

THE FUNCTIONAL STRUCTURE OF THE BASQUE NOUN PHRASE

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0. Introduction*

The generative tradition has built up various arguments to enrich the inventory of functional categories inside the noun phrase¹ beyond the NP-DP basic structure proposed by Brame (1982), Abney (1987) and others; just to mention a few: the existence of clause-like agreement data in Hungarian (Szabolsci 1984 and subsequent work), the co-occurrence of demonstratives and noun-raising to a clitic-like article in languages like Rumanian (Giusti 1997), the interaction of the construct state with the genitive in Hebrew (Ritter 1991), the different ordering of the head noun with respect to the NP-internal adjectives (Cinque 1994), the noun-adjective concord (Carstens 2000). All these proposals have yielded a more articulate structure of the noun phrase and all have in common that some functional category beyond D, be it Number and/or some kind of nominal Agreement, is proposed to capture the relevant language-particular and cross-linguistic generalizations.

With respect to Basque, the progress towards understanding the internal structure of noun phrases has been more modest, probably because Basque generativists have paid more attention to other, more salient, aspects of the language such as the pluripersonal verbal agreement, the explanation of ergativity, the topic-focus field, and so on. Recent works that tackle the structure of the Basque noun phrase (e.g. Eguzkitza 1993, Laka 1993 and Artiagoitia 1997, 1998) stop short of providing any language-internal evidence for other functional category beyond D itself.

In this article, I intend to make a small contribution to the understanding of the Basque DP: I shall argue for the existence of an intermediate functional projection lying between N and D. The argument is based on Longobardi's (1994, 2000a) work; I will show that some Basque DPs headed by the article must have their D position

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¹ "noun phrase" is a purely descriptive term; NP stands for the maximal projection of a head noun, which need not correspond to a noun phrase. Abbreviations in this article include: ART = article; AUX = auxiliary; DAT = dative; ERG = ergative; GEN = genitive; Num = number; sg = singular; pl = plural.

empty; given that Basque nouns and NPs lack number inflection altogether (Artiagoitia 1997), the sequence of [N+article] with an empty D node must contain some functional projection. In other words, the Basque article does not always fill the D position, it may occupy some intermediate head position between N and D.

The rest of the article is organized as follows: in section 1, I review Longobardi's basic claims regarding bare noun phrases in Romance and English. In section 2, I present the corresponding Basque data; unlike Romance and English bare DPs, Basque DPs seem to have an overt determiner yet the interpretation of these DPs bearing the article is existential precisely in the same syntactic environments that determinerless noun phrases are existential in Romance and English. A similar account is proposed for Basque; therefore the article in existential DPs cannot possibly occupy the D position itself. In section 3, I show that proposing an intermediate functional projection between N and D helps to understand other basic data regarding Basque DPs which contain numerals. Section 4 reviews the status of Noun-raising in Basque and the analysis of generic DPs.

Throughout the article I assume Chomsky's (1995) Principles and Parameters' theoretical framework; I have made no effort to adapt my analysis to more recent versions of the minimalist approach. I also stick to the strictly classical view that Basque is a head-final language in the base.²

1. Longobardi (1994) on bare noun phrases

In a tightly argued work, Longobardi (1994) analyzes the syntax and semantics of proper names, bare nouns and, to a lesser degree, pronouns and definite descriptions. The basic hypothesis is that all of these nominal expressions are DPs when they are arguments. The different syntactic behavior of both proper names and bare nouns in Romance and Germanic in the light of this hypothesis is the core of that study.

As regards proper names, Longobardi argues for the existence of overt N-D movement in Italian, a movement that is covert in English and in other Germanic languages. The need of a uniform "N in D" LF-interpretation for proper names is motivated by "[their] directly designating the entity referred". In other words, proper names don't form operator-variable structures in their regular use, a characteristic they share with personal pronouns (the latter are directly base-generated under D as originally proposed by Postal 1969).

With respect to bare nouns, Longobardi considers bare plurals and singular mass nouns; apparently there is a universal tendency for precisely this class of nominal expressions to appear determinerless (cf. Longobardi 2000a: 585, citing work by Crisma). According to Longobardi, these bare nouns are true DPs with an empty [\emptyset]_D head and their interpretation and distribution is accounted for by the following principles:

² I am agnostic with respect to the plausibility of Kayne's (1994) proposals for Basque noun phrases (e.g. Cinque 1996: 456). My argument for a functional head between N and D in Basque remains unaffected, I think, whether NP-D is the basic order of Basque or not. See Haddican (2001) for a detailed analysis of Basque clauses in Kayne's terms.

