1. Introduction

It is a well-known fact that a morphologically ‘rich’ language like Spanish allows for various types of non-lexical categories, which are licensed by agreement features. An analysis of this kind has been proposed in the literature for non-lexical subjects that are licensed by the ‘rich’ paradigms of verbal morphology. Similar analyses have been adopted for null nouns resulting from ellipsis, which are assumed to be licensed by the agreement features of adjectives and determiners. Interestingly, however, the ‘rich’ morphology of the definite article in Spanish does not suffice for the licensing of null nouns. A modifier is required, which has been argued in the literature to supply the missing features.

In this paper, we will argue, however, that the definite article in Spanish requires an additional predicate because it is semantically too weak for the licensing of N-ellipsis. The relation between the determiner and the predicate is established via agreement with the empty noun and is only possible if certain configurational conditions are met. Under this analysis it is possible to dispense with the notion of Head-government, as proposed in the Minimalist Program. Instead of being licensed through government by a head, the empty category resulting from ellipsis is licensed in the specifier position of a functional projection. This account of the facts follows quite naturally from the analyses of modifiers advocated in Kayne’s (1994) Antisymmetry Theory.

2. The facts

In Spanish and many other Indo-European languages, we find nominal constructions which seem to lack a lexical head noun, as in (1):

(1) Compré la falda negra y la [ ] amarilla.
    I bought the skirt black and the yellow
‘I bought the black skirt and the yellow one’.
Notice that la amarilla is interpreted as ‘the yellow skirt’, in spite of the fact that the noun falda is not repeated in the second conjunct. Due to this interpretational fact, as well as the general assumptions concerning phrase structure, the constituent la amarilla is presumed to contain an empty noun resulting from ellipsis. Lobeck (1993) argues extensively that this empty category has pronominal properties and, hence, should be analysed as an instance of pro.

An interesting contrast arises when the adjective in (1) is replaced by a PP-modifier. As we see in (2), N-ellipsis is grammatical in Spanish when the modifier is introduced by de, whereas ellipsis leads to ungrammaticality when some other preposition is involved, as exemplified in (3):

(2)  a. el libro de Joaquín y el pro de Cristina  
    'Joaquín’s book and Cristina’s’
  b. la hermana de Juan y la pro de María  
    'John’s sister and María’s’

(3)  a. *la carta a Luisa y la pro a Cristina  
    'the letter to Luisa and the (one) to Cristina’
  b. *el regalo para Isabel y el pro para Jaime  
    'the present for Isabel and the (one) for Jaime’

Interestingly, the examples in (3) become fully acceptable when a PP-modifier introduced by de or an adjective is added to the second conjunct:

(4)  a. la carta de Juan a Luisa y la pro de Jaime a Cristina  
    'Juan’s letter to Luisa and Jaime’s to Cristina’
  b. el regalo barato para Isabel y el pro caro para Jaime  
    'the cheap present for Isabel and the expensive one for Jaime’

These facts suggest that the ungrammaticality of the examples in (3) cannot be attributed to some semantic constraint, but rather requires a syntactic explanation.

A second contrast arises in the domain of relative clauses. N-ellipsis is grammatical when the definite article is followed by a relative clause introduced by the complementizer que:
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(5) a. la casa que te gustaba y la pro que no te gustaba
the house that you pleased and the that NEG you pleased
‘the house you liked and the one you didn’t like’

b. el libro que leyó Jaime y el pro que nos regaló tu padre
the book that read Jaime and the that us gave your father
‘the book Jaime read and the one your father gave us’

The complementizer que is used when the relativized element corresponds to the subject (see 5a) or direct object (see 5b) of the relative clause. However, when the relativized element is embedded in a PP (yielding Pied Piping), N-ellipsis is ungrammatical:

(6) a. *el libro que leyó Jaime y el pro con el que soñaste anoche.
the book that read Jaime and the with the that you dreamt last night.
‘the book Jaime read and the one you dreamt of last night.’

b. *la casa en la que vive tu hermano y la pro en la que viven tus padres
the house in the that lives your brother and the in the that live your parents
‘the house in which your brother is living and the one in which your parents are living’

Also in these cases, adding an adjective or a PP-modifier introduced by de makes the examples fully acceptable:

(7) a. el libro aburrido que leyó Jaime y el pro interesante con el que soñaste anoche
the boring book Jaime read and the interesting one you dreamt last night

b. la casa de Barcelona en la que vive tu hermano y la pro de Girona en la que viven tus padres
the house in Barcelona where your brother is living and the one in Girona where your parents are living

To sum up, N-ellipsis is attested in DPs headed by the definite article when the elided N is modified by:

(a) an adjective
(b) a modifier introduced by de
It is important to point out that these restrictions only apply to DPs headed by the definite article. If the definite article is replaced by a determiner like a demonstrative pronoun, a numeral or a quantifier, N-ellipsis is acceptable in all cases (compare (8) and (9) to (3) and (6), respectively).

