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Chapter 25
Nominal Ellipses
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Nominal Ellipses

Abstract: In this chapter, I revise nominal ellipsis phenomena from a broad perspective. I draw a major division between empty nouns and true instances of nominal ellipses. Several diagnostics are provided in order to help to a better understanding of the relevant empirical domains. A set of such diagnostics comes from uniformity considerations; i.e., the parallelism between elliptical and non-elliptical nominal phrases with respect to thematic assignment, matching effects and extraction. Other set comes from the specific conditions that distinguish empty nouns from nominal ellipses with respect to the need of an antecedent, identity effects, productivity and lexical meaning. The chapter also presents a discussion on the recoverability and licensing conditions that regulate the distribution of nominal ellipses. On the one hand, I show why syntactic identity is unavoidable for nominal ellipses. On the other hand, I try to demonstrate that there is no licensing by inflection in nominal ellipses of any sort. Instead, the morphological effects we observe are epiphenomena resulting from the way in which morphology resolves different stranded affix scenarios. Finally, I explore the domain of null arguments in null subject/object languages. It is shown on the basis of robust empirical evidence that the same distinction between empty nouns and ellipsis applies in this domain. The conclusion is that different sorts of nominal ellipses within and across languages ultimately boil down to the deep and surface anaphora distinction, on the one hand, and to the size of the constituent affected in each case, on the other.
Key words: nominal ellipsis, empty nouns, null arguments, identity, licensing

1. Introduction: The nominal ellipsis fauna

Nominal ellipsis is the somewhat vague label applied to different sort of anaphoric phenomena involving a gap within the internal structure of the nominal phrase. It is used in the literature for a set of maybe disparate phenomena within and across languages. Just to give an idea of the many constructions to which the term is (correctly or incorrectly) applied, let us consider Japanese in a rather random way.

In this language, among other constructions, the term *nominal ellipsis* (and relatives) is used to refer to: (i) nominal gaps with at least one genitive remnant (see 1), (ii) nominal gaps filled by the pronominal *–no* 'one' (see 2), (iii) nominal gaps of place and time nouns modified by *ku*-inflected adjectives (see 3), and (iv) radical gaps in argument position (see 4):

N'-ellipsis

(1) a. [Taroo no taido] -wa yoi ga, [Hanako no taido]-wa
no attitude-TOP good though *no* attitude-TOP
yokunai
good-not
'Though Taroo's attitude is good, Hanako's isn't.'

b. [Rooma no hakai] -wa [Kyooto **no** ~~hakai~~] -yorimo
Rome no destruction-TOP *no* destruction-than
hisan data
miserable was
'Rome's destruction was more miserable than Kyoto's.'
[Saito et al 2008: 253]

Anaphoric -no

(2) Akai **no** –o mittu kudasai
red one-Acc three give.me
'Please give me three red ones.'

[Takita 2007: 51]

Ku-*ellipsis*

(3) a. Taroo-ga **too-i** **basyo**-e itta.
T.-NOM **far-ATR** **place**-to went
'Taroo went to a distant place.'

b. Taroo-ga **too-ku**-e itta.
T.-NOM **far-KU**-to went
'Taroo went to a distant place.'

c. Kono densetu-ga **huru-i** **zidai**-kara aru.
this legend-NOM **old-ATR** **time**-from be
'This legend is from old times.'

d. Kono densetu-ga **huru-ku**-kara aru.
this legend-NOM **old-KU**-from be
'This legend is from old times.'

[Larson & Yamakido 2003]

Radical ellipsis

(4) Taroo-ga Hanako-ni [**e** **e** kekkonsuru to] yakusokusita.
Taroo-nom Hanako-dat he her marry that promised
'Taroo promised Hanako that he would marry her.'

[Takahashi 2008: 395]

As the English glosses show, some of these constructions can be translated by a nominal gap or a similar nominal anaphora like in (1) and (2), respectively, but in other cases, the gap must be overtly expressed with the corresponding noun (3) or pronoun (4). In other languages, like Spanish and Romance in general, both (1) and (2), for instance, have a silent counterpart:

(5) a. La destrucción de Roma fue más miserable que la de Kioto.
the destruction of R. was more miserable that the of K.
'Rome's destruction was more miserable than Kyoto's.'

b. Por favor, deme tres rojos.
please give.me three red.PL
'Please, give me three red ones.'

Like English, Spanish lacks time / spatial elliptical nouns, but like many languages (including indeed English and Japanese) it makes productive use of human elliptical ones (the so called *people*-deletion or human null construction; Pullum 1975, Kester 1996a-b, Giannakidou & Stavrou 1999, Panagiotidis 2002, Kornfeld & Saab 2005, among many others).

(6) a. Que la crisis la paguen los ricos!

that the crisis it.fem pay the.PL rich.PL
'Let the rich pay for the crisis!'

b. Los/las de al lado llamaron tres veces.
the.masc.PL/the.fem.PL of to.the side call.PL three times
'The guys/girls living next door call three times.'

c. el gallina / el tonto / el salame, etc.
'Lit: the.masc.sg chicken.fem.sg / the.masc.sg fool.masc.sg / the.mascsg salami.masc.sg'

Finally, Spanish seems to allow for radical gaps in a productive way for subject arguments, but as far as object position is concerned, the phenomenon is only attested for indefinite objects (with the exception at least of Andean dialects; see Suñer & Yépez 1988):

(7) a. *e* Trabajan.
work.3.PL
'They work.'

b. Juan compró manzanas y Pedro también compró *e*.
J. bought apples and P. also bought
'Juan bought apples and Pedro also bought apples.'

The reader may take whatever other languages she prefers for comparison and the result would be the same. Language after language we observe the ubiquity of nominal ellipsis phenomena. As other elliptical phenomena the set of fact to be discussed in this chapter raises at least two basic questions:

(Q1) To what an extent does the term *ellipsis* adequately describes the entire set of phenomena illustrated in (1)-(7)?
(Q2) Under which general conditions are the nominal gaps in (1)-(7) allowed in natural languages?

In this chapter, I will adopt the widespread hypothesis in the generative tradition that the term *ellipsis* refers to a syntactic mechanism that generates some phrasal gaps on the basis of salient linguistic information. Put differently, the term *ellipsis* only applies for what Hankamer & Sag (1976) call *surface anaphora*. In this respect, only a subset of the examples discussed so far are ellipsis in this restricted use of the term. The rest will be considered cases of empty nouns or deep anaphora; i.e., base generated nominals (or different projections of a nominal), whose meaning and syntactic distribution respond to different conditions than those attested for nominal ellipsis. In section 2, I will provide several tests to distinguish both types of phenomena with the hope of making a descriptive contribution in an area which is still poorly understood. This will answer (Q1) at least partially. In section 3, we will (also partially) answer (Q2) by addressing the problem of the identity condition in nominal ellipses. The so-called licensing problem will be explored in section 4, where I will try to show that there is no morphological licensing of any sort; the morphological reflexes we see in nominal ellipsis environments are epiphenomena arising from the interaction of various morphological, syntactic and semantic factors. In section 5, I briefly discuss null arguments involving the most radical instance of nominal ellipsis: DP-ellipsis in Japanese and related languages. As we will see, the same distinction between

empty nouns and nominal ellipsis is needed here to account for the basic range of variation in the behavior of null arguments within and across languages. Section 6 concludes.

Before entering into the nominal ellipsis fauna, let me clarify some aspects of the DP structure I will assume. Following the tradition initiated by Abney (1987), I adopt the minimal structure of DPs illustrated in (8), in which D features are encoded in an independent projection dominating the root nominal. Features pertaining to number are universally encoded in an independent functional head *Num* above the *n*P (Ritter 1991 and much subsequent work). As for the *n*P domain, we assume that it minimally consists of a lexical R oot, √, and a category-defining head, *n*, and that both heads are combined via head movement in the syntax (see Embick & Marantz 2008).

(8) $[_{DP}$ D $[_{NumP}$ [AP] Num $[_{nP}$ [AP]$[_{nP}$ √ + $n_{[gender]}$ $[_{\sqrt{P}}$ $t_{\sqrt{}}$ [AP/ PP]]]]]]

I take adjectival modifiers to be phrasal adjuncts (or specifiers) that attach to the *n*P or above and AP/PP complements of the noun to be selected by the Root. Gender features, when present in a language, are encoded inside the *n*P (Saab 2004, 2009, 2010a).

2. Empty nouns *vs*. nominal ellipsis: some diagnostics

According to their classic work on anaphoric processes in natural language, Hankamer & Sag (1976) distinguish two basic types of anaphora, namely, deep and surface anaphora. In a few words, with the term *deep anaphora* Hankamer & Sag refer to a base generated (c)overt proform, whose basic recovery conditions boil down to those of a (free) pronoun. Surface anaphors instead are elliptical structures derived by transformation (PF deletion in their terms) and, consequently, their recoverability conditions reduce to the theory of identity in ellipsis, whatever the right theory of identity is (formal or semantic, in broad terms). Since then, surface anaphors are conceived of as *invisible / inaudible* full-fledged structures, the result of the operation that we call *ellipsis*. In turn, deep anaphors are conceived of as lexical proforms made available by the Universal Feature Inventory of Universal Grammar and the combinatory that produces syntactic objects; i.e., deep anaphors are not derived by any particular transformation of the computational system.

The particular abstract form of these two types of entities is sometimes obscured by their surface form. In the nominal domain, this is particularly clear in languages like Spanish which makes productive uses of both empty noun constructions (ENs) and NP-ellipsis (NPE).

(9) los de al lado / los tontos / los que cantan
the of to.the side the fools the.pl that sing.pl
'the ones living next door / the foolish / the ones who sing'

The three expressions in (9) might be ambiguous in the right contexts. Consider, for instance, the following sentences:

(10) a. Los perros inteligentes y los tontos son indistinguibles.
the.masc dogs smart.pl and the.pl fool.pl are undistingishable.pl
NPE reading: 'Smart dogs and fool dogs are undistinguishable.'
EN reading: 'Smart dogs and foolish people are undistinguishable.'
b. Los perros de enfrente y los de al lado son ruidosos.

the.pl dogs of in.front and the.pl of to.the side are noisy
NPE reading: 'The dogs living in front and the dogs living next door are noisy.'
EN reading: 'The dogs living in front and the people living next door are noisy.'