- (1) Assign $[\emptyset]_D$ a default existential interpretation
 (2) An empty $[\emptyset]_D$ head must be lexically governed at LF

There seems to be ample evidence that principle (1) is at work for a wide variety of languages; similarly, a null D selects singular mass nouns or plural count nouns in the unmarked case.³ Principle (2), originally proposed by Contreras (1986) for Spanish bare noun phrases, would be the necessary licensing condition of the empty D.⁴ These two principles suffice to explain the Romance data; I draw the relevant Italian examples from Longobardi (1994):⁵

- (3) a. Bevo sempre vino (= Longobardi's 12a) b. Mangio patate (= 12b)
 'I always drink wine' 'I eat potatoes'
 c. *Acqua viene giù dalle colline (= 14a) d. Viene giù acqua dalle colline (= 14b)
 'Water comes down from the hills' 'comes down water from the hills'

The examples show that an empty determiner is only possible in internal argument position (=3a-b-d) but not in the truly external, subject, position (=3c); the internal argument position is governed by the verb, the preverbal subject position is not.⁶ The interpretation of the relevant DPs is indeed that of an existentially quantified noun phrase.

For most part, English seems to have the same restrictions on determinerless noun phrases with the relevant existential interpretation, even though some data are apparently problematic.⁷ Where the two languages differ is in the form of generic DPs; these are systematically determinerless in English, whereas they must have the article in Italian:

- (4) a. *(i) castori costruiscono dighe b. (*the) beavers build dams (= L's 40a)

Longobardi derives this Italian/English contrast from the same parameter that accounts for the contrast with respect to proper names. He assumes that generic noun phrases are DPs and that their interpretation is basically that of referring to the entire kind designated by the head Noun (cf. Carlson 1977). D plays no role in the interpretation of generic DPs, and the noun must either sit in the D position or else form an interpretive CHAIN (in the sense of Chomsky 1986) with some expletive article in D in cases where movement is not possible.

³ There are languages, however, where the more marked option is possible: a null D may select a singular count noun. Longobardi (2000a) refers to these as *bare singulars*. See note 10.

⁴ As Longobardi (2000a: 584) remarks citing Delfitto and Schroten's (1991) account for the lack of determinerless noun phrases in French, it seems necessary that the language have overt number morphology in the first place if it will allow a null D position at all.

⁵ See Contreras (1986), who provides Spanish data similar to Longobardi's.

⁶ See Longobardi (2000b) for a clarification that some postverbal subjects in Italian are underlyingly preverbal and hence not governed by the verb.

⁷ See Longobardi (1994: 645-6) for details. Essentially, subjects of stage-level predicates can be determinerless in English. Longobardi, following Diesing (1992), assumes these subjects are reconstructed into a VP-internal position at LF, where they meet the lexical government requirement. See Delfitto and Schroten (1991) for a different view.

This view, paired with the minimalist assumption that the relevant D-feature that triggers N-movement is strong in Italian but weak in English, derives the contrasts between Italian and English: in Italian, if we have a determinerless DP, an existential interpretation is always available at S-S and hence blocks overt movement of N to D (in fact, movement is banned by Economy). The only way, then, to have a generic DP in Italian is to have an expletive article fill the D position at S-S; this expletive article has the effect of eliminating the default existential interpretation of an empty D; consequently, Italian generic DPs are not restricted to lexically governed positions. English, on the other hand, has the option of covertly moving N to D on the way to LF; this movement will remove the possibility of an existential interpretation for the determinerless DP. If no N-to-D covert movement takes place, then we get the corresponding English bare DP at LF, with default existential interpretation, but subject to the lexical government requirement. I illustrate the different possibilities in (5) and (6):

- (5) Italian
- a. $[[\emptyset] \text{vino}]$ (S-Structure)
 - a'. $[[\emptyset] \text{vino}]$ (LF) \rightarrow existential interpretation, subject to lexical government
 - a''. $[[\emptyset] \text{vino}]$ (LF) \rightarrow *generic interpretation; N cannot covertly move to D at LF
 - b. $[\text{il} \text{vino}]$ (S-S) \rightarrow il = expletive article
 - b'. $[\text{il}_i \text{vino}_i]$ (LF) \rightarrow generic interpretation, N interpreted in D via CHAIN
- (6) English
- a. $[[\emptyset] \text{wine}]$ (S-S)
 - a'. $[[\emptyset] \text{wine}]$ (LF) \rightarrow existential interpretation, subject to lexical government.
 - a''. $[_D \text{wine}_i] \text{t}_i$ (LF) \rightarrow gen. interpretation, N interpreted in D via covert N-raising

What is crucial for our discussion here is Longobardi's claim that a universal principle assigns a default existential interpretation to an empty D position; that position must meet the following licensing requirement: a lexical head must govern it.

