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Quantification and Domain Restriction in Basque

Urtzi Etxeberria

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CHAPTER 4

THE BASQUE DEFINITE ARTICLE

4.1. Introduction:

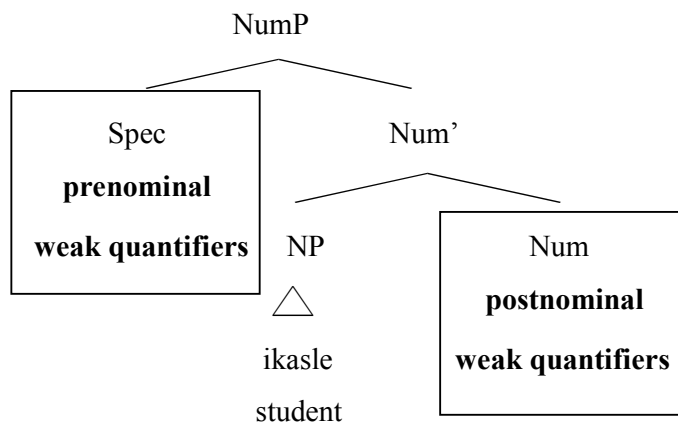
Chapter 3 has concentrated on the behaviour of weak-cardinal quantifiers in Basque (and in natural languages in general). Having observed that the Basque definite determiner -A (that functions as a domain restrictor inside quantificational phrases -see chapter 2-) only appears with strong-proportional quantifiers and is excluded from weak-cardinal quantifiers (except numerals), it has been claimed that the latter are neither quantifiers nor contextually restricted and that they are base generated in the predicative type $\langle e, t \rangle$, either in the specifier or head position of the functional projection NumP (below DP).

Prenominal Weak Quantifiers:

- (1a) **Zenbait** ikaslek goxokiak jan zituzten.
some student.erg candy-D.pl eat aux.pl
'Some students ate candies.'

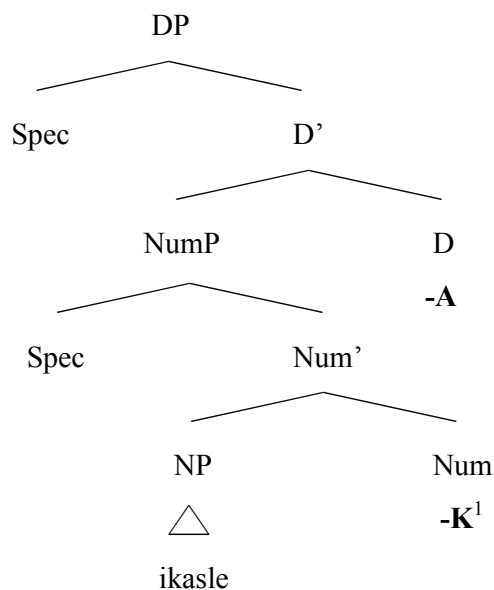
Postnominal Weak Quantifiers:

- (1b) Ikasle askok goxokiak jan zituzten.
 student many.erg candy-D.pl eat aux.pl
 ‘Many students ate candies.’



In opposition to what has been assumed by other scholars (i.e. Goenaga (1980, 1991), Euskaltzaindia (1993), Ticio (1996), Artiagoitia (1997, 1998, 2002), Rodriguez (2003), Trask (2003), among others), the definite determiner -A and plural marker -K are claimed to be base generated in different syntactic position: the base position of the plural marker -K will be [Head, NumP] while the base position of the Basque definite determiner -A is defended to be [Head, DP], which will be placed above NumP as shown in the structure offered in example (2).

- (2) Ikasleak berandu etorri ziren.
 student-D.pl late come aux.past
 ‘The students came late.’



In line with the so-called Neocarlsonian view (see Chierchia (1998c), Dayal (2004), Zamparelli (2002a, 2002b) and references therein), this chapter proposes that the Basque definite article *-A*, is just that, a definite article and as such must always be base generated in the DP head; in short, *-A* will be argued to be a definite determiner everywhere, but very flexible in its ability to type-shift (note that bare nouns are not allowed in Basque). The chapter first concentrates on the different interpretations bare nouns can obtain and on the possible different analyses postulated for these interpretations (Ambiguity analysis and Neocarlsonian analysis). Then, it will be shown that the Neocarlsonian approach is preferable by presenting some problems that the Ambiguity approach is unable to solve, and once this is done, the chapter will focus on the different interpretations that definites can get in Basque and conclude that existential indefinite readings of definites (that can only be obtained in some contexts) are

¹ The reason why the plural marker *-K* follows the DP head in the overt syntax is because this element is a suffix, and as such, phonologically as well as categorically dependent on the DP head. See Chapter 3, section 3.4.

dependent on the kind-level interpretation. For that, it is claimed that Basque is typologically in between English and French: the former makes use of bare plurals to get existential interpretations while the latter needs the definite plus the partitive preposition *de* (*du* for mass terms, *des* for plural count terms) to express the same meaning; in Basque, the article is there while the preposition is not. Basque data is also claimed to provide further support for the conclusion that the position originally advocated by Carlson (1977) and extended crosslinguistically by Chierchia (1998c) must be on the right track, contra the so-called ambiguity theory defended by Wilkinson (1991), Diesing (1992), Gerstner & Krifka (1993) and Kratzer (1995). Finally, the Basque singular definite generic is also claimed to be analysable in Neocarlsonian terms. What will be claimed (following Dayal (2004) and Zamparelli (2002a)) is that common nouns can denote in the object domain (yielding the normal specific reading) as well as in the taxonomic domain (yielding taxonomic readings); the kind reading of the singular DP comes from the combination of the taxonomic common noun and the normal definite determiner, that is, the normal *iota*. However, there are also some exceptions to the rule since in some contexts, singular DPs obtain an existential interpretation. What will be argued is that the apparently existential interpretation is the normal taxonomic interpretation showing some special properties in given contexts.

The organization of this chapter is as follows: Section 4.2 presents the different interpretations (generic and existential) that English bare nouns can get. In Section 4.3 some tests to distinguish between noun phrases that refer to ordinary objects and noun phrases that refer to kinds are presented. In section 4.4 both the ambiguity approach (Wilkinson (1991), Diesing (1992), Gerstner & Krifka (1993)) as well as the so-called Neocarlsonian approach (Chierchia (1998c), Dayal (2004), Zamparelli (2002a)) are

presented; the latter is argued to be the preferred one to explain the behaviour of bare nouns (section 4.5). Section 4.6 concentrates on Basque data; first, the historical origin of the Basque article will be presented which should be taken as evidence for the fact that the Basque article -A is always definite (in opposition to what has been claimed by some scholars). Then, the range of possible interpretations of -A will be provided; after that, some previous analysis of the Basque NPs/DPs will be discussed not to be able to account correctly for the facts (Artiagoitia (2002)). Finally in section 4.6.5, Basque data will be reinterpreted in Neocarlsonian terms. Section 4.7 concludes the chapter.

4.2. English Bare Nouns and their Interpretations:

4.2.1. Generic Interpretation:

English as well as other Germanic languages can use determinerless plural count noun phrases and mass noun phrases (hereafter *bare nouns*) in order to communicate *generic* meanings.

- (3a) Dogs have many different breeds.
- (3b) Chihuahuas are unpopular in the Basque Country.
- (3c) Dinosaurs are extinct.
- (3d) Nitrogen is abundant in our universe.
- (3e) Athletic shoes were invented by Bill Bowerman and Phil Knight.
- (3f) Doctors investigate diseases.
- (3g) Fishes appeared 390 million years ago.

4.2.2. Existential Interpretation:

However, the generic interpretation is not the only possible reading English (and Germanic languages in general) bare nouns can get, since they can also have a quite distinct use.

- (4a) Amaia has eaten candies.
- (4b) Aritz has drunk wine.
- (4c) Mattin met Basque friends in Moscow.
- (4d) Potatoes rolled out of the bag.

In all four sentences in (4), the use of the bare plurals lacks the flavour of the generic interpretation and seems to be interpreted by means of an existential quantifier having the meaning of *some*. Thus, *cats* in (4a), *wine* in (4b), *Basque friends* in (4c), and *potatoes* in (4d) roughly correspond to *some cats*, *some wine*, *some Basque friends*, and *some potatoes*. This interpretation appears when the sentence has an ‘eventive’ character.

4.3. Genericity Tests:

There is a variety of tests that have been provided in order to differentiate noun phrases that denote kinds from those that denote ordinary objects (see Lawler (1973), Krifka et al. (1995) and references therein). For these initial examples I will only concentrate on English examples. See section 4.6.2 for Basque.

4.3.1. Kind Predicates:

By this test, it is possible to determine the noun phrases that are going to be able to be used as kind-referring elements. There are some predicates that can not usually be applied to ordinary objects and can only appear with kind-referring terms. The predicates in sentences (3c), (3e) and (3g) above are kind-level predicates and the noun phrases that appear with them must get a kind interpretation. These so called kind-predicates can not usually apply to ordinary objects.

