Extraposition, Syntactic Doubling and CED effects

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Background: Iatridou and Embick (1997) (I &E henceforth) show that *pro* contrasts with overt "*it* type" expletives in its inability to have a C/IP as a linguistic antecedent. The extraposition examples in (1) (from I &E (1997:60)) illustrate the point for English vs. Greek. I & E further show that a class of predicates which take pro_{expl} as subject (dubbed PRED2), do not conform to the pattern in (1) and allow for grammatical sentences structurally similar to (1b), such as (2); similar facts hold in all *pro*-drop languages).

Proposal: I propose that in cases like (1b), (2b-d), *pro* is generated "together" with the extraposed clause inside a BigDP, in a doubling configuration (see Belletti (2005), Cecchetto (1999)). *pro* is subsequently subextracted from the BigDP and moved to the preverbal subject position (see (3). "*it* type" expletives are not generated in a doubling configuration, but rather first merged in subject position in [Spec, T].

Analysis: This movement approach to expletive *pro* in extraposition structures leads one to predict that the locality constraints typically observed in conjunction with subextraction should characterize this case too. For example, in German (and other Germanic languages) the *was…für* ('what…for') split structure, where *was* ('what') is subextracted from an original constituent containing both *was* and *für*, is only grammatical if subextraction occurs out of object position. Hence the *was…für* ('what…for') split can only occur out of direct objects, subjects of passive verbs, subjects of Unaccusatives (4a), but it crucially cannot occur out of subjects of intransitives (4b). This follows straightforwardly from Huang's CED (or any modern reformulation of that idea). I propose that the contrast between (1) and (2) is amenable to the same explanation: if *pro* is subextracted out of a 'Big DP' in object position, no CED violation arises (see (2b-d) where both verbs (*to seem* and *to be*) are unaccusative), in contrast to (1b) where the non-unaccusative *convince* is used. In the latter case the Big DP is therefore an adjunct (or whatever corresponds to that in a theory which adjunction is dispensed with, e.g. Kayne (1994)), not a complement; as such subextraction out of it violates the CED. Since overt expletives are grammatical in similar contexts (e.g. (1b)), I conclude that they are not generated in a doubling configuration with the extraposed clause, but they are rather first merged in Spec, T. An important confirmation of the correctness of this hypothesis comes from Dutch, where both expletive *pro* and expletive *het* ('it') are possible in extraposition contexts in both object (6c-d) and subject position (5a-b) (data (5) through (7) from Bennis (1986)). Extraction from the extraposed clause in (5c-d) is only possible in the *het*-less version (see (6)). Bennis proposes that since the object position is filled by *het* in (6b), the extraposed CP is an adjunct and extraction therefore violates the CED. In (6a) there is no *het* and therefore the extraposed CP is generated in object position. No CED violation arises. Notice that the same contrast also emerges with expletive *het* vs. expletive *pro* in subject position (7). This follows immediately from my analysis: *pro* and the extraposed clause are generated together in object position in (7a), and *pro* is then subextracted, along the lines of (3). *It* type expletives cannot be generated in a doubling configuration; the only possibility for (7b) is then to generate the expletive in object position and the extraposed clause in an adjunct position. However, extraction out of it will give rise to a CED violation, on a par with (7b).

Extensions: Belletti (2005) proposes that postverbal subjects in Italian are generated in a doubling configuration: the BigDP contains *pro* and the subject; *pro* is subsequently moved to Spec, T. However, no asymmetry between verbal classes emerges; a postverbal subject is grammatical with both an unaccusative (8a) and an unergative verb (8b). Why is (8b) grammatical? Following various recent works, I assume that the Big DP subject in (8b) is not in an adjunct position, as traditionally assumed, but it is

rather generated in [Spec, v] and moved to a right peripheral Focus position (see Belletti (2005), Cecchetto (1999)). From this position, a licit extraction domain, *pro* is successfully subextracted.

(1)   a. It convinced Mary to buy us a car that we were often late
      b. *_pro_ epise   tin Maria na   mas   aγorasi aftokinito oti/pu arγsame   poles fores
            convince the Mary MOD us   buy   car   that   be-late-1PL many times
            'It convinced Maria to buy us a car that we were often late'

(2)   a. It seemed impolite that we arrived late   c. It is a shame that John will leave
      b. *pro* fanike aγenes   pu   ftasame   arγa   d. *pro* ine dropi pu o Kostas Ɵa fiγi
            seemed impolite that   arrived-1PL late   be shame that the Kostas FUT leave
            'It seemed impolite that we arrived late'   'It is a shame that Kostas will leave'

(3) $[_T \ldots [_{vP} [_{BigDP} \; pro \; [_{CP} \ldots]]]$

(4)   a. Was sind für Leute angekommen?   b. *Was haben für Leute gearbeitet?
         What are for people arrived   What have for people worked
         'What kind of people have arrived?'   'What kind of people have worked?'

(5)   a. ... dat (het) duidelijk is dat Jan ziek is c. ... dat ik ?(het) haat dat Jan ziek is
         ...that (it)   clear   is that Jan sick is   ...that I   it   hate that Jan sick is
      b. ...dat (het) gebleken is dat Jan ziek is d. ...dat ik (het) betreur dat Jan ziek is
         ...that (it)   appeared is that Jan sick is   ...that I   it   regret   that Jan sick is

(6)   a. Wat betreurde jij   dat hij gezegd had?
         What regretted you that he said   had?
      b. *Wat betreurde jij het   dat hij gezegd had?
         What regretted   you it that he said   had?
         `What do you regret that he said?'

(7)   a. *Wat is het gebleken dat Jan gezegd heeft?
         What is it appeared that Jan said   has
      b. Wat   is gisteren   gebleken dat Jan gezegd heeft?
         What is yesterday appeared that Jan said   has

(8)   a. *pro* È arrivato Gianni
            Is arrived Gianni
         'Gianni has arrived'
      b. *pro* Ha telefonato   Gianni
            Has telephoned Gianni
         'Gianni has telephoned'

References

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