2. The Basque data

2.1. The restriction on the existential interpretation

The Basque article, with its *-al-ak* forms for singular and plural respectively, is a suffix on the rightmost element inside a Determiner Phrase, as can be seen in (7):

- (7) a. tren-a
 train.ART
 '(the) train'
- b. tren urdin-a
 train blue.ART
 '(the) blue train'

- c. *tren-ak*
train.ART
'(the) trains'
- d. *tren urdin-ak*
train blue.ART
'(the) blue trains'
- e. *Ana-ren auto-a eta Idoia-ren-ø-a*
.GEN car.ART and -GEN.ø.ART
'Ana's car and Idoia's'
- f. *zuretzako opari-a eta niretzako-ø-a*
you.for.present.ART and I.for.ø.ART
'a/the present for you and a/the one for you'
- g. *Heldu den tren-a eta orain doan-ø-a*
arrive AUX.COMP train-ART and now go.COMP.ø.ART
'the train that arrived and the one that is leaving'

The heterogeneous class of rightmost elements inside a DP (the noun itself in (a) and (c); the adjective in (b) and (d); a genitive in (e), an adjunct in (f), or a relative clause in (g) in cases of noun-ellipsis) suggests that cliticization of/to the article is simply a morphophonological phenomenon not syntactically conditioned.⁸

As noted in Laka (1993: 157) and Artiagoitia (1997: 162; 1998: 49), one interesting property of Basque DPs is that the presence of an overt D seems obligatory. This observation becomes self-evident when one looks at singular mass and plural count nouns, examples of which are given in (8); this kind of DPs are often *bare* (i.e. have no overt determiner) in many languages (Longobardi 2000a: 582ff):

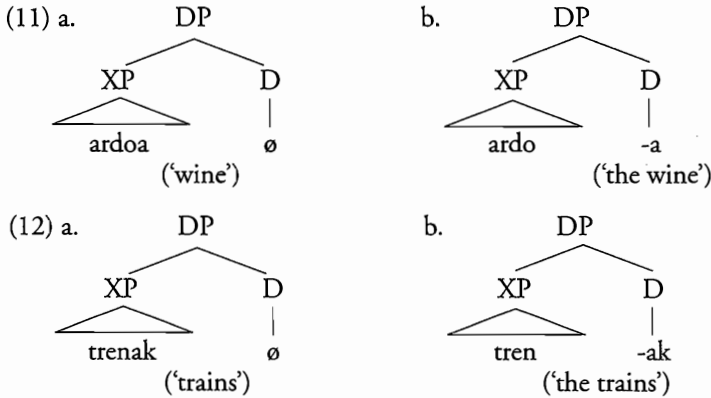
- (8) a. *Tren-ak heldu dira*
train.ART arrive AUX
'(The) trains arrived'
- a'. **tren heldu dira*
train arrive AUX
'train arrived'
- b. *Tren-ak ikusi ditut.*
train.ART see AUX
'I saw (the) trains'
- b'. **tren ikusi ditut*
train see AUX
'I saw train'
- c. *Ardo-a edan dut.*
wine.ART drink AUX
'I drank (the) wine'
- c'. **ardo edan dut*
wine drink AUX
'I drank wine'

As the reader can verify by looking at the corresponding glosses below, a DP headed by the article can be interpreted as either a specific description or as an existentially quantified expression; articleless DPs (examples on the right), on the other hand, are flatly ungrammatical.

With regard to the necessity of an overt determiner, there may be a simple and intuitive explanation for it: given that "certain designation properties typical of arguments, such as semantic import of grammatical number, lie precisely in the D position" (Longobardi 1994: 620), and given that the Basque article, and determiners in general, are the only

⁸ In other words, it takes place *postsyntactically* (after S-S or Spell-Out), in the morphological component.

What do we make of this paradox? The paradox dissolves in a natural way if we accept Longobardi's proposal to the end and make Basque existentially quantified DPs structurally similar to their Romance and English counterparts, taking it for granted that DPs with an empty D node will be given universally an existential or indefinite interpretation by default. We thus assume two different DP structures in sentences like (8), namely:



Diagrams (11a) and (12a) amount to accepting that Basque DPs headed by the article are in fact isomorphic with the corresponding Romance and Germanic data when interpreted as indefinite or existential DPs; in other words, they make the existential interpretation of Basque DPs follow from reasonably well-established UG mechanisms / principles argued for on the basis of radically different languages. The question is: do we have any further evidence for the structures in (11a) and (12a)?

The first piece of evidence is the syntactic restriction on existential quantification; Basque follows the general pattern (existentially quantified DPs are ungrammatical in external argument position (cf. example (10) and footnote 9) and nothing else needs to be said to account for this if diagrams (11a) and (12a) are assumed, except that the ergative case mark *-k* doesn't count as a lexical governor.

The second reason to take (11a) and (12a) as basically correct is indirect: Basque DPs headed by the article which are interpreted existentially behave exactly as their English and Romance counterparts with a null D position. Longobardi, citing Carlson (1977), argues that determinerless DPs with an existential interpretation always have narrow scope and that they are neutral between the singular/plural distinction when plural. In doing so, determinerless DPs differ from the corresponding structures with overt indefinite determiners. Basque existential DPs headed by the article have the exact same properties as Romance/English determinerless DPs:

- (13) Pakok kruasanak jaten ditu gosaltzeko
 Pako-ERG croissant.ART eat AUX breakfast.for
 'Pako eats croissants for breakfast'

- (14) a. Lehengo asteburuan nire koadrillako bost lagunek film bat ikusi zuten
 last weekend.in my group.of five friend.ERG movie one see AUX
 'last weekend five friends from my group saw {a, one} movie'

For reasons that will immediately become clear, one can safely reject possibilities one and three; the only remaining option, then, is that XP is some functional projection that takes NP as its complement. Let us see why.

