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Chapter 26
Nominal Ellipses
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Nominal Ellipses

Abstract: This chapter centers on nominal ellipsis phenomena from a broad perspective. Firstly, several diagnostics are provided in order to make a basic distinction between empty nouns and true instances of nominal ellipses. One set of such diagnostics is related to uniformity considerations; i.e., the parallelism between elliptical and non-elliptical nominal phrases with respect to thematic assignment, matching effects and extraction. Another set has to do with the specific conditions that distinguish empty nouns from nominal ellipses with respect to the need for an antecedent, identity effects, productivity and lexical meaning. Second, the chapter also focuses on the recoverability conditions that regulate the distribution of nominal anaphora. It is shown why lexical identity is unavoidable in nominal ellipses. Moreover, some putative instances of pragmatically controlled nominal ellipses are, in reality, conceived of as empty nouns requiring contextual salience. Finally, the chapter addresses the problem of licensing nominal ellipses. On the one hand, it is argued that there is no licensing by inflection of any sort. Instead, the morphological effects we observe are epiphenomena resulting from the way in which morphology resolves different stranded affix scenarios. On the other hand, a typology of nominal ellipses is proposed based on the different sizes that the elided constituents might have depending on some selectional properties of functional heads.
Key words: nominal ellipsis, empty nouns, identity, licensing, anaphora

26.1. Introduction

Nominal ellipsis is the somewhat vague label applied to different types of anaphoric phenomena involving a gap within the internal structure of the nominal phrase. It is used in the literature for a set of arguably 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 this language, 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 with 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):[1,2]

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[1] I use the names that each of these constructions receive in the literature, without any theoretical commitment.
[2] Through this chapter, I follow the Leipzig Glossing Rules (https://www.eva.mpg.de/lingua/resources/glossing-rules.php). For the sake of simplicity, in most cases I use Rule 4 for expressing one-to-many correspondences and optional Rule

N'-ellipsis

(1) a. [Taroo no taido]-wa yoi ga, [Hanako no ~~taido]~~-wa
Taroo *no* attitude-TOP good though Hanako *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 Kyoto *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.
Taroo-NOM **far-ATR** **place**-to went
'Taroo went to a distant place.'

b. Taroo-ga **too-ku**-e itta.
Taroo-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.' (*e* =empty)

[Takahashi 2008: 395]

4C, which avoids unnecessary segmentation in the original examples. I also use Rule 6 for non-overt elements, especially, in the Spanish examples. In the general case, I avoid modification of glosses from other sources. Abbreviations: ACC = accusative; ADJ = adjective; ATR = attributive marker; CLASS = classifier; CL = clitic; COMP = complementizer; DAT = dative; DET = determiner; DIM = diminutive; F = feminine; FUT = future; GEN = genitive; IMP = imperative; INF = infinitive; LOC = locative; M = masculine; N = neuter, NOM = nominative; PASS = passive; PART = particle; PL = plural; PRS = present; PST = past; SBJV: subjunctive; SG = singular; TOP = topic.

As the English glosses show, some of these constructions can be translated by a nominal gap or a similar nominal anaphor 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
DET:F[SG] destruction of Rome be.PST[3SG] more miserable that
la de Kyoto.
DET:F[SG] of Kyoto
'Rome's destruction was more miserable than Kyoto's.'

b. Por favor, deme tres rojos.
please give.IMP:CL.DAT.1SG three red:M:PL
'Please, give me three red ones.'

Like English, Spanish lacks temporal / spatial elliptical nouns, but like many languages (including indeed English and Japanese) it makes productive use of human 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
that DET:F[SG] crisis CL.ACC.F[SG] pay:[PRS.SBVJ]:3PL DET:M:PL
ricos!
rich:M:PL
'May the rich pay for the crisis!'

b. Los/las de al lado llamaron tres veces.
DET:M:PL / DET:F:PL of to:DET[M.SG] side call:PST:3PL three time:PL
'The guys/girls living next door called three times.'

Finally, Spanish licenses radical gaps in a productive way for subject arguments, but regarding objects, the phenomenon is only attested with indefinite objects (with the exception at least of Andean dialects; see Suñer & Yépez 1988):

(7) a. *e* Trabajan.
e work:[PRS]:3PL
'They work.'

b. Juan compró manzanas y Pedro también
Juan buy:[PST.3SG] apple:PL and Pedro also
compró *e*.
buy:[PST.3SG] e
'Juan bought apples and Pedro also bought apples.'

Thus, language after language we observe the ubiquity of nominal ellipsis phenomena. In this chapter, I will adopt the hypothesis -very widespread in the generative tradition- that the term *ellipsis* refers to a syntactic mechanism that generates some gaps on

the basis of salient linguistic information. Put differently, the term *ellipsis* only applies to what Hankamer & Sag (1976) call *surface anaphora*. In contradistinction, Hankamer & Sag argued that other anaphora are simply (silent) base-generated proforms, namely, *deep anaphora*. The general conditions that account for the distribution of these two types of anaphor are discussed at length in Hankamer & Sag's original paper and much subsequent work since then. This chapter is framed in this tradition. Thus, the set of facts to be discussed in what follows raises at least two basic questions:

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

Given the deep / surface assumption, and the analytical tools it provides, only a subset of the examples discussed so far will be derived as instances of ellipsis. Other cases illustrated in (1)-(7) will be conceived of as 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 from those attested for nominal ellipsis. In section 2, I will provide several tests to distinguish both types of anaphora with the hope of making a descriptive contribution in an area that is still poorly understood. This will answer (Q1) at least partially. In section 3, I will (also partially) answer (Q2) by addressing the problem of the identity condition in nominal ellipses. The so-called licensing problem, also connected to (Q2), will be explored in section 4, where I will argue that there is no morphological licensing of any sort; the morphological reflexes attested in nominal ellipsis environments are epiphenomena arising from the interaction of various morphological, syntactic and semantic factors.

Before entering into the varieties of nominal ellipsis, 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 nominal root. 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, I assume that it minimally consists of a lexical Root, √, and a category-defining head, *n*, and that both heads are combined via head movement in the syntax (see Embick & Marantz 2008).[3]

(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 (e.g., *la destrucción italiana vs*. *la destrucción de Italia*; 'the Italian destruction' *vs*. 'Italy's destruction') to be selected by the Root (= √). Gender features, when present in a language, are encoded inside the *n*P (Saab 2004, 2008, 2010a).

[3] When irrelevant, I will just refer to the complex formed by *n* and RootP as NP.

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

Hankamer & Sag (1976) distinguish two basic types of anaphora, namely, deep and surface anaphora. Briefly summarized, 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 anaphora 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 (syntactic or semantic, in broad terms). Since then, surface anaphora are conceived of as *invisible / inaudible* full-fledged structures, the result of the operation that we call *ellipsis*. In turn, deep anaphora are conceived of as lexical proforms made available by the Universal Feature Inventory of Universal Grammar and the combinatory system that produces syntactic objects; i.e., they 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 especially clear in languages like Spanish which make productive use of both empty noun constructions (ENs) and NP-ellipsis (NPE).

