

Augmented Structure-Preservation and the Tensed S Constraint

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In Minimalist terms, a basic unaddressed question about root phenomena is why (external)

Merge of the underlined elements is allowed in (1) but blocked in (2).

- (1) Mary used another company since [they could avoid flights to Chicago].
 I ignored the boss who was so angry that [we would work only until five].
 No experiment showed (that) [this metal would react with such material].
 The idea (that) [the city might close the airports] didn't occur to us.
- (2) *Mary used another company since [**flights to Chicago** they could avoid].
 *I ignored the boss who was so angry that [**only until five** would we work].
 *No experiment showed (that) [**such material** this metal would react with].
 *The idea (that) [**the airports** the city might close] didn't occur to us.

It is difficult to see how a minimalist answer can explain *in the same terms* the following restriction on **Move** (internal Merge).

- (3) To Japan I will fly in Business Class.
 That old car he bought for his vacation.
- (4) a. To fly to Japan in Business Class! What a luxury!
 Buying that old car for his vacation! How foolish!
- b. ***To Japan** to fly in Business Class! What a luxury!
 ***That old car** buying for his vacation! How foolish!

It is not widely understood how interaction of a few simple general principles, including a simplified the Structure-Preserving Constraint (Emonds 1976), successfully account for most familiar root phenomena of, e.g. English and German.

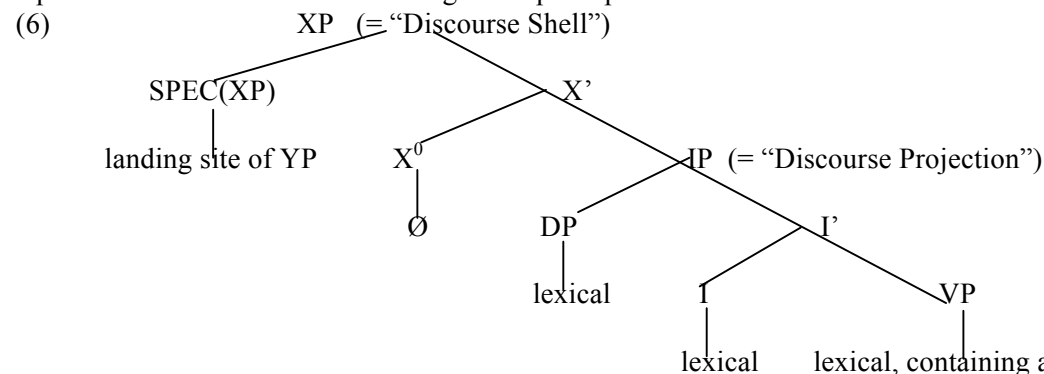
The crucial concept, discussed but not named in my earliest work, is "Discourse Projection." (Incidentally, a "root" was *never* defined as a synonym for "unembedded clause.")

- (5) **Discourse Projections.** *Unselected* finite clauses IP called Discourse Projections may be immediately dominated by *a series of categorically unspecified XPs*.

"Unselected" means a clause that is not an argument or adjunct of an underlying *lexical* X^0 , as in Emonds (1985, Ch. 3). We can call these category-less XPs "Discourse Shells." In all languages, *unembedded finite IPs are Discourse Projections*, and some languages, notably German, allow some embedded Discourse Projections to represent indirect as well as direct discourse quotation.

In (1)-(2), however, the bracketed IPs are *not Discourse Projections*. Since only SPECs of Discourse Shells serve as categorically unrestricted landing sites for movements (see below), the moved YP (in bold) in (2) & (4b) are excluded.

These Discourse Shells are what Rizzi calls e.g. TopP and FocP, which unnecessarily proliferates labels. However, different layers of shells do have different properties, which without stipulation follow from certain other general principles.



- (7) **Category Membership.** Every overt morpheme must have a category. It follows that *no lexical items can undergo (external) Merge in X in (6)*.

This explains the general lack of lexical entries for categories X such as Top and Foc.

- (8) **Lexical Selection.** Specifier and Complement XPs in trees must satisfy selection restrictions imposed by a lexical head X.

