ANAPHORIC *ONE* AND NP-ELLIPSIS*

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Abstract. Traditional accounts take anaphoric *one* to be a pro-form appearing instead of a full noun (Jackendoff 1977, Ross 1967, and Hornstein & Lightfoot 1981, among others). I propose that *one* is a phonological support for the number morpheme in the DP, which is inserted in cases of NP-ellipsis in the head of the Number projection when the conditions that would enable to license an empty Num^{o} are not available. I also argue that the conditions currently assumed to license non-referential empty categories in the NP-ellipsis construction can be reduced to conditions licensing empty functional heads in the DP system.

1. Introduction

This paper aims to offer an account of the element *one* that appears in some DPs with no (overt) nouns in constructions like (1).

(1) a. Mary bought the blue car and I bought the pink one.
b. I like this car but I prefer that one.

In the sentences in (1) the DP in the second conjunct contains the lexical item *one*, which stands for the noun *car* occurring in the corresponding DP in the first conjunct. In order to facilitate the exposition I will call the DP containing the antecedent noun the *antecedent DP*, and the DP containing the anaphoric element the *target DP*.

Traditional accounts of this construction consider *one* as a pro-form or 'dummy noun' (Jackendoff 1977, Ross 1967, Hornstein & Lightfoot 1981; among others) or a semi-lexical head (Schütze 2001), which appears instead of a full noun. I depart from this account and argue that the *one*-construction involves NP-ellipsis. Therefore, the *one*-construction will have the same underlying structure as the sentences in (2).

(2) a. I like these cars but he prefers those *ec*.
b. All the students took the exam but many *ec* failed.

I will propose that *one* is a phonological support for the number morpheme in the DP, and that it is inserted in the head of a Number projection, NumP (Ritter 1991), when it cannot merge morphologically with any lexical material in cases of NP-ellipsis. I will also propose that the difference between the sentences in (1) and those in (2) lies in the fact that in (2) the Number head is empty because the conditions licensing an

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ec are present, making insertion of *one* unnecessary. I will also consider some interesting contrasts involving both constructions and conclude that the conditions currently assumed for licensing empty categories in the NP-ellipsis construction can be reduced to the conditions licensing empty functional heads in the DP system. Finally, I will argue that anaphoric *one* and indefinite *a* are allomorphs and that the element to which they correspond is the same element as the numeral *one*.

This paper is organized as follows: in section 2 I present the traditional accounts of this construction. In sections 3.1 and 3.2 I compare the anaphoric *one*-construction and the NP-ellipsis construction and I show that they display the same properties while they are in complementary distribution, which will lead me to argue that they should be considered as different surface manifestations of the same underlying construction. In section 3.3 I present Lobeck's (1995) account of NP-ellipsis and in section 3.4 I analyze Kester's (1996) analysis of the anaphoric *one* construction and the problems her particular solution presents. In section 4 I propose my analysis for the *one*-construction rom;and I propose that *one* is inserted in the Number head in order to give support to the number affix. I also propose reconsidering some aspects of Lobeck's analysis of NP-ellipsis. Finally, in section 5 I address the question of the nature of anaphoric *one* and I propose that indefinite *a*, numeral *one* and anaphoric *one* are one unique element, whose differences can be derived by inserting them in different functional heads.

2. Other analyses: *one* as a noun

Ross (1967), Jackendoff (1977) and Hornstein & Lightfoot (1981), among others, take *one* to be a pronoun. Jackendoff and Hornstein & Lightfoot argue that *one* is a nominal anaphoric element which can substitute an N-bar projection. Schütze (2001) proposes that *one* is a semi-lexical head, a noun with no lexical content and only with its grammatical properties. All these analyses have in common that they place anaphoric *one* in the position of the head noun. In this section I show some problems raised by these analyses with respect to the co-occurrence restrictions of *one*:

The first observation we can make is that the *one*-construction is not possible if *one* stands for a mass noun.

(3) a. *I bought old furniture and new one.
b. * I bought the old furniture and the new one.

In (3), the presence of *one* is not possible because its antecedent, *furniture*, is a mass noun. If *one* is a pro-form simply belonging to the lexical class of nouns, the relation between *one* and the position in which it appears is completely arbitrary since that position does not have this restriction.

Another problem of considering *one* as a noun is noted by Kester (1996). As illustrated by the contrast between (4) and (5), *one* cannot be

preceded by a quantifier or a numeral, unless an adjective is present, a restriction that is not shared with nouns.

(4) a. *many ones
b. *two ones

(5) a. many green ones
b. two green ones

If *one* is a noun, the fact that its presence is restricted by the presence of a quantifier remains unexplained.

Thirdly, *one* can only appear in contexts of restrictive modification while this is not the case for "normal" nouns. *One* must be modified (by an adjective, a demonstrative, a PP, or a relative clause), as the sentences in (6) show. In (7) we see that *one* is not possible in the absence of a modifier:

(6) a. Mary likes the blue car and I like the pink one.
b. Mary likes this car and I like that one.
c. John talked to that man and Mary talked to the one with the black hat.
d. John talked to that man and Mary talked to the one she met the day before.

(7) Did you read the book?
Yes, I read the *one / book.

Anaphoric *one* is not possible either if the adjective preceding it is not restrictive:

(8) Did you read the book?
Yes, I read the whole *one / book.

If *one* is a pro-form or a semantically empty noun, we need to explain why it can only appear in restrictive contexts.

Italian offers a piece of evidence that is not available in English.[1] Rizzi (1990) discusses the phonological reduction of *uno*/*-a* in anaphoric contexts:

(9) a. un'auto enorme sarebbe meglio.
an/one enormous car would be better
b. una enorme sarebbe meglio.
an/one enormous would be better
c. *un'enorme sarebbe meglio.
d. un'altra sarebbe meglio.
an/one other would be better

Phonological reduction of *una* can take place in (9a), with a full noun

[1] Thanks to an anonymous reviewer for offering this piece of evidence.

beginning with a vowel. The contrast between the b. and c. examples shows that the site of the elided noun blocks the contact between *una* and the adjective – which begins with a vowel – making the reduction of *una* impossible. Things are different if we take a prenominal adjective, like *altra* (another). Here, reduction of *una* applies as before, regardless of the presence or absence of the noun. Here the ellipsis site does not intervene between *una* and *altra*. This clearly shows that in Italian anaphoric *uno* is not a pronominal form standing for a noun, but continues to be a functional element.

Besides these empirical problems, analyzing anaphoric *one* as a noun is also problematic on conceptual grounds. By claiming that the restrictions observed in sentences (3)–(8) relate to the head noun, we miss some generalizations. First, we miss the fact that the first two of those restrictions are related to the number specification: *one* is only compatible with [+count] nouns, which in English can be argued to be a feature realized in NumP (see Cheng & Sybesma 1999, and references therein); *one* cannot appear when a quantifier (with intrinsic number specification) is present. Those restrictions must be stipulated if we consider *one* a noun. Second, we do not capture the generalization that the NP-ellipsis construction and the *one*-construction display the same syntactic and semantic properties and are in complementary distribution, as I show in section 3, since we are assuming drastically different structures in each case (absence vs. presence of an NP).

3. Anaphoric *one* and NP-ellipsis

3.1. *Syntactic and semantic properties*

In this section I show that the *one*-construction displays the same syntactic and semantic properties as the NP-ellipsis construction. This is one of the aspects that suggest the possibility of developing an analysis for the *one*-construction as involving NP-ellipsis. The similarities in the set of properties displayed by both constructions could then suggest that we are dealing with different manifestations of the same underlying construction. The following properties of the NP-ellipsis are discussed by Jackendoff (1971) and Lobeck (1995), among others.

