### **NP-Ellipsis in Spanish**

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#### 1. Introduction

The paper shows that the full paradigm of nominal ellipsis in Spanish can be accounted for given certain independently needed assumptions regarding the structure of DPs, the nature of Ellipsis processes, and the 'clitic-like' character of the definite article in Spanish. The structure of the paper is as follows: Section 2 describes the contexts in which different DP elements can be elided. The section concludes with the major descriptive generalizations that any analysis of NP-ellipsis in Spanish must explain.

In section 3, I briefly review the main analyses proposed in the earlier literature on NP-ellipsis in Spanish and evaluate them with respect to the descriptive generalizations obtained in section 2. This evaluation enables us to check the adequacy of previous analyses.

Finally, section 4 presents my analysis of NP-ellipsis in Spanish. The analysis is based on the assumption of ellipsis as a PF phenomenon. Therefore, I propose that some maximal projections, such as NP, are deleted in PF. To account for the data with remnant elements, I assume that some remnant elements move outside of their maximal projections prior to the application of the ellipsis operation. Finally, to account for the restrictions in nominal ellipsis in definite DPs, I follow previous analyses, such as Brucart & Gràcia (1986) and Raposo (1999), and assume that there is a phonological constraint involved in these cases.

#### 2. Basic Data

From a descriptive point of view, it is commonly assumed that Spanish allows elision in DPs, as the examples in (1) illustrate:

- (1) a. Compramos muchos libros y tú compraste algunos [e] (we)bought many books and you bought some [e]
  - b. Compramos bastantes libros y tú compraste tres [e] (we)bought several books and you bought three [e]
  - c. \*Compramos un libro y tú compraste el [e] (we)bought a book and you bought the [e]

The examples in (1) illustrate that we can elide the N in a DP containing only the Determiner and the N, unless the determiner is the definite article, as seen in (1c).

Similarly, the examples in (2) show that any of the modifiers contained within the DP can be elided with the N in Spanish. Again, the only restriction concerns the presence of the definite article as the head of the DP, as the ungrammaticality of (2c) shows.

- (2) a. Compramos muchos libros de Física y tú compraste uno [e] (we)bought many books of Physics and you bought one [e]
  - b. Compramos muchas reproducciones de las Meninas de Velázquez (we)bought several reproductions of the Meninas of Velazquez

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de este coleccionista y tú compraste algunas [e] of that collector and you bought some [e]
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c. \*Compramos varios libros sobre Chomsky y tú compraste el [e] (we)bought several books about Chomsky and you bought the [e]

Apart from the data where nominal elision applies to the N and its modifiers, any of the PP elements contained within the DP can be left stranded after the elision of the N in Spanish DPs. The data in (3) exemplify this claim:

- (3) a. Compramos muchos libros de Física y tú compraste algunos [e] de Química (we)bought many books of Physics and you bought some [e] of Chemistry
  - b. Compramos bastantes libros de Ana y tú compraste uno [e] de Pepe (we)bought several books of Ana and you bought one [e] of Pepe
  - c. Compramos estos libros con pastas azules y tú compraste ésos [e] con pastas rojas (we)bought these books with covers blue and you bought those [e] with covers red
  - d. Compramos varios libros sobre Chomsky y tú compraste {\* el [e] (we)bought several books about Chomsky and you bought { the [e] sobre Postal / el [e] de Postal} about Postal / the [e] of Postal}

The grammaticality of the examples in (3a) and (3b) illustrate that an object or an agent can be the remnant of nominal elision. Similarly, the grammaticality of (3c) shows that an adjunct can be left behind in a nominal elision context.

Finally, the contrast in the grammaticality in (3d) refines the condition on the occurrence of the definite article in elision contexts. A DP headed by the definite article can undergo nominal elision if the P 'de' (of) introduces the remnant element.

Returning to the type of elements that can appear as remnants, note that the situation changes when the DP contains an Adjective:

- (4) a. \*Ayer vi a la verdadera terrorista y a la supuesta [e] yesterday (I)saw to the true terrorist and to the alleged [e]
  - b. Ayer vi la casa azul y la [e] verde yesterday (I)saw the house blue and the [e] green

The descriptive generalization is then that nominal elision can have postnominal As as remnant elements, while prenominal As cannot be left stranded after the elision process applies<sup>1</sup>.

Furthermore, the same regularity of patterns can be observed when we have more than one element as the remnant. The data below illustrate this point:

(5) a. Compramos el libro de Física<sub>obj</sub> de María<sub>poss</sub> y tú compraste el [e] de Juan<sub>poss</sub> de Química<sub>obj</sub>

In general, the type of A that appears in the NP-ellipsis contexts greatly affects the possibility of having NP-ellipsis in a given NP. The amount of analyses proposed to provide an explanation for the syntactic position occupied by Romance As and for their associated properties is vast, and the explanation of the different approaches is out of the scope of this paper. Most of these analyses derive the surface positions and the different properties of As from the different positions in which they are generated and from the interaction of these basegenerated positions with general principles of the grammar. Cf. Valois (1991). Bernstein (1993), Demonte (1999), Gutiérrez and Mallén (2002), among many others, for a few proposals on the topic.

