

The resuscitation of CED

Huang's (1982) Condition on Extraction Domains (CED) has been challenged in recent years both theoretically (from the rejection of government) and empirically (from the emergence of robust classes of exceptions). In a summary paper, Stepanov (2007) suggests that the empirical challenges to the CED are so great that there can be no connection between the strong islandhood of subjects and adjuncts. In this paper, I defend (a version of) the CED offering a geometric account of certain strong island effects and of classes of exceptions based on a modified version of Uriagereka's (1999) Multiple Spell-Out and a copy theory of labelling.

Uriagereka (1999) and Nunes & Uriagereka (2000) propose a system of Multiple Spell-Out (MSO) subject to last resort and version of Kayne's (1994) Linear Correspondence Axiom (LCA) which I term the 'very strict LCA':

- (1) Very strict LCA— a lexical item X precedes a lexical item Y iff X asymmetrically c-commands Y. (Nunes & Uriagereka 2000:23)

Complex left branches of any kind clearly pose a problem for (1) and so must be spelled out prior to external merge. Under Uriagereka's 'conservative approach', once a complex phrase has been spelled out it behaves like a 'compound lexical item', blocking all subextraction. As such, the same kind of phrase is transparent as a complement, but opaque in a specifier position, as illustrated in (2):

- (2) a. Who did you see [a picture of]? b. Who did [a picture of] annoy you?

The prediction is essentially that all trees will be uniformly right-branching, all (eventual) left branches being spelled out or 'atomized' prior to external merge (Spell-Out indicated by *outline font*).

While this provides a highly Minimalist account of the basic CED asymmetry between transparent complements and opaque specifiers/adjuncts, it faces the same empirical challenges raised by Stepanov (2007) (and the papers cited therein). I contend that a more explanatory account of the CED (and its exceptions) falls out from MSO if we adopt a weaker 'strict LCA' combined with a copy theory of labelling. The result is a narrow syntax which allows some highly constrained instances of complex left branches, whilst ruling out the kind in (2b).

I propose that projection involves the copying of all the unchecked uninterpretable plus the interpretable features of the probing head after merge (drawing on ideas from Cecchetto & Donati to appear and Hornstein 2009). The label then counts as a copy of the terminal which it replicates for the purposes of the LCA, and any ensuing ordering paradoxes are resolved via deletion (subject to the same economy principles as chain reduction). As such, the asymmetric c-command domain of a maximal label directly dictates *only* the linear position of the projecting head (which it replicates), and has nothing to say about the linear position of other nodes it dominates. The difference between (1) and (3) is that, according to (3), a head can still precede another head without asymmetrically c-commanding it, as long as a total ordering is defined transitively, based on other precedence pairs:

- (3) Strict LCA - if X asymmetrically c-commands Y, X precedes Y.

- (4) Asymmetric c-command – X asymmetrically c-commands all nodes dominated by its sister Z.

This different conceptualisation of labelling makes novel (apparently accurate) predictions as to which classes of specifiers and adjuncts will be strong islands and which need not be. More specifically, it will be shown that three classes of apparent CED violations receive a principled explanation from the combination of (3) and labelling as copying: (i) the non-islandhood of subjects in languages like Japanese/Turkish, (ii) the non-islandhood of *derived* specifiers in English (iii) the non-islandhood of a certain class of (low) adjuncts in English.

Lack of CED effects in Japanese/Turkish

It is well-known that, in a number of well-studied head-final languages, subjects fail to be strong islands (cf. Kural 1997 on Turkish, Lasknik & Saito 1992 on Japanese, and Stepanov 2007 for an overview):

- (5) [Op_i [Ahmet-in t_i kırma-sı]-nın beni üzdüğü] bardak
Ahmet-GEN break.INF-3SG-GEN I-ACC sadden-PAST-3SG glass

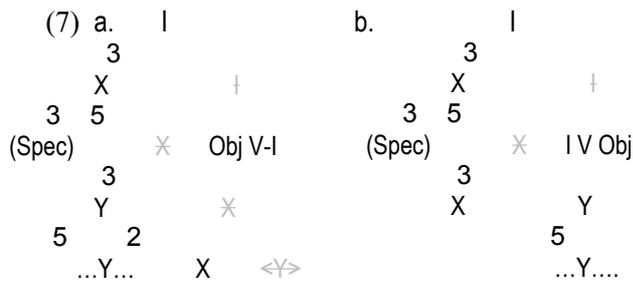
'The glass that [Ahmet's breaking] saddened me' [Turkish, Kural (1997:502)]

- (6) [Op_i [Mary-ga t_i yonda no]-ga akirakana yorimo John-wa takusan-no hon-o yonda.