First, in sentences involving NP-ellipsis, the DP containing the empty NP (*ec*) can appear not only in a coordinate clause, but also in a clause subordinate to that containing the antecedent DP:

(10) a. I prefer this car, although I liked those *ec*, too.
b. We'll take my car because my sister's *ec* is too old.

The *one*-construction displays the same property: the target DP can also appear in a clause subordinate to that containing its antecedent:

(11) a. I prefer this car, although I liked the pink one, too.
b. We'll take my car because this one is too old.

This property not only makes NP-ellipsis and the *one*-construction pattern together, but also makes them differ from other constructions involving empty elements, like gapping and stripping. As observed by Jackendoff (1971), in these constructions the *ec* can only occur in a coordinate clause, as in (12), but not in a subordinate clause, as shown in (13):

(12) a. Mary met Bill at Berkeley, and Sue *ec* at Harvard. (Gapping)
b. Jane studied rocks but not John *ec*. (Stripping)

(13) a. *Mary met Bill at Berkeley, although Sue *ec* at Harvard. (Gapping)
b. *Jane studied rocks even though not John *ec*. (Stripping)

A second property of the NP-ellipsis construction is that the target DP can precede the antecedent DP only when the target DP is in a subordinate clause and the antecedent is in the main clause. However, if the target DP is in the main clause, it cannot precede the antecedent, like the examples in (14b), show:[2]

(14) a. Although I liked these *ec* better, I bought the pink car.
b. *I bought these *ec*, although I liked the pink car better.

In the *one*-construction the same condition is respected, as exemplified by the contrast observed in (15):

(15) a. Although I liked the blue one better, I bought the pink car.
b. *I bought the blue one, although I liked the pink car better.

This property is not shared by gapping and stripping. In these constructions the empty constituent cannot precede its antecedent under any condition. In (16) the *ec* precedes the antecedent and the sentences are not acceptable:

(16) a. *Sue *ec* meat and John ate fish. (Gapping)
b. *Although Sue *ec* meat, John ate fish. (Gapping)
c. *Not Jane *ec* but John studies rocks. (Stripping)
d. *Although not Jane *ec*, John studies rocks. (Stripping)

A third property of NP-ellipsis is that it can occur in a clause separated from that containing the antecedent by an utterance boundary (Williams 1977):

(17) Which car do you like?
I like these *ec*.

[2] I am not concerned about the theoretical assumptions for this condition. What is really interesting to note in those examples is the parallelism between ellipsis and anaphoric *one*.

In the *one*-construction the anaphoric relation can cross an utterance boundary. In (18) we see that the antecedent DP is within an utterance that does not contain the target DP:

(18) Which car do you like?
I like the pink one.

A fourth property of the NP-ellipsis construction is that the antecedent of the *ec* does not need to be linguistically expressed and the *ec* can be pragmatically interpreted (Chao 1987, Lobeck 1995). In (19), the word *cars* has not been uttered but it is possible to interpret *those ec* as *those cars* pragmatically.

(19) (looking at some cars):
Do you like those *ec*?

This is another property of the NP-ellipsis construction that is also shared with the *one*-construction. In (20), the antecedent DP is not uttered, and *one* must be pragmatically identified:

(20) (at a car dealer's):
Which one do you like?
I like the pink one.

This property is not shared by gapping and stripping, in which the *ec* cannot be pragmatically identified. The sentences in (21) are not acceptable in this context because there is no linguistic antecedent to recover the gap. The same sentences are acceptable in a context where the antecedent is linguistically expressed, as in (22).

(21) (John is eating an apple.)
#And Mary *ec* an orange. (Gapping)
#But not *ec* Bill. (Stripping)

(22) John is eating an apple.
And Mary *ec* an orange. (Gapping)
But not *ec* Bill. (Stripping)

Another important property of NP-ellipsis is that it must apply to the entire NP and, therefore, the complement of the noun cannot be left out of the elision. The same is applicable to cases of VP-ellipsis, where the complement of the verb cannot be present since the ellipsis needs to apply to the entire VP. Adjuncts, on the other hand, can be present, as in (24).

(23) a. *I talked with these students of physics and with these *ec* of chemistry.
b. *Mary ate the cake and Sue did *ec* the apple.

(24) a. I talked with these students from Germany and with these *ec* from Italy.

b. Mary ate the cake on Sunday and Sue did *ec* on Tuesday.

The *one*-construction also displays this property; *one* cannot co-occur with the complement of the noun, as the sentences in (25) show.

(25) a. *The destruction of Rome was as cruel as the one of Cartage.
b. *I met the student of physics but I didn't meet the one of chemistry.

In a parallel way to what happens with NP-ellipsis, *one* can co-occur with adjuncts:

(26) I met the student from Germany but I didn't meet the one from Italy.

While ellipsis must apply to the entire VP / NP, gapping allows the complement of the verb to be phonologically realized:

(27) John is eating an apple and Mary [*gap*] an orange.

Finally, NP-ellipsis allows for both strict and sloppy readings (Valois 1991), making this construction parallel to its clausal counterpart, VP-ellipsis. The example presented by Valois is in (28):

(28) I saw Janet's picture of her cat and Jack saw Julie's *ec.*

(28) has two possible interpretations: In the second conjunct we can understand that Jack saw Julie's picture of Janet's cat or that he saw Julie's picture of Julie's cat. When dealing with NP-ellipsis we observe the same range of possible interpretations as those observable in cases of VP-ellipsis:

(29) Kim likes her cat and Karn does *ec* too.

Under the strict identity reading of (29) the same cat is involved in both conjuncts (Kim's or somebody else's cat) whereas under the sloppy-identity reading Kim and Karn like their own cat. In the case of the anaphoric *one*-construction, the possible interpretations of *one* when a pronoun is involved are the same as those made available in the ellipsis construction, as shown in (30):

(30) I saw Janet's beautiful picture of her cat and Jack saw Julie's ugly one.

In (30), as in the case of NP-ellipsis, Julie's ugly picture can be a picture of her own cat or a picture of the same cat as that in Janet's beautiful picture.

We may conclude that the NP-ellipsis construction patterns with the *one*-construction and differs from other constructions involving empty elements as stripping and gapping. This can be taken as an argument suggesting that the construction with *one* and that with NP-ellipsis are

superficially different manifestations of the same construction of nominal anaphora. This conclusion establishes a common background that will allow me in turn to investigate the differences between them, such as for example the presence vs. absence of the conditions that license an *ec*.

3.2. *Complementary distribution of the one-construction and NP-ellipsis*

In this section I show that both constructions are in complementary distribution, that is, in those contexts in which anaphoric *one* appears the *ec* would not be possible. Conversely, in those sentences with an *ec*, the presence of *one* leads to ungrammaticality. In the absence of a full noun, anaphoric *one* must appear with adjectives, as in the examples in (31). These sentences are not acceptable without *one*:

(31) a. I like the blue car but I don't like the pink one.
b. I like these cards but I'll buy the fancy ones.

(32) a. *I like the blue car but I don't like the pink *ec*.
b. *I like these cards but I'll buy the fancy *ec*.

Anaphoric *one* must also appear with a singular demonstrative. Without the presence of *one* these sentences become unacceptable.

(33) a. I like this car but I don't like that one.
b. *I like your car but I prefer that.

(The star in (33b) indicates the unacceptability of the sentence with the same meaning as (33a). I deal with this question in section 4.2).[3]

We find the opposite pattern with plural demonstratives. The sentences in (34), in which *one* is introduced by a plural demonstrative, are only

[3] An anonymous reviewer points out that we can find other cases in which the singular demonstrative *that* appears without a full noun and *one*, however, is not present. Consider the following examples:

(i) a. I read the letter for my broker and that for my accountant.
b. This conclusion is better than that reached in his previous paper.