- (5a) # Tweety evolved from reptiles.²
- (5b) # Tweety becomes smaller and smaller as you go south.
- (5c) # Tweety appeared 390 million years ago.
- (5d) # Tweety will become extinct.

4.3.2. Taxonomic Properties:

Only kind terms have the property of being divisible into sub-kinds as well as of creating taxonomic hierarchies: rats > mammals > animals, and so and so forth. (3a) would show that in fact, bare plurals do have taxonomic properties; predicates like *have different breeds*, *come in many sizes*, *have diverse subkinds* etc. help in getting this taxonomic interpretation. However, note that this property is not available to ordinary objects.

² As Zamparelli (2002a: 309) notes, the sentences in (5) are “hash-marked assuming a biologically normal world”.

- (6a) * Tweety has many different breeds.
- (6b) * Tweety comes in many sizes.
- (6c) * Tweety has diverse subkinds.

4.3.3. Quantificational Properties:

In opposition to what happens with bare nouns, quantificational expressions can not get kind interpretations. This is the reason why the sentences in (7) are grammatical (see also example (3d)) while those in (8) are not (excluding the subkind interpretations).

- (7a) Ducks are common in this region.
- (7b) Birds are abundant in this country.
- (7c) Dogs are widespread in here.

- (8a) * Every duck is common in this region.
- (8b) * Many birds are abundant in this region.
- (8c) * All of the dogs are widespread in this region.

4.3.4. Characterizing Sentences:

These sentences express or attribute a property to their subject, that is, they express regularity and do not report specific or isolated facts (see also (3b) and (3f)).

- (9a) Dogs bark at the moon.
- (9b) Dogs have four legs.
- (9c) Potatoes contain vitamin C.

4.3.5. Upward-Entailing Contexts:

In upward entailing contexts noun phrases can be replaced by other noun phrases whose denotation is the superset of the denotation of the previous one without making the sentence false. When bare nouns are interpreted existentially (indefinite-like) show the typical monotonicity effects (see Lawler (1973), Laca (1990)), as observed in (10).

- (10) African chimpanzees opened the door and escaped from the cage.
----> Chimpanzees opened the door and escaped from the cage.

However, generic bare nouns in their generic interpretation do not show these effects and the usual monotonicity effects do not hold as the following examples show.

- (11) African chimpanzees are widespread.
--/--> Chimpanzees are widespread.

The following section introduces the two main proposals that have discussed the different interpretations that bare nouns can get (kind interpretation or existential interpretation): the Ambiguity Approach and the so called Neocarlsonian approach.

Once these two proposals are introduced, some evidence will be given in favour of the Neocarlsonian analysis.

4.4. Different Analysis of Bare Nouns' Interpretations:

4.4.1. The Ambiguity Analysis:

In the ambiguity approach to bare nouns, kinds do not play a big role. As proposed by Wilkinson (1991), Diesing (1992) or Gerstner & Krifka (1993), bare nouns are defended to be systematically ambiguous: in some contexts, they refer to a kind, in others, they behave like weak indefinites. The former denotation will be the one used in sentences where the predicates are kind-level, taxonomic or quantitative.

(12a) extinct (dinosaurs_k)

(12b) different-breeds (birds_k)

(12c) widespread (dogs_k)

For characterizing sentences on the other hand, bare nouns behave like indefinites and are bound by an unselective generic operator (GEN) that binds the free variable provided by the indefinite.

(13a) Potatoes contain vitamin C.

(13b) GENx [potatoes(x)] [contain vitamin C(x)]

Paraphrase: 'For each appropriate situation, if x is a potato then x contains vitamin C'

In this approach, the existential reading also comes from the possible indefinite interpretation that the bare noun might get. In such a case, the free variable provided by the indefinite is bound by the default existential quantifier introduced by the existential closure (\exists -cl).

(14a) Birds are ruining my parents' vegetable garden.³

(14b) $\exists x$ [birds(x) & ruining my parents' vegetable garden(x)]

Paraphrase: 'For some x, x is a bird and x is ruining my parents' vegetable garden (at some point in time)'

Assuming a tripartite structure (Q [Restriction] [Scope]) for quantification (Lewis (1975), Kamp (1981), Heim (1982)) and following Diesing (1992) and Kratzer (1995), *birds* in (14a), which is existentially interpreted, will be argued (in this approach) to appear in the nuclear scope of the quantifier and be bound by an existential quantifier (the \exists -cl applies in VP (nuclear scope of the quantifier)). On the other hand, the generically interpreted *potatoes* in (13a) will be introduced in the restrictive clause and be bound by the GEN operator (which applies in IP (the restrictive clause)). Diesing (1992) claims that all subjects appear in [Spec, IP] position at S-structure but that not all of them are base generated in that position. Subjects of stage-level predicates (*firemen are available*) are base-generated within VP and then move to their S-structure position. This implies that bare plural (bare noun) subjects of stage-level predicates can appear in the nuclear scope or in the restrictive clause, hence their possible ambiguous

³ Basque subject definites with predicates such as those in (14) can not obtain an existential interpretation and only a specific interpretation is allowed. See section 4.6.5.1 for an explanation of these facts.

interpretation. On the other hand, subjects of individual-level predicates (*firemen are altruistic*) are base-generated directly in [Spec, IP] and can not get an existential interpretation since the existential quantifier in the VP can not bind the free variable, and only the GEN operator will be able to do so. Consequently, these subjects only get the kind interpretation.⁴

4.4.2. The Neocarlsonian Analysis:

Carlson (1977) observed that the readings of sentences with bare nouns are established by the predicate that is used. He claimed that English bare nouns, despite their different possible interpretations, should be treated as a unified phenomenon. Bare nouns will behave as kind terms (not as indefinites) and therefore no ambiguity is needed to explain the facts.

Based on Carlson's original idea, Chierchia (1998c) holds that bare nouns are always non-quantificational and should be considered proper names of kinds of things in kind-level contexts as those in (15a-b). Mass terms (which Chierchia describes as kind denoting elements of type e) combine directly with the predicate. Bare plurals on the other hand are assumed to start life as type $\langle e, t \rangle$ and in order to become arguments of predicates need to be turned into type e (kinds), via a nominalization operation as described in (17) (expressed as $\hat{\quad}$ in (16b)).

⁴ Diesing (1992) assumes Discourse Representation Theory (DRT) and links the syntactic representation and the semantic one by means of a mapping procedure that splits the syntactic structure into two parts that are mapped into the two major parts of the logical representation: Restriction and Nuclear Scope. Her basic proposal is the Mapping Hypothesis: "Material from VP is mapped into the nuclear scope; material from the IP is mapped into a restrictive clause".

(15a) Nitrogen is abundant in our universe.

(15b) abundant in our universe (nitrogen)

(16a) Dinosaurs are extinct.

(16b) extinct (\cap dinosaurs)

(17) $\text{Nom} (\cap): \langle e, t \rangle \rightarrow e: \lambda P_{\langle e, t \rangle} \lambda s \iota x [P_s(x)]$

Nom is a type shifter functor that applies to the predicate meaning of an NP of type $\langle e, t \rangle$. It maps properties onto their entity correlates if these exist, that is, it is a function that takes properties and returns the maximal entity that satisfies that property.

Now, in object level contexts such as those in (18)⁵, predicates do not apply to kinds, but rather to non-kind objects. Example repeated from (4a).

(18) Cats are rummaging in our garbage.

Chierchia argues that further operations are needed to repair the type mismatch. This repair involves the introduction of a (local) existential quantification over the instantiations of the kind. Thus, the bare nouns are turned into indefinites (by means of

⁵ Chierchia (1998: 363) uses the following example.

(i) That kind of animal is rummaging our garbage.

In this example, “the subject *that kind of animal* seems to be a definite referring to a kind. [...] Yet, clearly *rummage our garbage* is a predicate that applies in the first place to objects. [...] The sentence in (i) is grammatical and seem to be about instances of the kind”. Chierchia claims that in this case an adjustment is necessary, and this adjustment is obtained by introducing a local existential quantifier.

$Pred^6$, the inverse of nom ,) providing a free variable by a type shifting operation that applies anytime the predicate requires an object-level argument. At the same time, this type shifting operation inserts the existential quantifier. The general mechanism is called ‘Derived Kind Predication’ (DKP), a mechanism that is not “a lexical operation on predicates but a type shifter that applies on demand” (Chierchia (1998c: 365).

(19) *Derived Kind Predication* (Chierchia (1998c: 364):

If P applies to objects and k denotes a kind, then

$$P(k) \Leftrightarrow \exists x [\cup k(x) \wedge P(x)]$$

where \cup is a type shifter operator from kinds to the corresponding properties (Pred).

(18’) Cats are rummaging in our garbage.

