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A generalization concerning DP-internal ellipsis*

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Abstract: In this article I consider a particular generalization concerning ellipsis within the extended nominal projection: ellipsis can target a nominal modifier only if all constituents below it are also elided. Building on an analysis of ellipsis grounded in movement to left edges, I suggest that this generalization follows from a condition on DP-internal movement proposed in Cinque (2005).

Keywords: *ellipsis, nominal phrases, movement.*

Resumen: En este artículo se considera una generalización específica relativa a la elipsis dentro de la proyección nominal extendida: un modificador nominal puede ser elidido solo si todos los constituyentes inferiores a este también son elididos. Partiendo de un análisis de la elipsis basado en el movimiento al filo izquierdo, se sugiere que esta generalización es una consecuencia de una condición al movimiento interno al SD propuesta en Cinque (2005), hasta el punto de que solo los constituyentes que contengan el SN (no movido) pueden moverse de manera lícita (y en este caso también ser elididos como consecuencia de esta condición).

Palabras clave: *elipsis, sintagma nominal, movimiento.*

Resumo: Neste artigo considero uma generalização particular relativa à elipse no âmbito da projeção nominal alargada: a elipse pode atingir um modificador nominal apenas se todos os constituentes abaixo deste forem também elididos. Construindo uma análise da elipse baseada no movimento para as periferias esquerdas, sugiro que esta generalização decorra de uma condição sobre o movimento de DP-interno proposta em Cinque (2005), na medida em que apenas os constituentes contendo o NP (não movido) podem licitamente mover-se (e, nesse caso em concreto, serem elididos como consequência disso).

Palavras-chave: *Elipse; sintagmas nominais; movimento.*

In this article, a particular generalization will be discussed that concerns ellipsis within the extended projection of the NP: nominal modifiers can be silent (present but unpronounced) only if the NP and the extended projection of the NP below them are also silent (cf. Kayne's 2012, (47) of §4 on cardinal

numerals[1]). Building on Ntelitheos's (2004) insight that nominal ellipsis crucially involves raising of the NP, I suggest that this generalization follows from a condition on DP-internal movement proposed in Cinque (2005), in that only constituents containing the (unmoved) NP can licitly move and, in the present case, be unpronounced as a consequence.[2]

1. A movement approach to ellipsis.

In a number of works, deletion of a constituent (or its non-pronunciation) has been assumed to depend on the prior movement of that constituent to a left-peripheral position (Jayaseelan 1990; Rizzi 1994; Johnson 2001; Ntelitheos 2004; Kayne 2006, 2012).

Evidence for this is suggested by a number of phenomena; for example by the German "Vorfeld-deletion" pattern in (1) (Ross 1982), also known as "Topic Drop":

(1) a. Ich habe ihn schon gesehen
I have him already seen

b. *Ich habe __ schon gesehen
I have already seen

c. Ihn habe ich schon gesehen
Him have I already seen

d. __ Habe ich schon gesehen
Have I already seen
'I have already seen him'

---

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[1] "Numerals cannot be left silent unless their (following) associated noun is also left silent". The generalization discussed here can in fact be seen as generalizing this observation to all nominal modifiers (including apparent complements) and making non-pronunciation of a modifier dependent on the non-pronunciation of the extended projection below the non-pronounced modifier.

[2] In Cinque (2005) this condition constrained the derivation (from a universal structure of Merge) of possible canonical orders of demonstratives, numerals (cardinals), adjectives and nouns in the languages of the world. Here it is made to constrain ellipsis within the nominal phrase (under a movement theory of ellipsis).

A similar pattern is also found in Dutch (cf. (2) - Koopman 2000: 352) and other Germanic languages (cf. Sigurðsson 2011: §2)[3]:

(2) a. [ik [weet [dat niet
I know that not

b. *[ik [weet [__ niet
I know not

c. [dat [weet [ik niet
that know I not

d. [__ [weet [ik niet
know I not
'I don't know that'

As (1) and (2) show, it is not possible to delete a DP in situ in German and Dutch, but deletion apparently becomes possible when the first position of

[3] The fact that a constituent may move to a left edge inside the nominal extended projection is no guarantee that it can also be elided. Elision may depend on the 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. Furthermore, although in Modern Greek APs can front within the DP (see (i)b) and even extract from the DP (see (i)c), which may be an instance of remnant movement (cf. Androutsopoulou 1997), and in English DP-internal fronting of certain adjectival phrases is also possible (see (ii)), neither language permits these phrases to be silent (see (iii) and (iv)). I thank Marika Lekakou and Richard Kayne for the relevant judgments. Kayne (2006) in effect claims that silent elements can never be in the same position as their pronounced counterparts.

