A movement approach to DP-internal ellipsis

Guglielmo Cinque – Ca' Foscari University, Venice

cinque@unive.it

RoLinC, Cambridge, March 7 2023.

The literature on DP-internal ellipsis has mainly addressed the following two conditions under which ellipsis can apply:

(i) **the proper formulation of identity, or rather non-distinctness, required for 'deletion'** (cf. Saab 2010, Merchant 2019: 6, among many other contributions)

(ii) **the possible ellipsis 'licensors' (i.e the categories preceding the ellipsis site):** e.g., in English, (certain) quantifiers, numerals, (plural) demonstratives, possessors, superlative (and certain uses of) adjectives (cf. Günther 2013, Kayne 2021, Manlove 2021, and references there), which also determine **the possible sizes of the ellipsis site (the structures following the 'licensor')** (see (1) for one of the largest):

(1) [QP_{Univ} [~~DEMP~~ [~~NUMP~~ [~~AP~~ [~~NP~~]]]]:

All (of) these five large suburbs have robust connectivity to the port and all ~~(of) these five large suburbs~~ are connected to the new highway.

Actually the question of licensing may be ill posed (though it raises questions that need to be answered).**[Note 1]** For example *to* in English appears to be a licensor given sentences like (2)a.

(2)a. *You shouldn't play with rifles because it is dangerous to* __

[Note 1] For example, why are possessors licensors in Japanese but not Persian (Craenenbroeck and Temmerman 2019: 895 and 960f).

but (2)b. and (2)c. show that something else may be at stake, arguably syntactic movement as their ungrammaticality appears related to the subject and the complex NP islands, respectively:

(2)b. *You shouldn't play with rifles because [[to__] is dangerous] (Lobeck 1995: 165) **[Note 2]**

   c. *I reviewed Joe's attempt to find Holly while you reviewed [José's attempt [to__]] (Johnson 2001: 445) [see Johnson's (2001: §1) discussion; and also Thoms 2010: §3.6.1]

Aligning with the work of many others (Johnson 2001, Ntelitheos 2004, Kayne 2006, 2012, 2021, Fitzpatrick 2006,…) I would like to present additional evidence that ellipsis is dependent on the prior movement of the constituent to be elided.

[Note 2] Johnson (2001: note 7), cites Mark Baltin's *For Mary to leave wouldn't bother me, but [for Sally to__] would.* Negation also makes ellipsis possible after *to* (*To agree would be a big mistake; not to__would be an even bigger one*, Richard Kayne, p.c.). [Perhaps, here, the presence of a CP or NegP might provide room that permits VP-movement to remain within the island].

Of the two main types of ellipsis **[Note 3]**, "deletion under identity (with a linguistic antecedent)" and "specified deletion" (antecedentless deletion of a specific functional **[Note 4]** morpheme or class of functional morphemes) (Wasow 1978, van Riemsdijk 2002, 2003, Kayne 2020, 2021), the second (specified deletion) shows some clear cases that deletion depends on the prior movement of the constituent to be elided.

[Note 3] For a possible third type of ellipsis see Kayne (2020,§3).

[Note 4] Cf. Wasow (1978: 97): "Specified deletions may delete only grammatical formatives (or 'function words'); and grammatical formatives may not be controllers for deletions under identity." Kayne (2020: 105): "Antecedentless deleted/silent elements are limited to the functional part of the lexicon."

_To_ 'it' deletion in Czech (Toman 1996)

One piece of evidence for this conclusion comes from an exception to the clitic second requirement on clitics in Czech. Clitics such as the auxiliary _bych_ may occur in first position when a pronominal _to_ 'it' is missing, but understood as present. See (3)a. As explicitly observed in Toman (1996) this should be related to the possibility of not pronouncing the pronominal _to_ after moving it to first position as in (3)b. Notice that _to_ cannot be deleted in situ, when something else occupies first position ((3)c.):

(3)a. Bych netvrdil.   (Toman 1996: 505)

    would.1sg not.claim

  b. To bych netvrdil   (Toman 1996: 505)

    'I wouldn't claim it'

  c. *dnes bych _ netvrdil   (Lucie Medová-Taraldsen, p.c.)

    today would.1sg not.claim 'Today I wouldn't claim it'

English Aux-Drop (Fitzpatrick 2006)

(4)a. Anyone seen John today? (cf. Has anyone seen John today? and *Anyone has seen John today.)

    b. Anybody want a hot dog? (cf. Does anybody want a hot dog? and *Anybody dóes want a hot dog.)

Generalization: "Aux-drop is possible only when the missing auxiliary has been raised at the root level and would be left-most in the pronounced structure." (Fitzpatrick 2006: 402)

That deletion depends on the prior movement of the constituent to be elided is also shown by certain cases of the other type of deletion (deletion under identity with a linguistic antecedent). One such case is represented by German object "Vorfeld-deletion" or object Topic drop.**[Note 5]**

[Note 5] A similar pattern is found in Dutch (cf. Koopman 2000: 352), and other Germanic languages - Sigurðsson 2011: §2). The fact that a constituent may move to a left edge is no guarantee that it can also be elided. This may depend on properties of the landing site, which may be different in the overt and in the null (elided) cases, as noted in Koopman (2000: Chapter 11, fn.11) for the overt and null topics in both German and Dutch. Kayne (2006) in effect claims that silent elements can never be in the same position as their pronounced counterparts.

German Vorfeld object Deletion (or **object Topic-Drop)** (Ross 1982; Trutkowski 2016)

(5)A: [$_{CP}$ Ich [mag [$_{IP}$ _ _ den Hans]]].   (Trutkowski 2016: 16)
   I like the.ACC Hans
  'I like Hans.'
 B.a. *[$_{CP}$ Ich [mag [$_{IP}$ _ auch]]].   (Trutkowski 2016: 16)
  b. [$_{CP}$ ~~den~~ [Mag [$_{IP}$ ich __ auch]].
   'I like him too.'

German is a strict V2 language in main clauses. An apparent exception is when a constituent (here the pronoun *den*) raises to the first position of the clause and is not pronounced (under identity with an antecedent in the linguistic context).