The sentence in (10a) can mean either that smart dogs or silly dogs cannot be distinguished or that smart dogs and silly people cannot. In turn, the sentence in (10b) can be true either in a scenario in which the dogs that live in front and the dogs living next door are noisy, or in a situation in which the dogs that live in front and the people living next door are. This ambiguity is straightforwardly derived under the hypothesis that we are dealing with different types of nominal gaps in each of the DPs in the second conjunct of the sentences in (10). Shortly, while the human reading of the DPs at hand seem to be amenable to an empty noun analysis in Panagiotidis' (2002, 2003a,b) sense, the reading according to which we are always talking about dogs is accounted for under an NPE analysis. I will assume that an empty noun is, strictly speaking, a functional nominal category which encodes some syntactic-semantic features such as [+/- human], [+/- sex] and so on. It is the same category that provides its nominal status to a given bare Root (see Embick & Marantz 2008 and (8) above). An NPE configuration, instead, entails deletion / non-pronunciation of a full fledged *n*P including the *n* itself and minimally the RootP. The two configurations are illustrated in (11), where we cross out the elliptical constituents by convention:

	Empty Noun	NP-ellipsis
(11)	a. [$_{DP}$ D [$_{NumP}$ Num [*n*P ***n*** ***[human]***]]]	b. [$_{DP}$ D [$_{NumP}$ Num ~~***[nP n [√P √]]***~~]]

Applied to the ambiguity of the sentences in (10), we get the following underlying structures (omitting some important details):

(12)	a.	Los	perros	inteligentes	y	[los	~~perros~~ / $n_{[human]}$	tontos]
		the.pl	dogs	intelligent.pl	and	the.PL	dogs / $n_{[human]}$	fool.PL
	son	indistinguibles.						
	are	undistinguishable.PL						
	b.	Los	perros	de	enfrente	y	[los ~~perros~~ / $n_{[human]}$	de
		the.pl	dogs	of	in.front	and	the.PL dogs / $n_{[human]}$	of
	al	lado]	son	ruidosos.				
	to.the	side	are	noisy.pl				

The two (rough) representations in (12) adequately describe the ambiguity in (10). The next question is what other types of predictions arise in virtue of the two configurations just provided. An immediate set of predictions can be grouped under what I will call the *uniformity assumption*, which can be traced back to Ross' (1969) seminal work on sluicing (see Saab 2009, 2010b and references therein):

Uniformity Assumption:

(13) *Ceteris paribus*, the syntactic dependencies in contexts of ellipsis between the remnant constituent and the elliptical site (Case, agreement, dislocation, thematic assignment, etc.) are obtained in the same way as in non-elliptical sentences.

As we will see, this assumption allows us to distinguish between EN and NPE in at least three related domains, namely, (i) thematic assignment (2.1.2), (ii) extraction (2.1.2) and (iii) case and other matching effects (2.1.3). Another set of diagnostics emerges precisely from the particular conditions contemplated in the *ceteris paribus* proviso. Some of these conditions are quite general, like those that regulate the distribution of antecedents and remnants, and others, of course, are language-particular and have to be determined in a case-by-case fashion. In section 2.2, some of these diagnostics are addressed with especial reference to the human EN construction and NPE in Spanish.

2.1. Uniformity tests

2.1.1. Thematic assignment

A crucial difference between the two configurations in (11) is that ENs are defective as far as their argument structure properties are concerned; NPE, instead, is thematically complete. This is a general property that distinguishes pronouns or deep anaphors in general from ellipsis phenomena. In the case at hand, it is predicted that the internal theta-roles of the Root (or lower N, depending on different assumptions on the DP geometry) cannot be assigned in EN configurations. As shown by Panagiotidis (2002, 2003a,b), if well-known instances of *one*-replacement in English were analyzed as the surface realization of an EN configuration, then the old observation by Lakoff (1970) on the asymmetry between nominal adjuncts and complements in the licensing of *one* would be immediately derived. In effect, whereas nominal adjuncts can modify *one*, internal complements cannot:

(14) a. I bought the car from England and Sam bought the one from Spain.
b. *I met the king of England and Sam met the one of Spain.

[Lakoff 1970: 629, ex. 7]

In (15)-(17), I present some additional examples taken from Corver & van Koppen (2011):

(15) a. *Jack met the king of England, and I met the one of France.
b. Jack met the king from England, and I met the one from France.

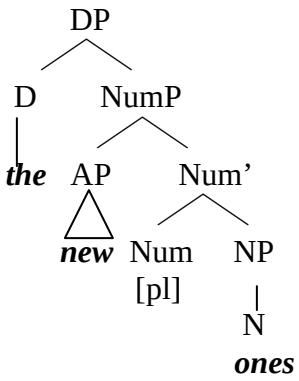
(16) a. *the treatment of Bill and the one of Sue
b. the treatment by the psychologist and the one by the psychiatrist

(17) a. *the rumor that Bill would be fired and the one that John would keep his job
b. the rumor that John heard yesterday and the one that Mary had heard the day before.

[Corver & van Koppen 2011: 376, footnote 4]

As already mentioned, Panagiotidis (2002, 2003a,b) argues that this asymmetry provides evidence for an empty noun analysis for *one*. Concretely, he proposes the following representation:[1]

(18)



As shown in Kornfeld & Saab (2004) and Saab (2009), this diagnostic gives positive results when applied to some putative cases of NPE in Spanish:

(19) a. Los estudiantes de química y los de física 'lit. the students of chemistry and the of physics'/ la matanza de los leones y la de los tigres 'lit. the killing of the lions and the of the tigers' /la destrucción del puente y la de la ciudad 'lit. the destruction of the bridge and the of city'/ el atentado de Madrid y el de la Torres Gemelas 'lit. the attack of Madrid and the of Twin Towers'/ el rumor de que saliste temprano y el de que nunca saliste de tu casa 'lit. the rumor of that you came out early and the of that you never left home', etc.

The facts in (19) clearly favor an analysis in terms of NPE. Thus, the (again rough) representation in (20a), but not the one in (20b), accounts for the occurrence of internal arguments of the Root:

(20) a. [la ~~destrucción~~ de la ciudad]
b. *[la e_N de la ciudad]

[1] Additional evidence for the nominal status of *one* is that: (i) it can be complement of a determiner, (ii) it can receive adjectival modification and (iii) it can occur in the plural form.

(i) a. [This one] is from New Jersey
b. [The one I saw] is from New Jersey.
(ii) a. [A new one] is sometimes a challenge.
b. I find it annoying she lost [the new one].
(iii) a. You should carefully file [the new ones]!
b. [New ones] are usually laser-printed.
[Panagiotidis 2003b: 282, examples (1)-(3)]

It is worth noticing that this diagnostic is independent of the overt or covert nature of the nominal gap. Thus, Lakoff, for instance, notice that numerals accompanying nominal gaps cannot license thematic PPs in English either:[2]

(21) a. *I knew six girls from England and Irv knew five ones from Spain.
b. I knew six girls from England and Irv knew five from Spain.
(22) a. *I knew six kings of England and Irv knew five ones of Spain.
b. *I knew six kings of England and Irv knew five of Spain.
[Lakoff 1970: 630, exs. (10)-(11)]

Before proceeding, a note of caution is needed with respect to the empirical observation made by Lakoff and others (see for instance Jackendoff 1971, 1977). In a recent paper, Payne *et al* (2013) show, through a detailed corpus analysis, that there are indeed grammatical instances of *one*-replacement with relational nouns. Strictly speaking, the observation was already made by Lakoff, who noticed that *picture*-like nouns easily allow for *one*-replacement even when they are relational:

(23) *I saw the lover of Raquel Welch and Irving saw the one of Lana Turner.
(24) I saw the picture of Raquel Welch and Irving saw the one of Lana Turner.
[Lakoff 1970: 631, ex.(16b)]

Jackendoff (1977) also notices the particular behavior of this kind of nouns and proposes analyzing them as modifiers. The point made by Payne *et al* is still more radical insofar they claim that every noun is essentially nonrelational. The prediction is that *one*, a nominal anaphora for countable nouns, might in principle be related to *of*-modifiers of any kind. Indeed, examples of *one*-replacement for deverbal nouns (25a), *picture*-like nouns (25b), and human relational nouns like *queen*, *supporter* and *student* (25c-e) are attested in corpora (see Payne *et al* for the source of each example):

(25) a. This **interpretation** is contrary to an accepted [**one** of wrestling] as a sport.

b. How the printers had got hold of her **photograph** she did not know, but they had, and now it was being sold all over along with [**ones** of Lillie Langtry and other noted belles].

c. Dudley himself was no more eager for the match. Yes, he wanted to marry with a **queen**, but not [the **one** of Scotland].

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[2] He also shows that *those*, which might be arguably analyzed as *the* + *one*, is a good sentinel for nominal sites.

(i) a. *Max had known the kings of England and I had known the ones of Spain.
b. Max had known the kings of England and I had known those of Spain.
[Lakoff 1970: 630, exs. (14)]

d. Despite the rivalry between the two sides, **supporters**, specially [the **ones** of Real Madrid] are known to show respect to the individual talents in the opposition team.

e. In the case of medicine, I think there's no other alternative than the Universidad de la Republica. I would think their classes are equally crowded, but haven't ever heard any of the medicine **students** complain as much as the [**ones** of computer science].

The fact that some replacements are more frequent than others is attributed by Payne *et al* to the existence of more successful competitors (NumP ellipsis, for instance, like *Roma's destruction and Cartage's*, see section 4.2.2). The conclusion for the distinction made in this chapter would be that thematic assignment would not be a reliable test, against what is generally assumed. In effect, if there is no argument structure projected in nominals and complements are indeed modifiers (see also Llombart-Huesca 2010), then there would be no basis for the distinction between empty nouns and ellipsis. I think, however, that such a conclusion would be misleading both empirically and conceptually. Conceptually, I think that the interpretation of the facts is at least controversial. More than a frequency effect we can attribute the difference between NumP-ellipsis with genitive remnants and *one*-replacement precisely to the distinction between ellipsis and empty nouns. Thus, in my opinion the sharp contrast between **the destruction of Rome and the one of Cartage* and *Roma's destruction and Cartage's* is not because some blocking effect, but because the second case is a true instance of ellipsis. I agree, however, with Payne *et al* in the idea that the difference between complements and adjuncts might dissolve in favor of the second when it comes to human relational nouns like *student* or *supporters*. On the empirical side, more research is needed to know whether other complements of deverbal nouns are really grammatical or not. An informal own research shows that clausal complements of nouns, for instance, are ungrammatical under *one*-replacement (David Embick p.c.), confirming Corver & van Koppen's (2011) judgments for examples like (17) above:

(26) a. *The refusal to leave arrived before the one to serve.
b. *The report that John died arrived before the one that Bill was arrested.

As we will see in section 4, other languages using a putative pronominal strategy allows for such cases. A broad comparative approach should shed light on the problem. Even in Spanish, a language with productive NPE, data are poorly understood. Interestingly, I found a similar reaction to what is observed in English for some putative instances of NPE with bare remnants in Spanish:

(27) a. Publicaron **fotos** **de** **Perón** hoy y mañana
published.they pictures of P. today and tomorrow
van a publicar [de Evita].
go.they to publish of Evita
'They published pictures of Perón today and tomorrow they will publish pictures of Evita.'

b. %Juan entrevistó **estudiantes** **de** **química** hoy y mañana va a entrevistar [de física].
J. interviewed students of chemistry today and

tomorrow goes to interview of physics
'Juan interviewed chemistry students today and tomorrow he will interview physics students.'

c. ?*Se observaron **matanzas** **indiscriminadas** **de** **leones**
se observed killings indiscriminate of lions
ayer y hoy seguramente vamos a presenciar [de tigres].
yesterday and today surely go.we to witness of tigers
'Killings of lions were observed yesterday and today we will probably witness killings of tigers.'

d. *Ayer, publicaron **rumores** **de** **que** **renunciabas**
yesterday published.they rumors of that gave.ip
pero hoy publicaron [de que finalmente te quedabas].
but today published.they of that finally you stayed.you
'Yesterday, they published rumors that you gave up, but today they published rumors that finally you stayed. '

The reactions are consistent among speakers especially in connection to the sharp contrast between (27a) and (27c-d). With relational human nouns judgments vary among speakers and much depends on the particular sentences to which they are exposed to. However, (27c) and (27d) are judged strongly degraded for most speakers. Some speakers indeed ask for a change in the examples, like, for instance, adding some sort of determiner. So (27b) is perfect if the *of*-complement in the second conjunct is accompanied by, say, *varios* 'several.PL'. It seems then that what the speaker is doing with this change is converting an EN construction into a NPE one. This leads us to conclude that bare PPs remnants of a given nominal gap cannot be derived by ellipsis (neither NPE, as proposed by Eguren 2010, or NumP ellipsis, as proposed by Saab 2009 and Saab & Lipták in press).