(8)  a. esa carta a Luisa y ésta pro a Cristina
     ‘that letter to Luisa and this (one) to Cristina’
     b. dos regalos para Isabel y cuatro/muchos/pocos pro para Jaime
     ‘two presents for Isabel and four/many/few for Jaime’

(9)  a. ese libro que leyó Jaime y éste pro con el que soñaste anoche
     ‘that book Jaime read and this one you dreamt of last night’
     b. dos casas que nos gustaban y tres/algunas/varias pro en
     the houses we liked and three/some/several your brother
     ‘the houses we liked and three/some/several your brother
     wanted to live in’

In this paper we will focus on the contrasts found when the DP is headed by a definite article.

3. Previous analyses

The facts presented so far have been discussed in the literature by Brucart & Gràcia (1986), Brucart (1987), Torrego (1988), and Contreras (1989). All of these approaches are based, either explicitly or intuitively, on the general assumption that the empty category resulting from ellipsis is subject to the ECP (Chomsky, 1981) and, therefore, must be licensed by a governing head. Moreover, this governing head should be specified for agreement features, thus accounting for the contrast exemplified in (10) between Spanish and English:

(10) a. la (catedral) de Barcelona
     ‘the cathedral of Barcelona’
     b. the *(cathedral) of Barcelona
Obviously, under a DP-analysis the definite article is a potential head capable of governing the empty category in both languages. Hence, the contrast between the two examples in (10) should be accounted for in terms of the different feature specification of the definite article in Spanish and English. Notice that the definite article in English is not specified for agreement, whereas its Spanish counterpart is characterized for number and gender features ([+feminine, +singular] in this case), expressing the agreement relation with the head noun.

This account of the facts would obviously predict that N-ellipsis in Spanish is always grammatical in constructions involving a definite article. However, this prediction is not borne out by the facts. Rather, the licensing of ellipsis seems to be realised by both the definite article and the modifier (adjective, _de_-modifier, _que_-relative clause), because the definite article in isolation is not able to license an elliptical noun:

(11) Me gustan los pro *(de Juan).
    me please the (of Juan)
    ‘I like Juan’s.’

According to Torrego (1988), the contrast between determiners like demonstratives on the one hand, and the definite article on the other, should be accounted for as follows. Demonstratives and quantifiers are semantically rich enough to formally license the null noun by providing it with the necessary person, gender and number features. Consequently, the presence of a modifier is not required in these cases:

(12) esa carta y esta pro
    ‘this letter and that one’

(13) Nos gustaban tres/algunas/varias pro.
    to-us pleased three/some/several
    ‘We liked three/some/several (of them).’

Just like Torrego we assume that demonstratives and quantifiers are semantically rich enough to license themselves the ellipsis of the noun. According to Torrego, the definite article is a ‘weaker’ determiner, which must be provided with the necessary person features by another element in order to license ellipsis. In her view, these person features are supplied by the modifiers under consideration, because they are all characterized as [+N] categories. First, Torrego analyses _de_-modifiers as nominal constituents, with _de_ inserted by default. Also in the case of relative clauses, Torrego claims that the head of CP is
characterized as a [+N] category, due to the fact that a relative clause headed by *que* contains a non-lexical NP or DP, corresponding to an empty operator, in its specifier position. Finally, she suggests that adjectives may carry a third person feature by default, but notice that adjectives are even standardly characterized as a [+N, +V] category, according to Chomsky (1981). Torrego’s generalization can be summarized as in (14).

(14) **Torrego (1988):**

N-ellipsis in Spanish is licensed by the definite article when supplied with person features by a [+N] category: a *de*-modifier, a *que*-relative clause, or an adjective.