(i) a. Agorase [to forema *to kokkino*]
bought-3RDSG the dress the red

b. Agorase [*to kokkino* to forema *t*]
bought-3RDSG the red the dress

c. *to kokkino* agorase [*t* to forema *t*]
the red bought-3RDSG the dress

(ii) He bought [too old a *t* chair]

(iii) Agorase to kokkino to forema ke (*~~to kokkino)~~
bought-3RDSG thеN the red dress-N and (*~~the red~~)
to mandili
the-N scarf-N
'She bought the red dress and the (*~~red~~) scarf

(iv) He bought too old a chair and (*~~too old~~) a table

See also Cardinaletti (1990), Kayne (2006), Sigurðsson (2011) and references cited therein.

the clause, which must otherwise be filled by a constituent, is not filled. This is explained, as the works cited suggest, if deletion (non-pronunciation) of the DP in (1d), (2d) occurs after (a silent counterpart of) the DP has raised to the first position of the clause.

Another piece of evidence for the same general conclusion comes from an exception to the clitic second requirement on clitics such as the auxiliary *bych* or the reflexive pronoun *si* in Czech. They may occur in first position when a pronominal *to* 'it' (or the adverbial *tak* 'so') is missing, but is understood as present, as in (3a) and b:[4]

(3) a. Bych netvrdil.
would-1SG not.claim
'I wouldn't claim it'

b. Si myslíš
REFL think-2SG
'That's what you think'

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 (4), a fact which, he notes, recalls the German *Vorfeld*-deletion illustrated in (1) above:[5]

(4) a. To bych netvrdil (= (3a))

b. To si myslíš (= (3b))

Additional evidence comes from the Principle C effects observed for Chinese, Japanese, Korean and Brazilian Portuguese in Huang (1984: 538ff). For example, the impossibility of understanding the unpronounced object in (5a) as referring to the same individual as the matrix subject is explained if the object is

[4] As Richard Kayne observed, these examples are a good argument against a purely phonological approach to 'second-position' clitics that would take them to be necessarily phonologically enclitic to the first word.

[5] As with Germanic "Vorfeld-deletion", crucially, *to* in Czech cannot be deleted in situ; namely when some other constituent fills the first position. See (i), kindly provided by Lucie Medová:

(i) a. *dnes bych _ netvrdil
today would-1SG not.claim
'Today I wouldn't claim it'

b. *dnes si _ myslíš
today REFL think-2SG
'Today that's what you think'

Ā-moved to a topic position of the matrix clause as a prerequisite for its non pronunciation, as illustrated in (5b). In that case, the variable left by the movement of the object ends up being A-bound by the subject:[6]

(5) a. João disse que Pedro viu *e* (cf. Huang 1984: 541)
João said that Pedro saw

(ungrammatical if understood as 'João$_i$ said that Pedro saw him$_i$'; grammatical if *e* is understood as referring to an individual mentioned in the previous discourse)

b. *[e_i [João$_i$ disse que Pedro viu e_i]]

Related evidence that ellipsis involves the previous movement of the elided material is the fact that (at least certain types of) ellipses appear to be constrained by conditions on movement such as those responsible for islands. This is in fact the case for the non-pronunciation of the object in Portuguese seen in (5), which cannot be found within islands (see Raposo 1986: 381ff).[7] It is also apparent in the fact, noted in Rizzi (1982: 75fn32), that (verbal) gapping in Italian can affect the second conjunct of two coordinated *indirect questions* (extraction out of indirect questions is possible in Italian) but cannot affect the second conjunct of an otherwise formally identical conjunction of *free relatives* (no extraction out of free relatives is possible in Italian). This is seen in (6)a-b (I assume that movement of the unpronounced phrase in (6) is to the edge of the second conjunct):

(6) a Non ho ancora capito [[CP chi ha telefonato a Maria] e [CP chi ____ a Giuliana]]
Not have-1SG yet understood who has called Maria and who Giuliana

b. *Ho punito [[DP[CP chi ha telefonato a Maria] e [DP[CPchi _____ a Giuliana]]]
Have-1SG punished who has called Maria and who G.