Schütze (2001) presents some evidence that these sentences do not correspond to the NP-ellipsis construction and he proposes that the singular demonstrative *that* is in this case a non-clitic determiner, which appears instead of the clitic determiner *the*. First, *that* does not have the same semantics as the demonstrative, since we cannot rephrase (ia) with the full noun, as (ii) illustrates:

(ii) *I read the letter for my broker and that letter for my accountant.

That suggests that we are not dealing with ellipsis, since a sentence with NP-ellipsis is equivalent to the sentence with the full noun, as shown in the following pair:

(iii) a. I like this car but I don't like those.
b. I like this car but I don't like those cars.

Also, *that* in (i) has a [-human] restriction, which is obviously not shared by demonstratives:

(iv) *I like the student from Mexico and I adore that from Canada.

marginally accepted by some speakers. With the plural demonstrative, the empty NP without the presence of *one* is widely accepted (35).

(34) a. ?*I like these cars but I don't like those ones.
b. ?*I like those cars but I don't like these ones.

(35) a. I like these shirts but I don't like those *ec*.
b. I like those shirts but I don't like these *ec*.

However, the presence of *one* is necessary when an adjective appears after the plural demonstrative:

(36) I like these shirts but I don't like those red ones/ **ec*.

Another syntactic context in which the empty NP is acceptable without *one* is after a strong possessive or a preposed genitive DP, as the sentences in (37) show. In those contexts the presence of anaphoric *one* leads to unacceptability.

(37) a. I like your car, but I don't like mine *ec* /*my one.
b. I like my car but I don't like yours *ec* / *your one.
c. I like Mary's apartment but I don't like Peter's *ec* / *one.

Finally, NP-ellipsis without *one* is possible with some quantifiers, like *many, some,* and numerals, including numeral *one*.[4] In this context the presence of anaphoric *one* triggers ungrammaticality.

(38) a. All the students took the exam, but many / some / three (*ones) failed.
b. All the students took the exam but one (*one) failed.

Indefinite *a* seems to be an exception to this complementarity between *one* and the *ec* in cases in which there is no full NP. Indefinite *a* is simply not possible with an empty NP, either with *one* or without *one*. However, we can reduce the impossibility for *a* to appear in the elliptical construction to a cliticization requirement, as we will see in section 5.

(39) a. *All the students took the exam but a one failed.
b. *All the students took the exam but a failed.

Finally, while ellipsis must apply to the entire NP, sentences like (i) allow for the complement to be left out of the elision:

(v) The destruction of Rome and that of Cartage

[4] With ordinal numerals, the presence of *one* seems to be optional. As one anonymous reviewer suggests, this could be explained by their double lexical option of being analyzed as numerals or as adjectives. When the ordinal number appears with *one*, it would be being analyzed as an adjective; when it appears without *one*, it would be being analyzed as a quantifier.

In contrast with (38) and (39), the presence of *one* is necessary when an adjective appears after those quantifiers (including numeral *one* and indefinite *a*):

(40) a. All the students took the exam but many / some / three lazy ones failed.
b. All the students took the exam but one lazy one failed.
c. All the students took the exam but a lazy one failed.

Summarizing, in section 3.1 we observed that the NP-ellipsis construction (without *one*) and the *one*-construction display important syntactic similarities. In this section we have observed that they are in complementary distribution: In sentences with an empty NP, we find some contexts in which the presence of *one* is required and some contexts in which it is not possible.

I conclude that the two constructions are underlyingly the same and that they both involve NP-ellipsis. (See also Kester 1996.) Note incidentally that, if this is the case, we should not refer to *one* in this structure as "anaphoric" since it is not a nominal element, but rather it serves to introduce one. I would now like to suggest that one structure appears when the other fails to derive a satisfactory construction. Therefore, what we need to elucidate is what the conditions are that allow for the empty NP to appear without *one*, and what conditions make the presence of *one* necessary.

3.3. *Lobeck's analysis of NP-ellipsis*

Since I argue that the *one*-construction involves NP-ellipsis, I will now discuss how this issue has been dealt with in the literature. Lobeck (1995) elaborates a theory in which the empty element in NP-ellipsis is subject to the ECP conditions, traditionally only applied to traces.

(41) ECP (Empty Category Principle):
[e] must be properly governed

According to Lobeck's analysis, the empty element in NP-ellipsis and in VP-ellipsis must be licensed according to the ECP. She argues that elliptic categories are licensed through government by functional X°s specified by strong agreement. Strong agreement is defined in the following way:

(42) Strong agreement:
An X° is specified for strong agreement iff X°, or the phrase or head with which X° agrees, morphologically realizes agreement in a productive number of cases. (Lobeck 1995:158)

Lobeck assumes that there are two functional heads inside the DP: D° (Abney 1987) and Num° (Ritter 1991). Those functional heads can

identify and license an *ec* when they are specified by strong features. Her system works in the following way:

Plural demonstratives (in D°) are specified for strong agreement by means of the [+plural] feature, which is realized by the morpheme *-s* on the noun. Singular demonstratives are not specified for strong agreement because the nouns they agree with do not present any morphological specification for singular. Articles are not specified for agreement in any way. Contrary to what happens with demonstratives, *the* can introduce both singular and plural nouns:

(43) a. these *book / books
b. this book / *books
c. the book / books

Secondly, a D° with a possessive determiner in its spec is assumed to be specified for strong agreement by means of the [+poss] feature.[5]

Quantifiers like *many*, *some* and numerals (in Num°) are specified for strong agreement by means of the [+plural] feature. The numeral *one* and quantifier *each* are [-plural] and yet they allow for NP-ellipsis. Lobeck argues that those two quantifiers have in common with the other quantifiers allowing NP-ellipsis the fact that they can appear in partitive constructions (44a). On the other hand, quantifiers that do not allow ellipsis, like *every*, are not compatible with the partitive construction (44b):

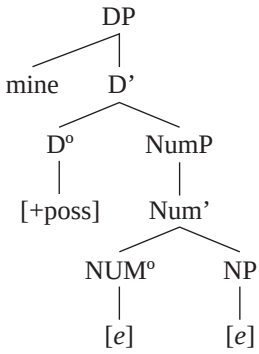
(44) a. one / each / many / three of the men
b. *every of the men

In view of this observation, Lobeck proposes that the [+partitive] feature is an agreement feature, which can also license an empty category.

In Lobeck's analysis, licensing of the empty NP is realized in the following way. In (45), D° with a possessive determiner in its spec is specified for strong agreement and licenses the empty Number head. It also licenses the empty NP under the Generalized Government Transparency Corollary (proposed by Baker 1988, and modified by Lobeck) (46).

[5] In order to explain why possessives can license the *ec*, Lobeck follows Abney (1987) in considering a D° [+poss] as specified for agreement. According to Abney, [+poss] is a Spec-head agreement feature which allows a D° [+poss] to assign genitive case to a phrase in Spec-DP.

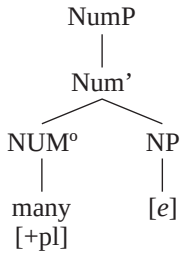
(45)



(46) Generalized Government Transparency Corollary (GTC)
An X° which is coindexed with and governs an empty head governs everything that head would govern.[6]

In (47) it is the quantifier in Num° that licenses the empty NP, by means of the [+plural] feature.

(47)



Adjectives intervening between the plural demonstrative and Num° block licensing of the empty Num°, and therefore, the Generalized GTC cannot apply and the empty NP is not licensed:

(48) * I like those blue cars but I don't like those pink *ec*.

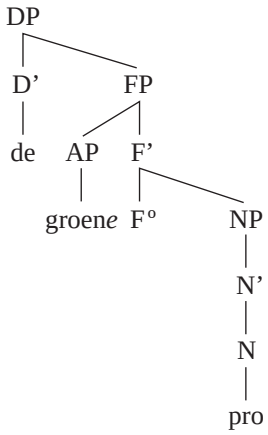
Summarizing, according to Lobeck's analysis, the plural demonstrative, the quantifier and the strong possessive license an empty NP by means of their strong agreement features ([+plural], [+partitive] and [+possessive], respectively. If we assume the idea that the *one*-construction involves NP-ellipsis, we will need to show that the presence of *one* somehow allows the possibility of NP-ellipsis in those cases in which it would otherwise fail.

