

On becoming a pronoun Towards a unified theory of ellipsis

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MAIN THEME OF THIS TALK

An attempt to do away with the dichotomy between the *pro*- and the PF-deletion theory of ellipsis.

CENTRAL PROPOSAL

An extension of the Postal/Elbourne-analysis of pronouns as NP-ellipsis to other instances of ellipsis.

CENTRAL DATA

- Movement out of and reconstruction into overt proforms
- Vehicle change
- Antecedent-containing antecedents

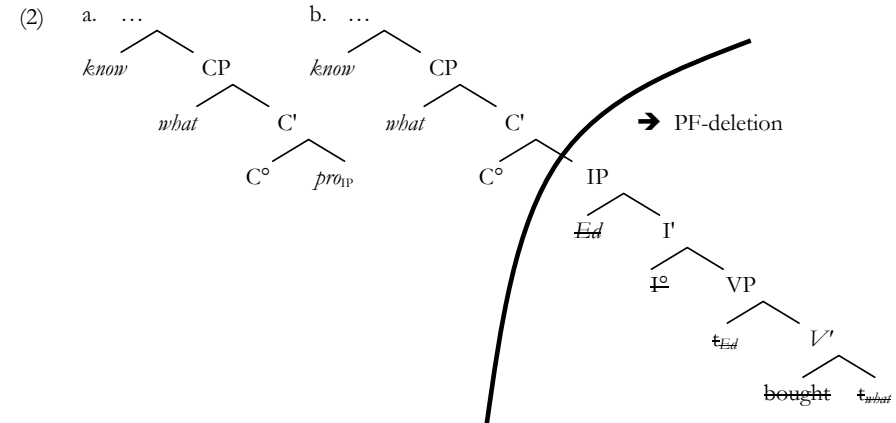
OUTLINE OF THE TALK

1. Introduction: *pro* vs. PF-deletion
2. Problems with the dichotomy
3. A first step towards unification: pronouns = NP-ellipsis
4. The proposal: proforms are configurational
5. Supporting evidence and advantages
6. A challenge for the account: (non-)extraction out of ellipsis sites
7. Summary and conclusions

1. Introduction: *pro* vs. PF-deletion

starting point: there are two types of ‘structural’ analyses of ellipsis: *pro* (cf. Lobeck 1995, Hardt 1993, Chung e.a. 1995) and PF-deletion (cf. Ross 1969, Sag 1976, Merchant 2001)

(1) Ed bought something, but I don't know what [\varnothing].



typical argument for the *pro*-theory: just like ordinary pronouns, ellipsis sites allow for split antecedents (cf. Hardt 1993)

- (3) John_i told Bill_j that they_{i+j} should leave together.
 (4) I can [_{VP} walk]_i and I can [_{VP} chew gum]_j. Gerry can [_{VP} ___]_{i+j} too, but not at the same time.

typical argument for the PF-deletion theory: just like full-fledged non-elliptical structures, ellipsis sites can host traces of movement

- (5) I know who John invited and who he didn't [_{VP} ___].
 (6) I know who John invited and who_i he didn't invite t_i.

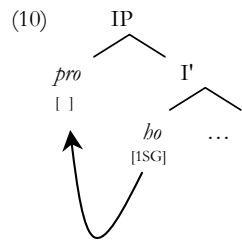
2. Problems with the dichotomy

The dichotomy between the two ellipsis theories is problematic in several respects:

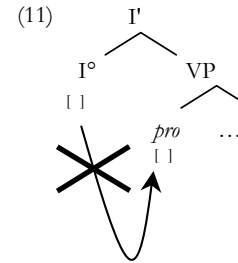
- (a) one and the same example can provide evidence for both theories, e.g. extraction out of split antecedents:
- (7) John wants to [VP give money to Bill]_i and Peter wants to [VP donate paintings to Susan]_j, but to Jenny neither of them will [VP ___]_{i+j}
- (8) John wonders which books_i Fred [VP gave t_i to the library]₁ and Carol wonders which books_j Bill [VP loaned t_j to the library]₂, and Joe wonders which books Jane did [VP ___]₁₊₂
- (b) it seems uneconomical to have two independent yet equivalent mechanisms in the grammar for creating elliptical structures
- (c) the GB-theory of *pro* has come under fire in recent minimalist theorizing (cf. in particular Holmberg 2005, Roberts 2006):

GB-theory of *pro*: *pro* is a pronominal which is inherently unspecified for phi-features → it is the verbal inflection(al head) which provides *pro* with content (cf. e.g. Rizzi 1986):