(9) los de al lado / los tontos / los
DET:M:PL of to:DET[M.SG] side DET:M:PL fool:M:PL DET:M:PL
que cantan
that sing[PRS]:3PL
'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
DET:M:PL dog:M:PL smart:PL and DET:M:PL fool:M:PL
son indistinguibles.
be[PRS]:3PL indistinguishable:PL
NPE reading: 'Smart dogs and foolish dogs are indistinguishable.'
EN reading: 'Smart dogs and foolish people are indistinguishable.'

b. Los perros de enfrente y los
DET:M:PL dog:M:PL of in.front and DET:M:PL
de al lado son ruidosos.
of to.DET[M.SG] side be[PRS]:3PL noisy:M:PL
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). Thus, the human reading arises because of the presence of an empty

noun in the second conjunct of both sentences in (10) (see Panagiotidis 2002, 2003a,b, and Schütze 2001 and Corver & van Koppen 2011 for related analyses). I will assume that an empty noun is, strictly speaking, a functional nominal category which might encode some syntactic-semantic features such as [+/- human], [+/- female], [+/- count] and so on. It is the same category that provides nominal status to a given bare Root (see Embick & Marantz 2008 and (8) above). In turn, the readings under which we are always talking about dogs are derived by NPE. As already mentioned, NPE entails deletion / non-pronunciation of a full fledged *n*P including the *n* itself and minimally the √P. The two configurations are illustrated in (11), where I cross out the elliptical constituents following standard conventions:

	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; see the next section):

(12) a. Los perros inteligentes y [los ~~perros~~ / $n_{[human]}$
DET:M:PL dog:M:PL intelligent:PL and DET:M:PL dog: M:PL / $n_{[human]}$
tontos] son indistinguibles.
fool:M:PL be[PRS]:3PL indistinguishable:PL

b. Los perros de enfrente y [los ~~perros~~ / $n_{[human]}$
DET:M:PL dog:M:PL of in.front and DET:M:PL dog:M:PL / $n_{[human]}$
de al lado] son ruidosos.
of to:DET[M.SG] side be[PRS]:3PL noisy:M:PL

The two (rough) representations in (12) adequately describe the ambiguity in (10). The next question is what other types of predictions arise by 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 2008, 2010b and references therein):

Uniformity Assumption:

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

This assumption allows us to distinguish between ENs and NPE in at least three related domains, namely, (i) thematic assignment (2.1.1), (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, while others 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 special reference to the human EN construction and NPE in Spanish.

26.2.1. Uniformity tests

26.2.1.1. Thematic assignment

A crucial difference between the two configurations in (11) is that ENs are not thematic assigners. Elided NPs, in turn, conserve the thematic properties of their non-elliptical counterparts. This is a general property that distinguishes pronouns or deep anaphora 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* anaphora 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, given that ENs lack theta-grids. 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), there are 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]

By virtue of these facts, Panagiotidis (2002, 2003a,b) proposes the following EN analysis, according to which *one* realizes an empty noun incapable of assigning theta-roles:[4]

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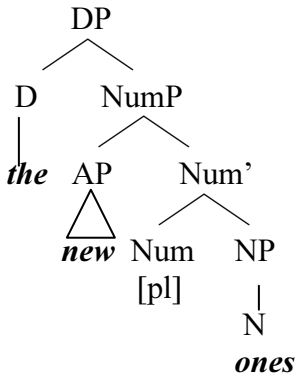
[4] Additional evidence for the nominal status of *one* is that: (i) it can be the complement of a determiner, (ii) it can receive adjectival modification and (iii) it can occur in the plural form.

(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)]

(18)



It is worth mentioning that neither this analysis nor the evidence that seems to support it is uncontroversial. Empirically, examples in which *one* replaces deverbal nouns (19a), *picture*-like nouns (19b) and human relational nouns like *queen*, *supporter* and *student* (19c-e) are attested in corpora (see Payne *et al* 2013 for the source of each example):

(19) 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].
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 República. 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 *Rome'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.

Yet, Kayne (2015) has criticized the nominal status of *one* on empirical grounds. According to Kayne, in its anaphoric use, *one* is not a noun, but a complex determiner. The link with its antecedent is, nevertheless, mediated by a silent noun, so anaphoric *one* is still a deep anaphor on Kayne's account.

One way to handle the facts under the EN analysis is reinterpreting Payne *et al*'s idea that frequency is accounted for in terms of blocking: More than to 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 *Rome's destruction and Cartage's* is not because of some blocking effect, but because the second case is a true instance of ellipsis. However, I agree with Payne *et al* 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 noun complements are really grammatical or not under *one*-replacement (e.g., (17)).

Alternatively, the paradigm in (19) could also be taken as evidence in favor of a surface anaphor analysis for *one* (see, for instance, Hankamer & Sag 1976). This idea is extensively discussed in Llombart-Huesca (2002), where *one* is taken as the surface reflex of a support strategy for the Number head in cases in which the NP is indeed deleted by ellipsis. According to Llombart-Huesca, who does not consider data like (19), the basic pattern in (14)-(17) shows that NP complements are part of the ellipsis site and, as a consequence, not visible on the surface.[5] On this account, the asymmetry between complements and adjuncts would follow from the size of the ellipsis site. At any rate, both the NPE and the EN analyses should account for variation in judgments with respect to the availability of *one* to take thematic complements (i.e., the paradigm in (19)).

The diagnostic we are discussing here raises no controversy when it comes to some nominal gaps in Spanish. As shown in Kornfeld & Saab (2004) and Saab (2008), this diagnostic gives positive results when applied to the following Spanish examples:

(20) a. los estudiantes de química y los de física…
DET:M:PL student:PL of Chemistry and DET:M:PL of Physics
'the students of Chemistry and the students of Physics…'

b. la matanza de los leones y la de los tigres…
DET:F[SG] killing of DET:M:PL lion:PL and DET:F[SG] of DET:M:PL tiger:PL
'the killing of the lions and the killing of the tigers…'

c. la destrucción del puente y la de la ciudad…
DET:F[SG] destruction of:DET[M.SG] bridge and DET:F[SG] of DET:F[SG] city
'the destruction of the bridge and the destruction of the city'

d. el rumor de que llegaste temprano y el de que nunca llegaste…
DET[M.SG] rumor of that arrive:PST.2SG early and DET[M.SG]

[5] An alternative analysis for *one*-replacement is proposed in Harley (2005), where *one* is seen as the phonological realization of the *n* head specified as [+identity] and [+count]. Despite important differences with Llombart-Huesca's analysis, *one* also represents a surface anaphor underlying structure under Harley's account.

of that never arrive:PST.2SG
'the rumor that you arrived early and the rumor that you never arrived…'

The facts in (20) clearly favor an analysis in terms of NPE. If the nominal gaps in (20) were analyzed as containing an EN, we would expect that these examples were ungrammatical given that ENs are not thematic assigners. In contradistinction, a nominal phrase that it is elided conserves its thematic dependencies intact after ellipsis. Thus, the (again rough) representation in (21a), but not the one in (21b), accounts for the occurrence of internal arguments of the Root:

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

Note, however, that the analysis in (21a) is inconsistent with the assumptions made regarding the size of the ellipsis site and the geometry of DPs (cf. (8)). Given that this type of NPE in Spanish is ellipsis of *n*P (see 11b), we predict that thematic PPs should be part of the ellipsis site, as argued by Llombart-Huesca (2002) for English *one* (see above). A possible way to overcome this problem is by assuming that the internal complement of *destruction* in the second conjunct has to vacate the *n*P domain to some higher position (see Ticio (2003), Saab (2008), and also Eguren (2010) for another approach):

(22) [$_{DP}$ la [$_{XP}$ [$_{PP}$ de la ciudad] [~~$_{nP}$ destrucción *t*~~]]]
DET:F[SG] of DET:F[SG] city destruction

On this approach, this kind of 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 same analysis has also been defended for English NumP-ellipsis by Yoshida *et al* (2012) (e.g., *John books of poems and Peter's of theater*). In both languages, the evidence goes against any assimilation of these constructions to gapping.[6] Space limitations prevent us from entering into the nature of such evidence, although I will present an argument in favor of the analysis in (22) for some putative instances of NPE in English in the next section.

26.2.1.2. 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). In short, 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 extraction out of DPs requires manipulating too many variables (e.g., the relative position of the DP, its definiteness / specificity, among other poorly understood variables). However, Lipták & Saab (2010) provide the following example from Hungarian, a language that makes productive use of NPE:

[6] The reader is referred to the aforementioned works for extensive discussion.