[6] Lobeck notes that 'empty' means 'void of phonological content', but not necessarily features. Heads are coindexed either through movement or selection.

3.4. *Kester's analysis: one as adjectival morphology*

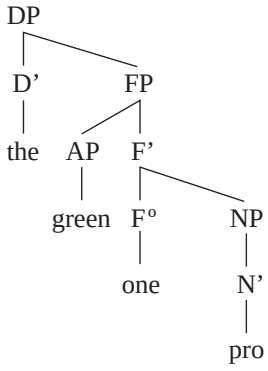
Kester (1996) follows Lobeck in that licensing of a null noun involves government by a functional head specified by strong agreement. In addition, she proposes that in those functional projections whose spec position contains an adjective, the functional head can receive the required strong agreement features from the adjective. In Dutch and Spanish, this functional head is made visible by the inflectional morphology of the adjective in its spec, and therefore, it can license the empty NP. In the Dutch example in (49), the adjective displays a special agreement form [-*e*] (pronounced as a *schwa*) in cases of NP-ellipsis. This inflectional morphology of the adjective makes the functional head F° visible and thus able to function as a proper governor.

(49)



On this analysis, the head of the functional phrase in whose specifier we find the adjective, is not visible and cannot license the *ec*. Kester proposes that *one* is inserted in the head of that functional phrase so that F° can license the *ec* in English, since adjectives do not have morphology:

(50)

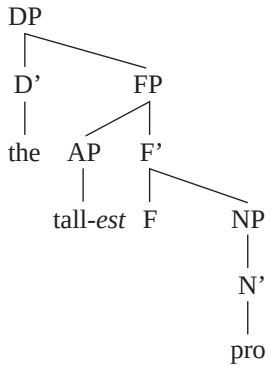


English superlatives, however, have rich morphology (expressed by the ending *-est*). The sentences in (51) show that the NP-ellipsis construction does not need the presence of *one* when the *ec* is preceded by a superlative adjective. (The examples are Kester's):

(51) a. Although Helen is the oldest girl in the class, Julie is the tallest *ec.*
b. They claim that Danish butter is the finest *ec*.
c. That letter was the last *ec*.
d. His recent performance of Macbeth is the best *ec* he has ever done.

In Kester's analysis, in ellipsis constructions involving superlative adjectives, the adjective (in Spec, FP) can make F° visible (through Spec-Head agreement, as in the Dutch case) and, consequently, F° becomes a proper governor of the *ec* without requiring the presence of *one*:

(52)



Kester's analysis captures some generalizations by taking the *one* construction as involving NP-ellipsis. However, it presents some problems.

First, Kester's analysis is problematic for the Spanish null noun construction. The sentence she presents to illustrate the licensing properties of the adjectival rich morphology in Spanish is in (53).

(53) los libros verdes y los rojos *ec*
the-MASC books-MASC. green-MASC and the-MASC red-MASC *ec*
'the green books and the red ones'

In the structure Kester proposes for the sentence in (53), the *ec* is c-commanded by the adjective and, therefore, the adjective can license the *ec.* However, restrictive adjectives in Spanish are in post-nominal position and, therefore, the structure should be the following:

(54) los libros verdes y los *ec* rojos

In that position, the *ec* cannot be licensed by the strong agreement of the

adjective, since the adjective does not c-command the *ec*. The contrast between post-nominal and pre-nominal adjectives in Spanish is important since ellipsis is not possible with the latter:

(55) (¿Viste la nieve?)
('Did you see the snow?')
a. Sí, la blanca nieve cubría mi jardín.
'Yes, the white snow covered my garden.'
b. *Sí, la blanca *ec* cubría mi jardín.
*yes, the white *ec* covered my garden.

In (55), the adjective receives a non-restrictive interpretation in the pre-nominal position. With the non-restrictive interpretation of the adjective, ellipsis of the noun is not possible (and thus the ungrammaticality of 55b). The only interpretation available would be the restrictive one (say, the white snow as opposed to the gray snow), but in that case, the adjective would be, as in (53), in post-nominal position, that is lower than the *ec*, and, therefore, not c-commanding the *ec.* Therefore, if it is the adjective agreement that licenses the *ec,* these facts remain unexplained: (i) the only adjectives that govern the *ec* (pre-nominal adjectives) do not seem to license the ellipsis; and, (ii) the adjectives that are compatible with the ellipsis (post-nominal adjectives) are in a position in which they do not govern the *ec* and, therefore, they cannot license it.[7]

Also, in Spanish, ellipsis is not only possible in the presence of an adjective, as we observe in (56) where the modifiers are a PP and a relative clause, respectively.

(56) a. el *ec* de Juan
the *ec* of Juan
b. el *ec* que compraste
the *ec* that you bought

This suggests that we cannot reduce the possibility of having an *ec* inside the DP to the presence of adjectival morphology since these sentences lack an adjective and yet it is possible to have an *ec*.[8]

Superlative adjectives in English are also problematic for Lobeck's analysis, which claims that superlative adjectives present rich morphology which turn the functional head into a proper governor. This explanation raises some problems. Note, first, that we need *one* in other sentences with a superlative adjective, as (57):

[7] I adopt an analysis in which all adjectives are generated prenominally. The postnominal position is derived by N-movement to a higher position. See Valois (1991), Picallo (1991) and Bernstein (1991, 1993), among many others.

[8] In these sentences, the *ec* seems to be licensed by the number and gender features of the determiner, which in Spanish, contrary to English, can be argued to be specified by strong agreement.

(57) All the cars were pretty expensive but I bought the cheapest *(one).

The sentences in (51), in which the superlative adjective allows for NP-ellipsis without the presence of *one*, are all copular sentences, involving predication.[9] Thus, we could claim that those superlative adjectives are predicates and their behavior should be compared with the behavior of adjectives in the following copular sentences, in which *one* is not possible:

(58) a. John is good.
b. Julie is tall.

The presence of the determiner preceding the superlative adjectives in the examples in (51) can be misleading and wrongly suggests that we are dealing with an ellipsis construction and that we face the following contrast:

(59) a. *Although I like the short girl, I prefer *the tall*.
b. Although Helen is the oldest girl in the class, Julie is *the tallest*.

However, the two sentences in (59) do not involve the contrast between "regular" adjective vs. superlative adjective, although the presence of the determiner in both cases seems to render the two DPs (*the tall* and *the tallest*) similar and differing only in that aspect. The presence of the article in (59b) is required by the special properties of superlative adjectives:

(60) a. *John is best.
b. *Julie is tallest.

The real contrast between the two sentences in (59) involves predication vs. no predication.

Comparative adjectives are also problematic (as Kester observes). Those adjectives require the presence of *one* in cases of empty NPs:

(61) the nicer *(one)

If we consider superlative adjectives to be morphologically inflected by means of the suffix *-est*, we should give the same analysis to comparative adjectives, since they also present an affix (*-er*). However, under Kester's analysis, comparative adjectives and their suffix do not license the *ec* while superlative adjectives do.

Furthermore, this analysis does not solve the problem noted before that only count nouns are compatible with the *one*-construction. It is

[9] In the sentences in (51) it is also possible to find *one*, leading to the following contrast:

(i) Although Helen is the oldest girl in the class, Julie is the tallest.
(ii) Although Helen is the oldest girl in the class, Julie is the tallest one.