- (9) *pro* ho parlato a tuo fratello
 have.sg spoken to your brother
 'I have spoken with your brother.' (Italian)



Problem: under an Agree-based analysis of agreement, the traditional theory of *pro* falls apart: I° is merged with a set of unvalued phi-features; it probes its c-command domain for a matching set of valued phi-features → if *pro* is unspecified for phi-features, it is not a suitable Goal for I° and the derivation crashes



3. A first step towards unification: pronouns = NP-ellipsis

Postal (1969) (in updated terminology): pronouns are D-heads whose NP-complement has undergone deletion:

- (12) a. The man thinks he's happy.
 b. The man thinks [DP he [~~NP man~~]] is happy

Some supporting evidence:

- (a) pronouns with overt NP-complements
- (13) a. [DP You [NP troops]] will embark, but the other troops will remain.
 b. Let [DP us [NumP three [NP men]]] leave first.
- (b) homophony between determiners and pronouns
- (14) a. Jean voit **la** fille.
 John sees the girl.
 'John sees the girl.'
 b. Jean **la** voit.
 John her sees
 'John sees her.' (French)
- (c) the "pronoun = NP-ellipsis"-analysis provides a straightforward account of donkey anaphora (Elbourne 2001)
- (15) Every man who owns a donkey beats [DP it [~~NP donkey~~]].

(d) Perlmutter & Orešnik (1973): agreement on the adjective in Slovenian NP-ellipsis is identical to the agreement one finds with overt pronouns:

part one: agreement between A and N

(16) Hočem {navaden / * navadnega} površnik.
 I.want ordinary.MASC.INANIM ordinary.MASC.ANIM overcoat.MASC.INANIM
 'I want an ordinary raincoat.'

part two: in NP-ellipsis the agreement on the A changes

(17) Hočem {* navaden / navadnega} [NP ____].
 I.want ordinary.MASC.INANIM ordinary.MASC.ANIM
 'I want an ordinary one.'

part three: that same agreement is found with overt pronouns

(18) Včeraj smo našli mizo {pomazano / * pomazanega}
 yesterday we found table stained.FEM.INANIM stained.MASC.ANIM
 s krvjo.
 with blood
 'Yesterday we found the table stained with blood.'

(19) Včeraj smo ga našli {* pomazano / pomazanega}
 yesterday we it found stained.FEM.INANIM stained.MASC.ANIM
 s krvjo.
 with blood
 'Yesterday we found it stained with blood.'

note: from the point of view of the *pro*-vs-PF-deletion-debate, the Postal/Elbourne-approach is a way of having your cake and eating it: something can be at the same time pronominal and still have internal syntactic structure

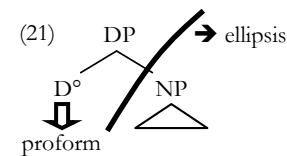
4. The proposal: proforms are configurational

our proposal: while Postal & Elbourne claim that pronouns are ellipsis sites, we claim that ellipsis sites are pronouns (or more generally, proforms):

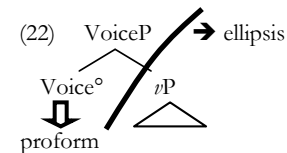
(20) Proforms as configurations

A proform is a functional head whose complement has been elided.

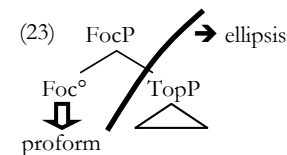
NP-ellipsis



VP-ellipsis (cf. Johnson 2004, Baltin 2008)



sluicing (cf. Baltin 2006)



5. Supporting evidence and advantages

5.1 Extraction out of and reconstruction into proforms

prediction: if proforms have internal syntactic structure, then it should in principle be possible to move out of and reconstruct into them

5.1.1 VP-proforms in Danish (Houser, Mikkelsen & Toosarvandani 2007)

Danish allows VPs to be pronominalized by the demonstrative pronoun *det*:

- (24) Han siger han kan h ekle, men selvf lgelig kan han ikke det.
 he says he can crochet but of.course can he not DEM
 ‘He says he can crochet, but of course he can’t.’

This type of VP-pronominalization is also allowed in unaccusatives (25), passives (26) and raising contexts (27), suggesting that extraction is possible out of *det*:

- (25) Bare toget ville bryde sammen lige nu! Men det
 just train.the would break together right now but DEM
 gjorde det selvf lgelig ikke!
 did it of.course not
 ‘If only the train would break down right now! But of course it didn’t!’

- (26) Det var forste gang, jeg  nskede at blive afsat p  stedet og
 it was first time I wanted to become dismissed on place.the and
 det blev jeg.
 DEM became I
 ‘It was the first time I had wanted to be dismissed on the spot and I was.’