DP-internal ellipsis is known to be subject to a number of restrictions; some universal and some language-specific.[8] In this article, I will not concern

[6] The same facts hold in European Portuguese. See Raposo (1986).

[7] Raposo (1986: §3.6) also mentions that object deletion in Portuguese can license parasitic gaps, another indication that it involves Ā-movement.

[8] One apparent universal requirement is that the DP containing the ellipsis may not c-command the antecedent (Kester 1996: 188). See (i) and (ii):

(i) a. *These ~~books~~ are more expensive than those books.

b. Although she might order these [e], Mary won't buy those books on art history. (Kester 1996: 195)

(ii) a. Quei gattini sono più piccoli diquesti ~~gattini~~
Those kittens are smaller than these

b *Quelli ~~gattini~~ sono più piccoli di questi gattini

myself with such conditions nor with the conditions that license or bar specific DP-internal ellipses in particular languages.[9] I will instead concentrate on a specific, arguably universal, condition governing those DP-internal ellipses that abide by the principles which regulate ellipsis in a given language; a condition which ultimately determines the possible and impossible interpretations of such

those ~~kittens~~ are smaller than these kittens

c. Anche se quelli ~~gattini~~ non sono in vendita, questi gattini invece lo sono!
Even if those ~~kittens~~ are not for sale, these kittens instead are!

(but see the grammaticality of *The ones from New York are taller than the students from New Jersey* – from Panagiotidis 2003: §4; this is a problem if *one* has a silent associate (here ~~students~~), which also moves, as suggested in Kayne 2009).

To the extent that it is genuine, this anti-c-command requirement may follow from Principle C of the Binding Theory if the to-be-elided constituent moves to the highest specifier, from where it c-commands outside the nominal projection (in Kayne's 1994 definition of c-command).

The presence of a contrast between the antecedent and the DP-internal remnant is often taken to be another necessary condition for DP-internal ellipsis (see Giannakidou and Stavrou 1999: 305; Ntelitheos 2004; Corver and van Koppen 2009, 2012; Eguren 2010). Giannakidou and Stavrou (1999: 305), for example, propose a specific condition ("The Contrast Condition on the Licensing of Nominal Subdeletion"), on the basis of Greek examples such as (iii)

(iii) I Maria ehi polus filus ke I aderfi tis exi ligus/*polus [~~filus~~].
Mary has many friends and her sister has a few/*many

However, I find comparable examples in Italian, in which the remnant does not contrast with the antecedent, to be perfectly grammatical (which suggests that the presence of a contrast, where necessary, may be due to orthogonal requirements on the specific contexts involved):

(iv) a Molti student sono intervenuti ma molti ~~studenti~~ hanno deciso di non partecipare.
Many students have come but many have decided not to participate.

b. Tutti i passeggeri sono stati ripescati e tutti ~~i passeggeri~~, ora, sono fuoripericolo
All the passengers have been taken on board and now all ~~the passengers~~ are safe

Also see (v):

(v) (A: Lui ha letto due articoli di Frege) B: Due ~~articoli~~ di Frege li ho letti anch'io.
(A: He has read two articles by Frege) B: Two ~~articles~~ by Frege, I have read myself.