The fact that the presence of *one* is optional suggests that the choice is open: while (i) would be a case of predication, (ii) would correspond to an ellipsis construction with *one*-insertion. Thanks to an anonymous reviewer for the discussion of this point.

important to note that the impossibility of *one* when the head of the elided NP is a mass noun does not extend to the ellipsis process in general. If the sentence exhibits the conditions that satisfy the licensing of an *ec*, the construction is compatible with a mass noun:

(62) I like my furniture and she likes hers *ec*.

However, if the *ec* is not possible because its licensing is not available (i.e. if there is an adjective blocking it), the presence of *one* cannot save the construction, contrary to what happens in the case of count nouns:

(63) *I bought the old furniture and the new one.

This shows that *one* insertion is only available when the elided noun is a count noun and it suggests that the head in which *one* is inserted is directly related to the [+count] specification of the noun. This is not the head in whose spec adjectives appear, but, as I will propose in the next section, the NumP head.

A final consideration regards the power of last resort procedures. In Kester's analysis *one* insertion is a really powerful procedure, since it implies that an element (*one*) is inserted *in order to* license the *ec*. However, as I will suggest later, *one* insertion involves a phonological element that is not projected in the syntax and, therefore, it should happen at a phonological level. At this level, NP-ellipsis cannot be licensed, because licensing of an *ec* is a syntactic procedure and must be done before Spell Out. Therefore, it cannot be *one* itself that licenses the empty NP. It is not even the fact that we insert *one* that enables the licensing of the empty NP, since this takes place after the moment at which licensing takes place.

4. Anaphoric *one* in NumP

In view of these considerations, I want to propose an alternative analysis. In this section I argue that *one* is inserted in the Number head position in order to give phonological support to the Number affix in those cases in which the affix would otherwise be stranded.

4.1. One-*support as a last-resort procedure*

4.1.1. Do-*support.* The analysis I propose for *one* is similar to that proposed for *do*-support in Halle and Marantz (1993), Bobaljik (1994) and Lasnik (1995) in a return to what was proposed by Chomsky (1955). According to these analyses, the finite verb in VP comes together with the inflectional feature in I° via morphological merger. *Do* is inserted when I° cannot merge morphologically and the inflectional affix would otherwise be stranded, not satisfying its affixal properties. This can be seen in different cases:

(64) a. Sam does not eat.
b. Did John leave?
c. Sam eats and Bill does *ec* too.

In (64a) the negation blocks merge between the verbal stem *eat* and the affix *–s*, and *do* is inserted to give phonological support to the affix. In questions in which there is I-to-C movement, like (64b), after I° has moved to C° it cannot merge with any lexical material and *do*-insertion is necessary. *Do*-support also applies in cases of VP-ellipsis, like (64c). In this sentence I° cannot merge with the verb because VP is empty, and *do* is inserted to give support to the affix in I°.

Insertion of *do* is a last-resort procedure. It only takes place when I° fails to merge with some lexical material and would therefore be left stranded. In (65), although I° cannot merge with the VP *sing*, since this is empty, it can merge with the auxiliary *be*. *Do*-support is, therefore, not necessary and, being a last-resort procedure, it does not take place.

(65) Mary is singing and John is *ec* too.

4.1.2. One-*support.* Similarly to what has been proposed for *do*-support in the clausal domain, I propose that *one* is inserted in order to give support to a morphological affix in those cases in which it would otherwise be stranded.

I assume that Num° is the position for the number morpheme, with which the noun is morphologically merged. I propose that the ellipsis phenomenon is better accounted for by assuming a richer DP than that proposed by Lobeck. Since the presence of a plural quantifier does not prevent the presence of a plural morpheme, an analysis that assumes morphological merger of the Noun with the Number head needs to place the quantifier in a different position than NumP. Therefore, in the DP we can find three functional heads: D°, Q° and Num°.

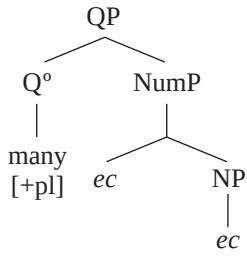
In the clausal domain, we reviewed several cases in which the inflectional affix cannot merge with the VP: when negation blocks that merge, in cases of I-to-C movement, and in VP-ellipsis. In the nominal domain the cases in which the number affix fails to merge with the NP are reduced since we cannot find any lexical material between NumP and NP and there is no (overt) movement of Num° to a position with no lexical material to attach to (as happens in I-to-C movement). However, there is one case in which the number affix fails to merge with some lexical material: NP-ellipsis, as in the examples in (66).

(66) a. All the students took the exam but many *ec* failed.
b. All the students took the exam but those *ec* failed.
c. I like your car, but I don't like mine *ec*.

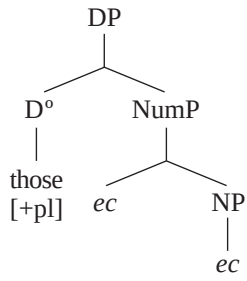
I propose that in cases of NP-ellipsis, the Number head can also be

empty if the right licensing conditions are present. I follow Lobeck in that [+plural], [+partitive] and [+possessive] are strong agreement features that can license an empty category. I depart from her in some aspects and I argue that licensing of an *ec* by means of strong agreement is a condition for empty functional elements, in this case, Num°. I propose also that licensing of the empty Num° requires immediate c-command of the *ec* by the element holding the strong agreement feature (the plural demonstrative, the quantifier or the possessive). The structures in (67) correspond to the sentences in (66). The quantifier (in a.), the plural demonstrative (in b.) and D° with a strong possessive in its spec (in c.) license the empty Num° by means of immediate c-command.

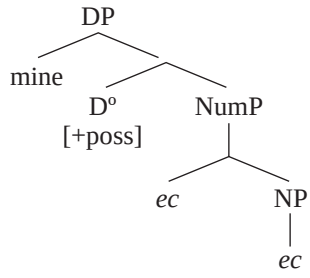
(67) a.



b.



c.



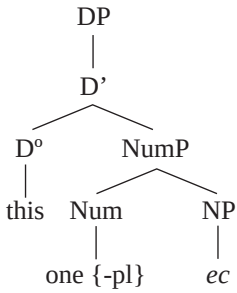
We have seen the three cases of NP-ellipsis in which the Num° can be empty and therefore *one*-support is not required (and, being a last-resort procedure, it fails to take place). Let us now observe the cases of NP-ellipsis in which an empty Num° would fail to be licensed and, therefore, needs to be overt, making *one*-insertion necessary to give phonological

support to the number affix. *One*-support takes place in two main situations:

First, when there is no licenser for an empty Numº and Numº therefore needs to be overtly expressed by means of the number affix. This situation takes place when the DP is introduced by a singular demonstrative or a determiner (which are not specified for strong agreement):

(68) a. I like this car but I don't like this one.

b.



Since the NP is empty and an empty number head would not be licensed by a functional head, Numº needs to be overtly expressed. *One* is inserted in order to give phonological support to the number affix, which would be otherwise stranded.

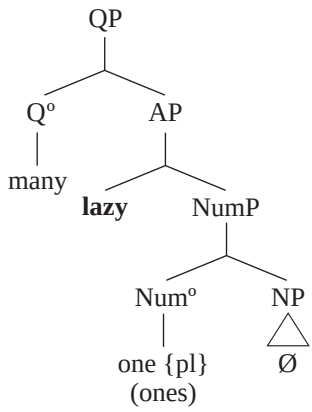
Let us now look at another case in which *one*-support is necessary. Licensing of the *ec* by immediate c-command is subject to intervention effects, therefore, if an adjective is present between the element with the strong agreement features and the empty Numberº, licensing is blocked, leading to an ungrammatical result:[10]

(69) a. All the students took the exam but many lazy ones *ec* failed.
b. All the students took the exam but one lazy one *ec* failed.