2.1.2. Extraction tests

A well-known test for surface anaphora is extraction from elliptical sites (see Depiante 2000 and Chap. 28, this volume, for extensive discussion and references). Shortly, if a constituent can establish a chain dependency with a position within a putative nominal gap, then we can safely conclude that such a gap has internal structure; i.e., the gap is indeed derived by ellipsis. In the nominal domain, however, there is no easy way to construct this type of examples because of an important confounding factor such as extraction of DPs, which requires manipulating too many variables (e.g., the relative position of the DP, its definiteness / specificity, among other poorly understood variables, as the type of the noun involved in the configuration and the category of the extracted constituent). However, Lipták & Saab (2010) provide the following example for Hungarian, a language that makes productive use of NPE:

(28) Hallottam riportot több miniszterrel. Nem emlékszem,
heard interview-ACC many minister-WITH not remember-1SG
melyik miniszterrel$_i$ hallottam [hosszút [$_{NP}$ riportot t_i]].
which minister-WITH heard long-ACC interview-ACC
'I heard an interview with many ministers. I don't remember which minister I heard a long one with.'

Merchant (in press) also presents the following example from Greek, another NPE language:

(29) Tis istoriasi dha ton palio [proedhro__], kai...
the history.gen I.saw the.m old.m chair.m and
'I saw the former chairperson(masc) of the history department,and...'
...tis glossologias tha dho tonkenurio.
the linguistics.gen futI.see the.m new.m (lit.)
'of linguistics, I'll see the new(masc) (one).'
[Merchant in press: 12, ex. 43]

Depending on some assumptions about the derivation of NPE, movement of internal arguments is always forced when acting as remnants. Thus, in a case like *la destrucción de Roma y la de Cartago*… 'the destruction of Rome and the of Cartage…', the internal complement of *destruction* in the second conjunct has to vacate the *n*P domain to some higher position, as proposed by Ticio (2003) and Saab (2009) (although see Eguren 2010 for another approach):

(30) [$_{DP}$ la [$_{XP}$ de Cartago [~~$_{nP}$ destrucción *t*~~]]]
the of Cartage destruction

Under this approach, Spanish NPE parallels the behavior of pseudo-gapping in English (i.e., VP-ellipsis + movement of an internal complement; see Chapter 22, this volume). The issue is far from resolved as it depends on assumptions about the syntactic realization of argument structure in nominals.

2.1.3. Matching effects

As illustrated in (9), human EN constructions in languages like Spanish can contain epithets, *de*-PPs or adjunct CPs as modifiers. NPE gaps, instead, subcategorize the same categories that their non-elliptical counterparts. Take for instance psych nouns like *amor* 'love' which subcategorize PPs headed by the preposition *por* 'by', or deverbal nouns like *insistencia* 'insistence' which inherits PP complements headed by *en* 'in' from the Root:

(31) El amor de Juan por los autos es más
the love of J. by the cars is more
grande que el mío por los libros.
bigger that the mine by the books
'Juan's love for cars is bigger that mine for books.'

(32) la insistencia de Juan en sus problemas y
the insistence of J. in his problems and
la de Pedro en los suyos…
the of P. in the his
'Juan's insistence on his problems and Peter's insistence on his… '

Case markers are also inherited in nominal gaps. Thus, the deverbal noun *entrega* 'delivery' takes a dative complement headed by the dative marker *a* 'to'.

(33) La entrega de los libros de Cortazar a María
the delivery of the books of C. to M.
y la de los libros de Borges a Juan tienen
the the of the books of B. to J. have
que hacerse el mismo día.
that do.inf.SE the same day
'The delivery of Cortazar's books to María and the delivery of Borges' books to Juan have to take place the same day.'

2.2. More diagnostics

2.2.1. Antecedents

Recall that a sentence like (10a), repeated as (34), is ambiguous between a human EN construction and a NPE one.

(34) Los perros inteligentes y los tontos son indistinguibles.
the.masc dogs smart.pl and the.pl fool.pl are undistingishable.pl
NPE reading: 'Smart dogs and fool dogs are undistinguishable.'
EN reading: 'Smart dogs and foolish people are undistinguishable.'

Interestingly, reversing the order of the conjuncts eliminates the ambiguity:

(35) Los tontos y los perros inteligentes son indistinguibles.
the.pl fool.pl and the.masc dogs smart.pl are undistingishable.pl

This new sentence can only mean that foolish people and smart dogs cannot be distinguished between them. This follows from the basic distinction made between ENs and NPE. As observed by Hankamer & Sag (1976), one of the basic properties between deep and surface anaphors is the mandatory requirement of a linguistic antecedent in the case of surface anaphora. So the contrast between (34) and (35) is derived because in the latter this requirement is violated and, consequently, the NPE reading for the first conjunct is blocked.

2.2.2. Identity effects

Given that NPE requires linguistic antecedents, nominal gaps are formally linked to their antecedent in some ways. In the case of NPE in Spanish and other languages, gender specification must be identical between the antecedent and its nominal gap (for Spanish see Leonetti 1999, Depiante & Masullo 2001, Ticio 2003, Kornfeld & Saab 2004, Saab 2004, 2009, 2010a and Eguren 2010; for Brazilian Portuguese see Zocca 2003, Nunes & Zocca 2009 and Bobaljik & Zocca 2010; for Greek see Giannakidou & Stavrou 1999 and Merchant in press). Although nouns differ as to how natural gender is morphologically represented, the ban of nominal ellipsis under gender mismatches remains constant with some subtle difference among speakers:

(36) a. *el tío de María y la de Pedro
the.masc uncle of M. and the.fem of P.
b *la tía de María y el de Pedro
the.fem aunt of M. and the.masc of P.

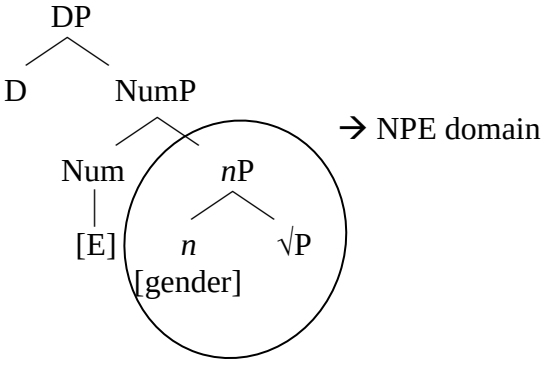
(37)	a.	*el	dentista	de	Juan	y	la	de	María
		the.masc	dentist	of	J.	and	the.fem	of	M.
	b.	*la	dentista	de	Juan	y	el	de	María
		the.fem	dentist`	of	J.	and	the.masc	of	M.
(38)	a.	*el	actor	de	teatro	y	la	de	cine
		the.masc	actor	of	theater	and	the.fem	of	cinema
	b.	*la	actriz	de	cine	y	el	de	teatro
		the.fem	actress	of	cinema	and	the.masc	of	theater

Number does allow for mismatches under ellipsis:

(39)	a.	el	perro	de	Juan	y	los	de	Pedro
		the.sg	dog	of	J.	and	the.pl	of	P.
		'Juan's dog and Pedro's dogs'							
	b	los	perros	de	Juan	y	el	de	Pedro
		the.pl	dogs	of	J.	and	the.sg	of	P.
		'Juan's dogs and Pedro's dog'							

Gender and number asymmetries have been accounted at least in two ways in the literature. Under certain approach, the difference boils down to the lexical *vs* syntactic nature of gender and number, respectively. The general idea is that gender is a lexical property of nouns and, as such, it must respect lexical identity under ellipsis. This move is taken originally by Giannakidou & Stavrou (1999), Depiante & Masullo (2001) and Kornfeld & Saab (2004). This type of analysis has been criticized by a number of reasons in Saab (2004, 2009, 2010a), works in which it is proposed that NPE in Spanish and other languages is ellipsis of the *n*P, with exclusion of other extended projections of the nominal domain such as NumP and DP (see also Ticio 2003 and, more recently, Merchant in press). Given that gender is specified on the *n*P level (see 8) and number on the head of NumP, the asymmetry follows as a matter of the licensing of ellipsis. See the following representation, where the [E] feature on Num is just a convention to indicate the head licensing the elliptical phrase (see Merchant 2001 and section 4 below):

(40)



This analysis captures the asymmetry without further ado and it does it independently of the theory of identity assumed (syntactic or semantic). Under this account this type of identity effects follows from the licensing component of the theory of ellipsis and not from the identity condition.

Crucially, identity effects of this type are a property of NPE not of ENs, which, as noticed above, are subjected to the general recoverability conditions of pronouns. When used as a free expression, the natural gender specification on ENs would be consistent only if the entity returned by a given function assignment (in Heim & Kratzer's 1998 terms) match such a specification. Therefore, whenever you say *las tontas de al lado* 'the fool (female people) living next door' in an out-of-the-blue context, the expression would be felicitous only under the condition that the people living next door are indeed female people. Notice that this difference between NPE and human EN predicts that the ambiguity of (34) would vanish whenever gender features between antecedent and elliptical gap differs. This is borne out: *las perras inteligentes y los tontos…*, 'the.fem.pl dog.fem.pl intelligent.pl and the.masc.pl fool.masc.pl.', can only have a human EN reading for the second conjunct.

2.2.3. Lexical restrictions and productivity

As noticed by Giannakidou & Stavrou (1999) and others, ENs, but not NPE, are lexically restricted and subjected to lexicalization processes.[3] On the one hand, EN constructions are lexically restricted to express some meanings and not others. As we already saw, ENs in Spanish and other languages are commonly used to express a human entity. The types of meanings that ENs might express are, however, a lexical matter. Thus, there is no other obvious reason, beyond lexical specification, why Japanese has empty nouns of time and space (see 3), but Spanish does not. The meanings that empty nouns might encode correspond to general concepts such as HUMAN, SPACE, TIME, FACT, MANNER, THING. As we already saw, Spanish, like many other languages of different types, has human empty nouns, but it has also productive instances of factive ENs (41a) with infinitive or finite complements and also manner ENs (41b) of infinitive verbs:

(41) a. el que vengas 'the (fact) that you come', el llegar Juan temprano 'the (fact of) J. arriving early'…
b. el bailar de Juan 'the (way) of J's dancing', el cantar de María 'the (way) of M.'s singing'…

There are crucial syntactic differences between both constructions. As shown in Kornfeld & Saab (2005) and references therein the infinitive in (41a) has all the properties of a clausal structure, whereas the examples in (41b) are more amenable to a nominalization analysis according to which a nominal category specifying manner takes a root infinitive as complement. An additional incorporation process from Root to *n* accounts for the nominalization in (41b):

(42) $[_{DP}$ el $[_{nP}$ $n_{[fact]}$ $[_{CP}$ llegar Juan temprano]]]

[3] Giannakidou & Stavrou do not propose an empty noun analysis. Instead, they refer to a substantivization process to account for some of the constructions that we analyze as involving an underlying empty noun. Other constructions analyzed by Giannakidou & Stavrou, instead, do not see amenable to an empty noun analysis. Concretely, what they call the *abstract construction* of Greek, which is translated by the so called neuter article *lo* 'it' in Spanish (e.g., *lo desconocido* 'the.neuter unknown'), does not have the properties of EN constructions (see Kornfeld & Saab 2005). Space limitations prevent us to make an overview of the properties of such a complex construction.