[9] For discussion of these, see, among others, Jackendoff (1971), Ronat (1977), Dahl (1985), Brucart and Gràcia (1986), Contreras (1986), Radford (1989), Bernstein (1993), Sleeman (1993, 1996), Lobeck (1995), Kester (1996), Giannakidou and Stavrou (1999), Kester and Sleeman (2002), Llombart-Huesca (2002), Kornfeld and Saab (2004), Corver and van Koppen (2007,2009), Braver (2009), Eguren (2009,2010), Saab (2010), and Watanabe (2010), among others.

ellipses. In its first approximation, the generalization, which I will later try to derive from a more general condition on DP-internal movement, is that the non-pronounced material obligatorily involves the NP, and optionally any constituent containing it (which is *non-distinct* from a comparable constituent of some "antecedent" DP[10]). In other words, an element can be silent only if the NP and the extended projection of the NP below it is also silent.

In order to evaluate the correctness of the proposed generalization, I will first consider the case of pre-nominal modifiers (§ 2), and then that of post-nominal modifiers (§ 3). In §4 a refinement of the generalization will be presented and some of its implications discussed.

Consider the following examples from Italian[11]; for each one I list the possible and impossible interpretations:

2. Pre-nominal modifiers.

2.1 Cardinal numerals

(7) a. Quei due student e questi ~~due studenti~~/ ~~studenti~~
Those two students and these ~~two students~~/~~students~~

b. Quei due studenti e questi *~~due~~ professori[12]
Those two students and these *~~two~~ professors

[10] That it is non-distinctness rather than strict morphosyntactic identity (Chomsky 1965: 182) is apparently shown by cases like the following, in which non identity of Number and Case features does not block ellipsis (non-pronounced material is represented here in strikethrough, capitals representing focused (stressed) material):

(i) a. Mary bought three old books but I bought only one (~~old~~) ~~book~~ (Ntelitheos 2004: 35)

b. Quei due bei gattini e questo (~~bel~~) ~~gattino~~ (Italian)
Those two nice kittens and this (= (nice) kitten)

c. Sinandise sto dromo dio filus ke meta mazeftikan spiti tu poli ~~fili~~
met.3sg in-the street two friends-ACC and then gathered.3pl house his many-NOM
'He met two friends on the street, and then many gathered at his place.'
(Greek-Giannakidou and Stavrou 1999,306)

As Richard Kayne observed, in (ia) there might still be strict identity, if the plural '-s' is higher than 'old book', and similarly for Case in (ic).

[11] To judge from Laczkó (2007), a similar situation may hold in Hungarian.

[12] As noted, this fact is observed in Kayne (2012: §4).

2.2 Ordinal numerals

(8) a. La sua prima sconfitta e la mia ~~prima sconfitta~~/~~sconfitta~~ (non erano prevedibili)
His first defeat and mine ~~first defeat~~/~~defeat~~ (were not foreseeable)

b. La sua prima sconfitta e la mia *~~prima~~ vittoria (non erano prevedibili)
His first defeat and my *~~first~~ victory (were not foreseeable)

2.3 Multal/paucal quantifiers

(9) a. Con i suoi molti sostenitori e i tuoi ~~molti sostenitori~~/~~sostenitori~~…
With his many sustainers and yours ~~many sustainers~~/~~sustainers~~…

b. Con i suoi molti sostenitori e i tuoi *~~molti~~ seguaci…
With his many sustainers and your *~~many~~ followers…

2.4 Pre-cardinal adjectives

2.4.1 *altro* 'other'

(10) a. Quelle altre due scarpe e queste ~~altre due scarpe/due scarpe/scarpe~~
those other two shoes and these ~~other two shoes/two shoes/shoes~~

b. Quelle altre due scarpe e queste *~~altre~~ *~~due~~ calze
those other two shoes and these *~~other~~ *~~two~~ socks

2.4.2 *prossimo/scorso* 'next/last'

(11) a. I loro prossimi due incontri e i nostri ~~prossimi due incontri/due incontri/incontri~~
their next two matches and ours ~~next two matches/two matches/matches~~

b. I loro prossimi due incontri e i nostri *~~prossimi *due~~ allenamenti
their next two matches and our ~~next two~~ coachings

2.4.3 *solito* 'usual'

(12) a. i nostri soliti tre clienti e i vostri (~~soliti~~) (~~tre~~) ~~clienti~~
the our usual three customers and the your (~~usual~~) (~~three~~) ~~customers~~

b. i nostri soliti tre clienti e i vostri *~~soliti~~ *~~tre~~ fornitori
the our usual three customers and the your *~~usual~~ *~~three~~ suppliers

