Deconstructing merge and move to make room for adjunction
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I aim to unify three notable properties of adjuncts that distinguish them from arguments: their paradoxical status either included in or excluded from a "maximal" projection, illustrated in (1); their ability to attach "counter-cyclically" in order to account for the reconstruction asymmetry in (2) (Lebeaux 1988); and the prohibition on extraction from adjuncts, illustrated in (3).

(1) a. John kicked Fred violently
    b. Kick Fred violently, John did
    c. Kick Fred, John did violently
    d. * Kick, John did Fred violently

(3) a. Who do you think that John sees?
    b. * Who do you laugh if John sees?

(2) a. * Whose claim [that Mary$_i$ stole a book] did she$_i$ deny?
    b. Whose claim [that Mary$_i$ heard] did she$_i$ deny?

There is no shortage of thorough investigations into these phenomena (and into apparent exceptions, eg. Truswell 2007, Lasnik 1998). The present aim, however, is to argue that a novel conception of merge and move operations naturally leaves open the possibility of "partially unattached" constituents, and predicts that such constituents should have the three properties outlined above.
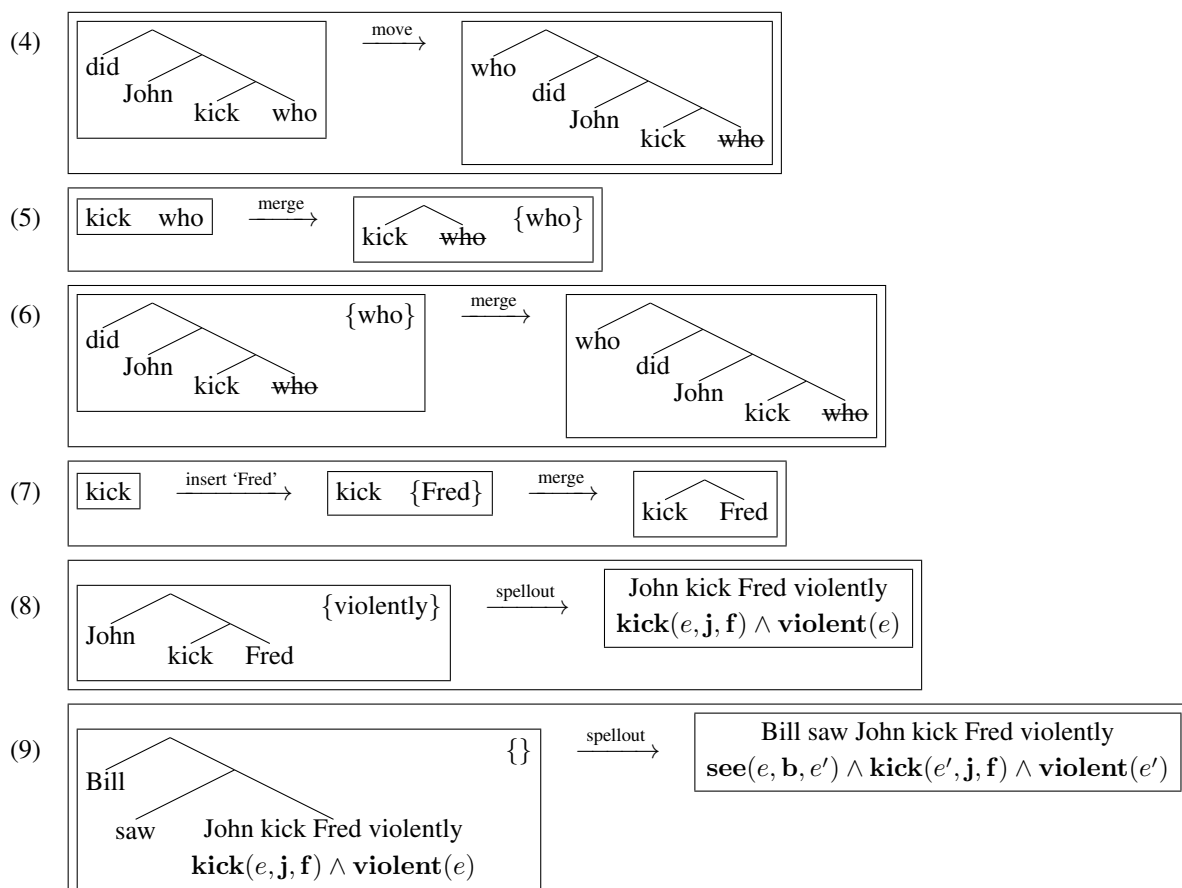
The technical details of the proposal rely on a system where "merge" and "move" are in fact two instances of a single combinatory operation. In particular, I take as a starting point the precise implementation of this view incorporated in the formalism of Stabler (2006). Stabler observes that movement, understood conventionally as in (4), revises certain structural relationships previously established by merge: specifically, the movement in (4) revises the structure earlier built by the merging of 'kick' and 'who', "taking away" the phonological content of 'who' from the direct object position. An alternative is to suppose that when 'kick' merges with 'who' early in the derivation, no phonological content is placed in the direct object position at all; rather, a thematic relation is assigned and a semantic variable introduced accordingly, but all phonological content (as well as semantic content and formal features pertaining to 'who' qua operator/binder) is "held out", as shown in (5), to be placed at the left edge later (cf. Cooper 1983, Stroik 2009). When the initial interaction between 'kick' and 'who' is conceived in this way, the later operation that places the "held out" 'who' at the left edge, shown in (6), is not formally different from any other merge step: it no longer requires reaching into and interfering with existing structures (cf. "no tampering", Chomsky 2005). Put differently: rather than splitting apart the object-position and left-edge-position properties of 'who' when movement applies, as suggested by "copy and re-merge" views, we instead split them as soon as the first merge of 'who' applies.