Mary-NOM read that-nom is.obvious than John-TOP many-GEN book-ACC read

'John read more books than [that Mary read] is obvious.' [Japanese, Stepanov (2007:89)]

In the spirit of Kayne (1994), I assume that head-final phrases convert their complements to (additional) specifiers via comp-to-spec movement under c-selection. The crucial difference between the head final specifier in (7a) and the head-initial specifier in (7b) is that (7b) cannot be linearized by (3), whereas (7a) can. This is because the complex specifier X in (7a) contains only specifiers (after copy deletion), and so a total linear ordering is possible transitively: (spec)>Y>X, X>terminals in I-bar therefore (spec)>Y>X>terminals in I-bar. In (7b), on the other hand, no order is specified between Y and the terminals in I-bar even transitively: (spec)>X>Y, X>terminals in I-bar.



For this reason, complex specifiers of the type in (7b) will crash at PF if they have not been atomized prior to external merge (i.e. if they are not strong islands). In this way, an explanation emerges for the fact that head-final specifiers need not be, whereas head-initial specs always must be strong islands.

Extraction from derived specifiers in English

Ross (1967) notes that, in some cases, preposition pied-piping seems to rescue extraction from derived specifiers. As Chomsky (2008) shows, this is true only of *derived* subjects:

- (8) a. Of whom has a picture been taken? b. *Of whom did a picture cause the problem?

Whereas the 'very strict LCA' in (1) cannot capture this fact, it is claimed that the 'strict LCA' in (3) can. This is because, derived specifiers, unlike externally merged specifiers, need not be atomized prior to external merge. An additional PF-rescue strategy allows these structures to be linearized without the need for MSO: scattered deletion (cf. Author 2009a, b). The proposal is that extraposed complements of indefinite NumPs are essentially stranded in their base position in order to avoid MSO. The fact that this kind of extraposition is limited to the complements of underlying complements therefore receives a principled explanation (unlike adjunct extraposition which has radically different properties, cf. Fox and Nissenbaum 1999):

- (9) a. ***Pictures** always provoke a scandal of celebrities.
 b. **Pictures** appear regularly/are often seen of celebrities.

As does the fact that only the whole complement of N can be targeted for extraposition:

- (10) a. ***A book about a film** has come out about a play.
 b. A book has come out about a film about a play.

In such cases, the stranded complement remains transparent for subextraction, as well as wholesale extraction:

- (11) a. What has a book just come out about? b. About what has a book just come out?

Extraction from adjuncts

The final class of exceptions I consider come from transparent adverbs in English. Truswell (2007, 2008) proposes a semantic 'single event condition' (SEC) on extraction from adjuncts, whereby extraction is possible only if both matrix and adjunct predicate are identified with the same event:

- (12) Which play did you fall asleep watching/during/*before/*after/*because of?

- (13) Which man did you return home without talking to/in order to talk to/*because you had talked to/*after you had talked to?

I propose that this effect can be integrated into the version of MSO adopted here. Spell-Out applies as a last resort where two complex right-branching structures are merged. Where one phrase is selected by the other, it is expected that the 'complete' phrasal specifier must be atomized. Where both structures are complete phrases, however, (the adjunction case), it is unclear why the adjunct should be atomized rather than the main clause. It is proposed that the SEC might regulate atomization in such cases, forcing SO of fully specified XPs over under-specified ones. If the adjunct represents a temporally dependent event, it qualifies for SO, if both XPs modify the same event, the main clause is spelled out as it is temporally specified.

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