Licensing ellipsis in DP: the role of NP raising

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1. Goal: explaining the conditions for silent nouns

The English pro-NP *one(s)* (to be kept distinct from the numeral *one*) is sometimes obligatory (1a), sometimes impossible (1b).

(1) John bought one big pig and . . .
  a. . . . Mary bought (the) two small *(ones).
  b. . . . Mary bought (those) two (*ones).

Lobeck 1991; Lobeck 1995; Kester 1996: possibility of omitting an overt pro-NP linked to agreement features on the adjective.

Corver and van Koppen (2011): a missing N must still be expressed in a reduced, suffixal form (cf. Bernstein 1993 on Italian *un-o rosso* 'a red one').

Problem: These analysis are designed for singular count cases. But plural/mass *one(s)* can also be omitted as in (2): no agreement suffix, no gender, no modifiers.

(2) John bought one big pig and Mary, {two / at least four / several}.   *two = two pigs*

2. Noun-less determiner are not pronouns

Maybe DETs have a pronominal version, 'DET-PRO' (e.g. *two_pro*, *many_pro*): no need for 'silent Ns'.

Problem: semantic type of 'NUM-PRO'?

- DET-PRO cannot denote INDIVIDUALS, like *they/him* (<e>-type):
  - freely modifiable: (*exactly {three/*they} came*)
  - no reflexives: (*twoselves, *manyselves*)
  - post determiner position: *Mary bought those/the last two.*
- 'DET-PRO' cannot denote PROPERTIES, either (<et>-type).
  - why not modifiable by ADJs, just like pro-NP *one*? (*two tall. / *tall two.*)
  - *Mary bought two* would become like *Mary bought pigs* (*pigs/two* = bare plurals). But unlike with bare plurals, *specific reference* is possible:

  (3) Remember the kids I was chasing? I am still looking for { **??children / two** }: Marc and Annie**.**

- Finally, certain null-nominal determiners are undisputedly *quantificational*:

  (4) John wants to buy only some pigs. Mary would like to buy *exactly zero / most.*

Our approach: determiners are never pronouns. But they can sometimes be followed by a silent nominal pro-form (cf. Borer and Roy 2010, a.o.). We indicate it as ONE(S)—the silent counterpart of 'one(s)'.

Question: What licenses ONE(S)?

3. Our proposal

The mechanism in a nutshell:

- The lower part of the DP moves covertly to [Spec,DP] (even when D is overt).
- The (non [+singular,+count]) silent NP, ONE(S), is licensed if it ends up in a [Spec,DP] where D contains an overt DET (5), or an overt Num raised to D (see (7) for evidence for this movement).

  (5) $[_{DP} [_{NP} ONES]$, the $[_{NumP}$ two $[_{FP/NP} ONES]_i]]$

- Sometimes ONE(S) needs to pied-pipe modificational material, e.g. relational adjectives like *Spanish*. When this happens, the null ONE(S) is no longer directly in [Spec,DP], so it is not licensed (6a): overt *one(s)* must be used instead (6b).

  (6) a. *$[_{DP} [_{FP}$ Spanish $[_{NP} ONES]]_i$ the $[_{NumP}$ two $[_{FP/NP}$ Spanish $[_{NP} ONES]],]]$
    b. $[_{DP} [_{FP}$ Spanish $[_{NP}$ ones$]]_i$ (the) $[_{NumP}$ two $[_{FP}$ Spanish $[_{NP}$ ones]],]]$

(7) I remember {*(those) wonderful two weeks / two wonderful weeks} we spent together.

Our debts: we build on Cinque's (2010) theory of direct modification and Longobardi's (1994) idea of covert N-raising in bare plurals (reinterpreted as phrasal movement to a Spec position, as in Borer's 2004 discussion of Hebriew, or Heycock and Zamparelli 2003).

4. Cinque (2010)

Cinque argues that the noun's modifiers structurally fall in two classes: *direct* and *indirect*, with different properties. The NP proper can raise along with the whole 'direct modifier' projection (FP, possibly an 'extended NP' projection) (8a), but it cannot strand the FP, yielding the impossible order in (8b).