2.4.4 *solo/unico* 'only/unique'

(13) a. i vostri unici sostenitori e i nostri ~~unici~~ ~~sostenitori/ sostenitori~~
the your only supporters and the our only supporters/supporters

b. i vostri unici sostenitori e i nostri *~~unici~~ amici
the your only supporters and the our *~~only~~ friends

2.4.5 *'rimanente/restante'* 'remaining'

(14) a. Deve leggere tutti i rimanenti dieci capitoli e tutti (~~i rimanenti~~) (~~dieci~~) ~~capitoli~~ entro
He must read all the remaining ten chapters and all (~~the remaining~~) (~~ten~~) ~~chapters~~ by
la prossima settimana
next week

b. Deve leggere tutti i rimanenti dieci capitoli e tutti gli *~~rimanenti~~ *~~dieci~~ articoli entro
He must read all the remaining ten chapters and all the *~~remaining~~ *~~ten~~ articles by
la prossima settimana
next week

2.4.6 pre-numeral descriptive adjectives

In a somewhat special usage, (some) descriptive adjectives may precede cardinals (as well as ordinals), as in (15a). However, they cannot be left silent if a numeral and/or the NP are pronounced, as in (15b):

(15) a. Le splendide/terrificanti due settimane passate in montagna
The splendid/dreadful two weeks spent in the mountains

b. Le splendide/terrificanti due settimane passate in montagna e queste
The splendid/dreadful two weeks spent in the mountains and these
*~~splendide/~~terrificanti tre (settimane) passate in campagna
*splendid/dreadful three (weeks) spent in the countryside

2.4.7 Superlative adjectives

A similar situation is found with adjectives in the superlative form. They can either follow or precede cardinals, as in (16a). However, they too cannot be left silent when pre-numeral if the numeral (or the NP) is pronounced, as in (16b):

(16) a. I loro <*più spettacolari*> tre <più spettacolari> concerti dal vivo (sono questi)
The their most spectacular three live concerts (are these)

b. I loro più spettacolari tre concerti dal vivo e i suoi *~~più spettacolari~~ due
The their most spectacular three live concerts and his *~~most spectacular~~ two
(concerti dal vivo) (sono questi)
(live concerts) (are these)

2.4.8 Demonstratives[13]

(17) 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] Given that, in Italian, a universal quantifier modifying a NP must be followed by either a definite article or a demonstrative, the 'deletability' of a demonstrative in the presence of a bare NP modified by a universal quantifier cannot be checked. English, however, allows one to construct the relevant context.

2.4.9 Universal Quantifiers

Being next to the highest modifier of the nominal extended projection (below integrated non-restrictive relative clauses – see §3.2.3), universal quantifiers of the *tutti* 'all' type, can never appear silent as there will always be a pronounced lower modifier (and/or the NP):

(18) Tutti (e tre) quei bambini sono stati più fortunati di *~~tutti (e tre)~~ questi (bambini)
All (three of) those children have been luckier than *~~all (three of)~~ these (children)

2.4.10 Post-numeral (*pre*-nominal) adjectives[14]

(19) a. Le mie principali preoccupazioni e le sue ~~principali preoccupazioni/preoccupazio~~
My main worries and his ~~main worries/worries~~
b. Le mie principali preoccupazioni e le sue *~~principali~~ paure
My main worries and his *~~main~~ fears

3. Post-nominal modifiers.

3.1 Post-nominal adjectives

(20) a. Le mie preoccupazioni principali e le sue ~~preoccupazioni principali/preoccupazioni~~
My worries main and his ~~worries main/worries~~
b. Le mie preoccupazioni principali e le sue paure *~~principali~~
My worries main and his fears *~~main~~

(21) a. Quei vasi cinesi lì e questi ~~vasi cinesi/vasi~~ qui
Those vases Chinese there and these ~~vases Chinese/vases~~ here
b. Quei vasi cinesi lì e questi quadri *~~cinesi~~ qui
Those vases Chinese there and these paintings *~~Chinese~~ here