A consequence of this view of movement is that we require an operation roughly along the lines of, but slightly more intricate than, Chomsky's "select"; Stabler calls it "insert". The idea is as follows: whatever it is that merge does with the held out operator/binder content of 'who' in (5) — say, puts it in a certain buffer — this is what insert does with (all of) the as-yet-uninvolved 'Fred' in (7). If this buffer is where the general merge operation takes from, as it does in (6), then this had better be where 'Fred' is immediately before merge applies to it; insert is what puts it there. (Similarly, the merge step in (5) will actually be preceded by an insertion step.) Put differently: rather than analysing internal merge as copy plus external merge, we analyse external merge as insert plus internal merge. The steps in (7) consist of an application of insert, and then an application of exactly the same merge operation as in (6).

With this reconception of the relationship between merge and move in place, a novel idea presents itself: is it possible for something to be inserted and never merged? I propose that adjunction is exactly this. I take every XP to be a spellout domain in roughly the sense of Uriagereka (1999): each completed XP is "flattened" to produce a new word-like string-meaning pair, at which point as-yet-unmerged elements in the buffer can be PF- and LF-interpreted as adjuncts to it (see (8); semantic values are shown only for derived constituents).

The word-like objects thereby produced are inserted and (perhaps) merged in deriving higher XPs (see (9)). The result is a pattern of incremental interpretation that might be termed "*almost* direct compositionality" (cf. Barker & Jacobson 2007; binding facts typically associated with c-command can be correspondingly reanalysed).

   This picture of interpretation, with adjuncts *merely inserted* and arguments *inserted and merged*, dovetails neatly with the restrictive compositional semantics of event-based logical forms from Pietroski (2005). On this view canonical adjuncts are *merely conjoined* in semantics, whereas arguments must be marked with thematic relations, which I take to be determined configurationally. The distinct syntactic status of 'violently' and 'Fred' at the point where spell-out is applied in (8) is a direct reflex of this interpretive distinction. But crucially, the correct thematic marking and interpretation of arguments is sensitive to the internal structure of the XP (hence only "*almost* direct compositionality"), unlike the simple conjunctive interpretation of adjuncts. This permits adjuncts a degree of derivational freedom that arguments lack: we predict a certain range of possibilities for exactly when adjuncts may be inserted, all of which naturally correspond to *a single target of semantic modification*, whereas arguments have only a single option, dictated by their thematic role. The range of possibilities that emerges allows adjuncts to be inserted in ways that interact with movement (implemented via "holding out" as in (5) and (6)) so as to produce the kinds of additional flexibility illustrated in (1) and (2). Furthermore, adjuncts and moving constituents share a certain status in the resulting system (roughly, these kinds of constituents make non-trivial use of the buffer) and consequently it turns out that adjunct island effects such as (3) reduce to freezing effects (Wexler & Culicover 1981).

(4) $\text{did} \quad [\text{John} \quad [\text{kick} \quad \text{who}]] \xrightarrow{\text{move}} \text{who} \quad [\text{did} \quad [\text{John} \quad [\text{kick} \quad \text{\sout{who}}]]]$

(5) $[\text{kick} \quad \text{who}] \xrightarrow{\text{merge}} [\text{kick} \quad \text{\sout{who}}] \quad \{\text{who}\}$

(6) $\text{did} \quad [\text{John} \quad [\text{kick} \quad \text{\sout{who}}]] \quad \{\text{who}\} \xrightarrow{\text{merge}} \text{who} \quad [\text{did} \quad [\text{John} \quad [\text{kick} \quad \text{\sout{who}}]]]$

(7) $[\text{kick}] \xrightarrow{\text{insert 'Fred'}} \text{kick} \quad \{\text{Fred}\} \xrightarrow{\text{merge}} [\text{kick} \quad \text{Fred}]$

(8) $\text{John} \quad [\text{kick} \quad \text{Fred}] \quad \{\text{violently}\} \xrightarrow{\text{spellout}}$ John kick Fred violently $\quad \mathbf{kick}(e,\mathbf{j},\mathbf{f}) \wedge \mathbf{violent}(e)$

(9) $\text{Bill} \quad [\text{saw} \quad \text{John kick Fred violently} \quad \mathbf{kick}(e,\mathbf{j},\mathbf{f}) \wedge \mathbf{violent}(e)] \quad \{\} \xrightarrow{\text{spellout}}$ Bill saw John kick Fred violently $\quad \mathbf{see}(e,\mathbf{b},e') \wedge \mathbf{kick}(e',\mathbf{j},\mathbf{f}) \wedge \mathbf{violent}(e')$

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