Rummaging in our garbage (\cap cats)

$$\Leftrightarrow (\text{via DKP}) \exists x [\cup \cap \text{cats}(x) \wedge \text{rummaging in our garbage}(x)]$$

In characterizing sentences, there is again a type mismatch since the predicate does not accept kinds (i.e. *investigate*) and the bare noun denotes one. Again, the application of \cup is needed in order to create an indefinite with a free variable that will be bound by the GEN operator introduced in this kind of sentences.

(20a) Cats meow.

(20b) GENx [$\cup \cap$ cats(x)] [meow(x)]

⁶ Pred: e (kind) \rightarrow $\langle e, t \rangle$: $\lambda k_{\langle e \rangle} \lambda x [x \leq k]$: It is a function that applies to those entities (kinds) which are entity correlates of properties, and returns the corresponding property.

4.5. Arguments for the Neocarlsonian Approach:

Carlson (1977) proposed some arguments to claim that bare plurals and indefinites (in English) are not to be considered the same semantic objects. While both approaches (Ambiguity and Neocarlsonian) are able to deal with some of these differences equally well, there are some contrasts that tip the scale in favour of the Neocarlsonian analysis.

Chierchia (1998c) realises that according to the ambiguity approach, there is no relationship between the kind interpretation and the existential interpretation that bare nouns are able to obtain; apparently then, it should be possible to block one of the interpretations without blocking the other. A way to block the kind reading is the following: Kinds are assumed to have (in opposition to indefinites) an ‘intensional’ component that relates the kind with the intension of that same noun, e.g. the set of dogs in all possible worlds; then, this intensional component can be blocked by means of a rigid designator in the bare noun (i.e. *magazine parts* can be kind, but *parts of the “RollingStone” magazine* can not).

Now, bare nouns in their existential interpretation do not behave like usual indefinites; they always take narrow scope with respect to opacity inducing operators or predicates (21a), negation (21b), temporal adverbials (21c), and anaphoricity (21d).

(21a) Kepa is looking for magazine parts.

(cannot mean: there are some specific parts of the magazine such that Kepa is looking for them)

- (21b) Kepa didn't see magazine parts.
 (cannot mean: there are magazine parts such that Kepa didn't see these magazine parts. Parts > NEG)
- (21c) Kepa killed lions repeatedly/for three hours.
 (cannot mean: Kepa has killed the same lions again and again -no resurrection reading-)
- (21d) Kepa is looking for magazines parts and Adam is too.
 (cannot mean: Kepa and Adam are looking for the same parts of the magazine)

As we just said, when a rigid designator is added to a bare noun, the kind interpretation is suddenly blocked and the existential interpretation loses the narrow scope requirement (wide scope interpretation will be allowed and sometimes needed) as the examples in (22) show.

- (22a) Kepa is looking for parts of the "RollingStone" magazine.
 (meaning: there are some specific parts of the magazine such that Kepa is looking for them)
- (22b) Kepa didn't see parts of the "RollingStone" magazine.
 (meaning: there are "Rollingstone" magazine parts such that Kepa didn't see them. Parts > NEG)
- (22c) Kepa killed people sitting here repeatedly/for three hours.
 (meaning: Kepa has killed the same people again and again -resurrection reading-)
- (22d) Kepa is looking for parts of the "RollingStone" magazine and Adam is too.
 (meaning: Kepa and Adam are looking for the same parts of the "Rollingstone" magazine)

The loss of the existential reading with narrowest scope is expected under the Neocarlsonian analysis since once the rigid designator blocks the kind reading, there is

no possible way to get the narrow scope existential interpretation. Recall that the Neocarlsonian approach claims that in order to get narrow scope existential interpretation a necessary step in the derivation is one where the noun becomes kind first; if kind interpretation is blocked, that necessary step in the derivation is missing. In the ambiguity analysis on the other hand, there is no connection between the two readings (kind and narrow scope existential), then, the elimination of one (kind) should not block the other (narrow scope existential), but it does and the differences in interpretation between the sentences above are not expected.⁷

Another problem for the ambiguity approach is explained next: as has just been mentioned, when bare plurals interact with adverbials, there is a reading that in opposition to bare plurals, indefinites can not get.

⁷ However, note that the sentences in (22) are completely grammatical and the interpretation that the bare nouns (*parts of the “RollingStone” magazine, people sitting here*) obtain is clearly existential. However, these bare nouns (as we mentioned) are not able to get a kind interpretation and are quite marginal in sentences with kind-predicates.

- (ia) ?? Parts of the “RollingStone” magazine are common/widespread.
- (ib) ?? People sitting here come in different sizes.

Since the application of the operator ‘ \wedge ’ is not possible in the cases above, the only possible way to make these bare nouns arguments is by means of \exists , the regular existential generalized quantifier. Chierchia also claims that every existential meaning of bare nouns having obligatory narrow scope must be derived from kinds. However, and according to Zamparelli (2002), this analysis can not be applied to Italian bare nouns. In Italian, bare nouns, although they can be interpreted existentially and behave as English bare nouns when it comes to scopal properties, cannot denote kinds (there is some disagreement with the data in this point). Zamparelli (2002: 318) claims that “the correlation between the impossibility of the kind reading and the availability of wide scope must be due to some other property. Let’s test the idea that the relevant property is, informally, ‘lack of referentiality’”. Zamparelli links the possibility of referential interpretation to the presence of some lexical element in D at LF. Taking all this into consideration, he concludes that it is not necessary to assume that the narrow scope existential reading of bare nouns (neither in Romance languages nor in English) is always derived from the kind interpretation via the DKP operation.

Now, if this is so, is DKP still needed? Zamparelli claims that the only way in which Italian definites are able to get the existential interpretation is by means of DKP. In section 4.6.5.1 it is proposed an analysis of the Basque definite determiners (plurals and mass terms) on Neocarlsonian terms, as well as of their existential interpretation (in some contexts), which is defended to be obtained via DKP.

(23a) # My father killed two moles in his vegetable garden for two hours.

(23b) My father killed moles in his vegetable garden for two hours.

The sentence in (23a) can only be interpreted with the indefinite *two moles* having wide scope over the adverbial element [two moles > adv.] and asserts that the same moles have been killed again and again in the vegetable garden; a rather strange state of affairs, hence the hash marking. In (23b) on the other hand, we find no such strange assertion and the sentence is completely grammatical. The reading we get is one where my father has killed different moles and the bare plural must necessarily take scope below the adverbial [adv. > moles].

In the Neocarlsonian approach bare plurals and indefinites are supposed to take different scope positions. The bare plural, contrary to what happens with the indefinite, can be assumed to be a direct argument (kind) of the verb and then, in order to get the existential interpretation, the DKP must take place; this is exactly the interpretation that we in fact get in a sentence like (23b).

These cases are problematic for the ambiguity analysis of bare plurals. This approach assumes that bare plurals when in object-level contexts are a subtype of indefinites (see section 4.4.1 above); as a consequence, it is not possible to block a weak reading (the reading needed to get narrow scope) for constructions such as *two moles* while deriving it for bare plurals. It would be possible to get the correct reading for the indefinite if existential closure was applied above the adverbial as in (24a), but of course, in this situation we could not get the correct (narrow scope) reading for the bare plural. The other possibility would be to postulate the existential closure below the adverbial as shown in (24b), situation where we would have exactly the opposite

problem. The narrow scope reading interpretation of the bare plural would be correctly derived while we would be unable to get the wide scope interpretation of the indefinite *two moles*. (The logical forms in (24) are taken from Dayal (2004: 401)).

(24a) $\exists x$ [two moles/moles(x) \wedge $\forall t$ [within-2-hours(t) \rightarrow killed at t (f, x)]]

(24b) $\forall t$ [within-2-hours(t) \rightarrow $\exists x$ [two moles/moles(x) \wedge killed at t (f, x)]]

An additional argument for the Neocarlsonian analysis was brought forward by Dayal (2004). In languages that allow bare singular count nouns (i.e. Russian, Hindi, Chinese) bare nominals only allow weak indefinite interpretations. I only give Hindi examples but the judgements also apply to Russian and Chinese.

Hindi (Dayal (2004: 404):

(25a) kamre meN cuhee nahiiN haiN

room in mice not are

‘There are not any mice in the room.’

✓ Neg > \exists

* \exists > Neg

(25b) main samjhtii huuN ki kamre meN cuhaa hai

I think that room in mouse is

‘I think a mouse is in the room.’

✓ think > \exists

* \exists > think

So far, the behaviour of bare nominals in these languages patterns with the behaviour of English bare plurals and both the Neocarlsonian as well as the Ambiguity

approach can account for the data. However, there are some differences between singular and plural bare nouns. (Examples taken from (Dayal 2004: 403))

- (26a) # caroN taraf bacca khel rahaa thaa.
 four way child was-playing
 ‘The same child was playing everywhere.’
- (26b) caroN taraf bacce khel rahe the.
 four way children were-playing
 ‘Children (different ones) were playing everywhere.’