2.2. Basque NPs and DPs

There is a straightforward way to discard that XP in (11a) and (12a) is NP at all: Basque nouns don't inflect for number (just like English adjectives don't either); therefore, NPs won't show any sign of being singular or plural. They are neither. Therefore, XP in (11a) and (12a) can't be NP, because Basque NPs don't have articles or number agreement or the like; and, if they do, they have then turned into DPs. I shall clarify this claim drawing from the study of DP and NP predicates (Artiagoitia 1997); a similar, though more subtle, argument emerges from the study of Basque transitive predicates (Laka 1993).

2.2.1. Predicate nominals

According to Stowell (1989, 1991) and Longobardi (1994, 2000a) among others, the DP hypothesis helped researchers realize that NPs serve basically as predicates whereas DPs, thanks to the referential properties of determiners, are generally arguments:

- (16) a. We elected John (*the) president of the class
 b. The queen appointed her lover (*the) treasurer of the realm
 c. *President of the class was at the meeting
 d. *the queen visited treasurer of the realm

(examples from Stowell 1989: 32-34)

The verbs *elect* and *appoint* require a predicate nominal of category NP; on the other hand, examples (c) and (d) are ungrammatical because the verbs require that the arguments be a DP and, in the cases at hand, D must be overt.

Nonetheless, as Stowell himself acknowledges, the grammar must also account for the existence of DP predicates hand in hand with NP predicates. We need not discuss this dichotomy as it applies to English. With respect to Basque, Artiagoitia (1997) discusses some instances of verbs that require predicate nominals with no article and others that require predicate nominals with articles. Here are some examples:

- (17) a. Lankideek Ana sailburu-(*a) aukeratu dute
 workmate.ART/ERG chair.(ART) elect AUX
 'Workmates elected Ana chair of the department'
- b. Ana idazle-*(a) da eta bere lagunak argazkilari-*(ak) dira
 writer.(ART) is and her friend.ART photographer.(ART) are
 'Ana is a writer and her friends are photographers'

The verb *aukeratu* 'elect' requires a predicate nominal with no article, whereas the copula *izan* 'be' requires a predicate nominal with article. In Artiagoitia (1997), this is equated with the NP versus DP distinction. And two arguments are given to support the claim that *articled* predicates are true DPs: (a) *articled* predicate nominals allow

relativization (assumed to be a diagnostic for DP constituents in Longobardi 1994); and (b) the verbs which function as the identity predicate and require two argumental DPs are a subset of those which select predicates with article; thus, the two uses of the same verb would share the selection of DP (be it a predicate or a true argument). For reasons of brevity, I will limit myself to the first argument.

Predicate nominals headed by the article behave as though they contain a determiner position, since they allow a relative clause:

- (18) Ana [jendeak asko maite duen idazle-a] da
 people.ART.ERG much love AUX.COMP writer.ART is
 'Ana is a writer that people like a lot'

But predicate nominals with no article behave as though they didn't contain a determiner position:

- (19) *Epaimahaiak Ana [nobela onena argitaratu duen idazle] aukeratu du
 committee. novel best.ART publish AUX.COM writer choose AUX
 'The committee elected Ana [as the] writer that published the best novel'

The contrast suggests that articleless predicate nominals are simply NPs whereas predicate nominals with articles are true DPs. This is hardly a surprise: as we already saw in (7) above, a full fledged DP constituent only shows signs of number on the determiner itself whereas the noun doesn't show any sign of it:

- | | |
|--|---|
| (20) a. ardo beltz on-a
wine red good.ART/SG
'the/a a good red wine' | b. ardo beltz on-ak
.ART/PL
'the good red wines' |
| c. ardo beltz on hau
this
'this good red wine' | d. ardo beltz on hauek
these
'these good red wines' |

Thus, [*sailburu*] and [*idazle*] are necessarily NP in (17a) and (19) respectively, whereas [*idazlea*] is a DP in (17b) and (18).

The study of predicate nominals in Basque reveals that articleless nominal constituents are NPs and *articled* nominal constituents are DPs. Extending this conclusion to diagrams (11a) and (12a) above, then, it turns out that XP cannot be NP, for it would lack the article altogether. We know, in any event, that the entire constituents (*ardoa* and *trenak*) are true DPs despite having an empty D position; the relativization test shows this to us:

- (21) a. [ikusita ez neuzkan trenak] ikusi ditut gaur goizean
 seen not see.COMP train.ART see AUX today morning.in
 'This morning I saw trains I hadn't seen'
- b. [ezagutzen ez dudan ardoa] ematen dute taberna honetan
 know not AUX.COMP wine.ART give AUX tavern this.in
 'In this tavern, they serve wine I don't know'

The bracketed DPs need not have a specific interpretation and allow a relative clause unproblematically.