I will now try to argue that movement prior to deletion is also involved in "deletion under identity (with a linguistic antecedent)" **within DP.** The basis for this conclusion is that movement appears to account for a particular generalization governing DP-internal ellipsis and the cross-linguistic word-order possibilities inside DP, permitting a unification.

The two conditions on ellipsis mentioned above (non-distinctness and licensing) do not exhaust the problem of DP-internal ellipsis. Not all potential DP-internal deletions under non-distinctness and appropriate licensing are grammatical.

One first observation relevant to the question of which DP-internal deletions are possible and which are impossible is the requirement that the target of deletion be a constituent:

For example, under the plausible constituency of a phrase like 'three hundred books' as [[three hundred] books] (See Kayne 2006, pace Ionin & Matushansky 2006, 2018) 'hundred' and the Head noun in the second conjunct cannot be deleted together as they are not a constituent.

(6)a.They have three hundred books and we three (*~~hundred~~) ~~books,~~too. (Kayne 2006:§9)
  b. Elle a [[trois cents] livres] et lui en a deux (*~~cents~~) ~~livres~~.
    'She has three hundred books and he has two (*~~hundred~~) ~~books~~.'
    (Marie-Christine Jamet, p.c.)
  c. Juan tomó dos cientas fotos, y Maria tomó tres (*~~cientas~~) ~~fotos~~.
'Juan took two hundred photos and Maria took three(*~~hundred~~) ~~photos.~~'
(adapted from Tatsumi 2021: 16)

That the target of DP-internal deletion be a constituent is a necessary but not a sufficient condition. There are many constituents which cannot be the target of deletion within the DP, even under identity with an antecedent.

For example, Kayne (2012: 78) noted that a sentence like (7) cannot be interpreted as 'Mary has written four papers, whereas John has only written four squibs', and proposed the condition in (8):

(7) Mary has written **four** papers, whereas John has only written squibs.

(8) Numerals cannot be left silent unless their (following) associated noun is also left silent.**[Note 6]**

[Note 6] This is also true of Chinese (Law 2012: 112) with the same linear order as English (Dem Num A N) and of Italian, with the linear orders Dem Num A N and Dem Num N A, as well as of Welsh, and Basque, which have the linear order (Det) Num N A Dem

(i)a. y tair cath ddu hynny a'r cathod gwyn hyn (Welsh, Mair Parry, p.c.)
    the.PL three.F cat.F.SG black.SG that.PL and cats white this.PL
  'those three black cats and these (*three) white cats'
  b. Hiru katu beltz horiek eta katu zuri hauek (Basque, Beatriz Fernández Fernández, p.c.)
    three cat black those and cat white these
    'Those three black cats and these (*three) white cats.'
And it is true of the Tibeto-Burman language Naxi (Law 2012: §6), which has the order N A Dem Num (CLF):
(ii) *ɑ55lia13 the33ʐ33 sɯ55 phe33 mbər55 se31, ɑ55xɯa33 lui55ve31 phe33 mbər55 se31.
    Alian essay three CLF write Perf Ahua thesis (*three) CLF write Perf
    'Alian wrote three essays and Ahua wrote theses'

This generalizes to other nominal modifiers. So, for example Emonds (2012: 330) noted that in an example like (9) neither the **quantifier** *any* nor the **adjective** *young* can be silent (and interpreted as present) in the second conjunct when the noun is pronounced:

(9) Can we hire [**any young** applicants] or [two applicants with tied scores]?

Not interpretable as: Can we hire **any two applicants with tied scores**?

Nor as: Can we hire **two young applicants with tied scores**?

In addition to cardinal numerals ((7)) above, the indefinite quantifier *any*, and pre-nominal adjectives ((9)), other nominal modifiers cannot be left silent if the noun is pronounced: for example, ordinal numerals ((10)), multal/paucal quantifiers ((11)), demonstratives ((12)), the universal quantifier *every* ((13)), and pre-numeral adjectives like *other* and *next* ((14))

(10)a. His first defeat and yours ~~first defeat~~ were unexpected

    b. His **first** defeat and your (*~~first~~) victory were unexpected

(11)a. With his many sustainers and yours ~~many sustainers/sustainers~~ you will certainly win.

b. With his **many** sustainers and your *~~many~~ followers you will certainly win.

(12)a. All these bonuses are available and all ~~these bonuses/bonuses~~, incidentally, are completely free of charge.

b. All **these** bonuses are available and all *~~these~~ offers are completely free of charge.

(13) The **every** whim of Mrs. Thatcher and the *~~every~~ dream of her husband.

(14)a. the **other** three boys and the *~~other~~ two girls will join us.

b. the **next** two customers and the *~~next~~ two clerks will have something to quarrel about.

In Cinque (2012) I suggested that the condition on DP-internal ellipsis should be generalized from (15)a. to (15)b.:

(15)a. A nominal modifier cannot be silent and interpreted as present if the head noun is pronounced.

   b. A modifier cannot be silent and interpreted as present if some constituent merged lower than the silent modifier is pronounced (even if the head noun is silent).**[Note 7]**

See (16)-(18):

(16) **All five of** those workers will be fired after *~~all five of~~ these ~~workers~~.

(17) Your **only** three supporters and our *~~only~~ ten ~~supporters~~ won't be enough.

(18) Mary has played in the **two** longest shows in America, and John has played in the (*~~two~~) shortest ~~shows.~~

[Note 7] Also see Law (2012: 116) "the numeral can never be left out, regardless of whether the noun or classifier associated with it is pronounced or not."

The impossibility of interpreting the leftmost modifiers of the second conjunct of (16)-(18) is plausibly due to the fact that they fail to form a continuous constituent with the Head noun, but it would be nice to derive this from some independent reason. Especially so as there are cases of ellipsis that seem to involve separate parts of a clause or of a phrase not forming a constituent, like those in (19) (I come back to these if there is time).