Given the space limitations, I will not be able to discuss the different possibilities to analyze Spanish As, and I will simply accept the approach put forth in Ticio (2003). Cf. below for a more detailed explanation of Ticio's (2003) proposal.

<sup>&</sup>lt;sup>1</sup> Note that the situation is slightly different with Adjectives that can appear prenominally and postnominally, such as 'falsa' (false). Bernstein (1993), among many others, have already noted that this type of As are only grammatical with the postnominal reading in NP-ellipsis contexts.

(we)bought the book of Physics of María and you bought the [e] of Juan of Chemistry b. Vimos la invasión de Irak<sub>obj</sub> de los EEUU<sub>ag</sub> y tú viste la [e] de Chechenia<sub>obj</sub> de Rusia<sub>ag</sub> (we)saw the invasion of Iraq of the US and you saw the [e] of Chechnya of Russia

To sum up: This section has introduced the major contexts in which nominal ellipsis can appear in Spanish<sup>2</sup>. More specifically, I have shown that nominal ellipsis is possible with any D except in certain cases with the definite article, and that partial nominal ellipsis can leave any PP as a remnant element.

#### 3. Previous Approaches

This section reviews the main analyses proposed in the earlier literature on NP-ellipsis and contrasts them with the descriptive generalizations reached in the previous section.

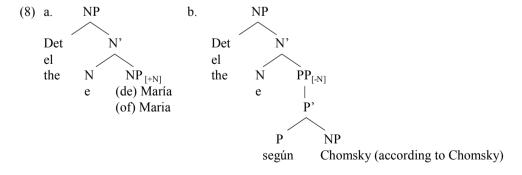
#### 3.1. Brucart & Gràcia (1986):

Brucart & Gràcia's (1986) analysis of nominal elision in Spanish and Italian attempts to unify all the cases of nominal elision as cases of N elision. They propose that the N position is occupied by an empty category in the cases of elision of the N. According to these authors, the existence of a non-phonetically realized N is confirmed by the contrasts below:

- (6) a. Dammi lo sgabello, quello [e] alto give-me the stool, that [e] tall
  - b. \*Dammi lo sgabello, quell'alto
- (7) a. Quell'alto monte that tall mountain
  - b. \*Quello alto monte

The contrast in grammaticality between (6a) and (6b) is due to the impossibility of contracting the Determiner 'quello' (that) and the Adjective 'alto' (tall) in Italian in contexts where the N has no phonological content. This contraction is typically obligatory in Italian, as the ungrammaticality of (7b) shows. In other words, in (6b) we cannot omit the vowel because there is an empty category that prevents it. Brucart & Gràcia (1986) argue that the empty category that occupies the N position in nominal elision contexts is not pro, but PRO.

To analyze the peculiar behavior that 'el [NP]' constructions have in Spanish, Brucart & Gràcia (1986) follow the idea of Vanelli (1979), who claims that the definite article must be cliticized to N or A. Brucart & Gràcia's (1986) generalization is that the Spanish definite article must cliticize to a category that is [+N]. The structures proposed are illustrated in (8):



<sup>2</sup> I will not be able to review in detail some NP-ellipsis contexts, such as NP-ellipsis in NPs containing adjectival clauses, and, following previous analyses such as Martin (1995) and Sánchez (1996), among others, I will assume here that they behave as NPs containing As. Similarly, I confine myself to the examination of cases that do not contain unstressed possessive pronouns, due to the special nature of these Ds. See Bosque & Demonte (eds.) (1999) for a complete description of NP-ellipsis contexts.

Thus, these authors explain the fact that definite article DPs can appear in elliptical nominals with As and certain PPs by assuming that As are [+V, +N] and that the P 'de' (of) is a false P in Spanish and the category that it introduces is [+N].

There are several problems for this analysis: First, Brucart & Gràcia's (1986) analysis cannot account for the differences in grammaticality obtained with prenominal and postnominal As, repeated below:

(9) a. \*Ayer vi a la verdadera terrorista y a la supuesta [e] yesterday (I)saw to the true terrorist and to the alleged [e] b. Ayer vi la casa azul y la [e] verde yesterday (I)saw the house blue and the [e] green

In other words: Brucart & Gràcia's (1986) analysis predicts that data with prenominal As are grammatical, since prenominal As should also be considered [+V,+N], and should therefore allow the cliticization of the definite article in (9a).