- (27) Han lader til at have glemte alt om aftalen, men det
 he seems to that have forgotten all about deal.the but DEM
 g r hunikke.
 does she not
 ‘He seems to have forgotten about the deal, but she doesn’t.’

Under the approach presented here, these facts are expected: the proform contains elided syntactic structure that can host the Λ -trace:

- (26)’ ... I_i became [_{NP} [_{VP} *det*] [_{VP} dismissed t_i]] (cf. section 6 for why this is VP- rather than *t*P-ellipsis)

5.1.2 Japanese pronominal sluicing (Nakao & Yoshida 2005)

Japanese has a construction that looks like sluicing (and has the same meaning), but includes the overt pronoun *sore*:

- (28) John-ga dareka-ni at-ta ga watasi-wa **sore-ga** dare-ni da
 John-nom someone-dat meet-past but I-top it-nom who-dat be
 ka sira-nai.
 Q know-not
 ‘John met someone, but I don’t know who.’

This construction seems parallel to an overt cleft construction:

- (29) John-ga dareka-ni at-ta ga watasi-wa John-ga at-ta
 John-nom someone-dat meet-past but I-top John-nom met-past
 no-ga dare-ni da ka sira-nai.
 C-nom who-dat be Q know-not
 ‘John met someone, but I don’t know who it was.’

However, the embedded cleft clause and the overt pronoun cannot co-occur:

- (30) * John-ga dareka-ni at-ta ga watasi-wa John-ga at-ta
 John-nom someone-dat meet-past but I-top John-nom met-past
 no-ga sore-ga dare-ni da ka sira-nai.
 C-nom it-nom who-dat be Q know-not
 ‘John met someone, but I don’t know who it was.’

Conclusion: it looks like the *sore-ga* is just a pronominalized version of the entire presuppositional CP (note that this CP is a nominalized clause that has nominative case, just like *sore-ga*).

However: the ‘sluiced’ wh-phrase in (28) shows the same case it does in the full clausal version in (29), suggesting that at some point in the derivation there was a dative case assigner in (28) as well. What’s more, the pivot can reconstruct into *sore-ga* for principle A of the Binding Theory:

- (31) John_i-ga dareka-o seme-ta ga watasi-wa sore-ga zibun-zisi-o
 John-nom someone-acc blame-past but I-top it-nom himself-dat
 kadooka sira-nai.
 whether know-not
 ‘John blamed someone, but I don’t know whether it was himself.’

Under the approach presented here, these facts are expected: the proform contains elided syntactic structure that can host the trace of the wh-phrase and can serve as a reconstruction site for binding:

- (32) John_i-ga dareka-o seme-ta ga watasi-wa [_{CP} ~~t_{wh} John_i ga t_{zibun-zisi-o} seme-ta~~] [_{C°} sore]] -ga zibun-zisi-o kadooka sira-nai.
 John-nom someone-acc blame-past but I-top John-nom it-nom
 blamed-past it nom himself-dat whether know-not
 ‘John blamed someone, but I don’t know whether it was himself.’

5.2 *Pronominal properties of ellipsis sites*

prediction: if pronominalization is a by-product of ellipsis, then we expect ‘pronominal effects’ to show up in elliptical contexts

5.2.1 **Vehicle change**

Fiengo & May (1994): R-expressions can be converted into pronouns under ellipsis:

- (33) a. We didn’t think that John_i would be arrested, but he_i did ____.
 b. * ...but he_i did think that John_i would be arrested.
 c. ...but he_i did think that he_i would be arrested.

Under the approach presented here, these facts are expected: inside the VP-ellipsis site, the DP *John* can undergo NP-ellipsis, and as such ‘convert’ into a pronoun:

- (34) ...he did think that [_{DP} he [_{NP} John]] would be arrested.

5.2.2 **Ellipsis-containing antecedents**

Schwarz (2000): an ellipsis site contained in the antecedent for another ellipsis site, can receive a ‘sloppy’ reading (cf. also Elbourne 2008)

- (35) When John had to cook, he didn’t want to [_{VP1} ____]. When he had to clean, he didn’t [_{VP2} ____] either.
 (36) possible reading: VP₁ = *cook*
 VP₂ = *want to clean*

Under the approach presented here, these facts are expected: the antecedent for the ellipsis of VP₂ contains an ellipsis site, which under the present approach is equivalent to saying that it contains a proform; this proform can independently take the VP *clean* as its antecedent, leading to the reading in (36)