(19)a. This should *make* you *laugh* – it did ~~make~~ me ~~laugh~~! (Gengel 2013: 170, after McNay, p.c.)

    b. I spoke to John on Thursday and ~~spoke to~~ Mary on Friday (Sailor and Thoms 2014: 361)

    c. Lei *ha letto* trecento *romanzi* ed io ~~ho letto~~ solo due ~~romanzi~~ 'She has read three hundred novels and I ~~have read~~ only two ~~novels~~'

Putting together the examples seen so far, the generalization governing the possible DP-internal deletions appears to be the following:

(20) DP-internal deletions must involve **a continuous constituent comprising the head noun.**

This recalls a restriction arguably involved in the account of Greenberg's Universal 20, specifically in accounting for the 14 orders of demonstrative, numeral, adjective and noun attested cross-linguistically (out of the potential 24 (factorial 4)):

(21) DP-internal movements must involve **a continuous constituent comprising the head noun.**

In Cinque (2005, and 2023) the 14 attested orders in (22) are shown to be derivable (without deriving the 10 unattested ones in (23)) if the only movement permitted is of a constituent containing the head NP: **[Note 8]**

[Note 8] This restriction is also assumed in an analysis that combines both external and internal Merge as that in Abels and Neeleman (2012).

(22)   [languages]   [genera]
  a. **N A Num Dem**   609   137
  b. **Dem Num A N**   426   110
  c.   Dem N A Num   208   79
  d. Dem Num N A   182   67
  e. Num N A Dem   228   47
  f.   N Num A Dem   67   35
  g. N A Dem Num   101   34
  h. Dem N Num A   48   29
  i.   Dem A N Num   46   24
  l. **N Dem Num A**   81   22
  m. Num A N Dem   51   22
  n. N Dem A Num   30   18
  o. A N Num Dem   31   13
  p   A N Dem Num   21   9
                Tot: 2129

An earlier sample with the languages displaying the orders in (22) (1687)
can be found in the Terraling database (Hilda Koopman et al.):
https://ui.terraling.com/groups/15

(23)a. *Dem A Num N[Note 9]
   b. *Num A Dem N
   c. *A Num Dem N
   d. *Num Dem A N
   e. *A Dem Num N
   f. *A Num N Dem
   g. *A Dem N Num
   h. *Num Dem N A
   i. *Num N Dem A
   l. *N Num Dem A

[Note 9] Dryer (2018) claims that some of the orders that Cinque's (2005) account of Greenberg's Universal 20 ruled out (specifically (23)a., (23)d., (23)i., and (23)l.) are actually attested in at least few languages. But it can be shown, on the basis of the same sources utilized by Dryer and of additional ones, that none of the putative counterexamples is real (Cinque in preparation). In every one of those languages the unexpected order is not the only possible order of demonstrative, numeral, adjective and noun. One or more orders co-exist in the language that conform to the 14 orders in (22). In the larger sample of over 2000 languages referred to in (22) there is in fact no evidence that one of the 10 orders of (23), excluded in Cinque (2005), if available, is the **only** order possible in the language. This suggests to me that only 14 orders are genuinely possible as neutral orders. This in turn corroborates the idea that any movement underlying word order must involve the Head of the projection.

(20) and (21), repeated here, are too similar for this to be accidental:

(20) DP-internal deletions must involve **a continuous constituent comprising the head noun.**
(21) DP-internal movements (to yield neutral/non-focus orders) must involve **a continuous constituent comprising the head noun.**

Let me briefly recall the basic analysis of Cinque (2005, and To appear) that crucially relies on (22).
Word order variation of Dem Num A N is a function of movement of the head N(P), in one of the forms that movement can take.
We know from *wh*-movement that movement of a goal can take place without pied piping (as in (24)a.), or with pied piping of the *whose-pictures* type, as in (24)b, or with pied piping of the *pictures-of-whom* type, as in (24)c, or with a combination of the two types of pied piping, as in (24)d.:

(24)a. Aylan, [who] you have certainly seen [pictures of [__]],..
  b. Aylan, [[whose] pictures] you have certainly seen [__],..
 c. Aylan, [pictures of [whom]] you have certainly seen [__],..
  d. Aylan, [pictures of [[whose] body]] [__] have stirred great global sympathy,..