Furthermore, there is another problem related with the empirical coverage of the Brucart & Gràcia's (1986) proposal. According to their analysis, DPs headed by Ds other than the definite article should be generally grammatical. This is due to the lack of clitic-like properties of those Ds. However, as discussed above, we still find similar restrictions on nominal elision with DPs headed by Ds other than the definite article

- (10) a. \*Ayer vi a varias verdaderas terroristas y a alguna supuesta [e] yesterday (I)saw to several true terrorist and to some alleged [e] b. Ayer vi varias casas azules y alguna [e] verde yesterday (I)saw several houses blue and some [e] green
- (10) shows that we have the same type of restrictions with As, independently on the D that heads the DP.

Finally, it is not clear how their analysis would account for cases such as (11), where the elements elided contain not only the N but also its modifiers:

(11) Compramos muchos libros de Física y tú compraste algunos [e] (we)bought many books of Physics and you bought some [e]

Under this approach, PRO should stand for N in some cases and for NP or parts of NP in others.

#### 3.2. Torrego (1987)

According to Torrego's (1987) analysis, the possibility of having nominal ellipsis is related to the null subject parameter. More specifically, Torrego (1987) links the possibility of having nominal ellipsis to the possibility of having *pro* and proposes the basic structure in (12):

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(12) a. [_{DP} uno [_{NP} pro]]
b. [_{DP} el [_{NP} pro]]
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As for the behavior of the Spanish definite article, Torrego (1987) claims that the definite article in Spanish is able to retain the person, number and gender features necessary to license (via government) an NP *pro*.

This type of approach cannot account for restrictions on NP-ellipsis, since any DP in which the N has been substituted for *pro*, and that carries a D expressing the person, number and gender features of the referent of *pro*, should be grammatical. However, as the contrasts below show, this is not the case:

(13) a. Dame el libro verde y quédate el [e] azul give-me the book green and keep-you the [e] blue

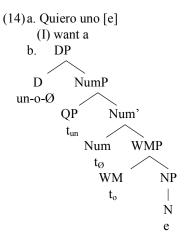
- b. \*Dame la verdadera foto y quédate la supuesta [e] give-me the true picture and keep-you the alleged [e]
- c. Me quedo el [e] de pastas azules (e = libro) CL (I)keep the [e] of covers blue (e = book)
- d. \*Me quedo el [e] con pastas azules (e = libro)
  - CL (I)keep the [e] with covers blue (e = book)
- e. \*Ana compró un libro con pastas azules y Pepe le pidió el [e] Ana bought a book with covers blue and Pepe  $CL_{dat}$  asked-for the [e]

Furthermore, the relation between nominal ellipsis and the null subject parameter is problematic for other languages, such as French and German, which have NP-ellipsis but do not have null subjects.

#### 3.3. Bernstein (1993)<sup>3</sup>

Bernstein (1993) divides the data she examines into two groups, depending on the determiner that heads the relevant DP.

As for DPs headed by Ds other than the definite article, Bernstein (1993) proposes that these cases of nominal ellipsis receive their explanation in what she calls 'the UNO strategy'. Bernstein (1993) follows Harris's (1991) idea that Ns can be inflected in Syntax. Thus, according to Bernstein (1993), the underlying form of the indefinite article in Spanish is 'un' (a). The '-o' affix is generated independently as the head of a functional projection (Word Marker Phrase, WMP) and substitutes into D as a result of Head Movement. This functional category (WMP) is placed between Number Phrase and NP and licenses the null NP via head government in languages such as Spanish. The derivation of sentences such as (14a) is shown in (14b):



Assuming this analysis, the indefinite article raises from the Spec of NumP and adjoins to the left of the Word Marker in D.

Consider the ungrammaticality of (15), where we have a lexical N and the 'un+o' (a+Word Marker) version of the indefinite article in Spanish:

#### (15)\*Quiero uno libro grande I-want a book big

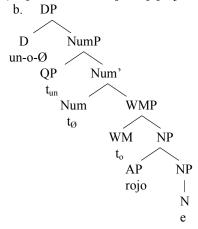
According to Bernstein (1993), the ungrammaticality of (15) is due to the Word Marker '-o' of the lexical N and the Word Marker '-o' of the indefinite article occupying the head of Word Marker at

<sup>&</sup>lt;sup>3</sup> See also Bernstein (2001) for a revised version of Bernstein (1993).

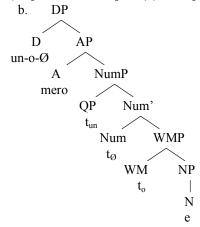
the same time; since we would then obtain a category with two heads, the outcome would violate general X' theory.