$[_{DP}$ el $[_{nP}$ √bailar + $n_{[manner]}$ de Juan]]

The rough analysis in (42) shows the fragility of the border that divides empty nouns constructions from nominalization processes in natural language. The same applies to well known instances of human EN constructions like *los ricos/pobres*, 'the rich / the poor' and similar ones. We will leave this issue unresolved simply noticing that there is indeed empirical reasons to think that nominalizations like (42b) and empty noun constructions form a sort of natural class, the difference being in the combinatory that form nominal phrases. A crucial test involves precisely the possibility of NPE. Interestingly, manner infinitives can be subjected to NPE but factive infinitives cannot:

(43)	el	bailar	de	Juan	y	el	de	Pedro
	the	dancing	of	J.	and	the	of	P.
	'Juan's way of dancing and Pedro's way of dancing…'							
(44)	*el	llegar	tarde	Juan	y	el	Pedro	
	the	arriving	late	J.	and	the	P.	

Consider also the case of human ENs modified by adjectives like *rich* or *poor*. As shown in (45), the second conjunct is ambiguous between a human EN construction according to which we are talking about people in general and a NPE reading according to which we are talking about rich people. This follows if these adjectives are instances of nominalization by a [human] *n*.

(45)	los	ricos	que	ahorran	toda	la	vida	y
	the	rich.PL	that	save.PL	all	the	life	and
	los	[~~$n_{[human]}$~~+~~ricos / $n_{[human]}$~~]			que	no	pagan	impuestos…
	the				that	not	pay.PL	taxes
'the rich that save money their entire life and the rich / ones who do not pay taxes…'								

More evidence comes from the behavior of Spanish *un(o/a)* 'one'. It is well known that the reduced form of *uno* cannot license ellipsis (see Bernstein 1993 for a detailed analysis):

(46)	un	auto	rojo	y	*un/uno	negro
	a	car	red	and	*a/one	black

Nevertheless, the indefinite form of *el rico* 'the rich', when used in non-elliptical contexts, is *un rico* 'a rich' no *uno rico* 'one rich'. The same with gentilic adjectives. Notice indeed that here the alternation between *un* and *uno* gives place to two different readings, namely: when *uno* is used, we get a reading according to which they hired an Argentinean player on top of an Italian one; instead, when *un* is used, they hired just an Argentinean guy on top an Italian player.

(47)	Contrataron	un	jugador	italiano	y	un / uno argentino
	hired.they	a	player	Italian	and	a / one Argentinean
	'They hired an Italian player and Argentine guy / Argentine one.'					

We are lead to conclude then that some instances of empty noun constructions are subjected to an additional process of nominalization. This would explain why we find lexical gaps; i.e., why *ricos* 'rich.PL', *pobres* 'poor.PL', *enfermos* 'sick.PL' and others adjectives are attested in these environments but *felices* 'happy.PL', *cansados* 'tired.PL', for instance, cannot (see also Giannakidou & Stavrou for Greek examples and more discussion). It seems however that the nominalization of *rico* and other similar adjectives co-exist with pure instances of empty nouns. As the following examples from Kester (1996a) shows, degree modification is allowed in some cases, what is impossible in true instances of nominalization (cf. **un muy rico* 'a very rich' vs. *uno muy rico* 'a very rich one'):

(48) [Los extremadamente ricos] no viven en este
the-MASC.PL extremely rich-MASC.PL not live in this
barrio.
neighborhood
'The extremely rich do not live in this neighborhood.'
[adapted from Kester 1996a: 74, ex. (57)]

Interestingly, in cases in which the adjective is not nominalized NPE cannot apply. Consider (49):

(49) los muy ricos de este país y los
the.masc.pl very rich.PL of this country and the.masc.pl
del país vecino…
of.the country neighbor…
'The very rich of this country and the people from the neighboring country…'

Here, the reading according to which people living in front is very rich is extremely hard to get. Dropping the intensifier *muy* 'very' makes the elliptical reading fully available again, showing that Spanish has both the pure EN construction and a nominalized version of it.

There are other morphological particularities that could help us to make the distinction clearer. The diagnostics, once again, will depend on language-internal properties. The use of diminutive forms in Dutch, for instance, is a clear diagnostic to distinguish pure EN constructions from nominalizations, because adjectives in this language do not tolerate diminutive suffixes.

(50) a. een blinde
'a blind (person)'
b. *een blindetje
a blind-DiM
[Kester 1996a: 63, ex. (20)]

Moreover, Dutch human ENs present an irregular form of the plural; instead of using the [–s] ending that characterizes most nouns with final shwa, they show the plural form [-n].

(51) a. de blinden
the blind-PL
'the blind'
b. *de blindes
the blind-PL
'the blind'
[Kester 1996a: 64, ex. (21)]

Compare with true nominalizations which can bear diminutive morphemes and show the regular plural ending:

(52) a. het centraletje
the central-DiM
'the small power station'
b. de centrales
the central-PL
'the power stations'
[Kester 1996a: 64, ex. (23)]

We can conclude that ENs are subjected to the following lexical restrictions: (i) they encode general concepts (TIME, THING, HUMAN, etc.), (ii) they may be subjected to nominalization processes, (iii) they are subjected to particular morphological process (irregular plurals, for instance), and (iv) they present lexical gaps. None of these properties applies to NPE, a systematic and productive process of deletion / non-pronunciation quite unrestricted semantically.

2.3. Summary

I have provided several tests to distinguish NPE from ENs. As shown in section 2.1, some diagnostics follow from uniformity considerations (thematic assignment, extraction, and matching effects) and, as shown in section 2.2, others follows from the general conditions that license one or the other construction (the need of an antecedent, identity effects, productivity and so on). Unfortunately, there is some degree of sloppiness in the literature when it comes to make this basic division. Even when I am aware of the controversial status of some of the diagnostics assumed here, I think that the evidence for the distinction is robust and should be taken seriously when addressing nominal ellipsis phenomena within and across language. In the next section, we will see that the recoverability conditions also differ for both constructions.

3. Recoverability conditions on nominal ellipses

In this section, we briefly discuss the problem of recoverability for empty anaphors in general. Building on the basic distinction made in the previous section, we will focus on the identity condition for NPE (3.1.), first, and then in some particular cases of pragmatic ENs in Spanish (3.2.).

3.1. Identity in NPE

As is well-known, the proper nature of the identity condition for surface anaphora is a matter of controversy. Broadly speaking, the debate centers on whether identity should formulated in purely semantic terms (Merchant 2001), in purely syntactic terms (Chomsky 1965 and much subsequent works in transformational grammar) or in mixed ones (Chung 2006, 2013 for a recent approach). Space limitations prevent us to discuss the issue at length but some considerations are in order. Firstly, it is important to mention than NPE has not been in the focus of such a debate, even when it constitutes an ideal scenario to evaluate competing theories on identity in ellipsis. An important exception is Giannakidou & Stavrou (1999) who proposes the following condition:

Recoverability of the Descriptive Content in Nominal Subdeletion:

(53) An elided nominal subconstituent α must recover its descriptive content by an antecedent γ previously asserted in the discourse.

[Giannakidou & Stavrou 1999: 307]

Importantly, for Giannakidou & Stavrou recoverability is semantic and not morpho-syntactic. This is so, because case and number mismatches are attested under NPE:

(54)	Htes	irthe		enas	filos	mu	na	me	
	yesterday	came.3sg		a	friend.nom	mine	subj	me	
	dhi	ki	ego	meta	episkefitka	alus	dio		[~~filus~~]
	see.3sg	and	I	then	visited.1sg	other	two.acc		friends.acc

[Giannakidou & Stavrou 1999: 306 ex. (23)]

However, as claimed in (53) the descriptive content must given and asserted in the previous discourse and cannot be entailed; otherwise the following example should be grammatical with the intended meaning that Andreas bought three books, given that *dictionaries* entails *books*:

(55) *O Andreas agorase dio lexika ke i Maria agorase tria ~~[vivlia]~~.
‘*Andreas bought two dictionaries and Maria bought three ones.’
(intended meaning 'three books')

[Giannakidou & Stavrou 1999: 307 ex. (24)]

This result is not decisive, though. It is possible to strengthen the entailment relations between antecedent and elided in order to obtain the right equivalences. Thus, under one of the most influential conceptions of the identity condition, identity boils down to the crucial notion of *e*-givenness (*e* by ellipsis, Merchant 2001), which requires a strongest notion of entailment. Concretely, for ellipsis to apply the antecedent and elided constituents must stand in a mutual entailment relation; i.e., not only the elliptical gap must entail its antecedent, but also the antecedent must entail the elided constituent. Now, the example in (55) can be ruled out simply because the noun *books* does not entail *dictionaries*.

It is crucial then to know whether such a lax notion is operative in NPE and ellipsis in general. Empirical evidence demonstrates that syntactic identity is needed in the theory of NPE and that mutual entailment is indeed too weak. As shown in Saab (2009, 2010a),

such a theory incorrectly predicts the same pattern of grammaticality for male/female suppletive pairs (e.g., *caballo / yegua* 'horse' / 'mare') than for inflectional pairs like *perro / perra* ('dog' / 'bitch'). As discussed in section 2.2.2, gender mismatches are not allowed under nominal ellipsis. Yet, under some particular scenarios, some speakers allow for a certain extent of pragmatic accommodation with inflectional pairs:

[Looking at a group of dogs and individuating a couple of them by pointing with your finger]

(56) %Ese es el perro de Juan y esa es la ~~perra~~ de Pedro.
this.masc is the dog of J. and this.fem is the.fem of P.
'This is Juan's male dog and this is Pedro's female dog.'

The same is impossible with suppletive pairs:

[Looking at a group of horses and individuating a couple of them by pointing with your finger]

(57) *Ese es el caballo de Juan
this.masc is the horse of J.
y esa es la ~~yegua~~ de Pedro.
and this.fem is the of P.
'This is John horse and this is Pedro's mare.'

Evidently, the difference between suppletive and inflectional pairs is purely formal; consequently, a radical semantic approach to the identity condition could not explain the sharp contrast between (56) and (57) without further ado.

Another test can be constructed on the basis of proper names or nick names. As is well known, proper names can be modified by determiners under some particular circumstances.

(58) El Perón del 73 no fue el mismo Perón
the Perón of.the 73 not was the same Perón
que conocimos en el 45.
that knew in the 45
'The Perón of 73 was not the same Perón we knew in the 45.'

Other Romance languages like Catalan or Portuguese require the mandatory presence of a determiner. Following Burge (1973) and Larson & Segal (1995), Elbourne (2005) presents compelling evidence in favor of analyzing proper names as full definite descriptions. For languages that do not use the definite article in ordinary uses, Elbourne proposes an abstract determiner:

(59) [[THE *i*] NP]

The index in (59) functions as a free individual variable and is needed to pick up the proper bearer of the noun, so that when we say *John is eating*, the abstract representation for this particular use of the proper name contains an index (say, 7) which will return the actual entity we call *John* in this particular instance of use. An important prediction of this

analysis is that NPE of proper names should be allowed in languages which independently have the construction. This is indeed borne out:

(60) El Perón del 73 no fue el mismo que el ~~Perón~~ del 45.
the Perón of.the 73 not was the same that the of.the 45
'The Perón of 73 was not the same as the Perón of 45.'

This property distinguishes proper names from epithets in *NP of NP* constructions like *el gallina de Juan* lit: 'the chicken of Juan'. Notice that epithets cannot be subjected to nominal ellipsis (see Suñer 1990, 1999, and Saab 2004, 2009, 2010a):

(61) *el gallina de Juan y el ~~gallina~~ de Pedro
the chicken of J. and the of P.