Neither the Neocarlsonian nor the Ambiguity approach can handle the facts shown by the sentences in (26a-b) that only differ in number marking on the bare nouns, unless some modification is incorporated. According to Dayal this difference can be easily captured in the kinds approach if it is assumed that bare singulars refer to kinds that only permit making reference to single instantiations of the kind. Although kinds are conceptually plural, number morphology plays a role and constrains the instantiation set of the kind.

- (27a) For all situations s such that $\cup K_s \neq \emptyset$, $|\cup K_s| = 1$ if K is a singular term and $|\cup K_s| \geq 1$ if K is a plural term.
- (27b) $\forall x [\text{place}(x) \rightarrow \exists y [\cup \text{child}_s(y) / \cup \text{children}_s(y) \wedge \text{play-in-}x(y)]]$

Dayal (2004: 404)

Thus, the plural bare noun has no problem to get the existential narrow scope interpretation due to its plurality, that is to say, the different subgroups of the plural can scope below the universal and still obtain a plausible interpretation. The singular

expression on the other hand will not be able to get narrow scope since the instantiation set of the kind is a singleton, hence the oddness of the sentence in (26a) --see section 4.6.5.2.--.

Now that some arguments that convincingly argue in favour of the kinds (Neocarlsonian) approach have been provided, the next section will concentrate on Basque data. First, the historical origin of the Basque article will be presented which I take as evidence for the fact that the Basque article -A is always definite (in opposition to what has been claimed by some scholars). Then, the range of possible interpretations of -A will be provided; after that, some previous analysis of the Basque NPs/DPs will be discussed not to be able to account correctly for the facts. Finally, Basque data will be reinterpreted in Neocarlsonian terms (as explained above).

4.6. The Basque Article:

4.6.1. Historical Origin of the Basque Article:⁸

It is possible to divide languages among those that possess an article (such as Greek, Spanish, French, etc.), and those that do not (Hindi, Russian, etc.). Basque has been historically claimed not to possess articles; nowadays however, Basque does have

⁸ This subsection is based on Azkarate & Altuna (2001). See this book for a much more extended analysis of these facts in Basque.

an article whose creation, as in many other languages (i.e. Romance languages), has derived from the distal demonstrative.

The standard use of the actual Basque demonstrative system is the following:

(28a)	singular	plural
Proximal:	(h)au(r) 'this'	hauek 'these'
Mesial:	(h)ori 'that' (just there)	horiek 'those' (just there)
Distal:	(h)ura 'that' (over there)	haiek 'those' (over there)

(28b) Proximal:

Mutil hau berandu etorri zen.
 boy this late come aux.past
 'This boy came late.'

(28c) Mesial:

Neska gazte hori ez dut ezagutzen.
 girl young that (just there) no aux.pres. know
 'I don't know that young girl.'

(28d) Distal:

Emakume hura Errusiara bidali zuten bigarren mundu gerran.
 woman that (over there) Russia-to send aux.past second world war-in
 'They sent that woman to Russia during the 2nd WW.'

In general, the proximal demonstrative demonstrates proximity to the speaker, the mesial demonstrative illustrates proximity to the addressee, and the distal demonstrative shows remoteness from both the speaker and the addressee. Sometimes, both the mesial and the distal demonstratives can be used to indicate differing degrees

of remoteness from the speaker. The three demonstratives make use of stem-suppletion for the oblique cases.

(29a) Oblique cases:

	singular	plural
Proximal:	(h)on-	(h)aue-
Mesial:	(h)or-	(h)orie-
Distal:	(h)ar-	(h)haie-

(29b) Proximal:

Lagun honekin joan nintzen hondartzara.
 friend this-with go aux.past beach.D-to
 ‘I went to the beach with this friend.’

(29c) Mesial:

Hegazkin zahar horretara ez naiz igoko.
 airplane old that-to no aux.pres. get on
 ‘I won’t get on that old airplane.’

(29d) Distal:

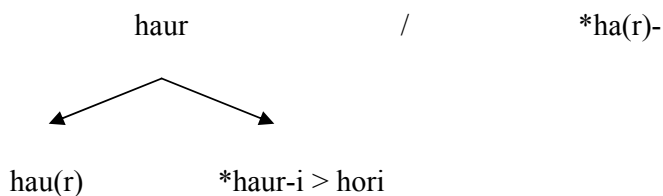
Urte hartan gauza guztiak gaizki atera ziren.
 year that-in thing all-D.pl wrong go out aux.past
 ‘That year, everything went wrong.’

Note that excluding the absolute case (examples (28a-c)), the rest of the cases take *hon-*, *hor-*, and *har-* as stems (examples (29a-c)).

Although the current Basque demonstrative system makes use of three degrees (proximal, mesial, distal), the scholars that have analysed the old Basque demonstrative system (Azkue (1905), Mitxelena (1979), and Irigoien (1981), among others) do not agree on whether historically Basque differentiated these three degrees or there were

just two different degrees (the proximal and the distal) from where the actual demonstrative system was derived⁹. Mitxelena argues for the former possibility while Azkue and Irigoien argue for the latter.

(30a) Azkue (1905) & Irigoien (1981):



(30b) Mitxelena (1979):

hau(r)	hori	hura / (h)a
--------	------	-------------

However, they all share the same opinion about how the Basque article was created: once the demonstratives lost morphological independence and began to be used as affixes, from each demonstrative form a different article arose (in two steps (31a) and (31b)).

(31a) Monophthongization of the diphthongs:

<i>hau(r)</i>	>	-or
---------------	---	-----

(31b) Aspiration lost:

<i>haur</i>	<i>hori</i>	<i>hura / (h)a</i>
↓	↓	↓
-au, -or	-ori	-a

⁹ See Azkarate & Altuna for an extensive discussion of these facts.

Out of the three articles, the one created from the distal demonstrative is the one used today.

Dialectal variation points toward the same conclusion: In some varieties of Biscayan, the distal demonstrative is not *(h)ura*, but *(h)a*. In fact, this form has been claimed to be the oldest distal form; an argument in favour of this claim is that the oblique cases are created by means of the **(h)ar* stem (see chart (29a) as well as example (29d)), parallel to the proximal *(h)aur* form. *(H)ura*, on the other hand, is analysed as the strengthened version of the distal demonstrative.

In Biscayan, the demonstrative (in opposition to what happens in the other Basque dialects) appears to the left of the noun as the following example clearly shows. (Example taken from Azkarate & Altuna (2001: 18)).

- (32) Oneec amar Mandamientu-oc (from a Christian doctrine of the XVIIth century)
these ten commandment-pl.article
'These ten commandments'

In the rest of the dialects the distal demonstrative is strengthened in order to differentiate it from the new-born article.

- (33) *seme (h)a(r) > seme hura (= that son)

In Biscayan, this change was unnecessary since the form that they used was already different from the newborn article as the example in (34) shows.

- (34a) A gizon-a
 this man
 ‘This man’
- (34b) Gizon-a
 man-D
 ‘The man’

This is the reason why the strengthened demonstrative (*h*)*ura* is not used in Biscayan. This usage is still nowadays productive in Biscayan.¹⁰

- (35a) A mutil-e (absolute)
 this boy
 ‘This boy’
- (35b) **Hónek mútil-ek** (absolute)¹¹
 these boy
 ‘These boys’
- (35c) **Honék mutil-ék** (ergative)
 these boy
 ‘These boys’

¹⁰ Itziar San Martin (p.c.)

¹¹ Note that both the absolute as well as the ergative forms show exactly the same structure. It is the accentuation pattern that marks the difference between the two forms (expressed by means of written accent). When the accent falls on the first syllable of both the demonstrative and the noun, the DP will get absolute case while when the accent falls on the second syllable of both the demonstrative and the noun, the DP gets ergative case.

4.6.2. The Basque Article and its Interpretations:

One very interesting property of Basque is that bare nouns can not appear as arguments (no matter whether the DP is singular or plural, fills the subject or the object position) and the overt presence of the definite Basque article is obligatory for the sentences to be grammatical, as the examples in (36) show (see Laka (1993), Artiagoitia (1997, 1998, 2002), among others).

Subject Position:

(36a) Mutila berandu etorri zen.
boy-D.sg(abs) late come aux.sg
'The boy came late.'

(36a') Mutilak berandu etorri ziren.
boy-D.pl(abs) late come aux.pl
'The boys came late.'

(36b) * Mutil berandu etorri zen/ziren.
boy late come aux.sg/pl.
'Boy came late.'

Object Position:

(36c) Anttonek goxokia jan zuen.
Antton.erg candy-D.sg(abs) eat aux.sg
'Antton ate the candy.'

(36c') Anttonek goxokiak jan zituen.
Antton.erg candy-D.pl(abs) eat aux.pl
'Antton ate (the) candies.'

(36d) * Anttonek goxoki jan zuen/zituen.
Antton.erg candy eat aux.sg/pl
'Antton ate candy.'