(23) 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 (2014) also gives the following example from Greek, another NPE language:

(24) Tis istoriasi dha ton palio [proedhro__], kai...
the history:GEN 1SG.saw DET:M old:M chair:M and
'I saw the former chair person(masc) of the history department,and...'
... tis glossologias tha dho tonkenurio.
DET linguistics:GEN FUT.1SG:see DET:M new:M (lit.)
'of linguistics, I'll see the new(masc) (one).'
[Merchant 2014: 12, ex. 43]

The same result is obtained in Spanish NPE:

(25) a. Yo sé de quién compraste dos fotos,
I know[PRS.1SG] of who buy:[PST.2SG] two picture:PL
pero no sé de quién compraste tres ~~fotos~~.
but not know[PRS.1SG] of who buy:[PST.2SG] three picture:PL
b. Yo sé de quién no compraste ninguna
I know[PRS.1SG] of who not buy:[PST.2SG] any
foto, pero sé de quién compraste algunas ~~fotos~~.
picture but know[PRS.1SG] of who buy:[PST.2SG] some picture:PL
c. Yo sé de quién no compraste ninguna foto,
I know[PRS.1SG] of who not buy:[PST.2SG] any picture
pero sé de quién compraste varias ~~fotos~~.
but know[PRS.1SG] of who buy:[PST.2SG] many picture:PL

Yet, English presents a more interesting case related to sub-extraction facts. In principle, extraction is ungrammatical with numerals or quantifiers as remnants (sometimes taken as remnants of true NPEs). Consider the English counterparts to (25) (all from Gary Thoms, pers. comm.):

(26) a. * I know who you bought two pictures of, but I don't know who you bought three.
b. I know who you bought two pictures of, but I don't know who you bought three pictures of.
c. * I know who you didn't buy any pictures of, but I know who you did buy some.
d. I know who you didn't buy any pictures of, but I know who you did buy some pictures of.
e. * I know who you bought no pictures of, but I don't know who you bought

many.

f. I know who you bought no pictures of, but I don't know who you bought many pictures of.

On the basis of this paradigm, one would be tempted to conclude that English lacks NPE in these environments. However, as observed by Jason Merchant (pers. comm.), the examples become grammatical whenever the preposition is left stranded in the DP domain. As an illustration, consider the following counterpart to (26a):

(27) I know who you bought two pictures of, but I don't know who you bought three ~~pictures~~ of.

On an NPE account, these facts are accounted for along the lines proposed for Spanish in the previous section (see 22); i.e., the PP complement vacates the ellipsis site and then the *wh*-constituent is sub-extracted from the PP:

(28) I know who you bought two pictures of, but I don't know who$_i$ you bought [$_{DP}$ three [$_{PP}$ of t_i]$_j$ ~~[$_{NP}$ pictures [$_{PP}$ t_j]]~~].

Thus, the contrast observed in (26a) and (27) would constitute evidence in favor for a pseudo-gapping approach, at least in this case. However, the interaction between NPE and extraction is an area almost unexplored and whatever conclusion one draws from such facts should be taken as provisory at this point.[7]

26.2.1.3. Matching effects

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

(29)

El	amor	de	Juan	por	los	autos	es	más
DET[M.SG]	love	of	Juan	by	DET:M:PL	car:PL	be[PRS.3SG]	more
grande	que	el		mío	por	los	libros.	
big	that	DET[M.SG]		mine	by	DET:M:PL	books	

'Juan's love for cars is bigger than mine for books.'

(30)

la	insistencia		de	Juan	en	sus	problemas	y
DET:F[SG]	insistence:SG		of	Juan	in	his	problems	and
la	de	Pedro	en	los	suyos…			
DET:F[SG]	of	Pedro	in	DET:M:PL	his			

[7] NumP-ellipsis in English genitive constructions seems to be less uncontroversial, as for in these cases extraction of internal arguments gives grammatical results (e.g., *Rome's destruction and [$_{DP}$ Cartage's ~~[$_{NumP}$ Num [$_{NP}$ destruction t]]~~]*).

'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'.

(31) La entrega de los libros de Cortázar a María
DET:F[SG] delivery of DET:M:PL books of Cortázar to María
y la de los libros de Borges a Juan tienen
and DET:F[SG] of DET:M:PL books of Borges to Juan have
que hacerse el mismo día.
that do:INF:SE DET[M.SG] same day
'The delivery of Cortázar's books to María and the delivery of Borges' books to Juan have to take place the same day.'

As with the other diagnostics connected to the Uniformity Assumption, the test has to be checked language by language taking into account lexical and non-lexical particular properties of the languages under consideration. In principle, and as expected, the test gives positive results in clear cases of NumP-ellipsis in English.

(32) a. John's dependency on drugs and Peter's ~~dependency~~ on his mom…
b. John's dependency on drugs and mine ~~dependency~~ on my mom...

26.2.2. More diagnostics
26.2.2.1. Antecedents
Recall that a sentence like (10a), repeated in (33), is ambiguous between a human EN construction and a NPE one.

(33) Los perros inteligentes y los tontos
DET:M:PL dog:M:PL smart:PL and DET:M:PL fool:M:PL
son indistinguibles.
be:[PRS]:3PL indistinguishable:PL
NPE reading: 'Smart dogs and foolish dogs are indistinguishable.'
EN reading: 'Smart dogs and foolish people are indistinguishable.'

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

(34) Los tontos y los perros inteligentes
DET:M:PL fool:M:PL and DET:M:PL dog:M:PL smart:PL
son indistinguibles.
be:[PRS]:3PL indistinguishable:PL
'Foolish people and smart dogs are indistinguishable.'

This new sentence can only mean that foolish people and smart dogs cannot be distinguished. This follows from the basic division made between ENs and NPE. As observed by Hankamer & Sag (1976), one of the basic properties distinguishing deep and surface anaphora is the mandatory requirement of a linguistic antecedent for surface anaphora. Given that backward anaphora is not allowed in coordinated structures (at least in

NPE), the contrast between (33) and (34) is derived as a matter of linguistic antecedence. Put differently, the NPE reading in (34) is blocked because there is no linguistic antecedent in the required configuration.

26.2.2.2. Identity effects

Given that NPE requires a linguistic antecedent, ellipsis sites are formally linked to them. Such a formal dependency has particular manifestations across languages. In the case of NPE in Spanish and other languages, the gender specification must be identical between the antecedent and the nominal gap (for Spanish see Leonetti 1999, Depiante & Masullo 2001, Ticio 2003, Kornfeld & Saab 2004, Saab 2004, 2008, 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 2014). Although nouns differ as to how natural gender is morphologically represented, the ban of nominal ellipsis under gender mismatches remains constant with some subtle differences among speakers:

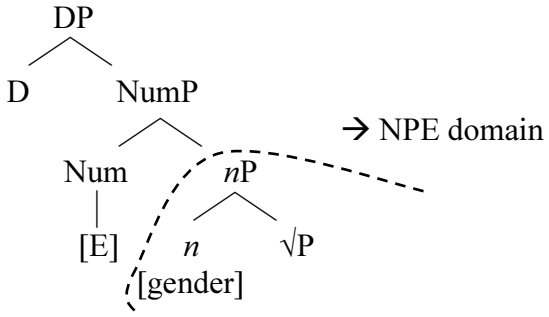
(35)	a.	*	el	tío	de	María	y	la	de	Pedro
			DET[M.SG]	uncle	of	María	and	DET:F[SG]	of	Pedro
	b.		el	tío	de	María	y	el	de	Pedro
			DET[M.SG]	uncle	of	María	and	DET[M.SG]	of	Pedro
	c.	*	la	tía	de	María	y	el	de	Pedro
			DET:F[SG]	aunt	of	María	and	DET[M.SG]	of	Pedro
	d.		la	tía	de	María	y	la	de	Pedro
			DET:F:[SG]	aunt	of	María	and	DET:F[SG]	of	Pedro

Number does allow for mismatches under ellipsis:

(36)	a.	el	perro	de	Juan	y	los	de	Pedro	
		DET[M.SG]	dog:M[SG]	of	Juan	and	DET:M:PL	of	Pedro	
		'Juan's dog and Pedro's dogs'								
	b	los	perros	de	Juan	y	el	de	Pedro	
		DET:M:PL	dog:M:PL	of	Juan	and	DET[M.SG]	of	Pedro	
		'Juan's dogs and Pedro's dog'								

Gender and number asymmetries have been accounted for in at least two ways in the literature. On one 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 has to respect lexical identity under ellipsis. This suggestion has been made by Giannakidou & Stavrou (1999), Depiante & Masullo (2001) and Kornfeld & Saab (2004). This type of analysis has been criticized for a number of reasons in Saab (2004, 2008, 2010a), who proposes that NPE in Spanish and other languages is ellipsis of the *n*P, to the exclusion of other extended projections of the nominal domain such as NumP and DP (see also Ticio 2003 and, more recently, Merchant 2014). Given that gender is specified on the *n*P level and number on the head of NumP (see 8), the asymmetry follows from the licensing condition on 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 4.2.1 below):

(37)



As mentioned, this analysis captures the gender-number asymmetry on the basis of the ellipsis site size. Yet, it still remains to be seen whether identity in nominal ellipsis must be captured in semantic or lexico-syntactic terms, but this will be the topic of section 3.1. For our purposes here, what matters is that identity effects of this type are a property of NPE, but not of ENs, which, as noted above, are subject to the general recoverability conditions on pronouns. When used as a free expression, the natural gender specification on ENs would be consistent only if the female or male presupposition encoded in the empty noun meets its conditions. Therefore, whenever you say *las tontas de al lado* 'the fools (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.