(8) a. $[_{DP}$ **Det Num** $[_{FP}$ *Direct-modifiers* **NP**$]_i$ *Indirect-modifiers* $t_i]$.
    b. *$[_{DP}$ **Det Num NP**$_i$ *Indirect-modifiers* $[_{FP}$ *Direct-modifiers* $t_i]]$
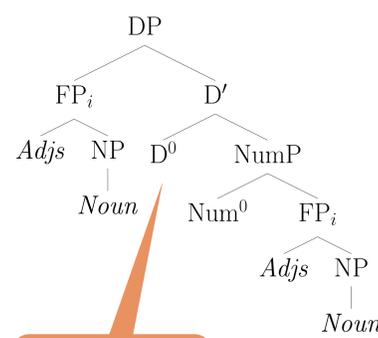
We suggests that the same constraint applies to covert movement: if direct modifiers are present, the NP cannot raise to [Spec,DP] alone, stranding them.
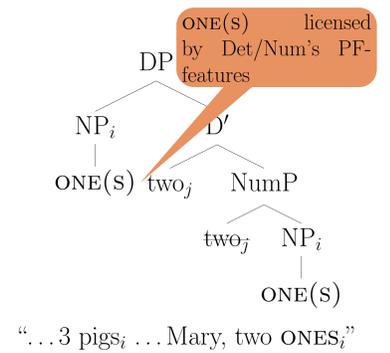
5. Generalized F/NP-to-[Spec,DP]

Longobardi (1994) and Zamparelli (1996,Ch.4) propose that in English nominal part of a bare plural/mass raises covertly to D^0, thus acquiring a kind-denoting semantics and licensing D^0. We propose to extend this mechanism to all nominals, via copy to [Spec,DP] (or DP adjunction), possibly as an alternative way to allow nominals to provide a range for the variable denoted by D (cf. Borer 2004). Moreover, we propose that this way of licensing silent elements can run both ways (i.e. from overt D to a covert XP in [Spec,DP] and vice-versa), probably via PF-feature agreement.

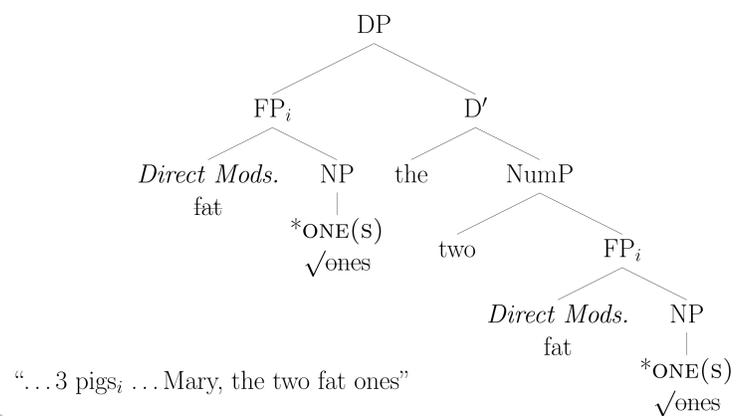However, if (overt) direct modifiers have raised along with the null element, they interfere with the process.

Bare F/NP Raising

D⁰ licensed by FP's or NP's PF-features

Our analysis

ONE(S) licensed by Det/Num's PF-features

"...3 pigs_i ...Mary, two ONES_i"

6. Pied-piped direct mods block null N

"...3 pigs_i ...Mary, the two fat ones"

7. Odds 'n ends (ask us!)

- Singular count *one*: can only head-raise, like proper names (cf. Longobardi 1994), yielding *one should always be careful with data* (impersonal *one*).
- Parametric variation:
  ⇒ Italian: ONE(S) licensed only when overt *ne* 'one(s)' is impossible.
  ⇒ German: ONE(S) licensed even when direct mods are present (*Ich habe zwei rote* 'I have two red (ones)')

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