5.3 *The feature [±pronominal]*

Chomsky (1982): both overt and covert DPs can be taxonomized on the basis of the features [±anaphoric] and [±pronominal]:

- (37) a. [-pronominal, +anaphor]: reflexives and reciprocals
 b. [+pronominal, -anaphor]: pronouns
 c. [-pronominal, -anaphor]: proper names and full DPs
 d. [+pronominal, +anaphor]: (does not occur)
- (38) a. [-pronominal, +anaphor]: Λ-trace
 b. [+pronominal, -anaphor]: pro
 c. [-pronominal, -anaphor]: \bar{A} -trace
 d. [+pronominal, +anaphor]: PRO

However, the past decade this feature matrix has been severely called into question (cf. in particular Chomsky & Lasnik 1993, Panagiotidis 2003, Roberts 2006). What’s more, the cases of ‘conversion into a pronoun’ discussed above would amount to the addition of the feature [+pronominal] under the Chomsky (1982)-approach (cf. Fiengo & May 1994), but this would violate Inclusiveness (Chomsky 1995).

The approach presented here does not inherit any of the problems raised by the [±anaphor, ±pronominal]-feature matrix: pronouns are defined configurationally and they are not featurally distinct from full DPs.

5.4 *Elbourne (2008): ellipsis sites as definite descriptions*

Elbourne (2008): ellipsis sites are definite descriptions; they are the complement of a silent determiner THE

- (39) John likes candy and Mary does too.
 (40) ... and Mary does [_{DP} t_{does} [_{THEP} THE [_{NP} like candy]]]

While this account is in spirit very similar to ours, it makes a number of incorrect predictions when silent THE is compared with overt *the* (cf. May 1977 for the facts about overt *the*):

- (a) THE allows for extraction, but *the* doesn't
- (41) I know who John invited and who_i he didn't [_{NP} t_{didn't} [_{THEP} THE [_{VP} invite t_i]]].
- (42) * Who_i did you see the picture of t_i?
- (b) *the* is a barrier for NPI-licensing, but THE isn't
- (43) * John didn't see the pictures of any of the boys.
- (44) John didn't see pictures of any of the boys, and Bill didn't [_{NP} t_{didn't} [_{THEP} THE [_{VP} see pictures of any of the boys]]]either.

6. A challenge for the account: (non-)extraction out of ellipsis sites

problem: if all ellipsis sites initially contain full syntactic structure, how come extraction out of ellipsis sites is not freely available?

e.g. no extraction out of Null Complement Anaphora (Depiante 2001)

- (45) Juan quiere ir a Boston, y María también quiere [e]
 Juan wants go to Boston and María also wants
 'Juan wants to go to Boston, and María too.' (Spanish)

- (46) * Juan sabe qué libro María quiere leer, y Pedro sabe
 Juan knows which book María wants read and Pedro knows
 qué revista Ana quiere [e].
 which magazine Ana wants (Spanish)

e.g. no A'-extraction out of Danish VP-pronominalization (Houser, Mikkelsen & Toosarvandani 2007)

- (47) * Jeg ved hem Susan kildede, men jeg ved ikke hvem Palle
 I know who Susan tickled but I know not who Palle
 gjorde det.
 did DEM
 INTENDED: 'I know who Susan tickled, but I don't know who Palle did.'

e.g. no scrambling out of Japanese pronominal sluicing (Nakao & Yoshida 2005)

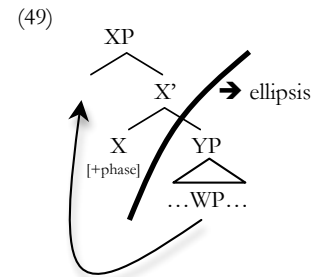
- (48) * John-wa dono gakusei-ga Smith sensei-ni at-ta ka
 John-top which student-nom Smith teacher-dat meet-past Q
 siteiru-ga Brown sensei-ni-wa sore-ga dono gakusei-ga ka
 know-but Brown teacher-dat-top it-nom which student-nom Q
 sira-nai
 know-not
 INTENDED: 'John knows which student met prof. Smith, but he doesn't know which student met prof. Brown.'