In the DP, starting from the scope-compliant hierarchy of (25)a., movement can target just the goal, here the N(P) Head ((25)b.), or the Head in one or the other pied piping mode ((25)c.) and ((25)d.).
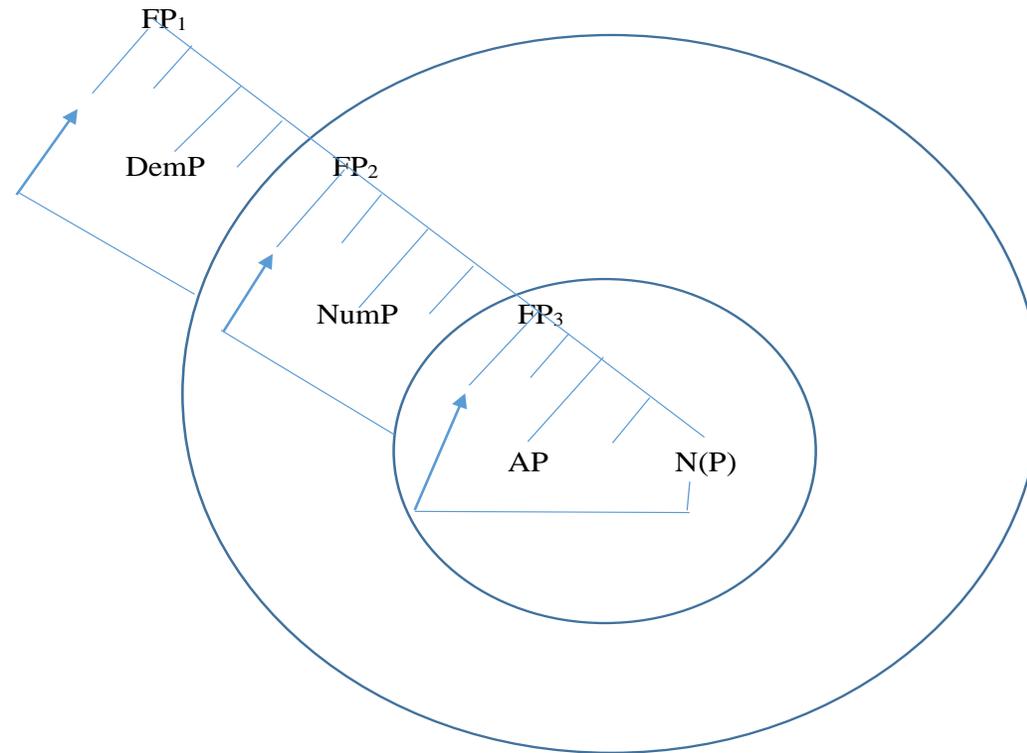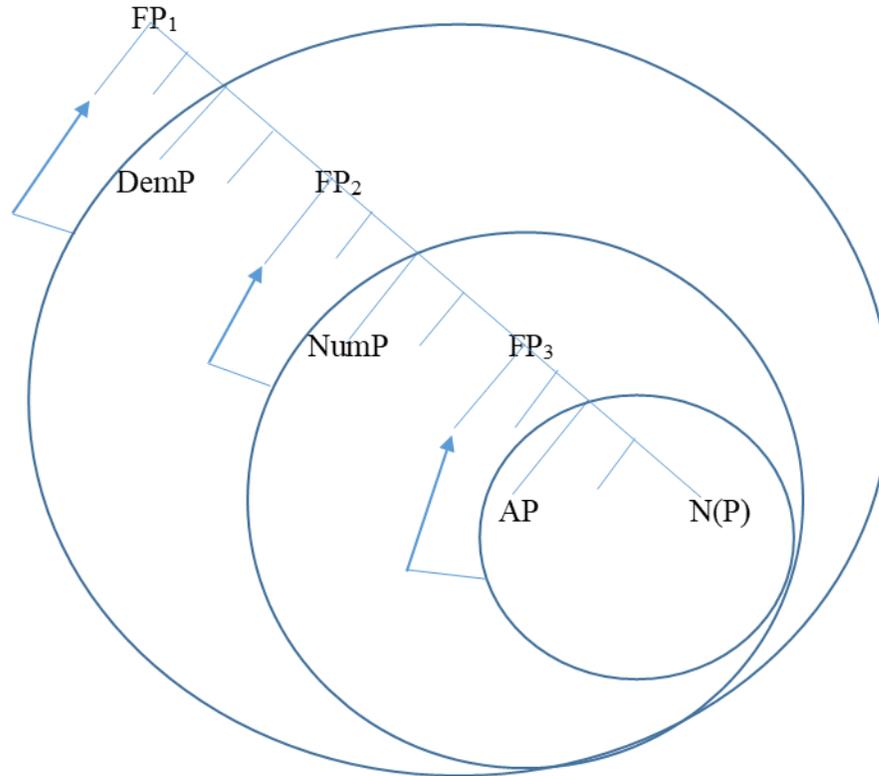
(25)a.

FP$_1$

DemP   FP$_2$

NumP   FP$_3$

AP   N(P)
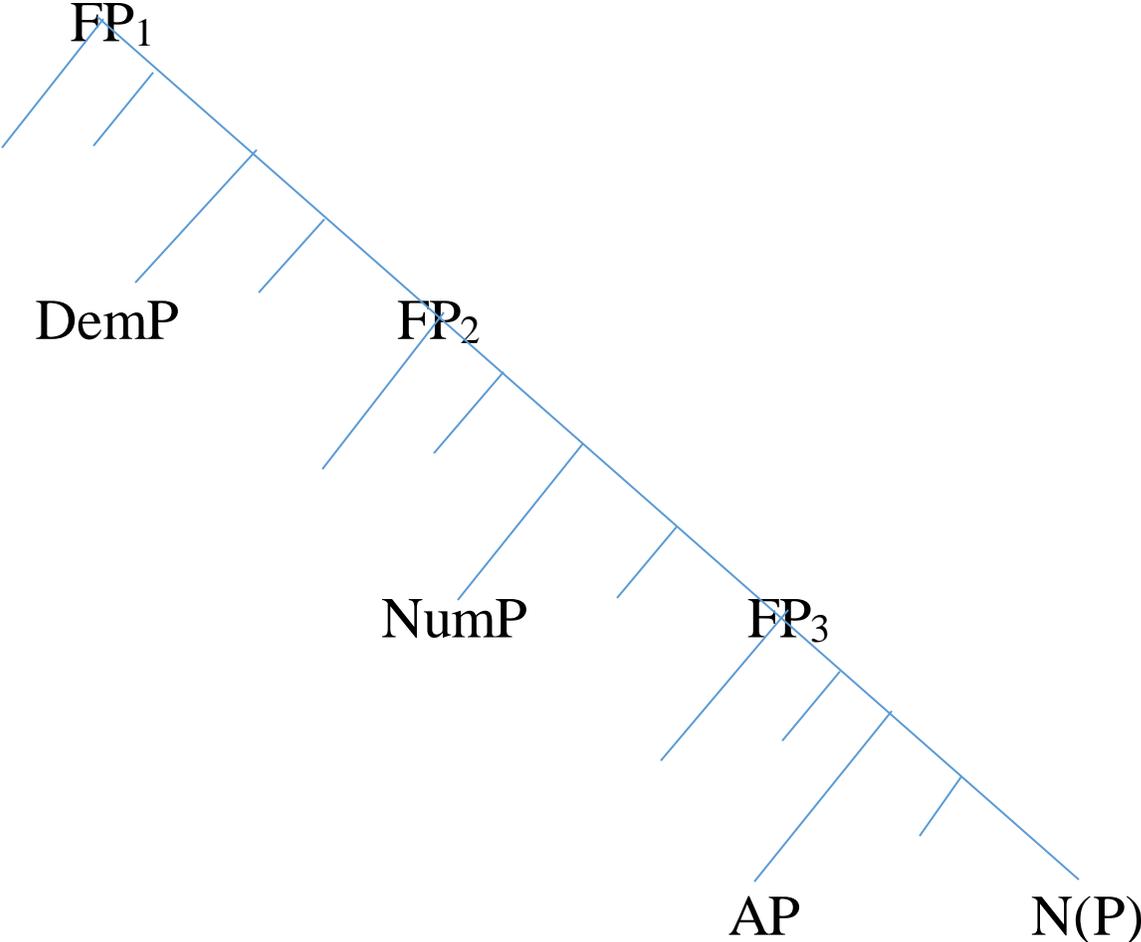
(25)b. N Dem Num A (derived by movement of just the goal)