Note that this difference between NPE and human EN predicts that the ambiguity observed in (33) would vanish whenever gender features between antecedent and elliptical gap differ. This is borne out:

(38)

las	perras	inteligentes	y	los	tontos…
the:F:PL	dog:F:PL	smart:PL	and	the:M:PL	fool:M:PL

'the smart female dogs and foolish people…'

Here, the second conjunct can only have a human EN reading; the identity constraint on gender discussed above blocks an NPE reading.

26.2.2.3. Lexical restrictions and productivity

As noticed by Giannakidou & Stavrou (1999) and others, ENs, but not NPE, are lexically restricted.[8] On the one hand, they express some meanings but not others. As we have already seen, 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

[8] Giannakidou & Stavrou do not propose an empty noun analysis. Instead, they refer to a substantivization process to account for some of the constructions that I analyze as involving an underlying empty noun. Other constructions explored by Giannakidou & Stavrou, instead, do not seem to instantiate EN constructions. 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:N unknown'), does not have the properties of EN constructions (see Kornfeld & Saab 2005). Space limitations prevent us from providing an overview of the properties of this construction.

might encode correspond to general concepts such as HUMAN, SPACE, TIME, FACT, MANNER, etc. On the other hand, ENs are especially productive with certain types of modifiers but not others. Thus, as discussed in detail by Panagiotidis (2002), *poor* and *rich* are especially good EN modifiers in out-of-the-blue cases like *the poor* and *the rich*, under generic readings. Such effects could lead us to conclude that these are not manifestations of a particular empty noun syntax, but just nominal uses of adjectives. Given that there are indeed certain lexical and superficial similarities between these two phenomena, it is important to known, then, whether there are arguments for keeping them apart. As shown by Panagiotidis (2002: 56), adjectives like *poor* maintain their adjectival properties in EN environments; thus, they license degree modification but not plural morphology (e.g., *the very poor* vs. **the poors*). This follows if in the relevant cases *poor* is just an adjective modifying an empty noun and not a nominalized adjective:

(39) $[_{DP}$ the $[_{NumP}$ $[_{AdjP}$ poor$]$ $[_{NP} \varnothing]$]]

There are other morphological particularities that are relevant when it comes to making this distinction between ENs and nominalizations clearer. The diagnostics, once again, depend on language-internal properties. The use of diminutive forms in Dutch, for instance, is a good diagnostic to distinguish pure EN constructions from nominalizations, because adjectives in this language do not tolerate diminutive suffixes.

(40) 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 schwa, they show the plural form [-n].

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

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

(42) a. het centraletje
DET central:DIM
'the small power station'
b. de centrales

DET central:PL
'the power stations'

[Kester 1996a: 64, ex. (23)]

However, not always it is easy to keep empty noun constructions and nominalizations apart. In Spanish, for instance, there are good reasons to think that adjectives like *rich*, *poor* and others can participate in both types of underlying configurations. Thus, a nominal phrase as *los ricos* (lit. 'the richs') can be ambiguous between an empty noun structure, where the adjective modifies the EN (43a), or a nominalization structure, where *ricos* occupies the head noun position:

(43) a. $[_{DP}$ los $[_{NumP}$ $[_{AdjP}$ ricos] $[_{NP} \varnothing]$]] *Empty noun*
b. $[_{DP}$ los $[_{NumP}$ $[_{NP}$ ricos]]] *Nominalization*

As shown below, the second conjunct in (44) is ambiguous between a human EN construction according to which we are talking about people in general and an ellipsis reading according to which we are talking about rich people. This second reading follows if *ricos* is analyzed as a noun like in (43b) and, as such, can be a legitimate antecedent for another occurrence of the same noun in the elliptical gap. Of course, an EN reading is also available in this particular context:

(44) los ricos que ahorran toda la vida y
DET:M:PL rich:M:PL that save:[PRS]3PL all DET:F:[SG]life and
los ~~[$_{NP}$ ricos]~~ / [$n_{[human]}$] que no pagan impuestos…
DET:M.PL ~~rich:PL~~ that not pay:[PRS]:3PL taxes
'the rich that save money their entire life and the rich / ones who do not pay taxes…'

We can also disambiguate in the opposite direction. As the following examples from Kester (1996a) show, degree adjectival modification disambiguate in favor of an EN analysis:

(45) [Los extremadamente ricos $[_{NP} \varnothing]$] no
DET:M:PL extremely rich:M:PL not
viven en este barrio.
live:[PRS:3PL] in this neighborhood
'The extremely rich do not live in this neighborhood.'

[adapted from Kester 1996a: 74, ex. (57)]

As expected, NPE cannot apply in this case, because *rich*, when acting as an adjective, is not a legitimate nominal antecedent. Consider (46):

(46) Los muy ricos de este país y los del
DET:M:PL very rich:M:PL of this country and DET:M:PL of:DET[M.SG]
país vecino…
country neighbor…

'The very rich of this country and the people from the neighboring country…'

Here, the reading according to which people from the neighboring country are very rich is just not available. Dropping the intensifier *muy* 'very' makes the elliptical reading fully available again, showing that Spanish distinguishes adjectives that modify ENs (e.g., *los muy ricos*, Lit. 'the very richs') from deadjectival nouns. Only the latter can be the target of NPE.

In summary, besides superficial similarities, modified empty nouns and nominalizations are different phenomena. Once these possible confusion factors are set apart, we can safely conclude that ENs, as a phenomenon distinct from nominalization, are subject to two basic lexical restrictions: (i) they encode general concepts (TIME, MANNER, HUMAN, etc.), and (ii) they can be subject to particular morphological processes (irregular plurals, for instance). None of these properties apply to NPE, a systematic and productive process of deletion / non-pronunciation quite unrestricted semantically.

26.2.3. 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 follow from the general conditions that license either NPE or ENs (the need for an antecedent, identity effects, productivity and so on). Unfortunately, there is some degree of sloppiness in the literature when it comes to making this basic division. Even though I am aware of the controversial status of some of the diagnostics discussed in this section, I still think that the distinction between NPE and ENs is robust and should be taken seriously when discussing these phenomena within and across languages. In the next section, I discuss the nature of the recoverability conditions that regulate NPE and ENs.

26.3. Recoverability conditions on nominal ellipses

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

26.3.1. Identity in NPE

As is well-known, the proper nature of the identity condition on surface anaphora is a matter of controversy. Broadly speaking, the debate centers on whether identity should be formulated in purely semantic terms (Merchant 2001), in purely lexico-syntactic terms (Chomsky 1965 and much subsequent work in transformational grammar), or in mixed ones (Chung 2006, 2013 for a recent approach). Curiously, NPE has not been in the focus of such a debate, even though it constitutes an ideal scenario to evaluate competing theories on identity in ellipsis. An important exception is Giannakidou & Stavrou (1999) who propose the following condition:

(47) <u>Recoverability of the Descriptive Content in Nominal Subdeletion</u>:
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 lexico-syntactic. This is so, they argue, because case and number mismatches, like in Spanish, are attested in Greek NPE:[9]

(48) Htes irthe enas filos mu na me
yesterday came:3SG a friend:NOM mine SBVJ me
dhi ki ego meta episkefitka alus dio [~~filus~~].
see:3SG and I then visited:1SG other two:ACC friends:ACC
'Yesterday, a friend came to see me and I afterwards visited two more [friends].'
[Giannakidou & Stavrou 1999: 306 ex. (23)]

According to (47) the descriptive content must be 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 buying three *dictionaries* entails buying three *books*:

(49) *O Andreas agorase dio
DET:M.NOM Andreas:M.NOM bougth:3SG two:N.NOM
lexika ke i Maria agorase
dictionaries:N.ACC and DET:F.NOM Maria:F.NOM bougth:3SG
tria ~~[vivlia]~~.
three:N.ACC books:N.ACC
'*Andreas bought two dictionaries and Maria bought three.'
(intended meaning: 'three books')
[Giannakidou & Stavrou 1999: 307 ex. (24)]

One may wonder in what sense we can say that an antecedent A and an ellipsis site E are semantically identical when it comes to evaluating NPs for ellipsis. Assuming that in the general case NPs denote properties we can understand the condition in (47) as making reference to equivalence of properties. In this respect, as other semantic approaches to ellipsis (e.g., Merchant 2001), the theory predicts that lexical mismatches should be legitimate in NPE whenever the properties denoted by the antecedent and the elided phrase are identical. Empirical evidence demonstrates that this formulation of the identity condition is too weak and that some sort of lexical identity is needed. The main argument comes from synonymy relations among pairs of words. Consider, for instance, the synonymous nouns *doctor* 'doctor' and *médico* 'medic' in Spanish as they occur in the following DPs:

(50) El médico/doctor de Juan se reunió con
DET[M.SG]medic/doctor of Juan SE meet:PST.3SG with

[9] Yet, this argument does not hold if number (and also case) mismatches are the result of the fact that ellipsis only deletes the NP layer, to the exclusion of NumP and K(ase)P, as discussed in section 2.2.2.

el médico/doctor de Pedro.
DET[M.SG] medic/doctor of Pedro
'John's doctor/medic met Pedro's doctor/medic.'

As it stands, (47) predicts that *médico* would be a legitimate antecedent for elision of *doctor* and vice versa, given that, for instance, *John met Peter's medic* entails that *John met Peter's doctor* and vice versa. The prediction cannot be (dis)confirmed in this particular case because both nouns are masculine. Yet, it is easy to find pairs of synonymous nouns that differ in gender specification. Take, for instance, the masculine noun *casamiento* 'marriage' and the feminine one *boda* 'wedding', which are synonymous in Spanish under the ceremony and party meanings.[10] Ellipsis under strict lexical identity is of course allowed:

(51) a. el casamiento de Juan y el ~~casamiento~~
DET[M.SG] marriage:M[SG] of Juan and DET[M.SG] marriage:M[SG]
de Pedro…
of Pedro…
'Juan's marriage and Pedro's …'

b. la boda de Juan y la ~~boda~~ de Pedro…
DET:F[SG] wedding:F[SG] of Juan and DET:F[SG] wedding:F[SG] of Pedro
Intended 'Juan's wedding and Pedro's …'

Lexical mismatches are however strongly ungrammatical in both directions:

(52) a. * la boda de Juan y el ~~casamiento~~ de Pedro…
DET:F[SG] wedding:F[SG] of Juan and DET[M.SG] marriage:M[SG] of Pedro
Intended 'Juan's wedding and Pedro's marriage…'

b. * el casamiento de Juan y la ~~boda~~ de Pedro…
DET[M.SG] marriage:M[SG] of Juan and DET:F[SG] wedding:F[SG] of Pedro
Intended 'Juan's marriage and Pedro's wedding…'

It is worth noticing that the ungrammaticality of (52) cannot be triggered only by gender. Unlike the mismatches discussed in (35), gender specification in (52) is arbitrary (i.e., not related to natural gender or sex). Therefore, no semantic explanation for this particular gender mismatch seems to be available here.

English NumP-ellipsis behaves similarly in this respect. As shown by Merchant (this volume) pairs of synonyms like *nuptials/wedding* differ arbitrarily in number specification; i.e., *nuptials* is a *pluralia tantum* noun that triggers plural agreement with the verb in spite of being semantically singular.

(53) Beth's wedding was in Bond Chapel, and Rachel's wedding was in Rockefeller Chapel.

(54) Beth's nuptials were in Bond Chapel, and Rachel's nuptials were in Rockefeller Chapel.

[10] Note that *wedding* and *marriage* are not synonymous in English.

Verbal agreement mismatches, however, are not allowed under NumP-ellipsis:

(55) a. Beth's wedding was in Bond Chapel, and Rachel's was in Rockefeller Chapel.
b. Beth's nuptials were in Bond Chapel, and Rachel's were in Rockefeller Chapel.

(56) a. * Beth's wedding was in Bond Chapel, and Rachel's were in Rockefeller Chapel.
b. * Beth's nuptials were in Bond Chapel, and Rachel's was in Rockefeller Chapel.

The fact that an arbitrary property of nouns, like it being a *pluralia tantum*, must be preserved under ellipsis gives support to the hypothesis that semantic identity alone is not enough to identify the ellipsis site.

In summary, we are led to conclude that NPE requires some type of lexical/formal identity condition, more along the lines of the lexical-syntactic approach proposed by Merchant (2013) (see also Saab 2008, 2014, and Chung 2006) than in the semantic theory defended by Merchant 2001 (and much subsequent work) or in even more radical semantic/pragmatic views like Culicover & Jackendoff (2005, and Chapter 7, this volume) or Dalrymple *et al* (1991). Notably, this type of evidence also goes against laxer syntactic approaches, like the recent proposal in Thoms (2015), according to which syntactic identity does not require making reference to the content encoded in the syntactic nodes but only to the syntactic distribution of variables.

26.3.2. Recoverability and ENs

I have claimed that ENs are particular instances of deep anaphora. According to Hankamer & Sag (1976) recoverability conditions for deep anaphora are similar to those applying to pronouns and indexicals in general. In the nominal domain, standard cases of deep anaphora are indeed pronouns of different sorts like *she*, *we*, *I, this*, *that* and so on. In fact, the semantic and syntactic literature on pronouns agrees in the postulation of an empty noun in the underlying structure of pronouns. Whether all pronouns contain an empty noun is something that we cannot resolve here (see Elbourne 2013 and references therein). The intricacies of the semantics and syntax of pronouns in general is beyond the limits of the present chapter. Instead, I would like to make a brief remark on some putative instances of pragmatically controlled NPEs in Romance and beyond. Consider the following examples:

(57) a. [pointing to some red skirt; *pollera* is feminine in Spanish]
Dame la roja.
give.IMP.2SG:CL.1SG DET:F[SG] red:F[SG]
'Give me the red one.'
b. [pointing to some toy; *juguete* is masculine in Spanish]
Yo quiero ese con rueditas.
1SG want:[PRS.1SG] that:[M.SG] with wheel:DIM:PL
'I want that one with small wheels.'
c. [pointing to a bike; *bicicleta* is feminine in Spanish]
Cuando era chico, tenía una como
when was[PST.1SG] boy have:[PST.1SG] one:F[SG] like

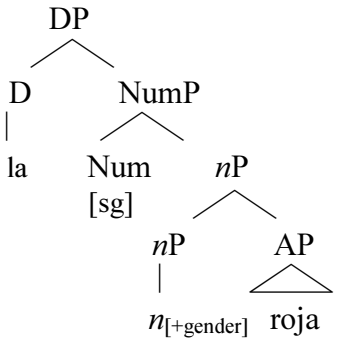
esa.
that:F[SG]
'When I was a child, I had one like that.'

Some clarifications are in order. First, 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, note 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 into English by *one* or by just a demonstrative.

The examples in (57) seem to pattern like putative cases of English VP-ellipsis controlled pragmatically (e.g., *Shall we?* as an invitation to dance; from Merchant 2004) and other surface anaphora (e.g., Sluicing). In view of this, some researchers have proposed abandoning the requirement of a linguistic antecedent (see section 2.2.1) as a reliable test for distinguishing surface and deep anaphora (see Chao 1987 and Lobeck 1995, among many others) and claim that surface anaphora can also be controlled pragmatically. However, Merchant (2004) has provided evidence for analyzing putative examples of English VP-ellipsis controlled pragmatically as instances of silent deep anaphora. I think that a similar approach is generalizable to (57): they are empty nouns pragmatically controlled.