2.2.2. NP complements inside VP

The study of [noun + *egin* 'do'] verbs is another point where the NP/DP distinction becomes relevant in Basque. Laka (1993) has argued that the distinction is what determines whether or not a nominal argument moves out of VP to the specifier of some functional projection to check case.

Basque unergative verbs of the type [noun + *egin* 'do'] behave differently from those where the internal argument is a nominal expression bearing the article. The crucial evidence comes from the behavior of both structures with respect to locative phrases in neutral sentences:

- (22) a. *gizona etxean utzi dut* b. *etxean gizona utzi dut*
 man.ART home.in leave AUX
 'I left the man at home'
- (23) a. *?*lan etxean egiten dut* b. *etxean lan egiten dut*
 work home.in do AUX
 'I work at home'
- (examples from Laka 1993)

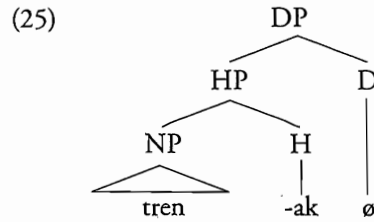
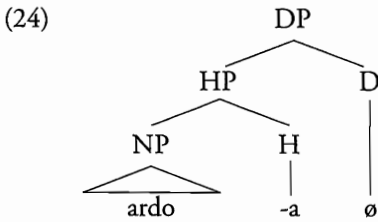
According to Laka, (22a) represents the basic, neutral order, with the nominal expression to the left of the PP *etxean*; in the case of [noun + *egin* 'do'] verbs, however, the neutral order is one where the noun remains next to the verb; (23a) is ungrammatical as a neutral order, and is only marginal under the interpretation where *lan* is topicalized. Laka also dismisses the possibility that *lan egin* and the like might be compounds: the verb *egin* may freely move to Comp or focus position leaving NP behind.

Under Laka's view, the data can be readily handled if one assumes that the complement of *egin* is simply NP whereas *gizona* has a full DP layer; apparently NPs must remain inside VP, whereas DPs must move to the specifier of some functional projection. Crucially, the necessarily articleless nominals are plain NPs;¹² if they do bear the article, they become a different syntactic object.

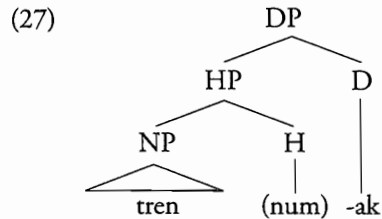
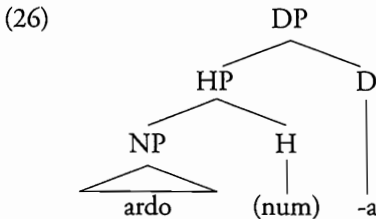
2.3. A functional projection besides D

We are then left with the following: by virtue of Longobardi's hypothesis, *ardoa* and *trenak* in diagrams (11a) and (12a) are DPs just like in the corresponding (11b) and (12b) examples but must have their D node empty; the XP complement cannot be NP, because it would then lack the determiner *-al-ak*. So, what is XP exactly then? I suggest it is some kind of Number-Phrase, i.e. the noun plus number inflection—possibly needed by virtue of (9)—, or the head that Longobardi (2000a) simply calls "H". Thus:

¹² These VP-internal NPs don't undermine the claim that arguments must be DP constituents, as argued by Stowell (1989) and Longobardi (1994). Fernandez (1997) argues that these Basque NPs incorporate to *egin* at LF; other scholars (cf. Oyharçabal 1994, Artiagoitia 2000) have shown that the [noun + *egin*] class is not homogeneous across Basque, and that there are different degrees of syntactic freedom/lexical dependency of the NP with respect to V. Therefore, these NPs are best characterized as parts of complex predicates.



Truly specific descriptions headed by the article have the D position filled:



Crucially, since number inflection is non-existent for bare NPs, it must be the case that this Number-Phrase/HP is dependent on DP; in other words, the existence of DP implies the existence of NumP/HP and viceversa; but the presence of NP doesn't warrant the existence of NumP/HP, in Basque at least.

In a nutshell, the proposal I make here amounts to saying that the article is just filling in the number specification of DPs in the absence of an overt determiner; if Delfitto and Schrotten (1991) are right in that the existence of number morphology is a prerequisite for the licensing of a null D, determiners are the only available source in Basque for that kind of contrast. Furthermore, in view of (9), the head Num/H must somehow be filled if no determiner is present; apparently, only the articles *-a/-ak* have the option of being marked just [+singular, -plural] and [-singular, +plural] respectively, with no further syntactic feature. Considering the articles *-a/-ak* as the default fillers of the H/Num position also squares well with the properties usually given to it (cf. Longobardi 2000a): H is not realized as an independent free (non-clitic) morpheme, and H is generally made visible in relation to N-movement, be it syntactic or morphophonological; other than that, "H bears some analogy to D" (ibidem: 598). The Basque article is indeed a clitic-like element, usually on a noun or an adjective; it can also fill the D position if the DP has a specific interpretation.