This approach, and Bernstein's (1993) assumptions regarding Adjective placement, allow her to explain some restrictions on As and NP-ellipsis in Spanish. Concretely, prenominal As that are generated as heads would interfere with the WM movement to a higher position, causing NP-ellipsis to be ungrammatical. In contrast, postnominal As, generated as adjuncts, do not interfere with WM movement, and NP-ellipsis is grammatical in these cases. The relevant derivations are illustrated in (16) and (17):

(16) a. [Postnominal As] uno [e] rojo 'a [e] red'



(17) a. [Prenominal As] \*un(o) mero [e] ' a mere [e]'



The analysis should account for nominal ellipsis with any determiner except the definite article. This leads Bernstein (1993) to assume that the feminine version of the indefinite article 'una' (a/an-fem) is ambiguous between 'un+a' (where -a is a WM 0 and licenses ellipsis) and 'un+a' (where -a comes from the Lexicon as a gender marker and does not license ellipsis).

Before introducing Bernstein's (1993) analysis for definite NP-ellipsis, let me mention a couple of problems for her approach to non-definite NP-ellipsis: First, Bernstein's (1993) analysis of non-definite NP-ellipsis in Spanish is based on the existence in Spanish of an indefinite article that appears only in NP-ellipsis contexts: 'uno' (a/an). Her proposal is based on the assumption that the 'so-called' neuter indefinite article 'uno' (a/an) is composed of 'un' (bare form) and '-o' (Word Marker).

This analysis raises some problems, as Bernstein (1993) acknowledges, when it is extended to other Spanish Ds. More precisely, this analysis cannot explain why (18a) is ungrammatical:

Juan bought that book and Pedro bought this-neuter [e] b. Juan compró ese libro y Pedro compró éste [e]

Juan bought that book and Pedro bought this-masc [e]

That is, the analysis cannot account for the fact that Spanish does not use the so-called neuter forms of other Ds, for instance, the neuter demonstrative 'esto' (this) in (18a), in cases of non-definite NP-ellipsis.

More importantly, Bernstein's (1993) analysis predicts no difference between nonrestrictive and restrictive As with respect to NP-ellipsis:

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(19) a. Me gusta {el/aquel} e rojo

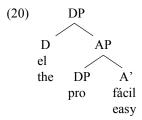
CL like {the/that} e red (I like the red one)

b. *Ayer vi a la verdadera terrorista y a la supuesta [e]

yesterday (I)saw to the true terrorist and to the alleged [e]
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Under Bernstein's (1993) analysis, in both cases the As are adjoined to an XP and do not interfere with WM movement. However, as she explains in her description of As, there are no cases of NP-ellipsis with nonrestrictive As.

As for the cases of nominal ellipsis with definite DPs, Bernstein (1993) follows Szabolcsi (1992) and proposes that the definite article is a subordinator of an XP other than NP. In other words, the 'definite article creates an argument out of (otherwise) predicative categories' (Bernstein (1993:176)), such as PPs, CPs and APs, in definite NP-ellipsis contexts, which is what explains the grammaticality of the relevant data. Therefore, the structure of a definite DP in these cases is the one in (20), where the definite article takes as its complement an AP, which contains the elided DP in its Specifier position:



This approach does not explain the restrictions on definite NP-ellipsis with PPs, since, in principle, the definite article should be able to create an argument out of any PP, independently of the P that heads it. Therefore, the contrast in (21) would be unexpected:

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(21)a. El libro de Física/ El [e] de Física
the book of Physics/ The [e] of Physics
b. El libro sin pastas/*El [e] sin pastas
the book without covers/ the [e] without covers
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The previous discussion has reviewed the major proposals on nominal ellipsis. The major conclusion of this section is that none of the analyses proposed is able to account for all the data that I presented in section 2. In the next section, I propose an analysis that explains all the previous data as cases of ellipsis of major projections within DPs.

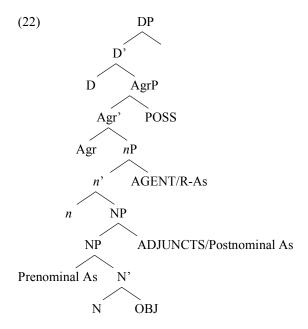
#### 4. Towards an Analysis

In this section, I propose an analysis that accounts for the nominal ellipsis data presented in section 2. This analysis utilizes the structure of DPs introduced in Ticio (2003) to account for the properties of Spanish DPs, and the notion of ellipsis as a PF phenomenon.

This section is divided into two subsections. Subsection 4.1 deals with general ellipsis data in Spanish DPs, that is, with DPs headed by Ds other than the definite article. Subsection 4.2 analyzes the behavior of Spanish definite DPs in ellipsis contexts.