We follow Torrego’s intuition that the definite article is a weak element in need of a modifier in elliptical constructions, but it is not entirely convincing that the modifiers under consideration correspond to [+N] categories specified for person features. Rather, we hypothesize that the definite article is a weak element in a semantic sense: although it can function as a pronoun, contrary to the English definite article, it is not interpretable in isolation in its Dº position and it therefore requires the presence of a predicate. Under standard assumptions, the definite article binds the open position of the predicate, yielding a semantically interpretable construction. We will hypothesize that the licensing of the null noun results from a checking relation with a functional head in a very specific syntactic configuration. This analysis of the facts will be further elaborated under the analysis of adjectives, *de*-modifiers and relative clauses advocated in Kayne’s (1994) Antisymmetry Theory.

4. **An Antisymmetry approach**

In Kayne’s (1994) Antisymmetry Theory, instances of right adjunction are excluded on the basis of the Linear Correspondence Axiom (LCA). Consequently, certain constructions traditionally analysed in terms of right adjunction, such as relative clauses and possessives, have to be derived in an alternative way. According to Kayne, this alternative is found in the assumption that relative clauses and possessives are actually selected as complements by the definite article. This is illustrated in (15) for the relative clause *the picture that Bill saw* in (15).

(15)  the [CP [ NP picture]] [that [IP Bill saw [e]] ....
In (15) the correct surface order is derived by movement of the noun to the specifier position of the relative clause. A similar analysis is adopted by Kayne for possessive constructions like la voiture de Jean in (16).

(16) la [D/PP [NP voiture] [de [IP Jean [ P [e] ]]]]  
the car of John  
‘John’s car’

The possessive construction in (16) only marginally differs from the relative construction in (15), in the sense that the complement of the definite article is headed by the element de which, according to Kayne’s analysis, should be regarded as a prepositional complementizer. Notice that the possessor Jean and the possessum voiture are in a predication relation within IP.

As for adjectives, we adopt Kayne’s analysis of reduced relative clauses illustrated in (17). The noun livres moves to [Spec,CP] and the AP stays in predicate position:

(17) les [CP[NP livres] [C° [P [e] ] [I° [AP capables de me plaire]]]]  
the books capable of me please  
‘the book that can please me’

Applying Kayne’s analysis of modifiers to the instances of N-ellipsis in Spanish, we conclude that the definite article has a clausal complement (corresponding to CP and D/PP, respectively) in all three cases. The empty nominal, corresponding to pro, moves to the specifier of this clause, as exemplified in (18)-(20):

(18) el [CP pro] [C° que [IP nos regaló [e], tu padre]]]  
(cf. 5b)

(19) el [D/PP pro] [D/P° de [IP Juan [ I [e], ...]]]]  
(cf. 2a)

(20) la [CP pro] [C° [IP [e] [I° [amarilla]]]]]  
(cf. 1)

Before we will give a more precise formulation of the conditions on N-ellipsis in Spanish, we first examine the ungrammatical cases. As we observed above, N-ellipsis is not possible if the null noun is governed by the definite article and modified by a PP headed by a preposition other than de, see (21), repeated from (3b):

(21) *el regalo para Isabel y el pro para Jaime  
‘the present for Isabel and the (one) for Jaime’
As illustrated in (22), we analyse this PP as the predicate of a reduced relative clause. *Pro* is generated in the specifier position of PP and moves to the specifier position of CP:

\[(22) \quad \text{\textit{el {}\textsc{[\textit{pro}]}} [\textsc{c} \textit{[\textit{e}] [\textsc{i} \textit{[\textit{pp \ e, para Jaime}]ucumber]}]]}}\]

The grammaticality of (19), involving a de-modifier, versus the ungrammaticality of (22) containing a PP headed by \textit{para}, follows from the different status of these two elements. According to Kayne, \textit{de} is a prepositional complementizer and, hence, a functional head. In (19) this functional head enters with the null noun in a spec-head checking relation. This strategy is not available, however, for lexical prepositions like \textit{para}, in (22). Crucially, checking takes place in functional projections only, as stated in Chomsky (1995).

Although \textit{pro} moves to the specifier of the empty \textsc{c} in (22), so that a spec-head checking relation with a functional head is possible, this does not suffice to make the construction grammatical. This suggests that the functional head with which \textit{pro} has to enter in a spec-head checking relation has to be filled by an overt constituent, such as \textit{de} in (19).