The difference between epithets and proper names follows if proper names occupy de *n* position of the DP in which they appear, but epithets in the *NP of NP* construction do not: they are left peripheral modifiers of a human empty noun construction:

(62) [$_{DP}$ el [$_{NumP}$ gallina [$_{nP}$ de Juan $n_{[human]}$]]]
the chicken of J.

Now, the difference follows: given that NPE is ellipsis of the NP (*n*P in the terms of this chapter), only proper names can be part of a nominal gap. We find then another important reason to distinguish between NPE and ENs construction. More importantly, once we acknowledge the very basic fact that proper names can be elided, we can construct relevant examples to see which approach to the identity condition for NPE constructions is superior. For instance, names and nicknames are mutually interchangeable under the right conditions. In the terms of the *e*-givenness theory, it is important, for instance, that once enough background information is provided, the entity that we call *Muhammad Ali* entails the entity that we call *Cassius Clay* and vice versa, a type of equivalence that seems to be rather indisputable. Consider the following example:

(63) El Cassius Clay que peleó con Sonny Liston era más rápido
the C. C. that fought with S. L. was more fast
que el Cassius Clay / Muhammad Ali que peleó con Foreman.
that the C.C. / M.A. that fought with F.
'The Cassius Clay that fought with sonny Liston was faster than the Cassius Clay / Muhammad Ali that fought with Foreman.'

Using *Muhammad Ali* or *Cassius Clay* in the second DP does not alter the truth conditions of the utterance. As we already noticed, NPE is allowed with proper names. The question is which the proper representation of the NPE gap could be in cases like this:

(64) El Cassius Clay que peleó con Sonny Liston era más rápido
the C. C. that fought with S. L. was more fast
que el ¿? que peleó con Foreman.
that the that fought with F.

For the mutual entailment approach, but crucially not for the syntactic one, either Cassius Clay or Muhammad Ali may be present in the underlying syntactic representation for the nominal gap. This example is not telling, though: both proper names are masculine singular and, consequently, cannot be distinguished. Consider, however, the case of nicknames. Any soccer fan, for instance, would know that *Alfredo Di Stéfano* is *La Saeta Rubia* 'The Blonde Arrow', the great player of the most important Real Madrid team ever. We would agree then that the entity that we call *Alfredo Di Stéfano* and the entity that we call *La Saeta Rubia* are in a mutual entailment relation. Interestingly, the Spanish noun *saeta* 'arrow' is feminine. This is just a formal property of the name; referentially, you can use masculine pronouns to refer to the expression *La Saeta Rubia*, when it is used as a nickname for Alfredo Di Stéfano.

(65)	Luego	de	su	secuestro	en	Venezuela,	***la***	***Saeta***	
	after	of	his	kidnapping	in	V.	the.fem	arrow.fem	
	Rubia		dijo	que	***lo***	habían	tratado	muy	bien.
	Blonde.fem		said	that	him	had	treated	very	well

'After his kidnapping in Venezuela, the "Saeta Rubia" said that they treated him very well.'

As for NPE, both the proper name and the nickname are eligible for ellipsis:

(66)	El	Alfredo Di Stéfano	que	jugó	en	River Plate	y	
	the.masc	A.S	that	played	in	R.P.	and	
	el	~~Alfredo Di Stéfano~~	que	jugó	en	el	Madrid…	
	the.masc		that	played	in	the	Madrid	

'the Alfredo Di Stéfano and the one that player in the Real Madrid… '

(67)	La	Saeta Rubia	que	brilló	en	el	Madrid	no	fue
	the.fem	Blonde Arrow	that	dazzled	in	the	Madrid	not	was
	la	~~Saeta Rubia~~	que	yo	conocí	en	sus	últimos	días.
	the.fem		that	I	met	in	his	last	days

'The Blonde Arrow that dazzled in the Real Madrid was not the same as the one that I met in his last days.'

What is impossible, however, is to have a grammatical instance of NPE, in which the proper name antecedes the nickname or vice versa.[4]

(68)	*El	Di Stéfano	de	River	Plate	fue	incluso	superior	a	
	the	Di Stéfano	of	R.	P.	was	even	superior	to	
	la	~~Saeta Rubia~~	que	deslumbró		en	el	Madrid.		
	the	S. R.	that	dazzled		in	the	M.		

[4] The sentences are still bad if you add more background information *via* a hanging topic like *en cuanto a Alfredo Di Stéfano, la Saeta Rubia* 'as for Alfredo Di Stéfano, the Blonde Arrow'.

(69) *La Saeta Rubia que deslumbró en el Madrid
the S. R. that dazzled in the M.
fue incluso superior al ~~Alfredo Di Stéfano~~ de River Plate.
was even superior to.the A.D of R. P.

Messi provides as similar examples. His nickname is *la pulga* 'the.fem flea.fem'. Alternation under NPE is banned:

(70) a. *En cuanto a Messi, la pulga, el Messi del Barcelona
as.for M. the flea, the.masc Messi of.the B.
es también la de la Selección.
is also the.fem of the selection
Intended: 'As for Messi, the flea, the Messi of Barcelona is also the flea of the National Team.'

a. *En cuanto a Messi, la pulga, la pulga del Barcelona
as.for M. the flea, the.fem flea.fem of.the B.
es también el de la Selección.
is also the.masc of the selection
Intended: 'As for Messi, the flea, the flea of Barcelona is also the Messi of the National Team.'

The same effects obtain under singular / plural mismatches. Thus, the Argentine soccer team *Independiente* is called *Los Diablos Rojos* 'The red devils'. NPE is again impossible in this situation:

(71) a. *el independiente de Bochini y los
the.masc.sg Independiente of B. and the.masc.pl
~~Diablos Rojos~~ de la actualidad
devils red.pl of the today

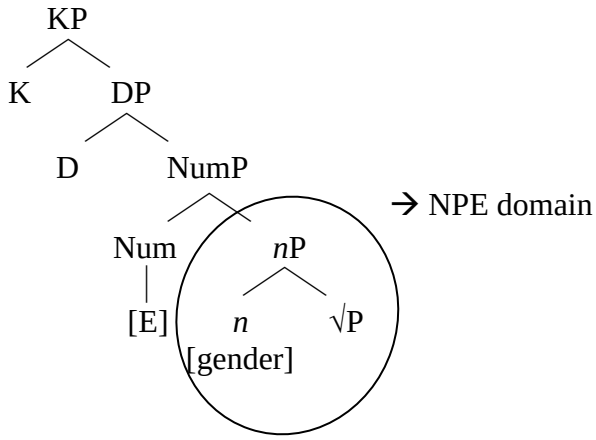
b. *los Diablos Rojos de la actualidad y
the.masc.pl devils red.pl of the today and
el ~~Independiente~~ de Bochini
the.masc.sg Independiente of B.

In summary, we are lead to conclude that NPE requires some type of formal identity condition, more in the line of the syntactic approach proposed by the current Merchant (Merchant 2013; see also Saab 2009, in press, and Chung 2006, 2013) than in the semantic approach defended by the old Merchant (Merchant 2001 and much subsequent works) or in even more radical semantic approaches like the Simpler Syntax approach by Culicover & Jackendoff (2005, and Chapter 7, this volume) or the line of research pursued by Dalrymple *et al* (1991).

As for the mismatches observed with respect to number and case in Greek, which lead Giannakidou & Stavrou to postulate that the identity condition must be semantic in nature, we already observed with respect to Spanish number and gender asymmetries (see 2.2.2) that the difference follows from the size of the elliptical site. Thus, number, but not

gender, allows mismatches simply because it is not part of the identity calculus.[5] The Greek facts only show that case is not a property of the noun by itself, but of another high functional category, dominating the DP (see Bittner & Hale 1996 for detailed discussion on the nature of KaseP). The following schema clearly illustrates which mismatches would be (dis)allowed in NPE:

(72)



3.2. Pragmatic recoverability and ENs

As we have seen, NPE in Spanish and other languages behaves like a surface anaphora: minimally, it requires a linguistic antecedent (another NP) to establish a formal link. This fact is sometimes obscured by putative instances of pragmatically controlled NPE in Romance and beyond. So it is common to find instances like the following:

(73) a. Dame la roja. [pointing to some red dress]
give.me the.fem red.fem
'Give me the red one.'

b. Yo quiero ese con rueditas. [pointing to some toy]
I want this.masc with wheels
'I want that one with wheels.'

c. Cuando era chico, tenía una como esa. [pointing to a bike]
when was.I boy had.I one.fem like that.fem
'When I was a child, I had one like that.'

Some clarifications are in order. Firstly, I have avoided using cases of human EN constructions, given that we have already provided several tests in favor of their non-elliptical nature in section 2. Second, notice that the remnants of each example are modifiers and not internal arguments of some putative elliptical noun. Third, this entire set of examples can be translated by *one* in English. In other words, this kind of constructions seems to have all the properties of ENs.

Moreover, examples like these also seem to pattern in a similar way to putative cases of English VP-ellipsis controlled pragmatically (e.g., *Shall we?* as an invitation to dance; from Merchant 2004). In his work on fragments answers, Merchant (2004) presents

[5] In this respect, NPEs of this sort behave like English VP-ellipsis, which allows for aspect/tense mismatches, but not for Root or *v* morphology mismatches (see Goldberg 2005 and Merchant 2013).

compelling evidence for analyzing such examples in English as instances of *do it* dropping; i.e., silent deep anaphors. I think that a similar analysis is extensible to the examples in (73): they are deep empty nouns pragmatically controlled. It seems that one crucial property that these empty nouns encode is that the entity pointed must be a discrete entity, something that can be indeed signalized and individuated. Let's see some examples. Suppose that you are looking at a beautiful sunset with your lover. In the sky, you can see a clearly orange zone which coincides with the sun position. Then, you point with your finger to the orange zone and tell to your lover:

(74) Qué hermoso el naranja!
what beautiful the.masc orange
'What a beautiful the orange one!'

By saying this, you are not saying *what a beautiful orange sky* even when the expression is masculine and the Spanish noun *cielo* 'sky' is also masculine. Such an expression only makes sense if you are talking about the orange color.

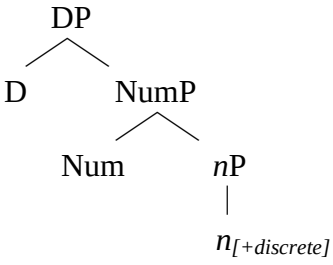
Here is another similar situation. As a by product of the sun light, you are impressed by the lights and shadows of the water in a given river. Suddenly, you point to a clear zone of the water and say (to your lover):

(75) #Qué hermosa la clara!
what beautiful the.fem clear.fem
Intended: 'What a beautiful the clear water!'

This expression is clearly infelicitous. What you wanted to express is the beautifulness of the clear water, as if the feminine noun *agua* 'water' were elliptical, but this is impossible even when there is no ban in Spanish to elide mass nouns (e.g., *el agua clara es más confiable que la oscura* lit. 'clear water is more reliable than the dark').