#### 4.1. General NP-Ellipsis

In Ticio (2003), I proposed a structure for Spanish DPs following the hypothesis of a strict parallelism between clauses and nominal expressions (Cf. Abney (1987), and subsequent work). This structure assumed Grohmann's (2000) division of clause structure into three domains and its extension to the DP proposed in Grohmann and Haegeman (2002). Furthermore, I severely restricted the length of phrasal movements within DPs. The combination of these assumptions enabled me to account for a vast number of syntactic properties of various elements with DP. The relevant structure, as assumed in Ticio (2003), is reproduced below<sup>4</sup>:



<sup>4</sup> Grohmann (2000) discusses different cases of ill-formed movement in the clausal domain. His observations on the length and type of movements disallowed in the clausal domain lead him to split the clause into three Prolific domains: A Thematic domain, which contains the predicate and its arguments; an agreement domain, where arguments can receive Case and Phi-features; and a Discourse domain, where discourse information is encoded.

Ticio (2003) adapts this type of explanation to account for certain phenomena such as the blocking effects in extraction out of Spanish DPs. Note that the structure in the text shows the three Prolific domains within the DP without massive proliferation of functional structure. The presence of nP reinforces the parallelism between clausal and nominal domains. nP is the locus of agentivity, that is, it hosts agents, and is only projected when an agent is present. Thus, nP in the nominal domain is the counterpart of vP in the clausal domain.

As for AgrP, I group under this functional category any of the agreement-related functional categories proposed in earlier analyses. That is, I replace NumP, GenP, PossP, and others, by a more general AgrP, where all the agreement-based relations are established.

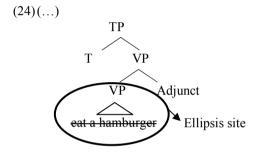
Furthermore, Ticio (2003) proposes different positions for Adjectives, which depend on the semantic properties of the Adjectives. One group of As will be placed as the Specifier of NP, while the second group of As will appear as adjuncts to NP. More concretely, Ticio (2003) assumes that postnominal As are generated as the Specifier of NP, while postnominal As are adjoined to NP. Moreover, Relational As, which behave as PP arguments, will receive a different treatment. This division of As enables Ticio (2003) to account for different syntactic properties of nominal phrases with different types of As in Spanish, attending to the semantic properties of As.

In this paper, I show that this structure is able to accommodate the nominal ellipsis data presented so far. The analysis I give here is based on the hypothesis that ellipsis is derived by deleting elements at PF, following Chomsky and Lasnik (1993), Sag (1976), Lasnik (1999), among many others. Therefore, I assume that the peculiarity of ellipsis contexts is that the elements that occupy the ellipsis site do not have phonological content due to deletion of maximal categories at PF.

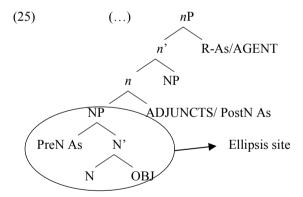
One of the first assumptions of my analysis is that ellipsis processes affect only maximal projections. More specifically, I will assume that ellipsis processes can affect the lower segment of a segmental maximal projection. Regarding this point, consider the examples in (23):

- (23) a. Maria would not eat a hamburger in the classroom, but she would ø in the cafeteria
  - b. Maria would not completely eat a hamburger, but she would ø partially

The grammatical status of the examples in (23) shows that it is possible to have VP-ellipsis leaving stranded a VP-adjunct, such as 'in the cafeteria' and 'partially'. This shows that VP-ellipsis can target the lower segment of the VP in the following schematic structure:



Assuming that ellipsis in nominal phrases operates in a similar fashion, it can target the lower segment of a maximal projection. For instance, the ellipsis site affected by NP-ellipsis can be represented as shown below:



That is, only the elements that are base-generated outside of the lower NP node can be left stranded after NP-ellipsis has applied. Therefore, we will expect to observe Adjuncts, PostN(onimal) As, Agents, Possessors and R(elational)-As as possible remnants, while elements such as PreN(onimal) As and OBJ should not be observed as remnants. The first part of this prediction is borne out by the data in (26):

- (26) a. Compramos bastantes libros para regalo y uno [e] [para consulta]<sub>adjunct</sub> (we)bought several books to gift and a [e] to consult
  - b. Compramos varios libros azules y uno [e] rojo (we)bought several books blue and a [e] red
  - c. Compramos varios libros de Luis y uno [e] [de María]<sub>poss</sub> (we)bought several books of Luis and a [e] of María

- d. Compramos varios libros de Cervantes y uno [e] [de Borges]<sub>ag</sub> (we)bought several books of Cervantes and a [e] of Borges
- e. Compramos varias novelas policiacas y una [e] romántica (we)bought several books police and a [e] romantic

(26) illustrates that Adjuncts, PostN As, Possessors, Agents and R-As can be remnants of NP-ellipsis.