I propose then that the sentences in (57) contain ENs minimally specified for some features like gender. Thus, the DP in (57a) can be analyzed along the following lines:

(58)



It seems that one crucial property that these empty nouns encode is that the entity pointed to must be a discrete entity, something that can be indeed signaled and individuated depending on properties of the context and an act of demonstration. In other words, the difference between cases like (57) and, say, human ENs is that the former are pure demonstratives (in Kaplan's (1989) sense) that require an associated demonstration to be complete. As is well-known, the notion of associated demonstration is vague as it does not necessarily imply a stereotypical act of pointing; some salient properties of the context seem to be enough in order to license a correct use of a demonstrative.

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

26.4. Licensing nominal ellipses

26.4.1. Some background

A crucial question for any 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. In other words, recoverability conditions are universal (see Chomsky 1965). The obvious next question is then why some languages have productive NPE or VPE while others do not. The answer involves what we might call the licensing component of the theory of ellipsis. Two prominent formal theories in the literature on NPE are Saito & Murasugi's (1990) Specifier-Head agreement approach (see also Lobeck 1990) and Lobeck's (1995) proper government approach. According to the first view, a given head licenses the ellipsis of its complement whenever such a head has an agreeing specifier. The following pattern is taken as evidence in favor of this line of analysis:

(59) a. I have read Bill's book, but I haven't read [$_{DP}$ John's [$_{\sout{NP}}$ ~~book~~]]
b. * I have edited a book, but I haven't written [$_{DP}$ a [$_{\sout{NP}}$ ~~book~~]]
c. * I have seen the book, but I haven't had a chance to read [$_{DP}$ the [$_{\sout{NP}}$ ~~book~~]]

[Saito *et al* 2008: 302]

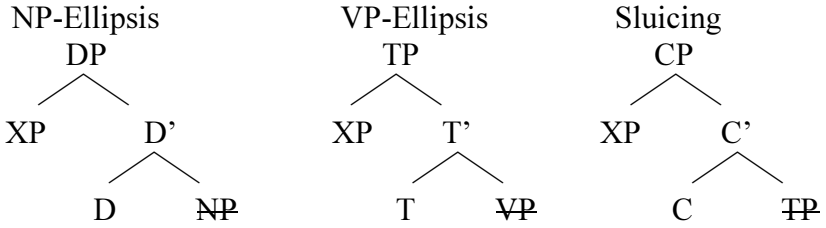
Note that only in (59a) the specifier of the DP is filled and, as predicted, allows for NPE. The appeal of this proposal is that it seems to generalize to other types of ellipsis; concretely, to VP-ellipsis and Sluicing. Thus, it is well-known, at least since Ross (1969), that only some C heads license Sluicing, in particular, those that are in a Specifier-Head configuration:

(60) a. John bought something, but I don't know [$_{CP}$ what [$_{\sout{TP}}$ ~~he bought *t*~~]]
b. * John insisted that he turned in his homework, but I wasn't sure [$_{CP}$ whether [$_{\sout{TP}}$ ~~he turned in his homework~~]]
c. * John insisted that he turned in his homework, and Bill reported to Mary [$_{CP}$ that [$_{\sout{TP}}$ ~~he turned in his homework~~]]

[Saito *et al* 2008: 302]

Similar patterns are attested in VP-ellipsis contexts. Schematically, the theory can be illustrated for each type of ellipsis as follows:

(61)



Beyond its initial appeal, Saito & Murasugi's idea that Specifier-Head agreement is what accounts for some types of elliptical phenomena across languages has some shortcomings. Its main weakness is that its empirical coverage is too restricted: languages show many

other forms of ellipsis than those that would depend on such an abstract configuration. Moreover, there are Specifier-Head agreement configurations that do not license ellipsis (e.g., sluicing is not generally allowed in relative clauses). These reasons might be behind Lobeck's (1995) reformulation of the theory of formal licensing. First, for Lobeck, ellipses (i.e., NPE, VPE and Sluicing) are not derived by deletion. On her account, ellipsis sites are instances of the so-called little *pro* that must be licensed and identified through government (see Rizzi 1990). Here is Lobeck's particular implementation:

Licensing and Identification of *pro*:

(62) An empty, non-arbitrary pronominal must be properly head-governed, and governed by an X^0 specified for strong agreement. (Lobeck 1995:20)

The crucial notion is *strong agreement.* Lobeck proposes that a given head X^0 is specified for strong agreement if and only if the head or the phrases and heads with which X^0 agrees morphologically realize agreement in a productive number of cases (Lobeck 1995: 51). Note that this approach explains why the configurations in (61) license ellipsis, but also extends to cases where the X^0 itself is inherently specified for certain formal features. In English, for instance, [+plural] is taken by Lobeck as a strong feature, which would derive why certain demonstratives and quantifiers license NPE without the need for Specifier-Head agreement:

(63) a. Mary likes those books, but I like [$_{DP}$ these [e]].
b. The books were new, and [$_{DP}$ all [e]] were on syntax.

[Lobeck 1995: 85]

This contrasts with *the* or *a* we saw in (59b,c) where the plural feature is not realized on the relevant D head. Other strong features in English are [+possessive] and [+ partitive]. I refer the reader to Lobeck for detailed analyses of particular paradigms.

At any rate, the problem with this government-based approach is not only that the conceptual apparatus is not consistent with current approaches to formal syntax, but also that it makes the empirically suspicious claim that the particular morphological requirements some NPE gaps show are an indisputable indication of the role that morphology plays in licensing ellipsis. 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 as a demonstration that inflectional morphology is needed in order to license ellipsis. As we will see in the next section, these facts seem to be independent of the licensing problem *per se*.

Other current approaches to the licensing problem in ellipsis are also controversial. Theories based on some putative contrast condition on remnants (Giannakidou & Stavrou 1999 or Eguren 2010) are falsified by the mere existence of non-contrastive remnants (see Saab 2008 and Saab & Lipták 2016). Theories based on the quantificational nature of adjectival remnants (Sleeman 1993, 1996) fail because of the existence of non-quantificational remnants (such as simple thematic PP remnants). More morphologically-oriented approaches, which attribute a crucial role to word marker projections (Bernstein 1993) or gender/classifier ones (Alexiadou & Gengel 2012) are not only too weak but also empirically incorrect at least for Romance. Attributing licensing to a gender or classifier

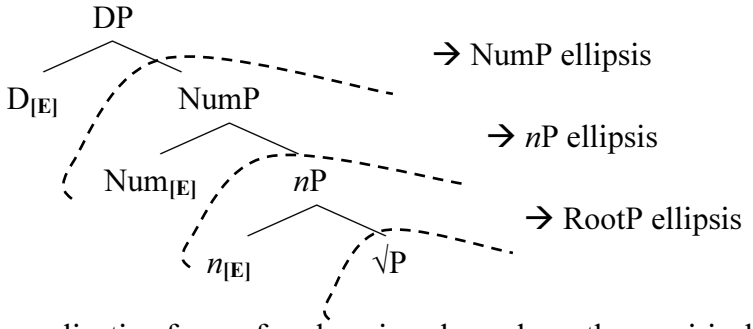
phrase in Spanish, as Alexiadou & Gengel do, overgenerates gender mismatches under nominal ellipsis (see 2.2.2 and Saab 2010a for more discussion). Finally, the proposal to assimilate licensing to D-linked functional heads has a flavor of circularity in part because of the vagueness of the notion of *D-linked functional head* (López 2000).

Of course, I do not wish to deny the important contribution of the aforementioned works. 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) focus on the first aspect of the problem. Semantic accounts (e.g., Giannakidou & Stavrou 1999 or Eguren 2010) center on the second one. I claim here that neither of these aspects forms part of the 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 morphology resolves some stranded affix filter configurations. 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). For Sleeman (1993), this would follow from the need of looking for an antecedent. So, in *el auto rojo y el verde* 'the red car and the green one', 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 (2008) and Alexiadou and Gengel (2012), among others, on empirical grounds. At any rate, whatever the ultimate explanation for the distribution of remnants, it is important to have the morphological and the semantic factors separated. In the rest of this section, I 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 NPE contexts.