Having a look at the sentences in (36), it seems as though DPs formed with the Basque article -A/-AK function as definites. In (36a-36a'), where the DP appears in subject position, we are talking about a specific boy (if singular) or a specific group of boys (if plural). The DPs *goxokia/goxokiak* in (36c-36c') fill the object slot, when the singular form of the article is used the sentence can only be interpreted as making reference to a single specific candy¹², but when the DP is plural, two possible interpretations arise: definite or existential (as the brackets in the example (36c') illustrate) --see section 4.6.5.1--.

Let us take back the English examples we introduced at the beginning of the chapter. As already noted, English (as well as other Germanic languages) can use determinerless plural count noun phrases and mass noun phrases (hereafter *bare nouns*) in order to communicate *generic* meanings. Examples repeated here as (37).

- (37a) Dogs have many different breeds. (=3a))
- (37b) Chihuahuas are unpopular in the Basque Country. (=3b))
- (37c) Dinosaurs are extinct. (=3c))
- (37d) Nitrogen is abundant in our universe. (=3d))
- (37e) Athletic shoes were invented by Bill Bowerman and Phil Knight. (=3e))
- (37f) Doctors investigate diseases. (=3f))
- (37g) Fishes appeared 390 million years ago. (=3g))

¹² There are exceptions where the singular DP can be interpreted existentially, but they are not the typical case. See section 4.6.5.2.

Then, in order to communicate the meanings expressed by the English sentences in (37) Basque must necessarily use noun phrases combined with the definite article: the plural definite¹³ with count nouns and the singular definite with mass terms¹⁴.

- (38a) Txakurrek arraza desberdin asko dituzte.
 dog-D.pl(erg) breed different many have
 ‘Dogs have many different breeds.’
- (38b) Chihuahuak ez dira ospetsuak Euskal Herrian.
 chihuahua-D.pl(abs) no are famous Basque Country-in
 ‘Chihuahuas are unpopular in the Basque Country.’
- (38c) Dinosaurioak aspaldi desagertu ziren.
 dinosaur-D.pl(abs) long time ago become extinct aux.
 ‘Dinosaurs became extinct a long time ago.’
- (38d) Nitrogenoa ugaria da gure unibertsoan.
 nitrogen-D.sg(abs) abundant is our universe
 ‘Nitrogen is abundant in our universe.’
- (38e) Kirol oinetakoak Bill Bowerman eta Phil Knightek asmatu zituzten.
 sport shoe-D.pl(abs) invent aux.
 ‘Athletic shoes were invented by B. B. and P. K.’
- (38f) Medikuek gaixotasunak ikertzen dituzte.
 doctor-D.pl(erg) disease-D.pl(abs) investigate aux.
 ‘Doctors investigate diseases.’

¹³ Recall from chapter 3 that the plural form of the Basque definite article (-AK) is not formed by a single element. Rather, I have assumed the existence of a functional head (NumP) situated in between the DP and the NP, and it is just in this functional position where the singularity (\emptyset) or plurality (-K) of the Basque definite article is marked (see section 4.6.4.1 as well as chapter 3). However, for ease of exposition I shall refer to them as singular and plural definite article.

¹⁴ In section 4.6.4.1 it is claimed that although mass terms trigger singular verb agreement just like singular count terms, they differ from singulars in being number neutral (see Delfitto & Schrotten (1991), Doetjes (1997), Dayal (2001), Krifka (2004) among others). This is the reason why they pattern with plural count nouns when in object-level contexts. See also section 4.6.5.1, where Basque mass terms and plurals are given the same analysis.

- (38g) Arrainak orain duela 390 milioi urte agertu ziren.
 fish-D.pl(abs) now million year appear aux.
 ‘Fishes appeared 390 million years ago.’

Recall from the beginning of the chapter again that in English (and in Germanic languages in general) bare nouns can also have an existential reading when in episodic contexts such as those in the examples in (39). Some of the examples are repeated from (4).

- (39a) Amaia has eaten candies.
 (39b) Aritz has drunk wine.
 (39c) Mattin met Basque friends in Moscow.
 (39d) Potatoes rolled out of the bag.

Now again, Basque must make use of the definite determiner to express these existential meanings and in case the definite determiner is missing the sentences become suddenly ungrammatical.¹⁵

- (40a) Amaiak goxokiak jan ditu.
 Amaia.erg candy-D.pl(abs) eat aux
 ‘Amaia has eaten candies
 (40b) Aritzek ardoa edan du.
 Aritz.erg wine-D.sg(abs) drink aux
 ‘Aritz has drunk wine.’

¹⁵ Note that all of the sentences in (40) can also receive a specific interpretation; where we would make reference to a specific set of candies, friends, and potatoes; or to a specific (quantity of) wine, i.e. the one we drank in that restaurant.

- (40c) *Mattinek lagun euskaldunak topatu zituen Moskun.*
 Mattin.erg friend Basque-D.pl(abs) meet aux Moscow-in
 ‘Mattin met Basque friends in Moscow.’
- (40d) *Patatak poltsatik erori ziren.*
 potato-D.pl(abs) bag-from fall aux
 ‘Potatoes rolled out of the bag.’

In all the examples in (40), the use of the Basque definite determiner lacks the flavour of the generic interpretation and gets an existential reading similar to the existential quantifier *some*¹⁶.

The following subsection is dedicated to present some crosslinguistic data in order to see the behaviour of the Basque definite determiner in a comparative light.

4.6.3. Some Cross-Linguistic Data:

The aim of this subsection is to present how Spanish, Italian, and French get generic as well as existential interpretations. As we will see, these Romance languages make use of different strategies for the existential interpretations.

Thus, all these three Romance languages standardly use noun phrases with a definite determiner in order to express the generic meaning. The plural definite will appear with count nouns while it will be the singular definite¹⁷ the one that appears with

¹⁶ See section 4.6.5.1 for an explanation of the existential interpretation of the Basque definite determiner in Neocarlsonian terms.

¹⁷ See section 4.6.4.2, where I claim that mass terms are number neutral. This property should apply crosslinguistically, so, the definite determiner that appears with mass terms will not mark singularity.

mass terms. For the generic interpretation I only give Spanish examples, but note that the same behaviour applies to Italian and French¹⁸.

Spanish:

- (41a) [Los perros] tienen muchas razas diferentes.
[the dogs] have many breeds different
- (41b) [Los chihuahuas] no son populares en el País Vasco.
[the chihuahuas] no are populars in the Country Basque
- (41c) [Los pájaros] han evolucionado de los reptiles
[the birds] have evolved of [the reptiles]
- (41d) [El nitrógeno] es abundante en este universo.
[the nitrogen] is abundant in this universe
- (41e) [Los médicos] investigan [las enfermedades].
[the doctors] investigate [the diseases]
- (41f) Bill Bowerman y Phil Knight inventaron [las zapatillas de deporte].
invented [the shoes of sport]
- (41g) [Los peces] aparecieron hace 390 millones de años.
[the fishes] appeared ago 390 millions of years

Now, things are not so similar when it comes to existential object-level contexts. The data show that Romance languages make use of different strategies to obtain the existential interpretation. Both Italian and Spanish (just like English -see section 4.2.2.-) are able to use bare nouns¹⁹ in existential constructions.

¹⁸ See i.e. Chierchia (1998b), Zamparelli (2000, 2002a, 2002b) for Italian examples and i.e. Kleiber (1990), Heyd (2003) for French examples.

¹⁹ See Bosque (1996a) for an extensive presentation and possible analysis of the different uses of Spanish bare nouns. This section will only present Spanish bare nouns in existential interpretation.

Spanish:

(42a) Mikel ha bebido café.

Mikel has drunk coffee

(cannot mean: 'Mikel has drunk some specific coffee')

(42b) Juan ha visto leones.

Juan has seen lions

(cannot mean: 'Juan has seen some specific lions')

(42c) Pedro ha conocido turistas Italianos en el viaje.

Pedro has met tourists Italians en the trip

(cannot mean: 'Pedro has met some specific Italian tourists during the trip')

(42d) Llegaron estudiantes.

came students

(cannot mean: 'Some specific students came')

Italian (Zamparelli (2002a, 2002b), Chierchia (1998c)).²⁰

(43a) Non ho visto ragazzi.

not I-have seen boys

(cannot mean: 'There are some specific boys and I have not seen them')

(43b) Gianni stà cercando parti di nave

Gianni is looking for parts of ship

(cannot mean: 'There are ship parts such that Gianni is looking for them')

(43c) Leo ha mangiato patate

Leo has eaten potatoes

(cannot mean: 'There are some specific potatoes and Leo has eaten them')

On the other hand, French does not accept bare nouns; this is why it is impossible to express the meanings of the previous examples making use of bare nouns.

²⁰ For some Italian speakers bare nouns can make reference to kinds (see i.e. Chierchia (1998b)) while for others the only possible interpretation an Italian bare noun can get is the indefinite like one, that is, the existential interpretation; these speakers clearly reject the kind interpretation of the bare noun (see Zamparelli (2002b)).