Recall that one of the most notorious differences between prenominal and postnominal As is that only postnominal As allow NP-ellipsis in Spanish. Thus, our prediction that prenominal As cannot appear as remnant elements is borne out:

(27)\*Ayer vi a la verdadera terrorista y a la supuesta [e] yesterday (I)saw to the true terrorist and to the alleged [e] 'Yesterday, I saw the true terrorist and the alleged one'

To this point, the above analysis provides a simple explanation for the contrasts in grammaticality observed in DPs with As. Assuming that NP-Ellipsis targets NPs, only elements that are base generated outside of the NP node can be left stranded after ellipsis has applied. Thus, as prenominal As are Specifiers of NP, they are contained in the ellipsis site and must undergo NP-ellipsis. In contrast, none of the postnominal As are affected by NP-ellipsis: postnominal Qualitative-As are generated as adjuncts to NP and Relational As are generated in the Spec of  $nP^5$ . None of these positions are contained in the ellipsis site. Hence, postnominal As are expected to be able to survive NP-ellipsis.

Nevertheless, the analysis does not account for data such as (28):

(28) Compramos varios libros de Matemáticas y alguno [e] [de Física]<sub>obj</sub> (we)bought several books of Math and some [e] of Physics

The grammaticality of the examples in (28) illustrates the possibility of having objects as remnant elements. To account for these data, I propose that the linear position in which we find objects in (28) is not their base-generated position. In other words, I follow here previous analyses in the literature on ellipsis that postulate that remnant elements in ellipsis processes are the result of the existence of a previous movement of the remnant elements. One of these analyses is described in Jayaseelan (1990). This author analyzes pseudogapping as VP ellipsis with a prior movement of the remnant out of the VP to be elided. A schematic representation of this analysis is shown in (29):

(29) Bill at the hamburger and [Peter  $[v_P][v_P]$  did  $[v_P][v_P]$  did  $[v_P][v_P]$ 

Jayaseelan (1990) claims that this prior movement is performed by a Heavy NP Shift operation, which affects the remnant element, 'the hotdog', and allows it to 'survive' the elision process. Lasnik (1999) proposes a similar alternative analysis of these data. In particular, Lasnik (1999) argues that the data should be analyzed as VP deletion in the PF component, preceded by overt syntactic raising of the object to the Spec of AgrO.

Another analysis that follows the same spirit is the one given in Kim (1998). Kim (1998) analyzes pseudogapping in Korean and Japanese as the result of VP-Ellipsis. The appearance of multiple remnants in Korean and Japanese is due to the presence of a Focus phrase projection above TP in these languages to which the remnants move before VP-Ellipsis applies.

The ungrammaticality of (ib) shows that agentive adjectives (i.e., R-As) are introduced in the Spec of nP, since their presence blocks the extraction of objects out of DPs.

<sup>5.</sup> Evidence for this position comes from the following extraction data:

<sup>(</sup>i) a. Criticaron la investigación Americana de este tema (they)criticized the investigation American of that topic

b.\* ¿De qué tema criticaron la investigación Americana? of what topic (they)criticized the investigation American

We return now to the nominal ellipsis data, repeated in (30) for convenience:

(30) Compramos varios libros de Matemáticas y alguno [e] [de Física]<sub>obj</sub> (we)bought several books of Math and some [e] of Physics

The line of analysis discussed above can be implemented for these data by assuming that Objects move before the NP-ellipsis operation targets the lower segment of NP at PF.

However, as extensively discussed in Torrego (1987), Ormazabal (1991), and Ticio (2003), among others, overt movement of Objects is severely restricted in Spanish DPs. The descriptive generalization is that the presence of Possessors or Agents in the structure blocks overt movement of Objects. The ungrammaticality of (31b) illustrates that presence of an Agent in the structure blocks overt syntactic movement of an Object.

(31)a. He leído [varios libros [de Física]<sub>obj</sub> [de Juan]<sub>poss</sub>] (I) have read several books [of Physics]<sub>obj</sub> [of Juan]<sub>poss</sub> b. \*¿[De qué] has leído [varios libros  $t_{obj}$  [de Juan]<sub>poss</sub>]? Of what (you) have read several books  $t_{obj}$  [of Juan]<sub>poss</sub>

The grammaticality of the examples in (33) shows that the predictions of that approach to NP-Ellipsis are not fulfilled.