3.2 Relative clauses

3.2.1 Restrictive relative Clauses

As Lobeck (1995: 43) notes, "a [restrictive] relative clause can either be included in the ellipsis or can remain outside it.". This is shown in (22a-b) and the corresponding Italian examples (23):

(22) a. Even though these cards that her students sent her were funny, Mary enjoyed [NP those [e]] even more ([e] = cards (that her students sent her))
b. Even though these cards that her students sent her were funny, Mary liked [NP those [e] that her parents gave her] even more ([e] = cards)[15]

[14] These correspond to those adjectives that are referred to as "direct modification" adjectives in Cinque (2010) and references cited therein (though arguably those not deriving from relative clauses).

(23) a. Anche se questi biglietti che i suoi studenti le hanno mandato erano divertenti, quelli ~~biglietti~~ lì (~~che i suoi studenti le hanno mandato~~) le sono piaciuti anche di più

b. Anche se questi biglietti che i suoi studenti le hanno mandato erano divertenti, quelli ~~biglietti~~ lì che le hanno dato i suoi genitori le sono piaciuti anche di più

3.2.2 Non-*restrictive* relative clauses

As noted in McCawley (1998: 445), non-restrictive relatives, as opposed to restrictive relatives, cannot be interpreted as being part of an ellipsis site.[16] Compare (22)a-(23)a with (24):

(24) Questo violino, che è probabilmente di Stradivari, è meno buono di quello ~~violino,~~ ~~*che~~
This violin, which probably is by Stradivari, is less good than that ~~violin,~~ ~~*which~~
~~è probabilmente di Stradivari.~~
~~probably is by Stradivari~~.

3.2.3. Reduced relative clauses

It seems that, whether interpreted restrictively or non-restrictively, reduced (participial) relative clauses can either be included in the ellipsis site or can remain outside it, as in (25):

(25) a. Adesso sto leggendo questi giornali arrivati da poco, e poi leggerò gli altri
Now I'm reading these newspapers recently arrived and then I'll read the others
~~giornali~~ (~~arrivati da poco~~)
~~newspapers~~ (~~recently arrived~~)

b. Adesso sto leggendo questi giornali arrivati da poco, e poi leggerò gli altri ~~giornali~~
Now I'm reading these newspapers recently arrived and then I'll read the others
arrivati ieri
~~newspapers~~ arrived yesterday

[15] This and similar cases with other post-nominal modifiers recall Gapping in the clause. However, while VP Ellipsis and (verbal) Gapping are subject to different conditions, the latter being arguably derived via Across-The-Board (ATB) movement (cf. Johnson 2009 and references cited therein), Wang, Potter and Yoshida (2012) observe that DP-internal Ellipsis and Nominal Gapping are subject to exactly the same conditions, and show properties that cannot be derived via ATB movement but only by ellipsis (here, movement of the non-ATB type).

[16] He gives the contrast between (ia) and (ib):

(i) a. Tom has a violin which once belonged to Heifetz, and Jane has one ~~violin which once belonged to Heifetz~~ too
b. Tom has a violin, which once belonged to Heifetz, and Jane has one ~~violin,*which once belonged to Heifetz,~~ too

3.3 Prepositional Phrases

If Kayne (2008) is right, Ns do not take arguments, nor do they assign theta roles. Indeed, apparently selected PPs and non-selected (adjunct) PPs appear to behave alike with respect to ellipsis in Italian: they cannot be silent by themselves (as opposed to clausal arguments, as seen above). This is shown in (26) and (27):

(26) a. La sua descrizione della casa e la tua ~~descrizione della casa~~
the his description of.the house and the yours ~~description of.the house~~

b. La sua descrizione della casa e il tuo disegno (*~~della casa~~)[17]
the his description of.the house and the your drawing (*~~of.the house~~)

(27) a. Il vostro appartamento sul lago è più grande del loro ~~appartamento~~ (~~sul lago~~)
the your apartment on the lake is bigger than their ~~apartment~~ (~~on the lake~~)

b. Il vostro appartamento sul lago è più grande della loro casa (*~~sul lago~~)
the your apartment on the lake is bigger than their house (*~~on the lake~~)

This does not necessarily mean that apparently selected and non-selected PPs are merged in the same position. In fact, there seems to be evidence that the former are merged lower than the latter (see §5 below, and McCawley 1998).