Given that extraction vs. non-extraction is traditionally seen as an argument for PF-deletion vs. *pro* (cf. Van Craenenbroeck 2004/to appear for discussion), it looks at first sight like our analysis overgenerates in these cases.

solution: the interaction between ellipsis and phase theory

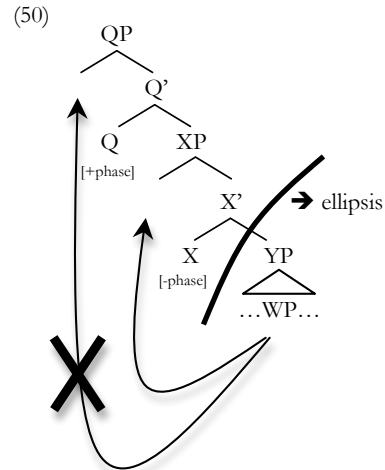
Baltin (2008): the (im)possibility of extraction out of an ellipsis site is not determined by *pro* vs. PF-deletion, but rather by whether or not the ellipsis-licensing head is a phase head

option #1: the head licensing ellipsis is a phase head



Assuming there is no extrinsic ordering in the grammar, WP can be extracted to the edge of XP (= an intermediate landing site for successive cyclic movement) and hence can move out of the ellipsis site.

option #2: the head licensing ellipsis is not a phase head



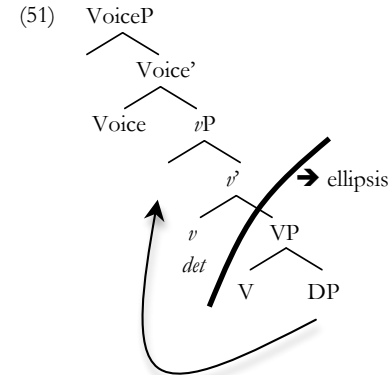
When X is merged, it can enter into an Agree-relation with WP, possibly accompanied by Internal Merge. However, when the phase head Q is merged it can no longer probe into the complement of X because that phrase has been elided. As a result, extraction out of the ellipsis site is no longer an option.

note: what this analysis presupposes, is that ellipsis has an effect in/on narrow syntax (*pace* a pure PF-deletion approach). There are various ways in which this can be implemented: as actual deletion in syntax (cf. Baltin 2008) or as a form or early spell-out rendering the elided phrase inaccessible for further computation.

This approach can account for the variable extraction judgments in Danish, under the following three assumptions (the first two are argued for by Baltin 2008):

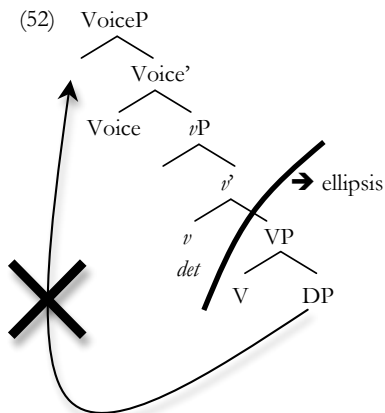
- Voice° rather than v° is the clause-internal phase head
- subject raising in passive/unaccusative proceeds through spec v P
- Danish *det* is a v° -proform

part one: A-movement out of *det*



v is at the same time the head licensing ellipsis (i.e. converting into a proform) and attracting the underlying object to its specifier. Given the lack of extrinsic ordering in the grammar, this extraction is allowed.

part two: no Λ° -movement out of *det*



The head attracting the wh-object to its specifier is the phase head Voice°. However, at the point at which this head is merged, VP has already been elided and as a result is no longer accessible for syntactic operations.

note: this predicts that if A'-movement were to make a stopover in spec/P, it should be able to extract out of *det*. This prediction is borne out, as derived subjects can be wh-moved out of *det*.

- (53) Jeg ved at bade Susan og Palle gerne ville vælges til formand,
I know thatboth Susan andPalle happily would elect.pass to chairman
men jeg ved ikke hvem af dem blev det.
but I know not who of them became DEM
'I know that both Susan and Palle wanted to be elected chairperson, but I don't know which of them was.'

A similar line of reasoning can be applied to NCA and Japanese pronominal sluicing:

- (a) Japanese: ellipsis is licensed by a non-phase head that attracts the wh-phrase to its specifier; scrambling targets a higher position and hence is trapped in the ellipsis site
(b) NCA: ellipsis is licensed by a non-phase head that doesn't attract anything to its specifier (it has no EPP-feature); as a result, extraction is categorically excluded

7. Summary and conclusions

- The *pro*- and the PF-deletion theory of ellipsis can be unified under the hypothesis that proforms are the spell-out of ellipsis (adopting and extending Postal 1969).
- This implies that proforms are defined configurationally: a proform is a functional head whose complement has been elided.
- This approach not only accounts for the sometimes ambivalent properties of ellipsis sites, it also straightforwardly captures the fact that overt proforms can sometimes be moved out of or reconstructed into.
- The (im)possibility of extraction out of an ellipsis site is not due to *pro* vs. PF-deletion, but rather to the interaction between ellipsis and phase theory.

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