- (33)a. Compramos el libro de Física<sub>obj</sub> de María<sub>poss</sub> y tú compraste el [e] de Química<sub>obj</sub> de Juan<sub>poss</sub> (we)bought the book of Physics of María and you bought the [e] of Chemistry of Juan
  - b. Compramos el libro de Física<sub>obj</sub> de María<sub>poss</sub> y tú compraste el [e] de Juan<sub>poss</sub> de Química<sub>obj</sub> (we)bought the book of Physics of María and you bought the [e] of Juan of Chemistry
  - c. Vimos la invasión de Irak<sub>obj</sub> de los US<sub>ag</sub> y tú viste la [e] de Chechenia<sub>obj</sub> de Rusia<sub>ag</sub> (we)saw the invasion of Iraq of the US and you saw the [e] of Chechnya of Russia
  - d. Vimos la invasión de Irak<sub>obj</sub> de los US<sub>ag</sub> y tú viste la [e] de Rusia<sub>ag</sub> de Chechenia<sub>obj</sub> (we)saw the invasion of Iraq of the US and you saw the [e] of Russia of Chechnya

(33a-b) show that the presence of a possessor does not block the hypothetical movement of the object outside of NP; similarly, (33c-d) illustrate that the presence of an agent does not induce ungrammaticality.

Note that any analysis that attempts to account for NP-ellipsis taking into account the extraction data above would face the same problem: the NP-ellipsis data seem to force us to remove the object from the ellipsis site while the overt movement of the object cannot be done when a higher element (i.e., a possessor or an agent) is present.

To resolve this problem, I propose that the movement that removes the object from the NP-ellipsis site is not done in the overt syntactic component of the derivation.

One of the basic properties of Spanish DPs is that argumental PPs can appear in any order to the right of the N.

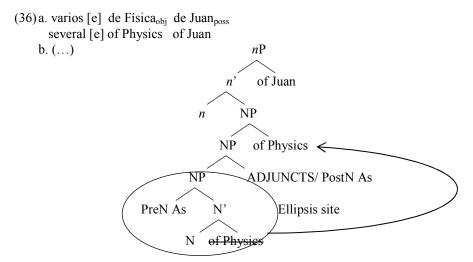
(34)a. El libro de Física<sub>obj</sub> de Ana<sub>poss</sub> the book of Physics of Ana
b. El libro de Ana<sub>poss</sub> de Física<sub>obj</sub> the book of Ana of Physics

As discussed in Ormazabal (1991) and Ticio (2003), this free order can be due to the effect of a stylistic operation, which applies after all the syntactic operations have been applied to the derivation, i.e., in PF. This last point explains the fact that the different linear positions of argumental PPs do not affect their c-command possibilities, as the data in (35) illustrate:

(35)a. La descripción [de sí mismo<sub>i</sub>]<sub>Theme</sub> [de Juan<sub>i</sub>]<sub>Agent/Poss</sub> the description of himself of Juan

- 'Juan's description of himself'
- b. La descripción [de  $Juan_i$ ]<sub>Agent/Poss</sub> [de sí  $mismo_i$ ]<sub>Theme</sub> the description of Juan of himself 'Juan's description of himself'

Accepting the previous remarks on the linear order of arguments within DPs as correct, the proposal is that the stylistic rule that alters the linear order of arguments applies before NP-ellipsis. This way, the stylistic rule can place objects outside of the ellipsis site in the constructions under consideration, probably as adjuncts of some maximal category contained in the DP. The analysis is given in (36):



The derivation in (36) shows that the stylistic rule places the object outside of the ellipsis site, possibly as an adjunct to the maximal category NP. After that, there is a PF deletion of the lower segment of the maximal projection NP.

Therefore, the combination of the stylistic rule and the hypothesis that ellipsis processes take place at PF give us an account for the data where we have more than one argumental PP surviving NPellipsis

To conclude: The analysis presented in this subsection accounts for all the nominal ellipsis data discussed in 2, that is, ellipsis data with DPs headed by Ds other than the definite article (cf. section 4.2 below for an explanation of NP-ellipsis in NPs headed by the definite article) and provides strong empirical evidence for treating ellipsis as a PF operation that can apply after all syntactic and stylistic operations have taken place.

#### 4.2. Definite Article in NP-ellipsis

Finally, let me explore the properties of the definite article with respect to NP-ellipsis.

Brucart & Gràcia (1986) and Raposo (1999) have noted the clitic-like character that the definite article exhibits in these contexts. In this subsection, I make use of these proposals to complete my analysis of nominal ellipsis in Spanish. The basic data to explain are repeated below:

```
(37) a. *La [e] con gafas [e] = chica the [e] with glasses [e] = girl b. La [e] de gafas [e] = chica the [e] of glasses [e] = girl c. Las tres [e] con gafas [e] = chicas the three [e] with glasses [e] = girls
```

As (37) shows, NP-ellipsis in definite DPs is ungrammatical whenever the only remnant is not a PP headed by 'de' (of)<sup>6</sup>. The main idea to explore is that the presence of full Ps prevents the appearance of the definite article in the relevant structure.

The major assumptions of my analysis of definite NP-ellipsis follow the spirit of Raposo's (1999) analysis of Spanish and Portuguese nominal ellipsis<sup>7</sup>. Following Raposo (1999), I assume that, due to its unstressed character, the definite article must attach to another element in PF. In other words, I assume that the definite article must cliticize to the element to its right.