4. A refinement of the generalization and its derivation.

All of the cases of pre- and post-nominal modifiers considered so far show that they cannot be silent unless the head N (more accurately, the NP) is also silent. But this is, strictly speaking, not sufficient, as the examples in (28), among others, show:

(28) a. I nostri soliti tre clienti e i vostri *~~soliti~~ tre ~~clienti~~
the our usual three customers and the your *~~usual~~ three ~~customers.~~

b. I miei stessi cinque articoli e i tuoi *~~stessi~~ cinque ~~articoli~~
the my same five articles and your ~~*same~~ five ~~articles~~

c. La loro altra vittoria esterna e la nostra (*~~altra)~~ ~~vittoria~~ casalinga
the their other victory external and the our (*~~other)~~ ~~victory~~ internal

All of these cases suggest that:

(29) "A modifier cannot be left silent (*even if the head N (NP) is silent*) if some other modifier which is merged lower in the nominal extended projection than the silent modifier is pronounced".

[17] Although it is pragmatically possible to interpret the drawing as referring to the house, it is a difficult reading to obtain, in contrast to (26a), where reference to the house is virtually obligatory.

In other words, a nominal modifier can be silent only if the NP and all other modifiers which are merged between the NP and the modifier in question are also silent; i.e. if it makes up a silent constituent with the NP and all other modifiers in between it and the NP.

Cardinals like *due* in (28a) are merged lower than the higher adjective *soliti*; therefore also the cardinal must be silent for *soliti* to be understood as present. The same holds for *stessi* in (28b) and *altri* in (28c). They cannot be understood as present because another modifier, which is merged lower than them (*tre*, *cinque* and *casalinga*, respectively), is pronounced.[18]

Assuming it is correct, why should this particular generalization hold?

We know that movement can only affect constituents, which makes a movement analysis of DP-internal ellipsis, where only constituents can be silent, naturally attractive because of its unifying properties. What remains to be understood is why of all DP-internal constituents only those that contain the (unmoved) NP can be silent.

I suggest that this is due to the same set of principles described in Cinque (2005), which I claim derive, through DP-internal movement, the possible canonical orders of Dem, Num, A and N in the languages of the world; namely the parameters in (30b) i) to iv), applied to a Merge structure like (30a):

(30) a. Order of Merge: [RC$_{nonrestr}$.. [Q$_{univ}$.. [Dem.. [A.. [Num$_{ord}$.. [RC$_{restr}$.. [Num$_{card}$.. [A.. NP]]]]]]][19]

b. Parameters of movement:

i) NP movement plus Pied-piping of the *whose picture*-type or
ii) NP movement without Pied-piping, or
iii) NP movement plus Pied-piping of the *picture of who*-type
iv) Neither head movement nor movement of a phrase not containing the (overt) NP are possible (except perhaps for special, focus-related, movements of phrases to a DP initial position in certain languages).

Parameter (iv) is in stark contrast with what we find in the CP domain, where no parallel requirement seems to hold, insofar as *only* constituents containing the VP can move or be silent. Perhaps this is to be related to the general absence of a topic/focus field in the extended nominal projection (or, more generally, of a left periphery comparable to that found in the clausal

[18] When *stessi* follows cardinals it means 'themselves'.

[19] This is only a fragment of the internal structure of nominal phrases.

domain, cf. Szendrői 2010), except possibly in some languages, for which its presence has been postulated.[20]

5. Other implications of the revised generalization.

The fact that a non-restrictive relative clause cannot, as noted in §3.2.2, be silent (unpronounced but understood as present) follows from the refined generalization in (29) if (integrated) non-restrictive relative clauses[21] are merged higher than all other nominal modifiers, as argued in Cinque (2008).