In (69) there is a potential licenser for Numº, the quantifier *many* (in a.) and the quantifier *one* (in b.). However, licensing is blocked by the intervening adjective and the Numº cannot be empty. Therefore, the number morpheme (*-s* for plural, *0* for singular) fails to attach to lexical material and *one* is inserted as a last-resort procedure in order to give support to it.

[10] I assume a structure of the DP in which the adjective is the head of its own projection. This hierarchical structure can explain, by means of HMC, the blocking of the access of the noun to the features of Dº when an adjective is present, in languages like Danish. (See also Lorenzo González 1995 and references therein).

(70)



4.2. *The count restriction*

4.2.1. *Anaphoric* one *as a count-classifier in NumP*. We still need to explain why *one* cannot appear with mass nouns. In the analyses that take *one* to be in N° or in F° (with an AP in its spec) the relation between *one* and the head in which it appears is arbitrary, since N° and F° do not contain the feature [+count]. I argue that in my analysis the restriction [+count] on *one* is related to the features of the head in which it is inserted, Num°.

The fact that anaphoric *one* is only possible with [+count] nouns reminds of the behavior of classifier markers in languages like Chinese. Whereas in English only mass nouns need a measure phrase in order to be quantified, in Chinese all nouns need a measure phrase:

(71) a. three *bottles of* liquor
b. three books

(72) a. san *ping* jiu
three bottle liquor
'three bottles of liquor'
b. san *ben* shu
three CLASSIFIER book
'three books'

The function of the classifier is to make the semantic partitioning of count nouns syntactically visible (Doetjes 1996). For a noun to be able to be quantified by a numeral, the semantic partitioning of what it denotes must be visible. In the case of mass nouns, both English and Chinese have some mass-classifiers – or *massifiers* – (Cheng & Sybesma 1999) that create units that can be counted (*glass of . . .* , *bottle of . . .*). In the case of count nouns, Chinese also has some classifiers that name the natural units

of these nouns in order to make them visible and therefore able to be counted. The meaning of these classifiers would be something like {unit}. Doetjes argues that in English, the function of naming the units of count nouns is realized by number morphology. Since Chinese lacks number morphology, this function needs to be realized by classifiers, in ClassifierP (Cheng & Sybesma 1999). Note that these classifiers are also involved in expressing number.[11]

Therefore, a class of classifiers in a ClassifierP is not necessary in English because number morphology in NumP can accomplish this function. Mass nouns and plural specification are mutually exclusive, since mass nouns are morphologically specified as singular. Therefore, the presence of the plural morpheme in Num° identifies a count noun.

(73) a. I drank water.
b. I read books.
c. *I drank waters.

In cases of ellipsis of an NP headed by a count noun, a quantifier, a plural demonstrative or a strong possessor license the empty Num° under the right conditions.

(74) [[[$_{QP}$ many [$_{NumP}$ *ec* [$_{NP}$ *ec*]]

When those conditions are not met (because there is no proper licenser or an adjective blocks licensing of Num°), Num° needs to be overt. In that case, the number affix is stranded and *one* is inserted, giving support to the number feature and therefore to the [+count] specification. So-called anaphoric *one* would then be the English overt counterpart of Chinese classifiers, with the approximate meaning of {unit}.

The [+mass] specification in mass nouns is also realized in Num°. According to Delfitto & Schroten (1991), the mass specification differs from the number specification of count nouns. This {mass} affix corresponds to a different kind of quantification and, therefore, must be kept conceptually distinct. When the mass noun is null, in cases of NP-ellipsis, the Num° needs to be licensed by a functional head specified for strong agreement. When licensing of an empty Num° is not possible, Num° needs to be overt and the mass affix in Num° is left stranded. Contrary to what happens with count nouns, we cannot resort to *one*-insertion because *one* has a [+count] specification and it is not consistent with the [+mass] specification of the mass affix.

(75) *She likes her new furniture and I like my old [$_{NumP}$ {+mass}[$_{NP}$ *ec*].

[11] For details on classifiers in Chinese and how they are involved in the expression of grammatical number, see Cheng & Sybesma (1999) and references therein.

4.3. *Licensing of the empty NP in* one *constructions*

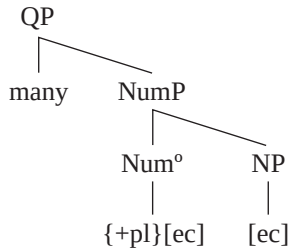
So far we have seen that *one* is inserted in the Number head in cases of NP-ellipsis when Num° cannot be empty because there is no licenser available. *One*-insertion in NumP only solves one problem, the licensing of the Number head. But we still face another question: How is the empty NP itself licensed? As I suggested in section 3.4, it cannot be *one* that licenses the empty NP, since *one*-insertion takes place at a phonological level and, at this level, NP-ellipsis cannot be licensed, because licensing of *ec*s is a syntactic procedure and must be done before Spell Out. *One*-insertion, therefore, is not involved in the licensing of the empty NP, but it is just a final phonological procedure.

Here we face two possibilities:

(76) (i) It is the feature encoded in Num° which licenses the empty NP (whether this is overt or not).
(ii) The conditions of licensing of empty categories only apply to empty functional heads. Lexical categories are not subject to such conditions.

Let us see how these two possibilities would account for the NP-ellipsis structure in (77):

(77)



In (77), the empty Num° is licensed by the quantifier *many*. According to the first possibility, in (76), the empty NP would be licensed by the [+pl] features encoded in the empty Num°. According to the second possibility, only the functional element, Num°, needs to be properly licensed; NP, being a lexical category (lexical as opposed to functional), can be freely elided (as far as licensing is concerned).

In order to elucidate which one of those two possibilities best adjust to the data involving ellipsis, we need to observe a contrast between empty functional elements and empty lexical elements. Observe the contrast between singular demonstratives with *one* and without *one* in (78)–(79):[12]

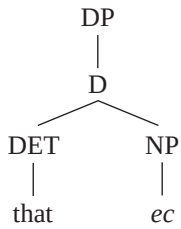
[12] Abney (1987) accounts for this behavior of demonstratives by proposing that they can be marked as [+/-transitive]. According to his analysis, in 'I like this' the demonstrative is [-transitive], that is, it does not select a complement NP. Since the NP projection is not created, those sentences do not involve NP-ellipsis. However, this analysis raises some

(78) (in a bookstore, to a salesperson holding a book):
Give me that one.

(79) (to a person holding a book):
Give me that.

In both sentences the singular demonstrative has a deictic meaning, since it points to an object that is present in the communicative context. In (78) the speaker refers to *that book* as opposed to the other books in the store. Therefore, the speaker and the listener must be looking at an object known by both of them to be *a book*. In this case, the singular demonstrative cannot appear without *one*. Pursuing the analysis of *one* I developed so far, the singular demonstrative cannot license the empty Num° and *one* is inserted in order to give phonological support to it. In (79) the speaker does not refer to *that book* as opposed to *that other book*, but *that "thing"* as opposed to any other "thing" (with the word "thing" used very loosely, including objects, facts, actions . . .). The speaker and the listener must be looking at an object not necessarily identified as a book. In cases like (79), where the singular demonstrative appears without the anaphoric *one*, deictic *this* is not signaling an unambiguous (count) object distinguishable from others. The fact that the empty noun of the DP headed by the singular demonstrative is not distinguishable as a unit, suggests that no NumP is selected in those cases. A simpler structure – shown in (80) – corresponds then to (79):[13]

(80)



In a sentence with this structure, the presence of *one* is not possible for obvious reasons: Num° is not projected and, therefore, *one* could not be

problems. First, it is not clear why this is restricted only to demonstrative elements, that is, why we cannot reanalyze every element preceding an *ec* as [-transitive]. Also, it is not clear that the singular demonstrative in (79) is not selecting anything; although abstract, the deictic *this* is pointing to some object (or a situation or a fact, in other cases) and, therefore, it must be selecting a phrase, empty, in that case (D. Sportiche, p. c.).