For that, French makes use of the so called partitive determiner *des* (for plural common nouns) or *du* and its variant *de la* and *de l'*²¹ (for mass common nouns): A complex determiner composed of the partitive preposition plus the definite determiner in its different uses.

French:

(44a) Pierre a mangé [des sucreries].

Pierre has eaten [of-the sweets]

‘Pierre has eaten (some) sweets.’

(44b) Elle a goûté [du vin].

she has tasted [of-the wine]

‘She has tasted (some) wine.’

(44c) Michel a rencontré [des amis] ce matin.

Michel has met [of-the friends] this morning

‘Michel has met (some) friends this morning.’

(44d) Elle a bu [de la bière].

she has drunk [of the beer]

‘She has drunk (some) beer.’

Note that Italian also possesses a partitive determiner which has also been discussed to be a complex morpheme composed of the partitive preposition *di* ‘of’ incorporated to the regular form of the definite determiner (singular *il/lo/la* and plural

²¹ It depends on the gender and the initial letter of the noun whether we choose one form or the other. When the first letter of the noun is a vowel or a mute *-h*, *de l'* is used; when the mass term is masculine, we use *du*; when the mass term is feminine, *de la* will be used. See Bosveld-de Smet (1998) for an extensive analysis of these partitive constructions.

i/gli/le)²². The usage of this partitive determiner is parallel to the French one. (Examples taken from Storto (2003: 315)).

Italian:

(45a) Ho incontrato [degli studenti].

I-have met [of the students]

‘I have met some students.’

(45b) Ho bevuto [della birra].

I-have drunk [of the beer]

‘I have drunk some beer.’

Note also that these constructions are completely out in Spanish.

Spanish:

(46a) * Pedro ha conocido [de los turistas Italianos] en el viaje.

Pedro has met [of the tourists Italians] in the trip

‘Pedro has met some Italian tourists during the trip.’ (intended)

²² Storto (2000, 2003) claims that “NPs of this type do not display interpretive properties that one would expect to correlate with the interpretation of the partitive preposition and of the definite article. This, I suggest, is an argument for doubting that the partitive determiner is the morphological composition of the partitive preposition and the definite article. [...] I thus propose to maintain the hypothesis that the partitive determiner is a lexical indefinite determiner.” Roy (2001) makes the same claim for French *des*. On the other hand, Chierchia (1998) and Zamparelli (2002b), argue that the nominal constructions created by French and Italian partitive determiners must be analysed as partitives. Zamparelli (2002b)’s contribution to the discussion is that both French *des* and Italian *dei* “are compositionally derived via a complex structure akin to that of partitives, but that the partitive semantics applies not to a normal definite nominal, but to a kind-denoting definite of the type studied in Zamparelli (2002a)”. In section 4.6.5.1, I relate the Basque definite article in existential interpretation to the French/Italian partitive, the difference is that in Basque the determiner is there (overt) while the partitive preposition is not.

- (46b) * Pedro ha bebido [de la cerveza]²³
Pedro has drunk [of the beer]
'Pedro has drunk some beer.' (intended)

Before we move on to expose the assumptions that are going to be made in this chapter and the details of the proposal that is going to be put forward, the next subsection is dedicated to present the analysis provided by Artiagoitia (2002) together with some problems that this analysis would have to face.

4.6.4. Artiagoitia (2002) and the Basque Noun Phrase:

Artiagoitia's proposal is based on Longobardi (1994), whose basic hypothesis is that proper names, bare nouns, pronouns and definite descriptions must be DPs when in argument position. According to Longobardi (1994), bare nouns (despite their determinerless appearance) are true DPs with an empty D head, and as a consequence, (i) are assigned a default existential interpretation and (ii) must be lexically governed at LF. That is, an empty determiner is only possible in internal argument position and disallowed in subject -truly external- position. Thus, the behaviour of determinerless singular mass nouns as well as of plural count nouns (presented in the previous section) follows what this proposal predicts. The generic interpretation appears problematic

²³ This sentence can be grammatical, but the reading we get is not the one we are interested in at the moment. The grammatical interpretation would be something like: "Pedro has drunk beer from the (specific) bottle". In this case, *de la cerveza* makes reference to the liquid 'beer', that is, the content, but it necessarily implies the container; this is not so in French or in Italian. See Castillo (2001) for an analysis of container/content and similar facts.

since English generic DPs, in opposition to what happens in Romance languages, are (i) systematically determinerless (as already seen) and (ii) appear in positions that are not lexically governed (external argument positions).

(47a) Spanish: *(Los) peces aparecieron hace 390 millones de años.

(47b) English: (*The) fishes appeared 390 million years ago.

Longobardi, to derive this English/Romance contrast, assumes that although Ds play no role in generic interpretations, these constructions are real DPs that refer to the entire kind. He also assumes that the noun can appear in the D position or else (when no movement is possible) form a chain with an expletive determiner in D. The contrast in (47) is then explicable: In Italian or in Spanish, a determinerless DP will always be existentially interpreted at surface structure (SS) and as a consequence the noun will be unable to move to D. In order to get generic interpretations, an expletive determiner that will eliminate the existential interpretation is needed in D position. In English, the noun can covertly move to D position at LF, and this movement will be what makes the default existential interpretation impossible.

Artiagoitia (2002) applies Longobardi's analysis to Basque. Recall from section 4.6.2 that Basque DPs must necessarily appear with the definite Basque article as the examples in (36) show (repeated here as (48) for convenience).

(48a) Mutil*(a/ak) berandu etorri zen/ziren.
boy-D.sg/pl(abs) late come aux.sg/pl
'The boy/boys came late.'

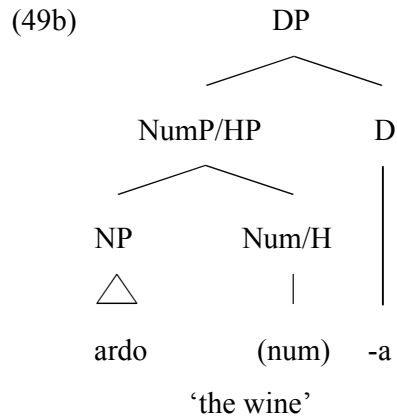
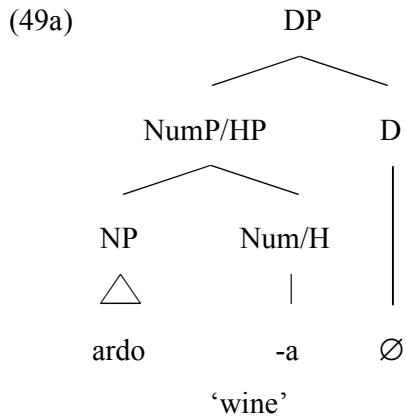
(48b) Anttonek goxoki*(a/ak) jan zuen/zituen.
 Antton.erg candy-D.sg/pl(abs) eat aux.sg/pl
 ‘Antton ate the candy/(the) candies.’

As is possible to note from the glosses, Basque plural DPs are allowed to get existential interpretation, but only when the DP is lexically governed by the verb. While *goxokiak* ‘the candies’ in (48b) can get both a definite and an existential interpretation, *mutila/ak* ‘the boy/boys’ is only able to get a specific definite interpretation. Hence, despite the overt presence of the Basque definite article, the interpretations that we get appear to be parallel to those determinerless DPs in English or in Romance languages.

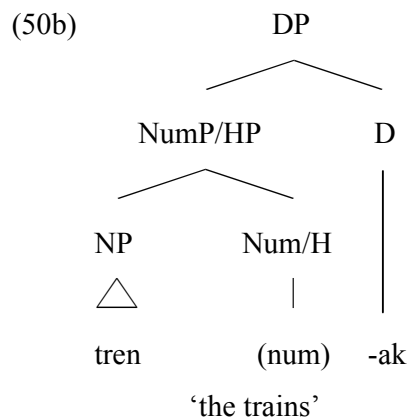
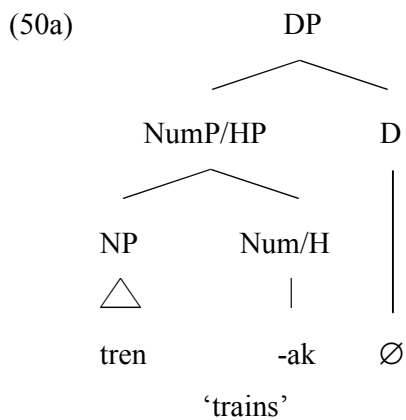
Taking this observation seriously, together with the fact that Basque does not mark number on nouns and that the only possible way to mark number in Basque is by means of the article (-A will mark singular, -AK will mark plural)²⁴, Artiagoitia (2002) concludes that Basque existentially interpreted DPs are structurally similar to the determinerless DPs in English and Romance languages. The empty D makes the DP be interpreted existentially by default. Therefore, Basque DPs will have two possible structures depending on the interpretation that they will be getting. When the DP is interpreted existentially (indefinite-like), the article will just be filling number specification of DPs; with that aim, the article will have to fill a functional projection between the D and the N, “some kind of Number-Phrase, i.e. the noun plus number inflection or the head that Longobardi (2000) simply calls ‘H’” (Artiagoitia (2002: 84)), as in the examples (49a) and (50a). When the DP is interpreted specifically on the other hand, the article must appear in D position as shown by the examples (49b) and (50b).