3. What else can we do with this NumP?

3.1. Cooccurrence of Numerals and the article

The DP-internal structure that emerges from the discussion in the preceding section may shed some light on some cooccurrence restrictions between numerals and the null existential quantifier present in (11a) and (12a). Here are the relevant data:

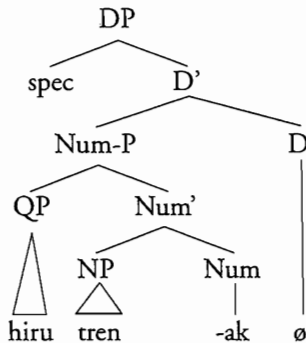
(28) a. [hiru tren] heldu dira
 three train arrive AUX
 'three trains arrived'

b. [hiru trenak] heldu dira
 train.ART
 'the three trains arrived'

In the absence of the article, the only available interpretation of the bracketed structure in example (28a) is that of an existentially quantified expression (“there exist three trains that arrived”); these DPs with numerals don’t require the presence of *-al-ak*, i.e. the presence of the article used as a simple number marker.

Example (28b), on the other hand, can only be interpreted as a specific description, it cannot mean “there are three trains...” but must mean “the (already known) three trains...”. Why should that be so? What bars the following representation?

(29) *hiru trenak* (*existential)



The proposal that there is functional category between N and D helps explain these facts and provides additional evidence for its correctness. Let us see how. The fact that *hiru trenak* can’t be interpreted existentially receives a very natural explanation in terms of Economy of derivation (“use as few words as possible”; cf. Emonds 1994: 162, Chomsky 1995: 137ff): *hiru trenak* cannot be interpreted existentially because the DP *hiru tren* already has that interpretation. Let us recall the following generalization:

- (9) DP arguments must have number specified in an extended projection of the noun

This amounts to stating something as simple as this: number must be coded on D or Num/H. The presence of the numeral *hiru* in the specifier of NumP (or [spec, D] according to Laka 1993) is enough to satisfy this number-specification requirement.¹³ Therefore, the article *-ak* in Num/H is redundant in the derivation where *hiru trenak* gets the existential interpretation. In other words, *hiru tren* and *hiru trenak* compete for the same LF representation, but the latter contains one more lexical element (*hiru, lagun, ak*). Put it differently: *-ak* simply conveys number information in the existential interpretation; the presence of a numeral, a natural provider of number information, renders *-ak* superfluous.

The reader should realize that this reasoning is only made possible by a three layered structure inside the noun phrase, N-H-D; in other words, if we only had NP

¹³ DPs like (28a) are not limited to internal argument position; in line with Longobardi’s (2000a: 593) suggestion that numerals move to D if no element occupies that position, Basque numerals might move to [spec, D] at LF, thus undoing the effects of an empty D. Except for the head/specifier distinction, Basque numerals are behaving pretty much like English and Romance.

and DP, one should consider *-ak* as uniformly representing a D head. In this scenario, we would have to stipulate that *-ak* in D may have two interpretations (specific and existential) but, for unknown reasons, could only have one when a numeral is present. Furthermore, it would be difficult to explain why the existential interpretation is limited only to internal argument positions. The existence of two separate heads (Num/H and D) to host *-ak* allows for an alternative, and more natural, explanation in terms of Economy.

3.2. A mystery resolved?

If the intermediate projection HP or NumP is crosslinguistically the location of quantifier elements as suggested by Longobardi (2000a: 594), we expect that Basque quantifiers will reflect this by having some quantifiers in prenominal position (= specifier of HP) and others in postnominal position (= the head H itself). Indeed, something like this seems to be at work: except for *bat* 'one' (cf. footnote 10) and —depending on the dialect— *bi* 'two', all numerals are prenominal; indefinite quantifiers display a mixed behavior. Here are some relevant examples:

- | | |
|--|---|
| (30) a. <i>bost tren</i>
'five trains' | b. <i>bi tren / tren bi</i>
'two trains' |
| (31) a. <i>honenbeste tren</i>
'so many trains' | a'. * <i>tren honenbeste</i> |
| b. <i>hainbat tren</i>
'so many trains' | b'. * <i>tren hainbat</i> |
| c. { <i>%asko, franko</i> } <i>tren</i>
'many trains' | c'. <i>tren {asko, franko}</i> |
| d. <i>tren gutxi</i>
'few trains' | d'. * <i>gutxi tren</i> |