Along the line of Raposo (1999), I also assume a division of PPs, namely, full PPs headed by Ps such as 'con' (with), which constitute phases by themselves, and false PPs, headed by the P'de' (of), which do not constitute phases. Torrego (1987), Ormazabal (1991), and Ticio (2003), among many others, have shown that 'de' (of) is a dummy P in Spanish by taking into consideration some syntactic phenomena, such as binding. Here I propose that 'de' (of) is inserted in PF.

I depart from Raposo (1999) in the reason why the cliticization of the definite article cannot be satisfied with full PPs: I assume that cliticization processes cannot operate through the boundaries of phases because phases are spell out units.

The derivation of the data '\*La [e] con gafas' ('The [e] with glasses', where [e] = girl) and 'La [e] de gafas' ('The [e] of glasses', where [e] = girl) is as given below (where the symbol '||' stands for phase boundary):

```
(38) a. [\mathbf{p}_{P} \text{ La } [[\mathbf{p}_{P} \text{ chica}] \parallel [\mathbf{p}_{P} \text{ con gafas}]]]
                                                                                          Spell Out
        b. [_{DP} La [[_{NP} e]] \parallel [_{PP} con gafas]]]
                                                                                          NP-Ellipsis
        c. *[_{DP} La [[_{NP} e]] || [_{PP} con gafas]]]
                                                                                          Cliticization
(39) a. [DP La [[NP chica] [NP gafas]]]
                                                                                  Spell Out
        b. [_{\mathbf{DP}} \operatorname{La} [[_{\mathbf{NP}} e] [_{\mathbf{NP}} \operatorname{gafas}]]]
                                                                                  NP-ellipsis
        c. [_{DP} La [[_{NP}e] DE-[_{NP} gafas]]]
                                                                                  DE(of)-insertion
        d. [\mathbf{DP} \operatorname{La}[[\mathbf{NP} e] + \operatorname{DE-}[\mathbf{NP} \operatorname{gafas}]]]
                                                                                  Cliticization
```

The ungrammaticality of 'La [e] con gafas' (the e with glasses) is derived from the fact that the cliticization process which applied from (38b) to (38c) cannot attach the definite article to any element in its phase and cannot operate through the boundaries of the PP phase to cliticize the definite article to the P 'con' (with). In contrast, the grammaticality of 'la de gafas' (the e of glasses) is explained since the cliticization requirement of the definite article can be satisfied within its phase.

This type of analysis can also explain the contrasts in the following data:

(40) a. El libro de Física con pastas azules the book of Physics with covers blue

b. El libro con pastas azules de Física

(41) a. El [e] de Física con pastas azules

(we)saw to-the true

b. \*El [e] con pastas azules de Física

Of course, definite NP-ellipsis is also ungrammatical when a prenominal A is the remnant, as in (i):

These cases are explained by the general analysis introduced in subsection 4.1, and they will not be repeated in

verdadero asesino y tu viste al presunto [e] killer and you saw to-the alleged [e]

Nevertheless, I have modified Raposo's (1999) original analysis to avoid some problems that this analysis faces with respect to the Cycle and constituency. Namely, Raposo's (1999) analysis appears to violate the Cycle, since the structures [tarjeta roja] (red card) and [con tarjeta roja] (with red card) seem to be merged within the DP [las personas] (the people) in the derivations he proposes for cases such as 'Las personas con tarjeta roja' (the people with red card). Similarly, the place at which 'de' (of) is inserted in Raposo's (1999) derivations, at the edge of the higher phase, predicts that the constituency of a DP such as 'Las personas de tarjeta roja' (the people of red card) is [Las personas de] [tarjeta roja]. This predicts that 'de tarjeta roja' (of red card) would not be a constituent and, as a consequence, it cannot be extracted out of DP. This prediction, as extensively shown in Ticio (2003), is not borne out.

Under my analysis, the contrast in grammaticality between (41a) and (41b) is due to the fact that the cliticization process applies after the stylistic and NP-ellipsis rules apply. Therefore, the article cannot attach into the phase headed by the P 'con' (with), but it can be cliticized within its own phase to the false P 'de' (of), in (41a).

#### 4.3. Conclusions

This paper has introduced an analysis of nominal ellipsis that gives an account for various nominal ellipsis data in Spanish. The analysis is based on two main assumptions: First, NP-Ellipsis is PF-deletion (cf. Chomsky & Lasnik (1993), Lasnik (1999), among others); second, it applies after some stylistic operations have been applied.

These two assumptions, combined with the clitic-like character of the definite article in Spanish, provide us with a simple explanation for data that have been problematic for previous analyses, such as the nominal ellipsis data headed by the definite article, as well as for additional data that were not taken into consideration by previous analyses.

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