FP₁

DemP　　FP₂

NumP　　FP₃

AP　　N(P)
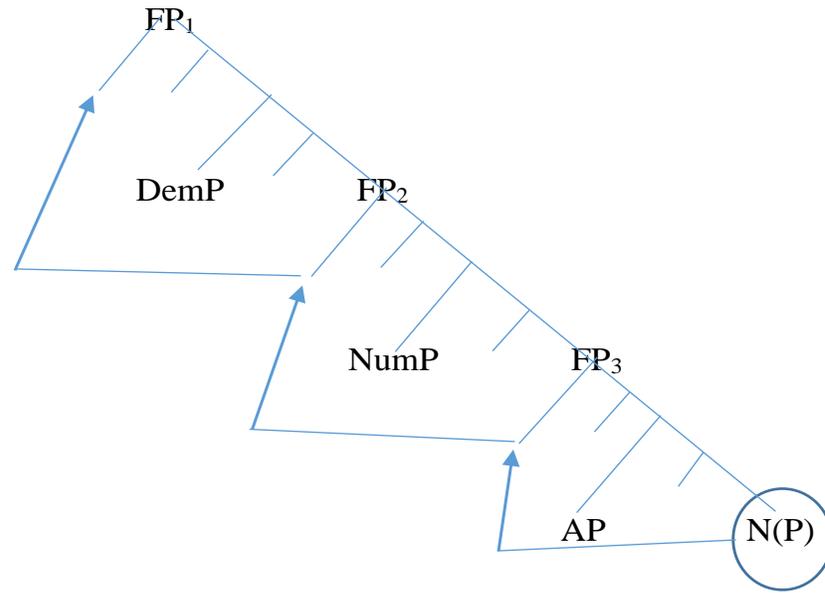
(25)c. N A Num Dem (derived by movement of the goal with the *whose-pictures* pied piping)

(25)d. Dem Num A N (derived by movement of the goal with the *pictures-of-whom* pied piping)

The other orders of (22) are derivable through different combinations of these three types of movement (see Cinque 2005).
If AdjectivePs, NumeralPs and DemonstrativePs could move independently of the noun to produce one of the canonical orders of DP, then unattested orders could be generated.

For example, if AP could move independently of the Head NP one could derive the unattested canonical order (23)e: *A Dem Num N
This is one of the possible orders of Bangla (see (26)b.). But it is not the canonical order, which is ((26)a.: Dem Num A N). As Syed (2015: 337) notes, "movement [..] to the pre-demonstrative position [is] to encode emphasis of the adjective":

(26)a. [oi   du-To   joghonyo biskut]   kheye,   ama.r sorir kharap lag.te laglo
        those two-CLF disgusting biscuit eat-PART I.GEN body   bad   feel.Inf start.Pst.3
        'I started feeling sick eating those two disgusting biscuits.'
    b. [**joghonyo**$_k$ [oi   du-To   t$_k$ biskut]]   kheye,   ama.r sorir kharap lag.te laglo
        disgusting   those two -CLF   biscuit eat-PART I.GEN body bad feel.Inf start.Pst.3
    'I started feeling sick eating those **disgusting** two biscuits.'

Similarly, if Num could move independently of the Head noun one could derive the unattested canonical order (23)d.: *Num Dem A N. The order Num Dem A N is possible in many languages, but has a partitive interpretation (much like English *two of those round tables*).

We can begin to make sense of the generalization in (20), repeated here

(20) DP-internal deletions must involve **a continuous constituent comprising the head noun**.]

if we assume that ellipsis depends on the prior movement of the constituent to be elided to a left-peripheral position (Kayne 2006, 2012). Under this assumption (20) can be seen to follow from the condition on movement in (21), repeated here:

(21) DP-internal movements (to yield neutral/non-focus orders) must involve **a continuous constituent comprising the head noun**.

If the movement leading to ellipsis applies after the possible canonical orders of Dem Num A N are derived (obeying the same restriction) there are certain expectations. Only modifiers making up a continuous constituent with the Head noun in the canonical order of a language can be interpreted as being present though not pronounced.

(Q) [Dem [Num [A [N]]]]

English

(27)a. All (of) these five large suburbs have robust connectivity to the port and all **(of these) five large suburbs** are connected to the new highway.

   b. All (of) these five large suburbs have robust connectivity to the port and all of these **five large suburbs** are connected to the new highway.

   c. All (of) these five large suburbs have robust connectivity to the port and all of these five **large suburbs** are connected to the new highway.

[[N [A]][Num]][Dem]]

Gungbe (Enoch Aboh, p.c.)

(28) àvun yù àt`ɔn éhé lɔ′ lɛ′ kpó énɛ′ lɛ′ kpó
     dogs black three these Det PL coord those PL coord
     'these three black dogs and those'
Interpretations:　..and those dogs; ..and those black dogs;
..and those three black dogs.

A particular expectation concerns subnominal deletions in languages with the order: **N Dem Num A**.

Given that the NP has raised by itself above all the modifiers, it is to be expected that only the noun, and not the noun plus an adjective nor the noun plus the numeral (and an adjective) can be interpreted as present if the demonstrative is pronounced, because neither N A nor N Num (A) is a constituent:

(29)a. N Dem A and *~~N~~ Dem ~~A~~

   b. N Dem Num A and *~~N~~ Dem ~~Num (A)~~

[N] [Dem [Num [A]]]

These expectations appear to be confirmed. In Kipsigis, a Nilotic Kalenjin language spoken in Kenya, whose DP internal order is Noun – Demonstrative (which is enclitic) – Numeral – Adjective (Kouneli 2018, §2.2) this is what we find:[Note 10]

(30)a. kaarii-ch<u>uu</u>n   l<u>ee</u>l-<u>a</u>ch   <u>a</u>k   chu

     houses-those   white-pl   and   these

    'those white houses and these'

Interpretation: those white houses and these houses/*these white houses

    b. kaarii-ch<u>uu</u>n   somok   l<u>ee</u>l-<u>a</u>ch   <u>a</u>k   chu

      houses-those   three   white-pl   and   these

     'those three white houses and these'

Interpretation: 'those three white houses and these houses/*these three houses/*these three white houses/*these white houses'

[Note 10] I thank Maria Kouneli and her Kipsigis informants for these examples and judgments.