26.4.2. Licensing as selection

Licensing 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 work. It simply states that some phrases are eligible to be elliptical in a given language for the syntactic occurrence of a specific ellipsis feature, [E]. Thus, English, but not Spanish, has VP-ellipsis because the functional node T can be optionally specified for taking elliptical complements. This mechanistic way of thinking has 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:

(64)



The explicative force of such a view depends on the empirical justification of this formal feature and also on the grammatical correlations that it implies within and across languages.

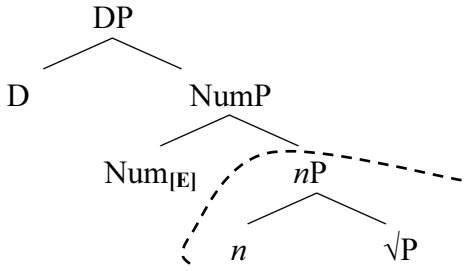
26.4.2. Government effects in nominal ellipses as epiphenomena

We must wonder then how the selection theory of ellipsis licensing may account for the morphological effects attested in different nominal ellipses across languages. Space limitations prevent us from doing justice to the empirical richness of this aspect of nominal ellipsis, but we will advance some lines of research.

26.4.2.1. Selection by Num: *n*P ellipses

Let's start with *n*P ellipses (see also (37)):

(65)



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 whether (i) the language at hand has *n*P ellipsis or not, and (ii) the language is agglutinative or 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 (2016):

(66) 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 small old houses. I saw the big new ones.'

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

(68) 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.'

(69) 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.'

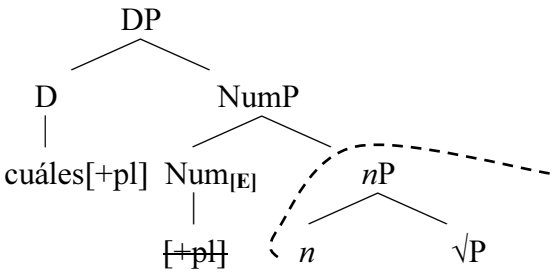
What is interesting about this type of examples is that Hungarian adjectives do not inflect in number or case in non-elliptical contexts; such an inflection is mandatory when ellipsis applies, as in the examples above. As shown in detail in Saab & Lipták (2016), strictly speaking, these are not agreement markers (*pace* Kester 1996a) but the stranded case and number affixes that are attached to the adjacent adjectival remnant under specific conditions. This is by no way a particularity of Hungarian grammar but it is attested in other agglutinative languages like Turkish (Saab 2008), Quechua (Weber 1983) and Persian (Ghaniabadi 2010). We 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):

(70) ¿{Qué/cuáles} libros de Borges y {*qué/cuáles} ~~libros~~ de
what/which:PL book:PL of Borges and *what/which:PL book:PL of
Bioy…?
Bioy
'Which books by Borges and which ones by Bioy…?'

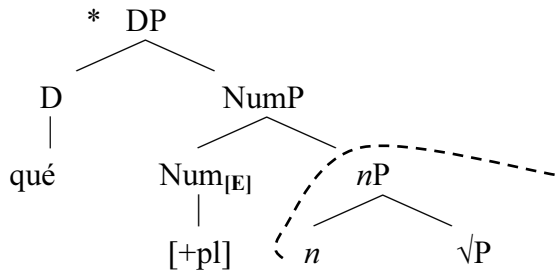
Number agreement on *cuáles* 'which.pl', then, licenses the deletion of the conflictive plural feature specified on the Num head:

(71)



If this additional deletion operation did not apply, then a stranded affix filter violation would arise at PF. This is exactly what happens in the case in which uninflected *qué* fills the D head position:

(72)

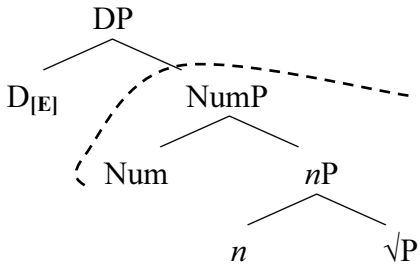


Crucially, the ungrammaticality *qué* triggers seems to be enough to reject a NumP-ellipsis analysis for these ellipses, at least under our assumptions (see Eguren 2010 for another account). If the Num head were part of the ellipsis site, then it would be deleted under identity with the antecedent NumP.[11] Under the NPE analysis, then, government effects are illusory, the surface reflex of a stranded affix filter configuration.

26.4.2.2. 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 from those for *n*P ellipsis, because now there is no need for "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.

(73)



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*):

(74) Rome's destruction and [$_{DP}$ Cartage's ~~[$_{NumP}$ [$_{nP}$ destruction *t*]~~]]

As already mentioned, the morphological correlate of selecting NumP as elliptical is absence of government effects for the category of number. Put differently, this type 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. In simple cases, like *John's book/s and Peter's*, the

[11] Of course, another crucial argument against the NumP-ellipsis analysis is the asymmetry between gender and number with respect to identity effects already discussed in section 2.2.2 (see the contrast between (35) and (36)).

elliptical gap is interpreted as singular or plural depending on 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 (75a and 75c):[12,13]

(75) 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.
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 between the identical sentences and the non-identical ones. The fact that we find subtle variation across speakers contrasts the behavior of gender with that of number features in nominal ellipses. 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.M uncle of Juan and the.FEM of María'). The question is why number specification in verbal agreement improves the number mismatches but gender concord does not. I will not try to formulate an answer here as the matter was not discussed in the previous literature. Instead, I will provide a robust piece of evidence in favor of distinguishing NumP and *n*P ellipses.

Assuming, as is standard, that numerals are specifiers (or modifiers) of the Num head a clear prediction arises. Concretely, numerals should be part of the ellipsis site whenever NumP-ellipsis applies. According to the informants I have consulted, this is correct: the example in (76) is strongly deviant followed by the assertion that Mary has ten books of poems.[14] Since the NumP antecedent contains the numeral *three*, the ellipsis site

---

[12] 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. It is not clear to me whether the particular grammatical status that Zwicky assigns to (iii) and (iv) is in accord with the judgments that my informants provided for (75). At any rate, it is interesting that he finds (i) and (ii) fully grammatical. If confirmed, this contrast would follow from the size of each gap, NP in (i)-(ii) and NumP in (iii)-(iv).

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

[14] I follow Yoshida *et al*'s (2012) hypothesis that the remnant moves to the right of the ellipsis site in English, but the point is orthogonal to this particular argument. For Spanish

must be also modeled as containing an identical numeral. Evidently, this is inconsistent with the follow-up assertion of Mary having ten books.[15]

(76) #John had time to read [$_{DP}$ David's [$_{NumP}$ three [$_{NP}$ books of music]]], but not [$_{DP}$ Mary's [~~$_{NumP}$ three book *t*~~] of poems], since Mary has TEN books of poems.

Interestingly, similar examples are perfectly coherent in Spanish NPE:

(77)	Juan	compró	los	tres	libros	de	Borges	y
	Juan	buy:[PST.3SG]	the:M:PL	three	books	of	Borges	and
	yo	compré	[$_{DP}$ los		[$_{XP}$	[de	Cortázar]	
	I	buy:[PST.1SG]	the:M.PL			of	Cortázar	
	~~[$_{NP}$~~	~~libros *t*]~~]],	que	eran	más	de	diez.	
		books	that	were	more	of	ten	

'Juan bought the three books by Borges and I bought Cortázar's, which were more than ten.'

There is then evidence for distinguishing these two ellipses, beyond the nature of number and gender mismatches, which, needless to say, deserve careful examination.

26.4.2.3. Selection by *n*: RootP ellipses

As shown by Saito & Murasugi (1990), some types of Japanese NP-ellipses seem to parallel what we call in the previous section NumP-ellipsis (see the Japanese examples in (1), repeated in (78), and Saito *et al* 2008 for a recent approach), where ellipsis is licensed by the sole presence of genitive remnants. As we have seen in the introduction, the form of the genitive is homophonic with the *no* anaphor (see (2) repeated in (79)):

N'-ellipsis

(78) a. [Taroo no taido]-wa yoi ga, [Hanako no ~~taido]~~-wa
Taroo *no* attitude-TOP good though Hanako *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 Kyoto *no* destruction-than
hisan data
miserable was
'Rome's destruction was more miserable than Kyoto's.'