²⁴ See below for arguments against this claim. See also chapter 3.

Singular (Artiagoitia (2002: 84)):

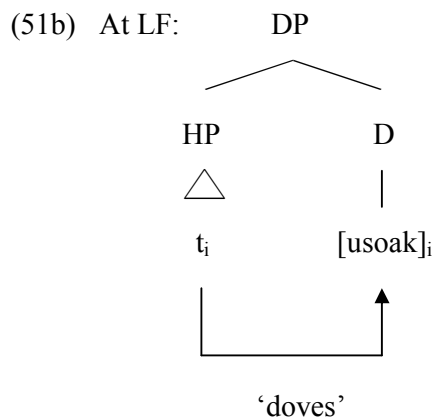
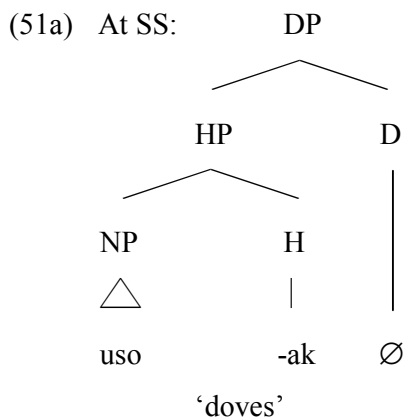


Plural (Artiagoitia (2002: 84)):



For the generic interpretation (in line with Longobardi (2000)’s proposal) Artiagoitia (2002) considers more economical the possibility of having the D position empty at SS and moving the N (covertly) to D position at LF (as proposed for English). To propose an expletive article at SS (as proposed for Italian) is a more costly operation and only available when there is no other accessible derivation. Then, the Basque article in generic DPs characterises the head of Number as expressed in the following structure, and not the head of D.

Generic Interpretation:



4.6.4.1. Problems for Artiagoitia (2002):

Artiagoitia (2002: 74) claims the following: “some Basque DPs headed by the article must have their D position empty; given that Basque nouns and NPs lack number inflection all together (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”.

In order to account for the possible interpretations Basque DPs can get, the apparently definite article is argued to be able to fill two different syntactic slots inside the DP structure depending on whether the DP is going to be interpreted specifically (definite) or existentially (indefinite). These two syntactic slots correspond to two functional projections: DP and NumP/HP.

When the article appears in [Head, NumP], the DP will obtain an existential interpretation by default (just like determinerless DPs in Romance languages); when, on

the other hand, the article appears at DP, the DP will necessarily be interpreted specifically.

However, this analysis is problematic: Let us build an example with a mass term like *ardoa* ‘wine+D’ in object position of an object level predicate. In this situation, the DP *ardoa* can obtain two interpretations, one definite and specific, the other indefinite and unspecific (which forces the existential interpretation).

(52) Izarok ardoa edan du.
Izaro.erg wine-D.sg²⁵ drink has

⇒ Specific: ‘Izaro has drunk the wine’

⇒ Existential: ‘Izaro has drunk wine’

In the existential interpretation, Artiagoitia does not treat the article as a determiner, rather, the article is placed in [Head, NumP] position and functions as a number marker, in this particular case, it would be functioning as a singular marker (in Artiagoitia’s terms the Basque plural marker would be -AK). But, do we really want to claim that mass terms denote singulars? Do we really want to say that *ardoa* ‘wine+D’ (in its existential interpretation) in (52) and *mutila* ‘boy+D’ in the example in (53) are just the same?

²⁵ For ease of exposition, here and elsewhere, ‘D.sg’ is used in the glosses with mass terms. However, as will be made explicit below, mass terms are claimed to be number neutral and singular agreement with the verb and with other elements must be taken as a result of the default status of the singular.

- (53) Jonek mutila ikusi du.
Jon.erg boy-D.sg see has
'Jon has seen the boy.'

To begin with, note that *mutila* in (53) can not get an existential interpretation²⁶ and can only be interpreted in a specific way as the glosses perfectly show. It follows from here that there can only be a single boy that Jon has seen in (53), while no such restriction is expressed by the sentence in (52) where (in the existential interpretation) no quantity of wine is specified at all. I guess Artiagoitia could find a way out of the problem saying that the determiner in the object DP could fill different syntactic positions in (52) and (53). As we said, (always according to Artiagoitia) in (52) -A would only play the role of the number marker (placed in NumP) while in (53) -A would function both as a number marker and a definite determiner in D (sited in DP).

But let us have a look at another example which I think shows more clearly the point that I'm trying to make. There are some (not all) contexts where Basque count terms seem to be behaving as real indefinites in that they can get existential-like interpretation.

- (54) Julenek kotxea erosi du.
Julen.erg car-D.sg buy has

⇒ Specific: 'Julen has bought the car'
⇒ Existential: 'Julen has bought (a) car'

²⁶ In Basque, the singular definite article does not usually force existential interpretations. However, there are some contexts where this reading is available, see below as well as section 4.6.5.2.

Before we proceed, let me briefly note that contexts in which singular count nouns in object position (*kotxea* in (54)) can get an existential-like interpretation are not the typical case, that is to say, singular count nouns can not obtain existential-like interpretation as easily as plurals or mass terms can since the latter (in opposition to the former) need not specific contexts to be interpreted existentially. Singular count nouns have been claimed to obtain this reading only in so-called stereotypical contexts, usually related to verbs of possession: buying a car, having a wife, having a husband, having a baby, wearing a hat, etc²⁷. Usually then, a singular count noun in the object position of

²⁷ In Spanish, all the Basque examples that allow the singular count noun to obtain an existential interpretation are expressed by means of a bare singular, *coche* ‘car’ in (i).

- (i) Juan se ha comprado coche
 Juan se has buy car
 ‘Juan has bought a car.’

Bosque (1996b) explains the behaviour of Spanish object bare singulars by means of a process of incorporation to the verb (head to head movement) and the creation of a complex predicate. However, the fact that *coche* in the example in (i) is a bare singular might be just an ‘illusion’. Note that there is a clear difference between bare plurals and bare singulars: so-called bare plurals do not accept appearing with SE predicates as the example in (ii) shows.

- (ii) ?? Juan se ha comprado coches
 Juan se has buy cars
 ‘Juan has bought cars.’ (intended)

In order to appear with SE predicates objects must be affected and for that, the presence of a determiner is obligatory.

- (iii) Juan se ha comprado unos coches
 Juan se has buy some cars
 ‘Juan has bought some cars.’

What this suggests is that the bare singular *coche* in (i) must have a more complex structure and that maybe, it has a covert determiner, just like in Basque (where the D is overt). Note that the sentence in (i) without SE is ungrammatical.

- (iv) * Juan ha comprado coche.
 Juan has buy car
 ‘Juan has bought a car.’ (intended)

Of course, in order to see the contrast between bare plurals and bare singulars the predicate must be a SE predicate. This is why it is not possible to observe any contrast in the following sentences.

an object-level predicate is interpreted specifically: *liburua erosi* always means ‘to buy the book’, *mutila ikusi* always means ‘to see the boy’, *aldizkaria irakurri* always means ‘to read the magazine’, and similarly for the majority of these constructions.

Anyhow, *kotxea* can have an existential-like interpretation²⁸ in (54); but again, even in the existential interpretation, there is a clear difference between this sentence and the one in (52). Although both DP objects are claimed to get existential interpretation and the Basque article -A should accordingly be in NumP in both DPs, there is no way in which the sentence in (54) can be interpreted as Jon having bought more than one car, that is, the number is strictly specified to ‘one’; this is not the case in (52), where as we said, we don’t care about the quantity of wine Izaro has drunk.

Why should there be such a difference among the behaviour of the singular (if singular) DPs in the examples in (52) and (54)? And what makes them different? The difference comes from the fact that Number does in fact play a role; when singular, the interpretation is just singular and this is what the example in (54) shows. However, with mass terms, the Basque article does not appear to be imposing any kind of number on the nominal (mass) expression. One possibility is to claim (as I shall do) that mass terms

-
- (va) Juan lleva sombrero.
Juan wear hat
‘Juan wears a hat.’
 - (vb) Juan tiene esposa.
Juan have wife
‘Juan has a wife.’

More research is needed to reach a conclusion. Thanks to Ricardo Etxepare (p.c.) for discussion on this point.

Rodriguez (2003) assumes Bosque’s incorporation analysis and suggests that Basque facts in (54) could be explained in similar terms. The only difference is that in Basque the incorporation process would have to take place at LF since the presence of the article blocks the (needed head to head) movement at SS. However, I do not see the way to avoid the SS blockage at LF, since at LF the article will still be present (unless the Basque article is taken to be an expletive).