I propose then that the examples in (73) are cases of EN with a *n* minimally specified to take discrete entities:

(76)



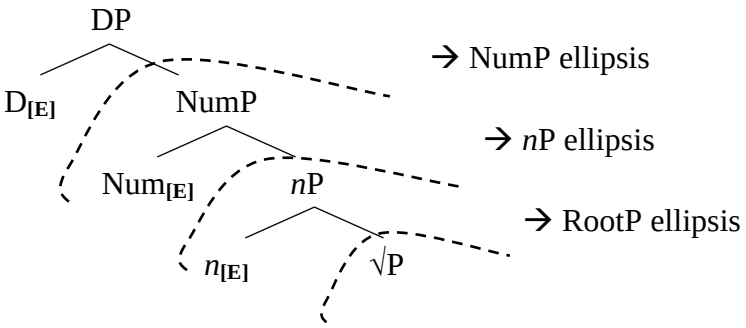
Again, more research is needed in this area, which is almost unexplored with the detail it deserves. In any case, we can reasonably conclude that pragmatically controlled ENs should not be confused with NPE.

4. Licensing nominal ellipses

4.1. Licensing as selection

A crucial question for any integral theory of ellipsis is to what extent languages can vary in the elliptical constructions they allow. Although not always explicit, the idea is that natural languages do not parameterize the identity condition. We assume that anaphoric recoverability in general is not subject to different language-particular conditions. Put differently, recoverability conditions are universal (see Chomsky 1965). The obvious next question is what makes the difference, then: why do, for instances, some languages have productive NPE or VPE and others do not? The answer might involve what we might call the licensing component of the theory of ellipsis. The difference can be implemented in a purely mechanistic way. Call this (maybe skeptical) way to think, the *E-feature approach*, which is pursued in Merchant (2001) and subsequent works, which simply states that some phrases are eligible to be elliptical in a given language for the syntactic occurrence of a lexical property. Under this account, English, but not Spanish, has VP-ellipsis because the functional node T can be optionally specified for taking elliptical complements. This mechanistic way to think has, besides appearances, a positive consequence, namely, that ellipsis is a matter of phrasal selection. In the nominal domain, it predicts different sorts of nominal ellipses depending on the loci of the E selection feature – plus, of course, other conditions on possible remnants, on the one hand, and legitimate morphological outputs, on the other:

(77)



The explicative force of such a view depends on the empirical justification of this formal feature, on the one hand, and on the grammatical correlations that it implies and that would account for variation across and within languages, on the other. At any rate, even when programmatic, I think that this way to handle the problem is superior in non-trivial respects to older competitors, such as Lobeck's (1995) government based approach and Saito & Murasugi's (1990) spec-head account. The problem with the government based approach is not only that the conceptual apparatus is not consistent with current approaches to formal syntax, but also it makes the empirical suspicious claim that the particular morphological requirements some NPE gaps show are an indisputable indication of the role of morphology in licensing ellipsis (see below). So the fact that Germanic languages like Dutch or German license NPE ellipsis under the condition of having inflectional adjectives (see also Kester 1996a,b) or that Romance languages use designated inflected determiners and not uninflected ones in NPE environments is taken under this type of approaches as an demonstration that inflectional morphology plays a crucial role in the theory of ellipsis. Saito & Murasugi's idea that Spec-head agreement is what account for some sorts of elliptical phenomena across languages (sluicing, VP-ellipsis and NP-ellipsis) is also

problematic on conceptual and empirical grounds. Its main problem is, however, that it is empirical coverage is too restricted: languages show many other forms of ellipsis that those that would depend on such an abstract configuration. Similar problems are also present in current approaches to the licensing problem in ellipsis. Theories based in some putative contrast condition on remnants (Giannakidou & Stavrou 1999 or Eguren 2010) are falsified by the mere existence of non-contrastive remnants (see Saab 2009 and Saab & Lipták in press). Theories based in the quantificational nature of adjectival remnants (Sleeman 1993, 1996) fails because of the existence of non-quantificational remnants (such as simple thematic PP remnants). More morphological-oriented approaches, which attribute a crucial role to word marker projections (Bernstein 1993) or gender/classifiers ones (Alexiadou & Gengel 2012) are not only too weak but also empirically incorrect at least for Romance. Putting the licensing on a gender or classifier phrase in Spanish, as Alexiadou & Gengel do, incorrectly predicts gender mismatches under nominal ellipsis. As we already saw, this is not borne out (see Saab 2010a for more discussion). Finally, the proposal of assimilating licensing to D-linked functional heads has a flavor of circularity in part because of the vagueness of the notion of *D-linked functional head* (López 2000).

All in all, this does not mean to deny the important contribution of the works mentioned above. The fact that not every complement/modifier can be a legitimate remnant under NPE is an important discovery of the past decades. There are two aspects to be distinguished: (i) on the one hand, some remnants must show some sort of inflectional morphology, (ii) on the other hand, remnants must bear some particular semantic import. Government approaches (e.g., Lobeck 1995, Kester 1996a,b) use to focus on the first aspect of the problem. Semantic accounts (e.g., Giannakidou & Stavrou 1999 or Eguren 2010) centers on the second one. I claim here that none of these aspects form part of theory of ellipsis licensing. As we will see in the subsection that follows, morphological effects in NPE are epiphenomena arising from the way in which syntax and morphology interacts for resolving some stranded affixes situations provoked by NPE. As for the second aspect, the issue is still poorly understood, but the restrictive character of remnants seems to be a necessary condition for ellipsis to apply, as already observed in Hernanz & Brucart (1987). As explained by Sleeman (1993), this would follow from the need of looking for an antecedent. So, in *el auto rojo y el verde*, the restrictive nature of the color adjective in the second conjunct makes the linguistic antecedent salient. This does not happen with non-restrictive modifiers which cannot license ellipsis. Thus, prenominal adjectives like *pobre* 'poor' in *el pobre hombre* 'Lit. the poor man' cannot be legitimate remnants for a gap like *el pobre* 'the poor' which can only be restrictive when understood as an instance of NPE (i.e., *Había varios hombres en la fiesta: uno pobre, uno rico…* 'There were several men in the party: a poor one, a rich one…'), otherwise it is interpreted as a human empty noun. This kind of semantic-discursive effects on remnants led some grammarians to exaggerate the role of contrast and focus in NPE (Giannakidou & Stavrou 1999 and Eguren 2010, among others). This position is criticized in Saab (2009) and Alexiadou and Gengel (2012), among others, for empirical reasons. At any rate, whatever the ultimate explanation of the distribution of remnants is, it is important to have the morphological and the semantic factors separated. In the rest of this section, I will address some morphological effects in nominal ellipses and try to show that they are epiphenomena derived from the way in which morphology and syntax interact in contexts of NPE.

4.2. Government effects in nominal ellipses as epiphenomena

The obvious next question is then how the selection theory of ellipsis licensing may account for the morphological effects attested in different nominal ellipsis phenomena across languages. Space limitations prevent us to do justice to the empirical richness of this aspect of nominal ellipsis, but we will advance some lines of research in this respect. Before looking at some empirical details, it is worth noticing that morphological effects in nominal ellipses are to some an extent orthogonal to the distinction between NPE and ENs: these morphological reflexes are attested in one construction or the other in similar ways. Just to give an example, consider the case of *cada* 'every / each' in Spanish which cannot license NPE because of its invariable character (from Kornfeld & Saab 2004):

(78)	*Cada	estudiante	de	física	y	cada	de	lingüística
	every	student	of	physics	and	every	of	linguistics

Importantly, *cada* cannot license human ENs either:

(79)	*Cada	que	entra	me	interrumpe.
	every	that	enters	me	interrupts
	'Every person who comes in interrupts me.'				

The only grammatical output here is to support the empty noun with *uno* 'one':[6]

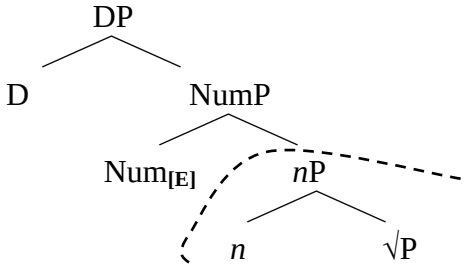
(80)	Cada	uno	que	entra	me	interrumpe.
	every	one	that	enters	me	interrupts

After this clarification, here I will only focus on morphological effects on nominal ellipses.

4.2.1. Selection by Num: *n*P ellipses

Let's start with *n*P ellipses:

(81)



Depending on some properties of the morphological make up of DPs, we predict different government effects. There is, indeed, a clear systematic pattern according to: (i) the language at hand has *n*P ellipsis or not, and (ii) the language is agglutinative or

[6] That *uno* 'one' may be a support strategy was already proposed in the literature for *one*-replacement in English by Llombart-Huesca (2002).

inflectional. For agglutinative languages with productive *n*P ellipsis, it is common to observe that number and case morphemes get stranded whenever *n*P ellipsis applies. Consider the following examples from Hungarian taken from Saab & Lipták (in press):

(82) Mari a régi kis ház-ak-at látta. Én az új nagy-[__]*(-ok-at)
Mari the old all house-pl-acc saw I the new big-pl-acc
'Mari saw the old small houses. I saw the new big ones.'

(83) Mari a régi kis ház-ak-at látta. Én az
Mari the old small house-pl-acc saw I the
új-[__]*(-ak-at).
new-pl-acc
'Mari saw the old small houses. I saw the new (small) ones.'

(84) Mari egy ház-Ø-at látott. Én négy-[__]*(-Ø-et).
Mari one house-acc saw I four-sg-acc
'Mari saw one house and I saw four ones.'

(85) Én a János mellett-i szék-Ø-en ültem. Ők a
I the Janos ne-adj chair-sg-loc sat they a
Péter mellet-i-[__]*(-ek-en).
Peter next-adj-pl-loc
'I sat on the chair next to János. They on the ones next to Péter.'

What is interesting of this type of examples is that Hungarian adjectives do not inflect in number or case in non-elliptical contexts; such an inflection is mandatory when ellipsis applies, as in the examples above. As shown in detail in Saab & Lipták (in press), strictly speaking, these are not agreement markers (*pace* Kester 1996a) but the stranded case and number affixes that are attached to the adjacent adjectival remnant under specifics conditions. This is by no way a particularity of the Hungarian grammar but it is attested in other agglutinative languages like Turkish (Saab 2009), Quechua (Weber 1983) and Persian (Ghaniabadi 2010). We are lead to conclude then that the special adjectival inflection that NPE remnants show is the result of *n*P ellipsis, which leaves the number and case morphemes stranded.

Inflectional languages with productive *n*P ellipsis, like most Romance languages, resolve this stranded affix scenario by deleting the stranded number affix *via* number identity with an agreeing morpheme. This would explain the observation that determiners accompanying nominal gaps must minimally inflect in number, as illustrated in the following Spanish example from Kornfeld & Saab (2004):

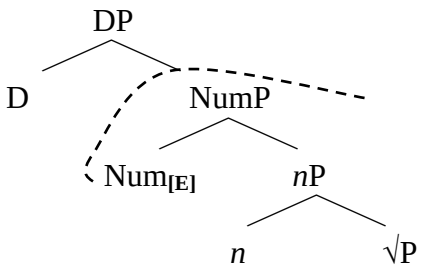
(86) ¿{Qué/cuáles} libros de Borges y {*qué/cuáles} ~~libros~~ de Bioy…
what/which.pl books of Borges and *what/which.pl books of Bioy
'Which books of Borges and which ones of Bioy…?'

Under this analysis, then, government effects are illusory, the surface reflex of a stranded affix configuration. See Saab (2009) and Saab & Lipták (to appear) for detailed discussion.

4.2.2. Selection by D: NumP ellipses

Suppose now that the licensor is D and not Num. The predictions about the syntactic and morphological correlations we should expect are quite different than those for *n*P ellipsis, because now there is no need of "rescuing" stranded number affixes, so no government effects would show up. The syntactic/LF correlate of this is that, as a counterpart, number mismatches should not be allowed.