Thus, Specifiers of lexical I must be subject DP phrases, those of lexical D must be possessives, those of lexical A are measure phrases, etc. By contrast, the lack of lexical X as in (6) explains why *any category of YP can enter SPEC(XP)* in a Discourse Shell. The specific category IP in (6) is due not to selection but to (5).

- (9) [DP What beautiful skirts]_i [X Ø] that girl wears t_i!
 [DP A city like that]_i [X Ø] the professor denied t_i could be dangerous.
 [AP How long]_i [X Ø] the professor droned on t_i!
 [NP Good books]_i [X Ø] we don't have {many/ any} of t_i.
 ..., but [VP eaten that candy]_i [X Ø] she couldn't have t_i.
 [PP Down the street]_i [X Ø] the baby carriage rolled t_i.
 [PP Down the street]_i [V rolled]_j the baby carriage t_j t_i.
 [PP To which child]_i [I should] John give a book t_i ?
 DP Not one book]_i [I did] John give t_i to this child.
- (10) [DP Den ersten Teil]_i [V hat] Hans t_i verpasst.
 [NP Gute Bücher]_i [V sehen] wir hier { nicht viele/ keine } t_i.
 ..., und [VP solche Bücher gekauft]_i [V hat] Hans schon t_i.
 [PP Ins Schwimmbad]_i [V sprang] Marie t_i.

We need to explain (i) why Discourse Shells whose Specifiers have traces always seem interior (at least when fully acceptable) to those exemplifying “Left Dislocations” of various sorts, and (ii) why multiple Discourse Shells binding more than one trace, one for each YP in SPEC(XP), cannot iterate. In fact, though it rarely seemed understood, Chomsky’s original Tensed S Constraint makes exactly these predictions.

- (11) **Tensed S Constraint, or “Unique Traces Constraint.”** A trace inside a finite complement of X⁰ must be bound within XP.

This system now predicts why Rizzi’s FocP immediately dominates IP and is lower than his TopP.

The “structure-preservation” of *Barriers* (1986) grossly distorts and needlessly weakens the essence of the original Structure-Preserving Constraint, which is that categories X^k substitute for α only in positions where an X^k can appear independently. Moreover, generalizing the original SPC using Discourse Shells makes unnecessary any appeal to “root transformations.”

- (12) **Augmented Structure Preserving Constraint.** Movements are always *substitutions of α for β*, where β can’t be specified for a feature differently than α.

Hence all the free “root fronting” operations of YP in (9)-(10), which crucially cannot iterate in one clause (due to the uniqueness of SPEC positions), conform to the ASPC, because their SPEC lack any category features selected by X.

In (9) and (10), we also see instances of “root inversions” of I and V, of which German “Verb-second” is just a special case. These also conform to the ASPC, and as predicted do not iterate in one clause. As a result of movement (Internal Merge) into Discourse Shells, their X⁰ acquire category labels, though (7) prevents External Merge.

It’s possible to have no Merge at all under X in a Discourse Shell (6), However:

- (13) **Empty Categories.** All categories must be phonologically realized except as explicitly permitted by sub-theories such as binding and movement.

Since all the fronted phrases YP in (9) and (10) are moved to SPEC, all intermediate Cs (including X in a Discourse Shell) are in a c-command relation between such moved YPs and their traces. They apparently serve as links in chains, and by virtue of (13) may be empty. For extensive discussion of these links and their differences in English and German, my 2002 paper (section 4) may be consulted.

Suppose in contrast to (9) and (10), a YP in SPEC(XP) of a Discourse Shell is *externally Merged*, or in older terms “base-generated” outside a Discourse Projection. Then X⁰ can neither be null due to (13), nor lexical, because of (7). Nonetheless, there is another “last resort” (less economic) means of phonological realization of X that satisfies (13).

- (14) **Pause Prosody Corollary.** An unlinked, category-less head X⁰ must be realised in PF as a pause potential, i.e. as “comma intonation.”

We now have an explanation for why base-generated or “dislocated” constituents are set off by phonologically present commas, while moved constituents, which bind a trace, are not.