The analysis that we proposed for the de-constituents can be adopted for the case in (18) with a relative clause as well, where \textit{pro} enters in a spec-head checking relation with the complementizer \textit{que}. In (23), there are even two filled functional heads with which \textit{pro} can enter in a checking relation: \textsc{i} (after movement of the verb) and \textsc{c}, which is filled by the complementizer:

\[(23) \quad \text{\textit{la [\textsc{c} \textit{pro} \textsc{i} [\textsc{c} \textit{[\textsc{i} \textit{que \textit{[\textsc{e} \textit{te gustaba}]ucumber]}]}]]}} (cf. 5a)\]

We hypothesize that \textit{pro} has to enter in a checking relation with the highest functional head of the predicate that is filled by an overt constituent, which is \textit{que} in (23). Our approach would incorrectly predict however that (24), where \textit{pro} enters in a checking relation with the highest filled functional head of the predicate, \textsc{i}, is grammatical:

\[(24) \quad \text{\textit{el [\textsc{c} \textit{pro} \textsc{i} [\textsc{c} \textit{[\textsc{e} \textit{leyé ese libro}]ucumber]}]]}}\]

This construction is however indepently ruled out by the fact that in Spanish relative clauses \textit{que} is required, even with a lexical subject or object in [Spec,CP], compare (25) to (26):

\[(25) \quad \begin{align*} \text{a.} & \quad \text{\textit{el [\textsc{c} \textit{chico} \textsc{i} [\textsc{c} \textit{[\textsc{e} \textit{leyé ese libro}]ucumber]}]]} \\ \text{b.} & \quad \text{\textit{el [\textsc{c} \textit{libro} \textsc{i} [\textsc{c} \textit{[\textsc{e} \textit{nos regaló e, tu padre}]ucumber]}]]} \end{align*}\]

\[(26) \quad \begin{align*} \text{a.} & \quad \text{\textit{el [\textsc{c} \textit{chico} \textsc{i} [\textsc{c} \textit{[\textsc{e} \textit{que \textit{[\textsc{e} \textit{te gustaba}]ucumber]}]}]]}} \end{align*}\]
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b. el [CP libro, [c- que [IP nos regaló e, tu padre]]]

The ungrammaticality of (22), para Jaime, also contrasts with the grammaticality of (20), la amarilla, containing an adjective. We hypothesize that also in (20), the empty category enters in a spec-head checking relation with a filled functional head, namely in an adjectival agreement phrase. This hypothesis is very plausible under Chomsky’s (1995) analysis of adjectival agreement, which is illustrated in the structure in (27):

(27)  John is \([Agr_A e, [Agr_A intelligen\text{t}_1 [AP e, e]]]\)

The predicative AP, which contains the adjective as its head and the subject John as its specifier, is dominated by an Agr_AP. The subject moves to [Spec,IP] to check its Case-features via [Spec,Agr_AP]. The adjectival head moves to the head of [Agr_AP], so that its non-interpretable phi-features are checked and eliminated via the spec-head relation with DP in [Spec,Agr_AP].

If we adopt this analysis for the N-ellipsis construction in (20), a more articulate structure arises, in which the adjective corresponds to the predicate of a reduced relative clause, which is embedded in a functional projection Agr_AP:

(28)  la [CP pro, [Agr_AP e, [Agr_AP amarilla, [AP e, e]]]]

Under this analysis, the crucial difference between the prepositional predicate in (22) with para Jaime, and the adjectival predicate in (28), is that only in the latter case, pro agrees at some point of the derivation with an overt head, namely with the adjective in the functional head Agr_A. That is, in (28) pro checks its features, whereas there is no checking relation with the preposition in (22).

Taking a closer look at the relation between the definite article and the two types of predicates under consideration, the situation is as follows. In both cases, pro agrees with the determiner, probably after movement out of the clausal constituent, as exemplified in (29)-(30):

(29)  \(la^{k} [CP pro^{k}, [IP e, [Agr_A e, [Agr_A amarilla^{k}, [AP e, e]]]]]\)

(30)  \(*el^{j} [CP [pro^{j}],[C^{j}, [IP^{j}, [IP^{j}, para Jaime]]]]\)

Only in (29), however, a relation can be established between the determiner and the predicate, via pro. Since the determiner needs the relation with a predicate to license pro, only (29) is grammatical. In (30), however, the spec-head relation...
with the empty C does not suffice to establish a relation with the predicate para Jaime and, as a consequence, the construction is ungrammatical.