This is because the remnant will necessarily contain a pronounced modifier which is lower than the non-restrictive relative clause.[22]

As for restrictive and reduced relative clauses, although they can be part of the ellipsis site, as noted in §3.2.1 and §3.2.3, respectively, they cease to be understood as part of the ellipsis site if an adjective, i.e., a modifier merged lower than either of them, is present in the remnant. See (31)-(32):

(31) La ripresa economica che avevamo previsto e quella ~~ripresa~~ morale (*~~che avevamo~~
The recovery economic that we had foreseen and that ~~recovery~~ moral (*~~that we had~~
~~previsto~~)
~~foreseen~~)

[20] See for a possible focus position in the Albanian DP Giusti (1996), though, as she notes, no (selected) wh-projection seems to be available in DPs cross-linguistically. As Richard Kayne notes, the left periphery of DPs must however be able to accommodate a raised quantifier, to account for the (somewhat marginal) acceptability of *no one* with narrow scope in 'The arrival of no one would surprise everyone', and similarly for 'The arrival of only John would surprise everyone'. Perhaps such quantifiers target positions which are lower than the left edge of the DP (cf. Beghelli and Stowell 1997).

[21] These differ from *non-integrated* non-restrictive relative clauses, which appear to be outside of the DP they modify altogether (Cinque 2008).

[22] The question remains as to why the entire DP cannot be elided under non-distinctness with an antecedent; namely, why (i) without a pronominal is ill-formed in Italian, despite the fact that it is a constituent containing the unmoved NP:

(i) Se quei tre ragazzi si comporteranno meglio, Gianni inviterà anche *(loro)/~~quei tre~~
~~ragazzi~~
If those three boys behave better, Gianni will invite (them)/~~those three boys~~

Perhaps in such cases the entire extended projection containing the unmoved NP would have to raise (including the left edge which would allow a silent counterpart of the lexical material).

(32) a. I nostri clienti occasionali appena usciti e i vostri ~~clienti occasionali appena usciti~~
the our customers occasional just gone and the yours ~~customers occasional just gone~~

b. I nostri clienti occasionali appena usciti e i vostri ~~clienti~~ abituali (*~~appena usciti~~)

Even if apparently selected and non-selected PPs behave alike when they are the exclusive target of ellipsis (recall §3.3 above), some ellipsis facts seem to indicate that they may be merged at different heights in the extended projection of the NP. For example, while the apparently selected PP *di linguistica* in (33)a is (virtually obligatorily) part of the ellipsis site, the adjunct PP *con invito* in (33)b is very marginally part of the ellipsis site, if at all:

(33) a. Gli studenti di linguistica con invito e quelli ~~studenti di linguistica~~ senza invito
the students of linguistics with an invitation and those ~~students of linguistics~~ without

b. Gli studenti di linguistica con invito e quelli ~~studenti~~ di chimica ??~~con invito~~
the students of linguistics with an invitation and those ~~students~~ of chemistry ??~~with an invitation~~

6. Apparent difficulties.

A potential difficulty for (29) is provided by an example like (34) (from McCawley 1993), where a modifier (*few*) is silent despite the fact that the lower NP (*dogs*) is itself pronounced.

(34) Few dogs eat Whiskers or ~~few~~ cats ~~eat~~ Alpo.

However, Johnson (2000) argues that in such cases *few* is a single separate quantifier phrase, higher than the coordination of the VPs *dogs eat Whiskers and cats Alpo*, within an ATB derivation. If so, the generalization in (29) still holds.[23]

A second potential difficulty for the same generalization comes from an observation that Radford (1989) attributes to David Kilby, according to which a sentence like *Jane has a big black dog, and Jean has a brown one* allows an interpretation on which *brown one* means 'big brown dog', where apparently a modifier (*brown*) lower than the silent one (*big*) is pronounced. This ceases to be a problem for the generalization in (29) if we either follow Radford in taking such an interpretation to be pragmatically determined rather than structurally grounded, or if we think of it as deriving from a structure like *Jean has a brówn*

[23] Richard Kayne points out that cases such as (34) are apparently acceptable only with coordination, as *People who have few dogs have little in common with people who have cats* can't possibly be understood to contain a silent 'few'.

big one dog, where big dog is a constituent, presumably after preliminary evacuation/raising of *one*.[24]

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[24] On apparent reversals of the unmarked order of adjectives in English see the discussion in Cinque (2010: Chapter 5).

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