[Saito *et al* 2008: 253]

Anaphoric -no

(79) Akai **no**–o mittu kudasai

NPE, I will continue assuming that remnants move to the left, as in Ticio (2003) and Saab (2008) (see the discussion surrounding (22) in section 2.1.1).

[15] Thanks to Patrick David Elliott for this particular example. Other informants share exactly the same intuition.

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:

(80) * Taroo-no koogeki-wa [$_{DP}$ totemo tuyoi [$_{NP}$ no]] data.
Taroo-GEN attack-TOP very strong one was
'Taroo's attack was a very strong one.'

[Takita & Goto 2013: 216]

I will assume here that the anaphoric *no* construction is amenable to an EN analysis. In turn, (78) has all the properties of a surface anaphora (NumP-ellipsis, strictly speaking). Interestingly, in dialects that morphologically distinguish the genitive and the pronominal form, like in the Nagasaki dialect of Japanese, co-occurrence of a genitive remnant (*-n*) plus the putative proform *to* is attested. Consider (81). In (81a), the particular *–n* form of the genitive marker is shown, whereas (81b) illustrates the particular form of the anaphoric empty noun *to*.

Nagasaki Japanese

(81) 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 (82), the genitive marker and *to* co-occur:

(82) 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 (82). However, Maeda & Takahashi (2013) present evidence in favor of an analysis in terms of ellipsis. One such piece of evidence comes from extraction of internal arguments in multiple genitive constructions:

(83) 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 ellipsis site can be considered as robust evidence in favor of ellipsis. As proposed by Maeda & Takahashi, the derivation for the elliptical gap in (83c) should minimally contain the trace of the internal argument:

(84) [$_{DP}$ Mariko-GEN [$_{DP}$ flute-GEN [$_{D'}$ [... ~~[$_{XP}$ *t*$_{flute}$ handling]~~ to] D]]]

As the reader can check, this analysis resembles the pseudo-gapping analysis already discussed for Spanish NP-ellipsis and English NumP-ellipsis (see section 2.1.1). As in those ellipses, here the internal argument of the noun is also extracted to some peripheral position in the DP structure, which is an indication of the surface anaphor behavior of this particular construction.

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

(85) 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.'

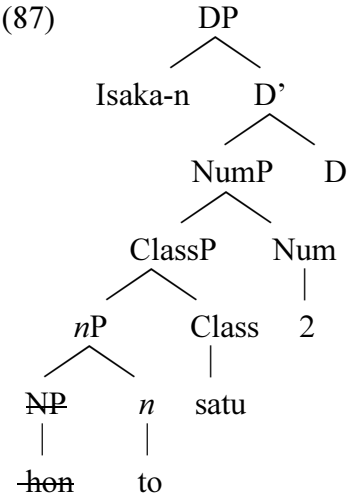
Moreover, *to* occurs below classifiers like *satu*, which by assumption occupy a designated functional head, a Class(ifier)P projection (see Tang 1990 and much subsequent work):

(86) a. Haruna-wa [Murakami-n hon san-satu]-ba katta.
Haruna-TOP Murakami-GEN book three-CLASS-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-CLASS-ACC bought
'lit. Mariko bought Isaka's two ones.'

The solution proposed by Maeda & Takahashi is that *to* is the surface form of the *n* head, which contains the [E] feature licensing ellipsis. The elliptical DP in (86b) is represented as follows:

(87)



Thus, *to* is seen as the nominal counterpart of English *do* in VP-ellipsis. Just 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., the extraction facts, the impossibility of 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 that have been argued to use a pronominalization strategy. According to this analysis, Afrikaans, among other strategies, makes use of the proform *een* 'one' to fill some nominal gaps:

(88) 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 internal arguments:

(89) 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

(90) [Die gerug dat Bill ontslaan sou word] en [*die een dat Marie*
the rumor that Bill fired would be and the one that Marie
haar pos sou behou], veroorsaak baie oproer.
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 & van Koppen observe 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'.

(91) 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 (92) and (93) below both strategies can take internal arguments of the missing noun as remnants:

(92) 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*
novel and Jitske to a negative:*en* (one) of his collected
fersen].
poems
'Jitse pointed out to him a positive review of his novel and Jitske pointed out a negative review of his collected poems.'

(93) 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, according to which nominal ellipsis sites are empty proforms.[16]

An alternative way to account for this particular paradigm could assume that these variants of Dutch make use of RootP-ellipsis, which would bring the analysis of these facts in line with the other data discussed in this subsection. So the underlying representation for a case like (92) and (93) 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. Again,

[16] Indeed, this problem applies to Lobeck's (1995) general theory of ellipsis, according to which all types of ellipses (i.e., NPE, VPE and Sluicing) have underlying *pro*s.

as in other cases explored in the chapter, the internal arguments of the elided RootPs would vacate this projection in the relevant cases (i.e., when they are visible like in (92) and (93)). Evidently, this view would have to assume that the occurrence of a putative proform like *een* or *ien* is the morphological reflex of the surviving *n* head that selects the elided RootP, like in Nagasaki Japanese.[17] Yet, such an account would still have to explain the doubling effect we observe in Frisian, among other potential problems. Hence, the final form of the analysis would depend on the results of other NPE diagnostics in these Dutch dialects.

26.4.4. 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 (e.g., Class(ifier)P-ellipsis). 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 that give us what in other accounts are considered as government effects, namely: (i) morpheme dislocation (Hungarian), (ii) morpheme deletion (Spanish), and (iii) support strategies (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.

26.5. Conclusion

In this chapter, I have presented several 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 have seen that empty nouns are lexically restricted to express some general concepts and are sensitive to particular morphological 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 operation is minimally subject to a lexical 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 on the locus of such a feature: *n*P-ellipsis, NumP-ellipsis, RootP-ellipsis and so on. This account predicts different illicit morphological outputs which are resolved by different strategies across languages, like morpheme dislocation, morpheme deletion and morpheme support. Thus, the so-called morphological licensing in NPE (Lobeck 1995, Kester 1996a,b) is illusory.

The survey of nominal ellipsis phenomena we have explored here is, of course, incomplete.[18] I hope, however, that the diagnostics presented and discussed throughout this

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[17] As discussed in section 2.1.1, Llombart-Huesca (2002) also defends an analysis along these lines for English *one*.

[18] For instance, I have remained silent about the nature of null arguments in languages like Spanish or Japanese. As we have seen in the introductory section (cf. examples in (4) and (7)) both languages make use of null arguments in subject and object position. However, it is well-known that the distribution of such arguments differs between these two languages.

chapter make some contribution to a better understanding of nominal ellipsis and its subtypes in future research.

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An important observation is that while null arguments in Japanese allow for sloppy readings, Spanish null subjects do not. This observation is due originally to Oku (1998), who provided the following minimal pair.

Japanese: strict reading OK, sloppy reading OK

(i) a. Mary-wa [zibun-no teian-ga saiyo-sare-ru-to]
Mary-TOP [self-GEN proposal-NOM accept-PASS-PRS-COMP]
omotteiru.
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-PRS-COMP] think
Lit. 'John also think *e* will be accepted.'

Spanish: strict reading OK, sloppy reading *

(ii) a. María cree que su propuesta será aceptada.
Maria believes that her proposal be:FUT.3SG accepted
'Maria believes that her proposal will be accepted.'

b. Juan también cree que *e* será aceptada.
Juan also believes that it be:FUT.3SG accepted
'Juan also believes that it will be accepted.'

[Oku 1998: 165]

Thus, while the null subject in the Japanese example in (ib) 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 (iib) only admits the strict reading, according to which the empty subject can only refer to María's proposal and not to Juan's. A prominent line of analysis, mainly represented by Oku (1998), Saito (2007), and Takahashi (2010), among others, claims that the difference between Spanish and Japanese must be done on the basis of the surface / deep anaphora distinction. Thus, while Japanese null arguments would derive from a radical DP-ellipsis analysis, Spanish null subjects would be base-generated proforms (i.e., they are deep anaphora). Given that deep anaphora do not allow for sloppy readings in the general case, the contrast in (i) and (ii) would be accounted for (although see Tomioka (2003) for another analysis of sloppy readings in Japanese). If this is on the right track, then the distinction between nominal ellipses and empty nouns would generalize to cover also the entire DP structure.

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