Apparently different are the ellipsis cases reported in Adger et al. (2021) for Kîîtharaka (Bantu), another N Dem Num A language, which however also allows the alternative order N Dem A Num (derived by moving [N A] above Num (see (31)b.), and excorporating N. In this language one can elide a constituent containing AP and excluding Num, but not vice versa. :

(31)a. Ngaakamata mathaandûkû mathatû maanene na Mûtegi akamate maîrî

I-will-carry 6-boxes 6-three a6-big and Mûtegi will-carry 6-two

'I will carry six large boxes and M. will carry two (large boxes/*two boxes)

   b. Nkamatîîte mathaandûkû maanene mîrongo yîîrî, indî wegû

ûtirakamata maanini

I-have-carried **6-boxes a6-large 4-unit 4-two** but you have-not-

carried a6-small

'I have carried twenty big boxes, but you haven't carried small

(boxes/*twenty small boxes)'

These data seem expected from the order N (Dem) A Num (as in (31)b.)

rather than from the order N Dem Num A.

Before briefly considering the case of relative clause and PP ellipsis (and some other apparent counterevidence to the generalization discussed above), let me present one particularly clear argument for a movement derivation of ellipsis within DP.

Kayne (2021: §3) notes a difference between English and French/Italian concerning NP-deletion stranding a numeral in object position. While in English it is possible to strand the numeral ((32))

(32) John has published two papers this year, but Mary has published three.

it is not possible to do so in French or Italian. See (33)a.-b.:

(33)a. *…mais Marie a publié trois.

   b. *…ma Maria ha pubblicato tre.

    '…but M. has published three.'

One can make (33) acceptable by adding a pronominal clitic *en/ne*, which "can be thought of as corresponding to English *of them* (or *thereof*)":

(34)a. …mais Marie **en** a publié trois.
  b. … ma Maria **ne** ha pubblicati tre.
   '…but M. **of.them** has published three.'

Asking why UG would impose the presence of a pronoun (pronounced or not) on NP-deletion sentences, Kayne (2021) proposes that

(35) NP-deletion calls for a pronoun for the same reason that movement often calls for a (resumptive) pronoun.

Indeed, if one topicalizes in Italian the constituent following a numeral (*di sigarette di questa marca* 'of cigarettes of this brand'), one necessarily has to resume the topicalized phrase by *ne*:

(36) **Di sigarette di questa marca**, *(**ne**) ho fumate solo tre.
   'Of cigarettes of this brand, of.them I.have smoked only three'

Now, that the silent NP co-occurring with the (resumptive) clitic *ne* moves before deleting is shown by an aspect of past participle agreement in Italian.

Active past participles do not agree with their object in situ ((37)).

(37) Ho fumat**o/*e** due sigarette.
     I.have smoked.masc.sing/fem.pl two cigarettes(fem.pl.)

But they do if their object raises to a pre-verbal **A**-position (subject ((38)a.), or clitic position ((38)b.)), rather than to an Ā position ((38)c):

(38)a. **Due sigarette** furono fumat**e/*o** di nascosto.
     Two cigarettes were smoked.fem.pl/masc.sing. secretly
  b. (Due sigarette,) **le** ho fumat**e/*o** di nascosto.
     (Two cigarettes,) them.fem.pl./masc.sing. I.have smoked secretly
  c. **Quante sigarette** hai fumat**o/*e** di nascosto?
  How many cigarettes have.you smoked.masc.sing./fem.pl. secretely

If, as with finite verbs, agreement is mediated by a relation with AGR, it is plausible that a passivized or cliticized object transits through the Spec of an AgrP associated with the past participle phrase, as illustrated in (39)a.-b. (see the discussion in Kayne 2000a):

(39)a. [Due sigarette]$_i$ furono [$_{AgrP}$ t$_i$ [$_{PastPartP}$ fumate t$_i$ di nascosto]]
Two cigarettes were smoked.fem.pl secretly
 b. ([Due sigarette]$_i$) le$_i$ ho [$_{AgrP}$ t$_i$ [$_{PastPartP}$fumate t$_i$ di nascosto]]
 (Two cigarettes) them.fem.pl. I.have smoked secretly

Now, going back to (36), repeated here as (40), one could think that the (plural) agreement on the participle is triggered by the clitic *ne*.

(40) Di sigarette di questa marca, ne ho fumate solo tre.
 'Of cigarettes of this brand, of.them I.have smoked only three'

But this is not the case as we see when the numeral is singular 'one':

(41) Di sigarette di questa marca, ne ho fumat**a**/*e solo una. **[Note 11]**
Of cigarettes of this brand, of.them I.have smoked.**fem.sg**/fem.pl. only one
Here the agreement is obligatorily **feminine singular.** The only element which can trigger that agreement is the silent Head noun *sigaretta di questa marca* (sing.) following *una,* moved through Spec,Agr of the participle before being 'deleted'. This seems to me overt evidence that deletion is dependent on movement.

[Note 11] Note that the topicalized constituent cannot itself be singular:
(i) *Di sigarett**a** di questa marca, **ne** ho fumata solo una.
 Of cigarette.fem.sing. of this brand, of.them/it I.have smoked only one

Apparent ellipsis of adjectives (Collins 2022: 5):
(42)a. At the party, I saw one foreign boy and two *~~foreign~~ girls.
(deletion impossible)
   b. I taught more foreign girls than (~~foreign~~) boys. (deletion possible)

Collins' generalization: "Deletion of prenominal modifiers is restricted to comparatives (and not possible in coordination)".
A tentative conjecture concerning the comparative cases is that just the Head noun moves out of DP to a contrastive focus position and that the remnant [x many foreign t] moves to Spec,CP and gets deleted:

(43) ...[than [~~x many foreign~~ $t_i]_k$ [$_{FocusP}$ boys$_i$] ~~I taught~~ t_k...