(87)



The best known example of NumP ellipsis is English (for a first approach in terms of ellipsis, see Jackendoff 1971, 1977, and Lobeck 1995 for NumP-ellipsis analysis in terms of the theory of *pro*):

(88) Roma's destruction and [$_{DP}$ Cartage's ~~[$_{NumP}$ [$_{nP}$ destruction]~~]]

As already mentioned, the morphological correlate of selecting NumP as elliptical is absence of government effects for the category of number. Put differently, this form of nominal gap does not require number inflected adjectives or determiners as number is part of what is being deleted. In turn, the syntactic/LF correlate of NumP ellipsis is that number mismatches should not be allowed. As shown in Saab (2010a), this prediction seems to be correct. In simple cases, like *John's book/s and Peter's* the elliptical gap is interpreted as singular or plural depending the number information encoded in the antecedent. Interestingly, adding grammatical information – through, for instance, verbal agreement – makes number mismatches acceptable for the speakers I consulted, with a preference for the identical cases for some of them (2a and 2c):[7,8]

(89) a. John's book is on the table but Peter's is on the desk.
b. %John's book is on the table but Peter's are on the desk.
c. John's books are on the table but Peter's are on the desk.

---

[7] Arnold Zwicky contrasts the following examples in his blog:
(i) I accept the first argument, but reject the other two ___. [understood *arguments*]
(ii) I accept the first two arguments, but reject the third ___. [understood *argument*]
(iii) That was your dream. Kim's ___ were all nightmares. [understood *dreams*]
(iv) Those were your dreams. Kim's ___ was a nightmare. [understood *dream*]
(http://arnoldzwicky.wordpress.com/2009/12/08/nominal-ellipsis)

According to Zwicky, (i) and (ii) are fully grammatical, but (iii) and (iv) require an extra processing work, even when verbal agreement provides the relevant information for the elided number feature inside the DP.

[8] Thanks to Dave Embick, James Griffith, Jason Merchant and Gary Thoms for judgments and comments.

d. %John's books are on the table but Peter's is on the desk.

The % symbol ranges from speakers that found the sentences perfect to those that found a subtle difference (say, ?) between the identical sentences and the non-identical ones. The fact that we find subtle variation across speakers in the extent mismatches are allowed seems to obey some accommodation mechanism maybe related to the nature of number as opposed to gender. In effect, recall that gender concord does not improve the basic cases we have seen in section 2.2.2 (e.g., **el tío de Juan y la de María* 'the.masc uncle of Juan and the.fem of María'), although some sort of accommodation seems also allowed under very restricted scenarios (see example (56) in section 3.1). The question is whether such an accommodation is due to morphological or semantic/LF reasons. Why does for instance number subject / verb agreement improves the mismatches to the extent to make them fully acceptable, but gender concord does not? Does gender subject-verb agreement -in languages which has it- do it better than gender concord? It seems that gender agreement does not improve a gender mismatch under ellipsis, either. Consider for instance Syrian Arabic. The following example, where *doctor* is masculine in the antecedent, does not allow for an NPE reading according to which we are talking about a female North American doctor in the second conjunct, but only a reading according to which we are talking about some North American female person (i.e., a nominalization or empty noun reading):

(90) ṭṭabiib al arʒentinii biʃtagol fil bayt wal
the.doctor Argentinean.masc works.masc at home and
amrikiyah btiʃtagol fil mustaʃfa
the American.fem works.masc in the.hospital
'The Argentinean doctor works at home and the American girl at the hospital.'
[Syrian Arabic, Diego Estomba p.c.]

The relevant reading is allowed once one changes the feminine for the masculine in the second nominal phrase. Further research should (dis)confirm this observation. Nevertheless, even within English there seems to be some indication pointing out to the conclusion that it is not agreement by itself what improves number mismatches. For instance, judgments are more degraded whenever there is absence of syntactic parallelism between the DPs under dependency:

(91) a. %I like John's book. Peter's are not so good.
b. I like John's book. Peter's is not so good.
c. I like John's books. Peter's are not so good.
d. %I like John's books. Peter's is not so good.

None of the three consulted speakers found (91a) and (91d) perfectly grammatical. Clearly, they were judged much worse than the number asymmetries in (89). A possible answer would be that there is a parallelism effect here created by the operator nature of Number, as indeed suggested by Sag (1976) to deal with other type of number mismatches under VP-ellipsis. We can then propose that parallel LF representations are more amenable to LF accommodation than non-parallel ones. In other words, number mismatches are not allowed under NPE ellipsis but LF-accommodation is allowed to the extent the variables

introduced by the number operator be bound from parallel positions. This is what happens in the mismatches in (89), but not in (91) where the operators in the antecedent and in the elided phrase are sited in different positions (object and subject). As said, much more research should be done in this empirical domain in order to know why number but not gender can be accommodated.[9] At any rate, there seems to be good basis to support an asymmetry with respect to accommodation of number and gender.

4.2.3. Selection by *n*: RootP ellipses

As shown by Saito & Murasugi (1990), some sort of Japanese NP-deletions seem to parallel what we call in the previous section NumP-ellipsis (see the Japanese examples in (1), repeated as (92), and Saito *et al* 2008 for a recent approach), where ellipsis is licensed by the sole presence of genitive remnants. As we saw in the introduction, the form of the genitive is homophonic with the *no* anaphor (see (2) repeated as (93)):

N'-ellipsis

(92) a. [Taroo no taido] -wa yoi ga, [Hanako no taido]-wa
no attitude-TOP good though *no* attitude-TOP
yokunai
good-not
'Though Taroo's attitude is good, Hanako's isn't.'

b. [Rooma no hakai] -wa [Kyooto **no** ~~hakai~~] -yorimo
Rome no destruction-TOP *no* destruction-than
hisan data
miserable was
'Rome's destruction was more miserable than Kyoto's.'
[Saito et al 2008: 253]

Anaphoric -no

(93) Akai **no** –o mittu kudasai
red one-Acc three give.me
'Please give me three red ones.'
[Takita 2007: 51]

An important difference between both types of phenomena is that anaphoric *no* cannot be used to replace eventive nouns:

(94) *Taroo-no koogeki-wa totemo tuyoi no data.
Taroo-Gen attack-Top very strong one was
'Taroo's attack was a very strong one.'
[Takita & Goto 2013: 216]

It seems that the anaphoric *no* construction is amenable to an EN analysis, whereas (92) has all the properties of a surface anaphora (NumP ellipsis, strictly speaking).

[9] An alternative analysis could claim that this type of ellipsis in English is not an instance of NumP ellipsis, but of *n*P ellipsis plus an additional PF mechanism that deletes stranded affixes. A similar approach is indeed pursued by Maeda & Takahashi (2013) to deal with putative cases of NumP ellipsis like (1)/(92) (see Saito *et al* 2008).

Interestingly, in dialects that morphologically distinguish the genitive and the pronominal form, like in the Nagasaki dialect of Japanese, the co-occurrence of a genitive remnant (*-n*) plus the putative proform *to* is attested. Consider (95). In (95a), the particular *–n* form of the genitive marker is shown, whereas (95b) shows the particular form of the anaphoric empty noun *to*.

Nagasaki Japanese

(95) a. Takuya-**n** {keitai /hahaoya /taido /aizyoo}
Takuya-GEN cell.phone /mother /attitude /love
'Takuya's {cell phone/mother/attitude/love}'

b. Mariko-wa aoka **to**-ba katta.
Mariko-TOP blue one-ACC bought
'Mariko bought a blue one.'

[Maeda & Takahashi 2013]

In (96), the genitive marker and *to* co-occur:

(96) Haruna-n taido-wa Mariko-**n** **to** yorimo rippayatta.
Haruna-GEN attitude-TOP Mariko-GEN one than good.
'lit. Haruna's attitude was better than Mariko's one.'

[Maeda & Takahashi 2013]

At first sight, one could be tempted to adopt an EN analysis for this construction. However, Maeda & Takahashi (2013) present evidence in favor of an analysis in terms of ellipsis. One piece of such evidence comes from extraction of internal arguments in multiple genitive constructions:

(97) a. Haruna-n piano-n toriatukai-wa teineiya kedo,
Haruna-GEN piano-GEN handling-TOP careful though
'Though Haruna's handling of the piano is careful,'

b. Mariko-n to-wa sozatuya ne.
Mariko-GEN one-TOP rough PART
'lit. Mariko's one is rough.'

c. Mariko-n **furuuto-n** to-wa sozatuya ne.
Mariko-GEN flute-GEN one-TOP rough PART
'lit. Mariko's one of the flute is rough.'

[Maeda & Takahashi 2013]

As mentioned in section 2.1.2, extraction from an elliptical site can be considered as robust evidence in favor of ellipsis. As proposed by Maeda & Takahashi, the derivation for the elliptical gap in (97c) should minimally contain the trace of the internal argument:

(98) [$_{DP}$ Mariko-GEN [$_{DP}$ flute-GEN [$_{D'}$ [... [~~$_{NP}$ t_{flute} handling]~~ to] D]]]

As also noticed by Maeda & Takahashi, the form *to* cannot co-occur with overt nouns:

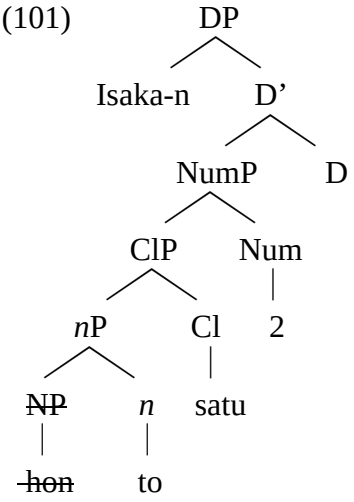
(99) a. *Haruna-n taido-wa Mariko-n **taido to** yorimo rippayatta.
Haruna-GEN attitude-TOP Mariko-GEN attitude one than good.
'lit. Haruna's attitude was better than Mariko's one attitude.'
b. *Haruna-n taido-wa Mariko-n **to taido** yorimo rippayatta.
Haruna-GEN attitude-TOP Mariko-GEN one attitude than good.
'lit. Haruna's attitude was better than Mariko's one attitude.'

Moreover, *to* occurs below classifiers like *satu*, which by assumption occupies a designated functional head, a Cl(assifier)P projection (see Tang 1990 and much subsequent works):

(100) a. Haruna-wa [Murakami-n hon san-satu]-ba katta.
Haruna-TOP Murakami-GEN book three-CL-ACC bought
'lit. Haruna bought Murakami's three books.'
b. Mariko-wa [Isaka-n **to** **ni-satu**]-ba katta.
Mariko-TOP Isaka-GEN one two-CL-ACC bought
'lit. Mariko bought Isaka's two ones.'

The solution proposed by Maeda & Takahashi consists of assuming that *to* is the surface form of the *n* head, which contains the [E] feature licensing ellipsis. The elliptical DP in (100b) is represented as follows:

(101)



Thus, *to* is conceived of the nominal counterpart of *do*-support in English VP-ellipsis. In effect, like English *do*, Nagasaki *to* does not have any semantic import; it just supports a stranded head in elliptical contexts. This analysis accounts for all the properties seen above; i.e., its surface anaphora behavior, the no co-occurrence with overt nouns and its relative position with respect to classifiers.