[13] As one reviewer notes, we could also say 'give me those' (to a person holding a number of books), in which case it would be difficult to defend the idea that the NumP projection is not present. I consider that example to be different from the one with the singular demonstrative 'give me that'. In the sentence 'give me those', the choice of the plural demonstrative indicates that the speaker refers to a plural number of count distinguishable objects, which suggests the presence of NumP. Note also that in 'I like this car but I don't like those', *those* must necessarily mean *those cars*, while in 'I like this car but I don't like that' *that* does not necessarily mean 'that car'.

inserted. However, what is really interesting in the structure in (80) is the fact that the empty NP is possible. Lobeck's analysis cannot explain the possibility of this case of NP-ellipsis, because the singular demonstrative is not specified by strong agreement. This case of NP-ellipsis also clears out the first possibility I suggested in (76), i.e. that it is the feature encoded in the Number head which licenses the empty NP (whether this is overt or not), since in those cases there is no Number projection, and therefore, no feature encoded in Num° to license the empty NP.

This suggests the second possibility, that is, that lexical elements (as opposed to functional elements) can be freely elided, as far as licensing is concerned. I propose that the licensing conditions of non-referential empty elements can be reanalyzed as the necessity to preserve the functional skeleton of a phrase. The NP only provides lexical content, which, if empty, needs to be recovered, that is, identified. This empty NP is identified by means of an antecedent with the same lexical content. This antecedent, as we have seen in section 3, can be found in another utterance or even be a pragmatic one. One important aspect of the antecedent of the empty NP is that it only allows the identification of the lexical content of the empty NP, but not of its functional properties. Observe the following example:

(81) I like this car and she likes those *ec*.

The *ec* corresponds to *cars*. However, the antecedent is the singular noun *car*. Clearly, the antecedent only recovers (that is, identifies) the lexical content of the phrase, the NP *car*, but it cannot identify the number properties associated to the empty NP. Therefore, the number specification needs to be identified somehow. It is not recovered by means of an antecedent, since it does not have one (the number specification associated to the antecedent NP, [-pl], cannot serve as antecedent of the number specification associated to the target NP, [+pl]. Therefore, it needs to be recovered in another way: either empty and licensed by a functional head specified by strong agreement, or, when this is not available, overtly, by means of *one* insertion.

In conclusion, empty functional elements need to be licensed to be recovered, while empty lexical constituents are only subject to identification, by means of an antecedent.[14] When we observe the structure in (80) we can see that the empty NP is not subject to any condition (other than being able to be identified, in that case, pragmatically by means of the deictic properties of the demonstrative). The only requirement that seems

[14] As an anonymous reviewer points out, it would be very interesting to obtain the same results in VP-ellipsis and notes some examples that would give support to this idea:

(i) Will you come? Yes, I will.
(ii) Do you want to come? Yes, I want to.

I will leave the question open here.

to hold is that the functional structure must be preserved. Let us see if this condition holds for the other cases of NP-ellipsis:

(82) a. All the students took the exam but many failed.
b. I like these books but I don't like those.

(83) a. I don't like those blue cars, I prefer those red ones.
b. (looking at some cars): I don't like that one.

In (82)–(83) all the functional heads projected (Num°) are preserved. In (82) Num° is licensed by the quantifier *many* (in a.) and the plural demonstrative (in b.). In (83) *one* is inserted to give phonological support to the Number affix, which would otherwise be stranded since an empty Num° would not be licensed: in (a) because the adjective blocks that licensing, in (b) because the singular demonstrative cannot license Num°. Therefore, the difference between cases like (78), in which *one* is necessary with the singular demonstrative, and (79), in which it is not, does not reside in the licensing of the empty NP but in the presence or not of a Number projection.

4.4. *NP-ellipsis and* one-*support with plural demonstratives*

One question was left unsolved in the analysis of the NP-ellipsis: the fact that some speakers accept anaphoric *one* with plural demonstratives, whereas other speakers do not:

(84) a. I like this car and he likes those.
b. I like this car and he likes those ones.

This is a striking situation, since all the other cases observed respect the complementarity in the distribution of the two constructions. The speakers' judgments with respect to the pair *those/those ones* differ from those with respect to other pairs like **the nice/the nice one*. This might indicate some dialectal parametrization regarding the possibilities of a plural demonstrative to function as licensers of *ec*s. Elaborating on Lobeck's analysis, I have assumed that the features that can specify a functional head for strong agreement and make it a potential licenser of Num° are: [+possessive], [+partitive] and [+plural]. Since all the quantifiers that allow NP ellipsis are [+partitive], while not all of them are [+plural], I suggest the possibility that the [+partitive] feature is sufficient for some speakers to specify a functional head for strong agreement in some dialects (besides the [+possessive] feature). For speakers that accept *those* without *one*, the [+plural] feature also specifies a functional head for strong agreement.

5. The nature of *one* in NP-ellipsis

In this section I address a final question: Does the element *one* hold any kind of relation with the position in which is inserted? Considering so-called anaphoric *one* as a noun would entail that a functional element has become a lexical element. However, the opposite process in which a lexical word becomes a functional element is a more natural one, as is the case of auxiliary verbs like *be*, *have* or *should*, which used to be lexical verbs. Another case is that of many Chinese classifiers, which were once nouns and have grammaticalized as functional elements. What would be strange is to find a quantifier grammaticalizing into a noun.[15] In Kester's analysis, which takes *one* to be the head of an AP, it is difficult to see what relationship holds between *one* and adjectives.

In this section I deal with this question and I show that in my analysis, anaphoric *one* is related to the position in which is inserted. I first present the syntactic properties of indefinite *a*, numeral *one* and anaphoric *one* and I argue that they can be considered as the same item. This element has a vague meaning, supplying a notion of {unit}, as I proposed above when presenting Chinese classifiers. Comparing again with the auxiliary *do* that we find in cases of *do*-support, it would be the nominal counterpart of the meaning of *do*, which supplies a vague notion of {event}. Then, I propose that the particular contextual properties of each of the three elements derive from the functional head in which it is inserted.

5.1. *Properties of indefinite* a, *numeral* one *and anaphoric* one *in NP-ellipsis*

Indefinite *a.* This element was traditionally considered an indefinite article / quantifier. Its presence is related with these properties: *a* expresses indefiniteness; and it introduces a singular and count noun:

(85) a. I read a book.
b. *I drank a water.

Traditional accounts of *the* and *a* considered these elements as belonging to the same category differentiated by the feature [+/-definite]. The main reason for this analysis is the observation that these two elements cannot co-occur:

(86) a. the car
b. a car
c. *the a car

[15] Also note that anaphoric *one* displays different semantic and syntactic properties from those displayed by nominalized quantifiers as in:

(i) Mary had three 'aces' and two 'fives'.
(ii) John needs three 'quarters' for the washing machine.

I assume Lyons' (1999) idea that *a* indirectly signals indefiniteness by not encoding definiteness: *a* is obligatory in singular indefinite NPs in the absence of any other determiner.

Numeral *one*. This element is very closely related to indefinite *a*. In many languages, like Catalan and other Romance languages, Turkish and German, both are realized by means of the same word.

(87) Tinc un llibre.
I have a/one book.

In English, these two elements (numeral *one* and indefinite *a*) are historically related. Perlmutter (1970) also gives them a synchronic link by deriving *a* from *one* by a phonological rule of reduction operating in the absence of stress.

Anaphoric *one.* The properties of this element were presented in section 1. It shares with indefinite *a* and numeral *one* an important characteristic: It is only compatible with count nouns:

(88) a. * I bought a / one furniture.
b. *I bought old furniture and new one.

The similarities between these three elements are accounted for by considering indefinite *a*, numeral *one* and anaphoric *one* as one same lexical item: *A/ONE*.[16] I propose that *a* is the clitic allomorph which appears in those cases where there is some phonological material it can cliticize to. Its allomorph *one* appears when it receives sentence stress.