Beyond the apparently erratic behavior of quantifiers, there is a good reason to think that prenominal quantifiers are truly XPs: most of the "only prenominal" quantifiers have a phrase-like flavor: *honenbeste* (< *honen* + *beste*) is literally 'as many of this'; *hainbat* also derives from the genitive form **haren* 'of it' followed by the numeral *bat*. What is more, the so called measure phrases, not necessarily limited to QPs (cf. 32b), are always prenominal and have a complementary distribution with numerals:

- | | |
|---|---|
| (32) a. [<i>hiru litro</i>] <i>ardo</i>
three liter wine
'three liters of wine' | b. [<i>galtzak bete</i>] <i>lan</i>
trouser.ART fill work
'work enough to fill your trousers' |
| c. * <i>ardo</i> [<i>hiru litro</i>] | d. * [<i>hiru litro</i>] [<i>hiru</i>] <i>ardo</i>
'three liters of three wines' |

These facts are expected if prenominal quantifiers and measure-phrases all occupy the specifier position of Num/H to the left of the noun. Postnominal quantifiers like *asko* or *gutxi* would occupy the Num/H position itself; as expected, they are compatible

with the article or the demonstrative and, when that happens, the DP only has a specific reading:

- (33) a. Gutxi dakit, eta dakidan gutxia ahaztuta daukat
 little know and know.COMP little.ART forgotten have
 'I know little and I have forgotten the little I know'
- b. Emaidazu daukazun liburu {ugari, gutxi} horietarik bat
 give have.COMP book many few those.from one
 'Give me one of those {many, few} books that you have'

In sum, the head Num/H and its specifier may well be the sites of Basque quantifiers; although the *specifier of H = quantifier phrase* and *H = quantifier head* correspondence is far from perfect (depending on the dialect some quantifiers can be both pre- and post-nominal), it is certainly a tendency that phrase-like quantifiers are only prenominal, as my proposal predicts. If correct, this proposal solves a long standing descriptive problem since Goenaga (1980): why some *determiners* are to the left of the noun but others to the right.

4. Noun-raising in Basque and generic DPs

We have exploited Longobardi's theory of DPs to argue for the existence of a functional category besides D in the Basque noun phrase. Other questions remain unanswered from the point of view of his proposal:

- (34) a. is Basque N-raising covert or overt? (= are features in D strong or weak?)
 b. how are generic DPs analyzed?

The two questions have several ramifications, all of which I will not attempt to answer here. But let me briefly comment on some reasonably well-founded facts.

As I pointed out in Artiagoitia (1998), if proper names universally raise to D, it seems that this must be a covert movement in Basque. The evidence comes from coordination: coordinating proper names when the second conjunct bears a case-mark doesn't yield ungrammatical results, just the opposite of what happens when one coordinates DPs with an overt D:

- (35) a. * hau eta horiek egingo dute c. * zu eta niri gertatu zaigu
 this and those.ERG do AUX you and I.DAT happen AUX
 'This and those will do it' 'It happened to you and me'
- b. * gizon hau eta emazteki hark egin dute
 man this and woman that.ERG do AUX
 'This man and that woman did it'

- (36) a. Giputz aditza erabili dute ... Mirande eta Peillenek sarritan
 Gipuzkoan verb use AUX and .ERG often
 'Mirande and Peillen have often used the Gipuzkoan verb'
- b. An dabiltz Billareal ta Otxandioko langille irmeak...
 there walk and .of worker firm.ART
 'There walk about the firm workers from Billareal and Otxandio'

(all examples from Euskaltzaindia 1994)