(44) There were three German infantry divisions and one artillery (= German artillery) (Jason Merchant - March 4, 2022, comments to Collins 2022)
Perhaps here the adjective 'German' in the second conjunct is provided pragmatically. In my Italian the equivalent of 'The aviation and the whole German infantry' with an understood adjective 'German' in the first conjunct is possible, even though deletions in coordinate structures appear to be only forward (in head-initial languages) (*Some are tasty, although most chocolates are disgusting., where some is interpreted as 'some chocolates' – Chisolm 2002: 13)

Ellipsis of (restrictive) relative clauses (RCs) and PPs (under parallelism) (Collins 2022)

(45)a. At the party, I saw three boys who I know and one girl **<who I know>**
   b. At the party, there were more girls who I know than boys **<who I know>**

(46)a. Some boy from every school reads comic books, and some girl **<from every school>** does <read comic books> too.
   b. The faculty brought scotch to the party and the students ~~brought~~ beer ~~to the party~~. (Johnson 2000b: 95)

RCs and PPs are different from other nominal modifiers as they can move independently of the Head NP (cf. their canonical pre-demonstrative position in more rigid head-final languages, and their extraposition in head-initial/medial, and non rigid head-final languages)
See (47)a.-b. and (48)a.-b.:

(Turkish - Jaklin Kornfilt, p.c.)

(47)a. [**Oya-nın oku-duğ-u**] o üç ilginç kitap

Oya-GEN read-IND.NOM-3.sg. those three interesting book

'those three interesting books **which Oya read**'

(Eastern Armenian – Hodgson 2013: 3)

b. **Nana-ji** ajd vratsʰakan jerg-ə

Nana-GEN DEM2 Georgian song-DEF

'that Georgian song of Nana's'

(48)a. **That man** came into the room [**that I was telling you about**]. (Rochemont and Culicover 1990: 60)

b. **A review of a book** came out [**by three authors**]. (Guéron 1980: 647)

[RCs and PPs are attracted to a high C and P (cf. Kayne 2000b) and end up final in head-initial/medial languages as a consequence of remnant movement, while remnant movement does not occur in rigid head-final languages].

References

Aelbrecht, Lobke. 2010. *The Syntactic Licensing of Ellipsis.* Amsterdam: Benjamins.

Alhailawani, Mohammad. 2018. *Nominal Structure and Ellipsis in Jordanian Arabic*. Ph.D.
Dissertation, Queen Mary, University of London.

https://qmro.qmul.ac.uk/xmlui/bitstream/handle/123456789/53588/Alhailawani_M_PhD_final_
291118.pdf?isAllowed=y&sequence=1

https://www.aaronbraver.com/downloads/papers/braver_ruling_iv_2009.pdf

Chisholm, Matt (2002) *Ellipsis in DP*. M.A. thesis, University of California, Santa Cruz.
https://glyphobet.net/dpe_tree/dpe_tree.pdf

Cinque, Guglielmo. 2005. Deriving Greenberg's Universal 20 and its Exceptions. *Linguistic
Inquiry* 36: 315-332.

https://iris.unive.it/retrieve/handle/10278/30426/17611/Greenberg%27s%20U20%20LI.pdf

Cinque, Guglielmo. 2012. A generalization concerning DP-internal ellipsis. *Iberia: An
International Journal of Theoretical Linguistics* 4.1: 174- 193

https://revistascientificas.us.es/index.php/iberia/article/view/232/232

Cinque, Guglielmo. 2023. *On Linearization. Toward a restrictive theory*. Cambridge, Mass.:
MIT Press.

Cinque, Guglielmo. In preparation. Again on the order of demonstrative, numeral, adjective, and
noun.

Collins, Chris. 2022. Relative Clause Deletion Revisited. Paper presented at the 'You're on
mute' ellipsis seminar series 2021-2022), New York University, March 4, 2022.

Craenenbroeck, Jeroen van and Tanja Temmerman. 2019. *The Oxford Handbook of Ellipsis*. Oxford: Oxford University Press.

Emonds, Joseph. 2012. Which is the Extended Projection Above N? In L.Brugè et al., eds., *Functional Heads*. 325-337. New York: Oxford University Press.

Fitzpatrick, Justin M. 2006. Deletion through movement. *Natural Language and Linguistic Theory* 24: 399–431 https://www.jstor.org/stable/27642830?seq=1#metadata_info_tab_contents

Gengel, Kirsten. 2013. *Pseudogapping and Ellipsis*. Oxford: Oxford University Press.

Ghaniabadi, Saeed. 2010. *The Empty Noun Construction in Persian*. Ph.D. Dissertation, University of Manitoba. https://mspace.lib.umanitoba.ca/xmlui/handle/1993/4067

Guéron, Jaqueline. 1980. On the syntax and semantics of PP extraposition. *Linguistic Inquiry* 11: 637–78

Günther, Christine. 2013. *The Elliptical Noun Phrase in English. Structure and Use*. London: Routledge.

Hodgson, Katherine. 2013. *Discourse Configurationality in Eastern Armenian: the Nominal Projection*. MPhil thesis, University of Cambridge.
https://www.academia.edu/41098028/Discourse_Configurationality_in_Eastern_Armenian_the_Nominal_Projection

Ionin, Tania, and Ora Matushansky. 2006. The composition of complex cardinals. *Journal of Semantics* 23 (4): 315-360
https://www.academia.edu/26118937/The_Composition_of_Complex_Cardinals

Ionin, Tania and Ora Matushansky. 2018. *Cardinals. The Syntax and Semantics of Cardinal-Containing Expressions*. Cambridge, Mass.: MIT Press.

Johnson, Kyle. 2000a. Few dogs eat Whiskas or cats Alpo. In K.Kusumoto and E.Villalta, eds., *UMOP 23: Issues in semantics and its interface*, pp. 59-82.

Johnson, Kyle. 2000b. Gapping Determiners. In K.Schwabe and N.Zhang, eds., *Ellipsis in Conjunction.* 95-115. Tübingen: Max Niemeyer Verlag.

Johnson, Kyle. 2001. What VP ellipsis can do, what it can't, but not why. In M.Baltin and C.Collins, eds., *The Handbook of Contemporary Syntactic Theory.* 439-479. Oxford: Blackwell.

Kayne, Richard S. 2000a. Facets of Romance Past Participle Agreement. In R.S.Kayne *Parameters and Universals.* 25-39. New York: Oxford University Press.

