefore accessible to syntactic operations; whereas others, such as ‘quietly’ in (2a), leave the “maximality” of a projection unchanged.

- (1) a. Brutus [_{VP} stabbed Caesar].
 b. Stab Caesar, (is what) Brutus did.
 c. *Stab, (is what) Brutus did Caesar.
- (2) a. Brutus [_{VP} slept quietly].
 b. Sleep quietly, (is what) Brutus did.
 c. Sleep, (is what) Brutus did quietly.

Crucial ingredients of the proposal are two pre-existing intuitions:

- The phenomenon of “movement” can be thought of as merely re-merging (Epstein et al. 1998).
- The mode of semantic composition used by adjuncts is simpler than that used by arguments; this permits a degree of syntactic freedom for adjuncts that is unavailable for arguments (Pietroski 2005, Hornstein and Nunes 2008).

I take as a starting point the formalism from Stabler (2006); this embodies the “re-merge” conception of movement in a way that leaves room for an appealing account of adjunction:

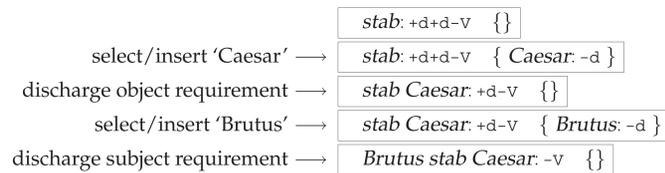
- Every XP is a phase
- External Merge = Select/Insert + (roughly) Internal Merge
- Adjunction = Select/Insert

2 Syntactic Background: Move as Re-merge

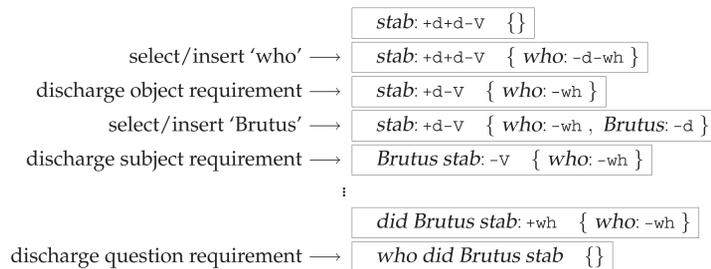
Central ideas from Stabler (2006):

- The insert operation adds an element to the derivation without checking any features
- An element is integrated more fully into the structure only when its **last** feature is checked
- As a result “merge steps” and “move steps” look the same

A straightforward derivation without “movement”:



A derivation with “movement”:



Reminiscent of “Survive Minimalism” (Stroik 1999) and “Cooper Storage” (Cooper 1983).

References:

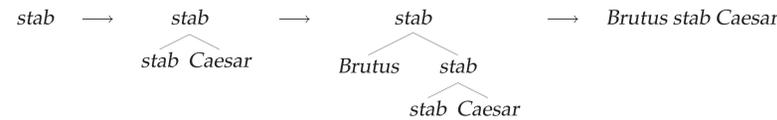
- Cooper, R. (1983). *Quantification and Syntactic Theory*. Reidel, Dordrecht.
 Epstein, S. D., Groat, E., Kawashima, R., and Kitahara, H. (1998). *A Derivational Approach to Syntactic Relations*. Oxford University Press, Oxford.
 Hornstein, N. and Nunes, J. (2008). Adjunction, labeling, and bare phrase structure. *Biolinguistics*, 2(1):57–86.
 Hunter, T. (2010). *Relating Movement and Adjunction in Syntax and Semantics*. PhD thesis, University of Maryland.
 Pietroski, P. M. (2005). *Events and Semantic Architecture*. Oxford University Press, Oxford.
 Stabler, E. P. (2006). Sideways without copying. In Monachesi, P., Penn, G., Satta, G., and Wintner, S., editors, *Proceedings of the 11th Conference on Formal Grammar*.
 Stroik, T. (1999). The Survive Principle. *Linguistic Analysis*, 29:278–303.

3 Adjunction as Mere Insertion

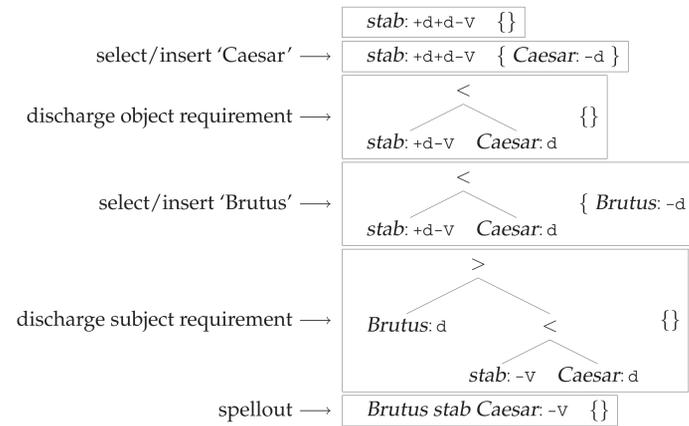
Let us suppose that (PF and LF) interpretation occurs not “directly compositionally”,

$stab \rightarrow stab \ Caesar \rightarrow Brutus \ stab \ Caesar$

but only at the end of each maximal projection:



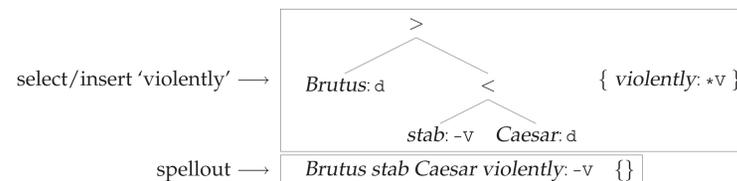
Incorporating this idea into the framework in §2, we construct head-argument relations and then spellout shortly thereafter:



This construct-then-spellout picture leaves room for certain elements to be:

- **only inserted** into the derivation, and yet
- **still contribute to interpretation** when spellout applies.