These elements also display some differences:

First, indefinite *a* cannot be used in partitive constructions while *one* can:

(89) a. *a of the men
b. one of the men

This restriction can be simply derived by the clitic nature of the allomorph *a*.

Second, *a* is related with indefiniteness. However, anaphoric *one* does not have this restriction, as is illustrated by the fact that it can co-occur with the definite article. I claim that this difference between the behavior of *one* and the behavior of *a* derives from the properties of the functional head in which this element is inserted. Following Lyons (1999), *a* is obligatorily inserted as a default element in singular NPs in the absence of any (definite) determiner. Therefore, the indefiniteness of *a* derives from the position in which it is inserted, not from the element *a* itself. Anaphoric *one* does not have this restriction because it is inserted in the head of NumP, which is a position compatible with definite elements.

[16] As one anonymous reviewer notes, this analysis could also be extended to generic *one* although I will leave the question open here.

On the other hand, the allomorph *a* is never compatible with definiteness because insertion in Num° takes place only when the NP is empty; since *a*, being a clitic, needs a phonological element to attach to, we never find the allomorph *a* in that position.

Thirdly, anaphoric *one* can be used to express plural by means of morpheme *–s*, while indefinite *a* and numeral *one* cannot:

(90) a. *I bought ones books.
b. *I bought a books.
c. I bought some nice ones.

I propose that the possibility for *one* to have a plural morpheme or not is another property that derives from the properties of the functional head it is inserted in. When it is inserted in Q°, no plural morpheme is available in that position. Conversely, Num° is the position for the number morpheme, and when *one* is inserted in that position, it can be inflected for number.

5.2. *A/ONE in Q° and Num°*

In Q° we can find quantifiers (*many, some . . .*) and numerals (*three*, *fifty . . .*) and *a.* Therefore, when *A/ONE* is inserted in Q° we have 'so-called' indefinite *a*.

(91) I read **a** book.

I propose that its allomorph *one* is inserted in that same position when the clitic *a* is not possible, namely, when there is an empty NP, an it would be impossible for *a* to cliticicize:

(92) a. *He read a book and I read [QP **a** [NP *e*]], too.
b. He read a book and I read [QP **one** [NP *e*]], too.

The other possibility for the allomorph *one* to appear in Q°, which does not involve the impossibility of cliticization, is when it receives focal sentence stress. In that case we have numeral *one*, and not indefinite *a*, which does not receive focal sentence stress:

(93) a. I read [QP óne [NumP [NP book]
b. I read [QP a [NumP [NP book]

When *A/ONE* is inserted in Num° it is realized as the allomorph *one*, since in that position it does not have any lexical material to cliticizice to. When the Number head encodes the [-pl] feature, *one* gives support to the zero morpheme. When the Number head is plural, and, therefore, is realized by the morpheme *–s*, *one* is inflected, resulting in *one/ones*.

6. Conclusion

In this article I have proposed to account for the presence of anaphoric *one* as the result of a last resort insertion that applies when it is necessary to give phonological support to a number morpheme that would be left stranded otherwise. That situation arises in cases of NP-ellipsis when an empty number head cannot be licensed by a functional element specified by strong agreement.

I have also revised Lobeck's proposal for the licensing of ellipsis and proposed that only functional elements are subject to licensing conditions in cases of NP-ellipsis: The elision of the lexical element the NP is free (only subject to identification conditions, that is, there must be an antecedent). For NP-ellipsis to be possible, all the functional structure projected by the noun head must be recovered: either empty and licensed by a functional head specified by strong agreement, or, when this is not available, overtly, by means of *one* insertion.

Finally, I have also considered the nature of the element *one* itself and I have proposed that *one* and *a* are allomorphs whose distribution is explained by cliticization and focal stress reasons. The different properties that the different manifestations *A/ONE* presents are derived form the functional heads in which it is inserted.

References

Abney, S. 1987. *The English noun phrase in its sentential aspect*. Ph.D. Diss. MIT.
Baker, M. 1988. *Incorporation: a theory of grammatical function changing*. Chicago IL: U. of Chicago Press.
Bernstein, J. 1991. DPs in French and Walloon: evidence for parametric variation in nominal head movement. *Probus* 3, 101–126.
Bernstein, J. 1993. *Topics in the syntax of nominal structure across Romance*. Ph.D. Diss. CUNY, New York.
Bobaljik, J. D. 1994. What does adjacency do? *MIT Working Papers in Linguistics* 22, 1–32.
Chao, W. 1987. *On ellipsis*. Ph.D. Diss. U. of Massachusetts, Amherst.
Cheng, L. & Sybesma, R. 1999. Bare and not-so-bare nouns and the structure of NP. *Linguistic Inquiry* 30, 509–542.
Chomsky, N. 1955. *The logical structure of linguistic theory*. Harvard U., Cambridge, MA. Ms. [Revised 1956 version published in part by Plenum, New York, 1975; U. of Chicago Press, Chicago, 1985].
Delfitto, D. & Schroten, J. 1991. Bare plurals and the number affix in DP. *Probus* 3.
Doetjes, J. 1996. Mass and count: Syntax or semantics? *Proceedings of Meaning on the HIL.* Leiden University.
Halle, M. & Marantz, A. 1993. Distributed morphology and the pieces of inflection. *The view from building 20. Essays in linguistics in honor of Sylvain Bromberger,* eds. K. Hale & J. Keyser, 111–176. Cambridge, MA: MIT Press.
Hornstein, N. & Lightfoot, D. 1981. *Explanation in linguistics: The logical problem of language acquisition*. New York: Longman.
Jackendoff, R. 1971. Gapping and related rules. *Linguistic Inquiry* 2, 21–36.

JACKENDOFF, R. 1977. *X-Bar Syntax*. Cambridge, MA: MIT Press.
KESTER, E. P. 1996. *The nature of adjectival inflection*. Utrecht: OTS.
LASNIK, H. 1995. Verbal morphology: 'syntactic structures' meets the Minimalist Program. *Evolution and revolution in linguistic theory: Studies in honor of C. Otero*, eds. P. Kempchinsky & H. Campos. Washington DC: Georgetown U. Press.
LOBECK, A. 1995. *Ellipsis: functional heads, licensing and identification*. New York: Oxford U. Press.
LORENZO GONZÁLEZ, G. 1995. *Geometría de las estructuras nominales. Sintaxis y semántica del sintagma determinante*. Oviedo: Universidad de Oviedo. Departamento de Filología Española.
LYONS, C. 1999. *Definiteness*. Cambridge, MA: Cambridge U. Press.
PERLMUTTER, D. 1970. On the article in English. *Progress in linguistics*, eds. M. Bierwisch & K. E. Heidolph. The Hague: Mouton.
PICALLO, C. 1991. Nominals and nominalizations in Catalan. *Probus* 3, 279–316.
RITTER, E. 1991. Two functional categories in noun phrases: evidence from Modern Hebrew. *Perspectives on phrase structure: heads and licensing,* ed. S. Rothstein, 37–62. Syntax and Semantics 25. San Diego, CA: Academic Press.
RIZZI, L. 1990. *Spiegazione e teoria grammaticale*. Padova: Unipress.
ROSS, J. R. 1967. *Constraints on variables in syntax*. Ph.D. Diss. MIT.
SCHÜTZE, C. 2001. Semantically empty lexical heads as last resorts. *Semi-lexical categories: on the content of function words and the function of content words,* eds. N. Corver & H. van Riemsdijk. Berlin: Mouton de Gruyter.
VALOIS, D. 1991. *The internal syntax of DP*. Ph.D. Diss. U. of California, Los Angeles.
WILLIAMS, E. 1977. Discourse and logical Form. *Linguistic Inquiry* 8, 101–39.

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