References

- Abney, S., 1987, *The English Noun Phrase in its Sentential Aspect*. MIT PhD dissertation.
- Artiagoitia, X., 1997, "DP predicates in Basque". In A. Taff, ed., *University of Washington Working Papers in Linguistics* 15, 161-198.
- , 1998, "Determinatzaile Sintagmaren Hipotesia Euskal Gramatikan", *Uztaro* 27, 33-61.
- , 2000, "Eratopen morfologia: oharrak aditz ezergatiboei buruz". Paper presented at Udako Euskal Unibertsitatea, Iruñea-Pamplona.
- Bernstein, J., 2000, "The DP Hypothesis: Identifying Clausal Properties in the Nominal Domain". In Collins & Baltin, eds., 536-561.
- Brame, M., 1982 "The head selector theory of lexical specifications and non-existence of coarse categories", *Linguistic Analysis* 10, 321-325.
- Carlson, G. 1977, "A unified analysis of the English bare plural", *Linguistics and Philosophy* 1, 413-457.
- Carstens, V., 2000, "Concord in Minimalist Theory", *LI* 31, 319-355.
- Chomsky, N., 1986, *Knowledge of Language*. New York: Praeger.
- , 1995, *The Minimalist Program*. Cambridge: The MIT Press.
- Cinque, G., 1994, "On the evidence for partial N-movement in the Romance DP". In G. Cinque et al., eds., *Paths towards Universal Grammar. Essays in honor of Richard S. Kayne*, 85-110. Washington DC: Georgetown University Press.
- , 1996, "The Antisymmetric Programme: Theoretical and typological implications", *Journal of Linguistics* 32, 447-464.
- Collins, C. and M. Baltin, 2000, *The Handbook of Contemporary Syntactic Theory*. Oxford: Blackwell.
- Contreras, H., 1986, "Spanish bare NPs and the ECP". In I. Bordelais, H. Contreras and K. Zagona, eds., *Generative Studies in Spanish Syntax*, 25-49. Dordrecht: Foris.
- Delfitto, D. & J. Schrotten, 1991, "Bare plurals and the number affix in DP", *Probus* 3.2, 155-185.
- Diesing, M., 1992, *Indefinites*. Cambridge: The MIT Press.
- Eguzkitza, A., 1993, "Adnominals in the Grammar of Basque". In J. I. Hualde and J. Ortiz de Urbina, eds., *Generative Studies in Basque Linguistics*, 163-187. Amsterdam: John Benjamins.
- Emonds, J., 1994, "Two principles of economy". In G. Cinque et al., eds., *Paths towards Universal Grammar. Essays in honor of Richard S. Kayne*, 155-172. Washington DC: Georgetown University Press.
- Euskaltzaindia, 1993, *Euskal Gramatika Laburra: Perpaus Bakuna*. Bilbo: Euskaltzaindia.
- , 1994, *Euskal Gramatika. Lehen Urratsak IV. Juntagailuak*. Bilbo: Euskaltzaindia.
- Fernández, B., 1997, *Egiturazko kasuaren erkaketa euskaraz*. University of the Basque Country PhD dissertation.
- Goenaga, P., 1980, *Gramatika Bideetan*. Donostia: Erein.
- Giusti, G., 1997, "The categorial status of determiners". In L. Haegeman, ed., *The New Comparative Syntax*, 95-123. London: Longman.
- Haddican, B., 2001, "Basque functional heads". New York University manuscript.
- Kayne, R., 1994, *The Antisymmetry of Syntax*, Cambridge: The MIT Press.
- Laka, I., 1993, "Unergatives that Assign Ergative, Unaccusatives that Assign Accusative". In J. Bobaljik and C. Phillips, eds., *Papers on Case & Agreement 1*, 149-172. Cambridge: MIT Working Papers in Linguistics, Volume 18.
- Longobardi, G., 1994, "Reference and Proper Names: A Theory of N-Movement in Syntax and Logical Form", *LI* 25.4, 609-665.
- , 1996, "The Syntax of N-Raising: A Minimalist Theory", *OTS Working Papers*, 1-51. Utrecht: Research Institute for Language and Speech.

- , 2000a “The structure of DPs: some Principles, Parameters and Problems”. In Collins and Baltin, eds., 562-601.
- , 2000b, “Postverbal subjects and the Mapping Hypothesis”, *LI* 31, 691-702.
- Oyharçabal, B., 1994, “Contribution de la comparaison typologique à une analyse des rapports ergativité- (in)transitivité en basque”. In J-B. Orpustan, ed., *La langue basque parmi les autres (Influences et comparaison)*, 115-148. Baigorri: Izpegi.
- Postal, P., 1969, “On So-Called ‘Pronouns’ in English”. In D. Reibel and S. Schane, eds., *Modern studies in English: Readings in Transformational Grammar*, 201-224. Prentice Hall, New York.
- Ritter, E., 1991, “Two Functional Categories in Noun Phrases: Evidence from Modern Hebrew”. In S. Rothstein, ed., *Perspectives in Phrase Structure: Heads and Licensing. Syntax and Semantics* 26, 37-62. San Diego: Academic Press.
- Rodríguez, S., in preparation, “Euskarazko artikuluz”, University of the Basque Country manuscript.
- Stowell, T., 1989, “Subjects, Specifiers, and X-bar Theory”, In M. Baltin and A. Kroch, eds., *Alternative Conceptions of Phrase Structure*, 232-262. Chicago: Chicago University Press.
- , 1991, “Determiners in NP and DP”. In K. Leffel and D. Bouchard, eds., *Views on Phrase Structure*, 37-56. Dordrecht: Kluwer Academic Publishers.
- Szabolcsi, A., 1984, “The possessor that ran away from home”, *The Linguistic Review* 3, 89-102.
- , 1987, “Functional Categories in the Noun Phrase”. In I. Kenesei, ed., *Approaches to Hungarian* 2, 167-190. Szeged: JATE.
- , 1992, “Subordination: articles and complementizers”. In I. Kenesei and Cs. Pléh, eds., *Approaches to Hungarian*, vol. 4: *The Structure of Hungarian*, 123-137. Szeged: JATE.
- , 1994, “The Noun Phrase”. In F. Kiefer and K. E. Kiss, eds., *The Syntactic Structure of Hungarian. Syntax and Semantics* 27, 179-274. New York: Academic Press.