I propose that this is exactly what adjunction is. From the point where ‘Brutus’ is merged in the derivation above:



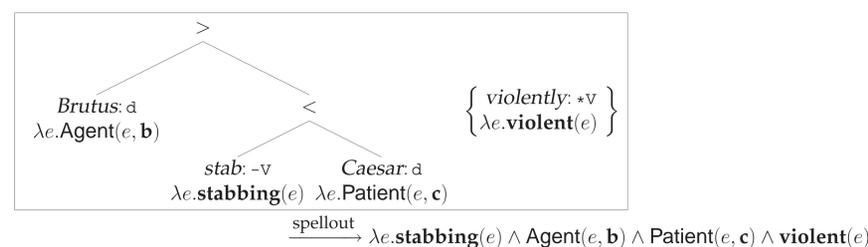
4 Semantic Motivation

This picture of the argument/adjunct distinction receives independent motivation from the Conjunctivist view of neo-Davidsonian logical forms (Pietroski 2005):

- every constituent contributes a **monadic predicate**, and
- the only mode of composition is **conjunction** of monadic predicates.

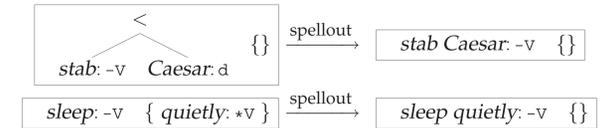
On this view, ‘Brutus’ and ‘Caesar’ — but crucially not ‘violently’ — must undergo a kind of “type-shifting” (dependent on particular syntactic positions):

c $\xrightarrow{\text{object position}} \lambda e. Patient(e, c)$ b $\xrightarrow{\text{subject position}} \lambda e. Agent(e, b)$

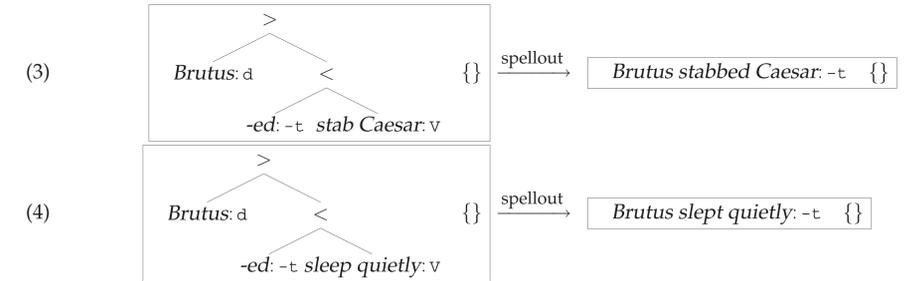


5 Explanation for the Flexibility of Adjuncts

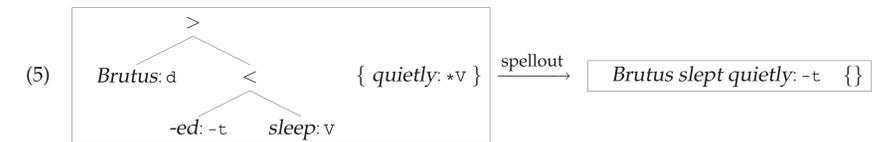
So the two VPs considered in (1a) and (2a) differ in the following way:



To see how this derivational difference leads to the empirical contrast between (1) and (2), consider how these VPs fit into the next phase up. The “obvious” way is as follows:



But in the adjunct case there is an additional option, because semantic composition of ‘quietly’ (unlike that of ‘Caesar’) is **not dependent on details of internal structure of the VP**:



The two adjunction options in (4) and (5) are **not semantically distinct**:

In (3): $[Phase_{VP}] = stabbing(e) \ \& \ Patient(e, c)$
 $[Phase_{TP}] = compose [-ed] \ \text{with} \ [Phase_{VP}]$
 $= \dots \ stabbing(e) \ \& \ Patient(e, c) \dots$

In (4): $[Phase_{VP}] = sleeping(e) \ \& \ quiet(e)$
 $[Phase_{TP}] = compose [-ed] \ \text{with} \ [Phase_{VP}]$
 $= \dots \ sleeping(e) \ \& \ quiet(e) \dots$

In (5): $[Phase_{VP}] = sleeping(e)$
 $[Phase_{TP}] = compose [-ed] \ \text{with} \ ([Phase_{VP}] \ \& \ quiet(e))$
 $= \dots \ sleeping(e) \ \& \ quiet(e) \dots$

Crucially, the TP-phase insertion option is **not available for arguments**, whose interpretation depends on **specific VP-internal positions**:

✗ $[Phase_{VP}] = stabbing(e)$
 $[Phase_{TP}] = compose [-ed] \ \text{with} \ [Phase_{VP}]$

This pattern can derive original facts as follows:

- (1) a. Brutus stabbed Caesar. (unambiguous: (3))
 b. Stab Caesar, (is what) Brutus did. (“Caesar” inserted early, as in (3))
 c. *Stab, (is what) Brutus did Caesar.
- (2) a. Brutus slept quietly. (ambiguous: (4) or (5))
 b. Sleep quietly, (is what) Brutus did. (“quietly” inserted early, as in (4))
 c. Sleep, (is what) Brutus did quietly. (“quietly” inserted late, as in (5))

General Result: If an adjunct is to modify a certain XP, it can do so by being inserted in:

- the phase in which XP is being constructed, or
 - another phase in which XP is present
- Arguments of XP **only** have the first option.