Kayne, Richard S. 2000b. A note on prepositions, complementizers, and word order universals. In R.S. Kayne, *Parameters and universals*, 314–326. New York: Oxford University Press.

Kayne, Richard S. 2006. On Parameters and on Principles of Pronunciation. In H. Broekhuis, N. Corver,R. Huybregts, U. Kleinhenz and J. Koster (eds.) *Organizing Grammar. Linguistic Studies in Honor of Henk van Riemsdijk*. 289-299. Berlin: Mouton de Gruyter. (reprinted in Kayne 2010).

Kayne, Richard S. 2010. *Comparisons and Contrasts.* New York: Oxford University Press.

Kayne, Richard S. 2012. A note on *grand* and its silent entourage. *Studies in Chinese Linguistics* 33: 71-85. https://cup.cuhk.edu.hk/chinesepress/journal/SCL33.2/SCL33.2_71-86.pdf

Kayne, Richard S. 2015. English *One* and *Ones* as Complex Determiners. Ms., New York University.

Kayne, Richard S. 2020. A Note on the Tension between Silent Elements and Lexical Ambiguity, with Special Reference to Inalienable Possession. *Arborescences - Revue d'études françaises* 10: 103-112 (Hommage à Yves Roberge: clitiques, éléments nuls, et autres problèmes de syntaxe et d'acquisition) https://www.erudit.org/en/journals/arbo/2020-n10-arbo06411/1081891ar.pdf

Kayne, Richard S. 2021. On the Why of NP-Deletion. Ms., New York University.

Kester, Ellen-Petra. 1996. *The Nature of Adjectival Inflection.* Ph.D. Dissertation, University of Utrecht.

Koopman, Hilda. 2000. *The Syntax of Specifiers and Heads.* London: Routledge.

Kouneli, Maria. 2019. *The syntax of number and modification: An investigation of the Kipsigis DP.* Ph.D. Dissertation, New York University. https://ling.auf.net/lingbuzz/004599

Law, Paul. 2012. Silent Nouns in English, Chinese and Naxi. *Studies in Chinese Linguistics* 33: 103-122 http://www.cuhk.edu.hk/ics/clrc/scl_33_2/law.pdf

Lobeck, Anne. 1995. *Ellipsis: Functional Heads, Licensing and Identification.* Oxford: Oxford University Press.

Manlove, Kathleen. 2016. *How peripheral a phenomenon is it?: On the interaction of DP-internal ellipsis, degree inversion, and islands*. Ph.D. Dissertation, University of Washington. https://digital.lib.washington.edu/researchworks/handle/1773/36736

Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands and the theory of ellipsis.* Oxford: Oxford University Press.

Merchant, Jason. 2019. Ellipsis: A survey of analytical approaches. In J.van Craenenbroeck and T.Temmerman, eds., *The Oxford handbook of ellipsis*, 19-45. Oxford University Press: Oxford. https://home.uchicago.edu/merchant/pubs/ellipsis.revised.pdf

Ntelitheos, Dimitrios. 2004. *Syntax of elliptical and discontinuous nominals*. M.A. thesis, University of California, Los Angeles. https://linguistics.ucla.edu/general/matheses/Ntelitheos_UCLA_MA_2004.pdf

Riemsdijk, Henk van. 2002. The unbearable lightness of GOing: The projection parameter as a pure parameter governing the distribution of elliptic motion verbs in Germanic. *The Journal of Comparative Germanic Linguistics* 5: 143-196 https://www.jstor.org/stable/23741028?seq=1

Riemsdijk, Henk van. 2003. Some thoughts on specified ellipsis. In L.O. Delsing, C. Falk, G. Josefsson and H.Á Sigurðsson, eds., *Grammar in focus. Festschrift for Christer Platzack*. Vol. 2, 257-263. University of Lund.

Rochemont, Michael S. and Peter W. Culicover. 1990. *English Focus Constructions and the Theory of Grammar.* Cambridge: Cambridge University Press.

Ross, John R. 1982. Pronoun Deleting Processes in German. Paper presented at the annual meeting of the Linguistic Society of America, S.Diego, California.

Saab, Andrés Leandro. 2010. (Im)possible deletions in the Spanish DP. *Iberia: An International Journal of Theoretical Linguistics* 2 (2): 45-83 http://www.siff.us.es/iberia/index.php/ij/index ISSN 1989-8525

Sailor, Craig and Gary Thoms. 2014. On the Non-existence of Non-constituent Coordination and Non-constituent Ellipsis. In R.E. Santana-LaBarge, ed., *Proceedings of the 31st West Coast Conference on Formal Linguistics.* 361-370. Somerville, Mass.: Cascadilla.

Sigurðsson, Halldór Ármann. 2011. Conditions on Argument Drop. *Linguistic Inquiry* 42: 267-304

Syed, Saurov. 2015. Focus-Movement within the Bangla DP. In U.Steindl et al., eds., *Proceedings of the 32nd West Coast Conference on Formal Linguistics.* 332-341. Somerville, Mass.: Cascadilla. http://www.lingref.com/cpp/wccfl/32/paper3184.pdf

Tatsumi, Yuta. 2021. *Linguistic Realization of Measuring and Counting in the Nominal Domain: A Cross-linguistic Study of Syntactic and Semantic Variations*. Ph.D. Dissertation, University of Connecticut. https://ling.auf.net/lingbuzz/006098

Thoms, Gary. 2010. 'Verb floating' and VP-ellipsis: Towards a movement account of ellipsis licensing. *Linguistic Variation Yearbook* 10: 255-300

https://www.pure.ed.ac.uk/ws/portalfiles/portal/10533311/Verb_floating_and_VPE_towards_a_movement_account_of_ellipsis_licensing.pdf

Trutkowski, Ewa. 2016. *Topic Drop and Null Subjects in German.* Berlin: de Gruyter.

Wasow, Thomas. 1978. On Constraining the Class of Transformational Languages. *Synthese* 39: 81-104 https://www.jstor.org/stable/20115307?seq=1

Yoshida, Masaya, Honglei Wang & David Potter. 2012. Remarks on "gapping" in DP. *Linguistic Inquiry* 43(3): 475–494

https://www.jstor.org/stable/23256603?seq=1#metadata_info_tab_contents