A similar analysis could be extended to some dialects of Dutch. Consider the case of Afrikaans and Frisian, both languages which make putative use of a pronominalization strategy. Thus, Afrikaans, among other strategies, makes uses of the proform *een* 'one' to fill some nominal gaps:

(102) Jan het ['n wit konyn] gekoop en Pieter het
Jan has a white rabbit bought and Pieter has
['n swart ***een***] gekoop.
a black one bought
'Jan bought a white rabbit and Pieter bought a black rabbit/a black one.'
[adapted from Corver & van Koppen 2011: 377, ex. (15b)]

However, as noticed by Corver & van Koppen (2011), Afrikaans *een* can combine with an internal argument:

(103) a. % Ek vind [die koningin van Nederland] meer aangenaam
I find that queen of the.Netherlands more kind
as [*die een van Engeland*].
than the one of England
b. Ek vind [die koningin uit Nederland] meer aangenaam
I find that queen from the.Netherlands more kind
as [*die een uit Engeland*].
than the one from England

(104) [Die gerug dat Bill ontslaan sou word] en [*die een dat*
the rumor that Bill fired would be and the one that
Marie haar pos sou behou], veroorsaak baie oproer.
Marie her job would keep caused much commotion
[Corver & van Koppen 2011: 381, footnote 8, exs. (i)-(ii)]

Frisian behaves similarly. Among other ways to produce nominal gaps in the language, Corver & Koppen notice that the form *–en* attached to adjectival remnants can be followed by a nominal gap optionally realized by a zero morpheme or the form *ien* 'one'.

(105) Jan hie in witt*e* auto en Geart *in swarten* (*ien*).
Jan has a white-*e* car and Geart a black-*en* (one)
'Jan has a white car and Geart a black one.'
[adapted from Corver & van Koppen 2011: 395, ex. (60b)]

As shown in (106) and (107) below both strategies can take internal arguments of the missing noun as remnants:

(106) Jitse wiisde him op [in posityf besprek fan syn
Jitse pointed-out him to a positive review of his
roman] en Jitske op in [negativ*en* (ien) *fan syn samle fersen*].
novel and Jitske to a negative-*en* (one) of his collected poems
'Jitse pointed out to him a positive review of his novel and Jitske pointed out a negative review of his collected poems.'

(107) Jan krige [in mûnlinge meidieling dat syn omke siik wie]
Jan got an oral announcement that his uncle ill was
en [in skriftlik*en* (ien) *dat syn heit stoarn wie*].

and a written-*en* (one) that his father died had
'Jan got an oral announcement that his uncle was ill and a written announcement that his father had died.'

[Corver & van Koppen 2011: 397, footnote 24, exs. (i) and (iii)]

According to Corver & van Koppen, the Afrikaans and Frisian facts are an indication that, as opposed to English *one* (although see the discussion in section 2.1.1), some empty nouns like *een* and *ien* can inherit the argument structure properties of the antecedent noun (Corver & van Koppen 2011: 397, footnote 24). This stipulation is needed in a theory, like Corver & van Koppen's and related ones, which conceives of the empty noun strategy as the only one.[10] The main problem of this account is that pro-forms in general do not have this inheritance property. A more elegant and empirically consistent view would claim that these variants of Dutch make use of RootP ellipsis, a surface anaphora. So the underlying representation for a case like (106) and (107) in Frisian, for instance, would have a full-fledged RootP in the nominal gap position with all its theta assigners abstractly represented in the syntax. Of course, this view would have to account for the occurrence of a putative pro-form like *een* or *ien* and for other lexical restrictions which seem point out in the direction of assimilating these constructions to English *one*. It has also to account for the doubling effect we observe in Frisian, for instance. None of these facts, however, seems to be fatal for an ellipsis analysis. Ultimately, the final form of the analysis would depend on the results of other diagnostics for NPE in these Dutch dialects.

4.3. Summary

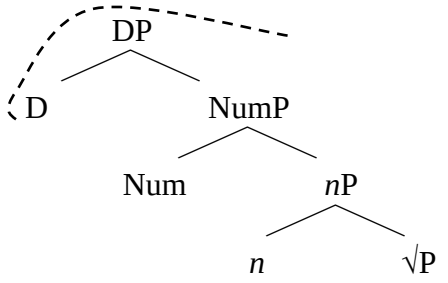
The E-selection approach to the licensing problem predicts different sorts of nominal ellipses depending on the size of the elliptical site, which is selected by the [E] feature. It seems that there is good evidence to postulate the following elliptical sizes: *n*P ellipses, NumP ellipses and RootP ellipses, among other options depending on the proper representation of DPs. In turn, this approach predicts different morphological effects depending on the size of the elliptical site and internal properties of each language (inflectional or agglutinative, for instance). Thus, we have seen that there are at least three morphological strategies which give us what in other accounts are considered as government effects, namely: (i) morpheme dislocation (Hungarian), (ii) morpheme deletion (Spanish) and (iii) support strategies like Nagasaki Japanese. If correct, this approach allows us to dispense with the morphological licensing component of the theory of nominal ellipses proposed in previous analyses.

[10] Indeed, this problem applies to Lobeck's (1995) general theory of ellipsis, according to which all types of ellipses have underlying *pro*s.

5. Radical ellipses

To complete the picture we would ask about the possibility of a radical instance of nominal ellipsis affecting the root and the entire set of extended functional projections:

(108)



DP-ellipsis

This would give us an elliptical full DP. The relevant domain to resolve this question involves languages with productive null arguments like Japanese or Spanish. Oku (1998) first observed that Spanish and Japanese differ in non-trivial ways as far as the interpretative properties of null subject arguments are concerned. Thus, while the null subject in the Japanese example in (109) is ambiguous between a strict and a sloppy reading, according to which either John thinks that Mary's proposal will be accepted or his(=John) own proposal will, the null subject in (110) only admits the strict reading, according to which the empty subject can only refer to María's proposal and not to Juan's:

Japanese: strict reading OK, sloppy reading OK

(109) a. Mary-wa [zibun-no teian-ga saiyo-sare-ru-to] omotteiru.
Mary-TOP [self-GEN proposal-NOM accept-pass-pres-comp] think
'Mary$_1$ thinks that her$_1$ proposal will be accepted.'
b. John-mo [*e* saiyo-sare-ru-to] omotteiru.
John-also [*e* accept-pass-pres-comp] think
Lit. 'John also think *e* will be accepted.'

Spanish: strict reading OK, sloppy reading *

(110) a. María cree que su propuesta será aceptada.
Maria believes that her proposal will-be accepted
'Maria believes that her proposal will be accepted.'
b. Juan también cree que *e* será aceptada.
Juan also believes that it will-be accepted
'Juan also believes that it will be accepted.'

[Oku 1998: 165]

As noticed by Oku, Spanish null subjects behave like English overt subject pronouns, which can only have the strict reading (see the translation).

Takahashi (2010) makes the additional observation that null subjects/arguments in Japanese can be ambiguous between a quantificational and an E-type reading (see 111)

(111) a. Sannin-no mahootukai-ga Taroo-ni ai-ni kita.
three-GEN wizard-NOM Taroo-DAT see-to came

'Three wizards came to see Taroo.'

b. **[*e*]** Hanako-ni-mo ai-ni kita.
Hanako-DAT-also see-to came
'lit. *e* came to see Hanako, too.'

[*e*] = the set of wizards are coincident (E-type reading).
[*e*] = the set of wizards can be divergent (quantificational reading)

The quantificational reading in Spanish is disallowed:

(112) a. Tres magos vinieron a ver a Juan.
three wizards came to see J.

b. **[*e*]** Vinieron a ver a Pedro también.
came to see to P. also
(only E-type reading)

Thus, null subjects in Spanish behave (again) as English weak pronouns:

(113) a. Three wizards came to see Taroo.
b. **They** came to see Hanako, too. (only E-type reading)

It seems then that there are good reasons to extend the distinction between ENs and NPE to the DP level. Other diagnostics may be constructed on the general basis of what we know about the difference between surface and deep anaphora and others on language particular properties.

A prominent line of analysis, mainly represented by Oku (1998), Saito (2007), and Takahashi (2010), among others, precisely claims that the difference between Spanish and Japanese must be done on the basis of the surface / deep anaphora distinction. Thus, while Spanish null subjects are underlying *pro*s, Japanese null arguments are instances of DP-ellipsis:

(114) a. Juan también cree [que ***pro*** será aceptada].
J. also believes that will-be accepted

b. John-mo [[$_{DP}$ ~~**zibun-no teian-ga**~~] saiyo-sare-ru-to]
John-also [self-GEN proposal-NOM accept-pass-pres-comp]
Omotteiru.
think
Lit. 'John also think e will be accepted.'

In strict sense, the difference can also be captured under a uniform ellipsis analysis, according to which null subjects in consistent null subject languages like Spanish are deleted pronouns (see Holmberg 2005, Roberts 2010 and Saab 2009 and 2012, among others). We refer the reader to those works for detailed discussion. At any rate, the analysis in terms of ellipsis for null arguments in Japanese directly accounts for both the sloppy and quantificational readings which are typical properties of elliptical constructions. Thus, in the Spanish example in (110b) the sloppy reading is allowed to the extent clausal ellipsis applies:

(115) Juan también ~~cree~~ ~~[que~~ ~~***su***~~ ~~***propuesta***~~ ~~será~~ ~~aceptada].~~
J. also believes that his proposal wil-be accepted

A simple extension of the proposal in the previous section would be to claim that argument ellipsis is licensed by an [E] feature on V for null objects or on T for null subjects, as indeed proposed by Takahashi (2010). This analysis would also explain why for instance adjunct ellipsis is not allowed. As shown by Takahashi (2010), the example in (116b) cannot mean that John did not wash a car carefully, but just that he did not wash a car.

(116) a. Bill-wa kuruma-o teineini aratta.
Bill-TOP car-ACC carefully washed
'Bill washed a car carefully.'
b. John-wa *e* arawanakatta
John-TOP washed.not
'lit. John didn't wash *e*.'
[Takahashi 2010]

Even when appealing, this analysis does not explain the basic correlation that argument ellipsis and lack of agreement are closely related (the so called *anti-agreement hypothesis*), among other problems discussed in Saab (2012). Anyway, the problem is beyond the modest limits of this chapter.

6. Conclusion

In this chapter, I have presented a battery of diagnostics to distinguish empty noun constructions from different sorts of nominal ellipses. Ultimately, nominal gaps within and across languages are derived under one or the other analysis and their subtypes. Thus, we saw that empty nouns are lexically restricted to express some general concepts and are sensible to nominalization processes. Moreover, their structure is that of a pronoun (i.e., a set of nominal functional rootless projections) as also their semantic distribution is. Nominal ellipses, instead, are derived from full-fledged nominals via an operation that gives us their silent final forms (i.e., deletion or non-pronunciation). Such an ellipsis operations is minimally subjected to a syntactic identity condition, although other pragmatic and semantic accommodations may be at work. In turn, phrasal selection by an [E] feature gives us different forms of nominal ellipses, depending of the locus of such a feature: *n*P-ellipsis, NumP-ellipsis, RootP-ellipsis and so on. This account predicts different conflictive morphological outputs which are resolved by different strategies, like morpheme dislocation, morpheme deletion and morpheme support depending on language particular properties. Thus, the so-called morphological licensing in NPE (Lobeck 1995, Kester 1996a,b) is illusory. Finally, we saw that the distinction between surface and deep anaphora can be extended to account for the distribution of null arguments. In effect, whereas Japanese makes use of DP-ellipsis, such a strategy is unavailable in Spanish subject position, where underlying null subjects are pronominal.

The survey of nominal ellipsis phenomena we have explored here is, of course, incomplete. We hope, however, that the diagnostics presented be of some help for a better understanding of nominal ellipsis and their subtypes in future researches.

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