From the examples that we have examined up to this point, we have concluded that pro has to enter in a spec-head checking relation with the highest filled functional head within the predicate at some point of the derivation, so that a relation can be established between the predicate and the determiner, which makes licensing of pro possible. Although the filled X° is the highest functional head within the predicate in the case of de- and que-clauses, viz. C°, this is not necessary. In adjectival predicates the highest filled functional head is AgrA and not C°.

Finally we return to the ungrammatical examples involving relative clauses. As pointed out in (6) above, N-ellipsis with a definite article is ungrammatical in Spanish in combination with a relative clause containing a relativized PP, see (31):

(31) *el pro con el que soñaste
    the with the that you.dreamt
    ‘the one you dreamt of’

According to Kayne, the relative pronoun originates as a determiner, as illustrated for English which in (31):

(32) the [ C° [he broke it [pp with which hammer]]]

Wh-movement of the PP to [Spec,CP] yields the structure in (33):

(33) the [cp [pp with which hammer], [C° [he broke it [e]]]]

Subsequently, the NP hammer raises to [Spec,PP], yielding the correct surface order:

(34) the [cp [pp hammer, [with which [e]]] [C° ...]

If we apply this analysis to the ungrammatical case of N-ellipsis in Spanish, illustrated in (31), we get the following derivation. The base structure is (35), in which the relativizer el que functions as a determiner: ¹

(35) el [cp C° [soñaste [pp con el que pro]]]

Wh-movement of the PP to [Spec,CP] yields the structure in (36):
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(36) el \[CP [PP con el que pro], [Cº [soñaste [e]i]]]\]

Subsequently, pro raises to [Spec, PP]:

(37) *el \[CP [PP pro, [con el que [e]i]], [Cº [IP soñaste ...]

Comparing the structure in (37) to the grammatical case of ellipsis involving a relative clause introduced by que exemplified in (18), el que nos regaló tu padre, we observe that in the latter case the null noun is in the Spec position of CP. In (37), however, we find a more articulate structure in which the PP has been Pied to the Spec of CP and, subsequently, the null nominal has been raised to the Spec of PP. As a consequence, pro occupies the specifier position of the specifier of CP. However, the ungrammaticality of the construction does not seem to follow from the syntactic position of the null nominal. Notice that in other cases, such as (9a) repeated in (38), pro also occupies the [Spec, PP] position and, nevertheless, can be licensed by the demonstrative pronoun éste. The structure is presented in (39):

(38) ese libro que leyó Jaime y éste pro con el que soñaste anoche
    ‘that book Jaime read and this one you dreamt of last night’

(39) éste\[CP [PP pro, [con el que [e]i]], [Cº [IP soñaste anoche e] ...]

Also, in (37), the whole PP in the Spec of CP might enter in a checking relation with the head of CP, instead of pro alone. Crucially, however, Cº is empty in (37) in our analysis and, hence, spec-head agreement in the CP projection is not able to establish an indirect relation between the determiner and the predicate.

After having compared the ungrammatical cases to the grammatical ones, we can formulate the licensing conditions for noun ellipsis with a definite article in Spanish: noun ellipsis is licensed in a clausal constituent that is selected by the definite article, if the elided noun is in a specifier position at some point of the derivation, entering in a checking relation with an overt functional head within this constituent.

5. Conclusion

In this paper we have argued that N-ellipsis within DPs headed by a definite article is only allowed in Spanish if the null noun is part of a clausal constituent corresponding to the complement of the definite article. Within this clausal
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constituent the null noun has to enter in a checking relation, at some point of the derivation, with an overt head of a functional projection in order to be licensed. Making use of Kayne’s (1994) Antisymmetry framework, we have accounted for the grammaticality of N-ellipsis when the definite article is modified by a relative clause introduced by que, by a possessive phrase introduced by de, or by an adjective, as well as for the ungrammaticality of other cases.

Notes
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1. We analyse el que as a determiner, on a par with French lequel. Notice that it is implausible to analyze que as a complementizer here, because the construction under consideration is also found with infinitival relatives, as pointed out to us by Jan Schrotten (p.c.).

References