²⁸ In section 4.6.5.2, the existential interpretation of the object of the sentence in (54) is suggested to be explained assuming that the singular definite generic determiner combines with taxonomic (sub-kind) sets.

are not number marked, and although they share the property of triggering singular verb agreement with singular count terms, they differ in being number neutral (see Delfitto & Schrotten (1991), Doetjes (1997), Dayal (2004), Krifka (2004), among many others). Furthermore, from what we have seen so far (see section 4.6.2) masses pattern together with plurals in the interpretations they obtain (see Link (1983), Pelletier & Schubert (2002), Gillon (1992), Higginbotham (1994), Chierchia (1998b, 1998c), Bosveld-de Smet (1998) and references therein), in other words, semantically, mass terms share more properties with plurals than with real singulars. So despite agreement facts with verbs, masses are closer in behaviour to plurals than to singulars.

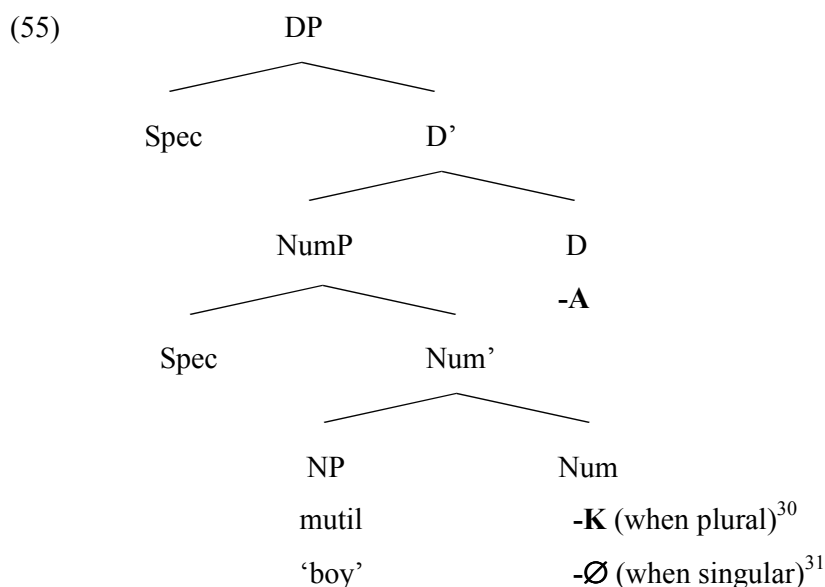
Hence, for this particular issue I propose that in fact mass terms are number neutral. Thus, count terms will be referred as (morphologically) singular or plural while mass terms will be claimed not to bear number morphology at all. Of course, if what it's being claimed in here is on the right track, Artiagoitia's analysis seems unable to explain the existential interpretation that mass terms obtain in object-level contexts because if mass terms do not bear number morphology, there is no need to postulate the NumP in mass terms (position where the Basque article is placed in order to force existential interpretation for plurals and mass terms).

The problem of existential interpretations can be solved if we assume that the Basque article is always definite, and always base-generated in [Head, DP], but it is very flexible in its ability to type-shift (see section 4.6.5.1). In chapter 3 I claimed that the definite determiner -A and plural marker -K (in opposition to what the scholars that have analysed the Basque DP have claimed) are base generated in different syntactic positions²⁹. The plural marker -K has been claimed to be base generated in NumP while

²⁹ See chapter 3, section 3.4, for arguments in favour of this claim.

the definite determiner -A has been defended to be base generated where it has standardly been assumed to be generated, in the DP; the singularity of singular count terms is not marked in the overt syntax, but I assume there is an empty number marker (\emptyset), hence the difference with mass terms. The proposed structure will be the one in (55).

Count Terms:



³⁰ In order to get the final surface word order (noun-A-K/ \emptyset), the Number head will have to move up adjoining the D head. Note that the plural marker is a -K, and as such it is dependent phonologically as well as categorically on another category (DP). Therefore, it is possible to postulate that this last movement of the plural marker to the final position of the DP will be due to morphology (see Zwicky (1977, 1985))

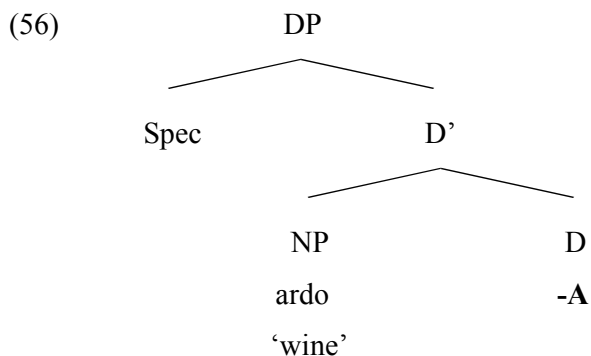
³¹ This is actually the case in verbal inflectional agreement in Basque. Plural number is marked by suffixation while singular number is unmarked.

	Singular		Plural
<i>doa</i>	'it/she/he is going'	<i>doa-z</i>	'they are going'
<i>noa</i>	'I am going'	<i>goa-z</i>	'we are going'
<i>daukagu</i>	'we have it'	<i>dau-z-kagu</i>	'we have them'
<i>dakigu</i>	'we know it'	<i>daki-zki-gu</i>	'we know them'
<i>dabil</i>	'it/she/he is walking'	<i>dabil-tza</i>	'they are walking'
<i>nau</i>	'it/she/he has me'	<i>ga-it-u</i>	'it/she/he has us'

For more discussion on this, see Hualde (2003).

Now, considering that mass terms are number neutral, the NumP will not be needed. The one in (56) is the structure I assume for masses.

Mass Terms:



Note that in case the structure of a mass term DP like *ardo* were like the one in (55), with the NumP functional head, -A should not be able to appear with mass terms for the same reason that -AK is not: the functional projection NumP should make reference to types or sizes of wine. But this is not the case since something like *ardo* (I in the example (52) *Izarok ardo edan du*) does not refer to types or sizes of wines; it just makes reference to wine. Hence, the structure in (56) adds further argumentation for the claim that (i) when -A appears with mass terms is not there for number reasons and, (ii) -A in Basque is a real definite and as such must fill the [Head, DP] position, not the [Head, NumP] position (contra Artiagoitia (2002)).³²

³² The implication of this structure is that weak quantifiers that I claimed to be base-generated in [Head, NumP] or [Spec, NumP], could not be combined with mass terms and should only be able to combine with count terms. This is true for most of the weak quantifiers that have been analysed in chapter 3. See (ia-ib) for an example; the same applies to *batzu(e)k* (some), *hiru* (three -numerals-), *hainbat* (some), etc. See Etxepare (2000).

- | | | | |
|------|---|------|--|
| (ia) | * Zenbait ardo edan dut.
some wine drink aux.sg
'I have drunk some wine' (intended) | (ib) | √ Zenbait ardo edan ditut.
some wine drink aux.pl
'I have drunk some wines.' |
|------|---|------|--|

Doetjes (1997), based on the behaviour of adnominal quantifiers in different languages³³, also reaches the conclusion that mass terms do not bear Number morphology. She realises that there are some adnominal quantifiers that uniquely combine with singular count nouns and that the quantifiers that show this property are incompatible with mass terms, which suggests that mass terms are not to be considered singular. Delfitto & Schroten (1991) make the same claim based on different arguments; according to these authors, contrary to what would be expected if mass terms were singulars, mass terms pattern with bare plurals. They support their conclusion by the observation that in several Romance dialects the suffix used with count singulars is different from the suffix used with mass terms: i.e. in Norcia (Umbria) the suffix *-u* is attached to singulars (*lu pietu* ‘the chest’) while the suffix *-o* is the one used with mass terms (*lo fero* ‘the iron’).

Now that has been shown that mass terms are number neutral and that Artiagoitia’s analysis leaves some problems unexplained, the next section focuses on the different interpretations of Basque definite DPs and proposes a new analysis for the Basque article following the Neocarlsonian approach (Chierchia (1998c), Dayal (2004), Zamparelli (2002a, 2002b)) already presented in section 4.4.2. The advantage of this

However, there are some weak quantifiers that as well as being able to combine with count terms can also appear with mass terms: *asko*, *ugari*, *gutxi*, etc. Note that there are some differences between the weak quantifiers that can combine with mass terms and those that cannot; the former can also be used as degree adverbials, the latter can not. Thus, if the structure proposed for mass terms is correct, these weak quantifiers would have to be claimed to be base-generated in some other position when combined with mass terms. One possibility is to claim that their base position is a Degree Head. More analysis is needed on these facts and I leave it for future research.

³³ Doetjes (1997) assumes that weak quantifiers are real quantifiers. Recall from chapter 3 that weak quantifiers have been claimed not to be neither restricted nor quantificational. However her assumption does not change the argument that I want to make here.

analysis is that the Basque article is treated as a definite³⁴ everywhere. First, in subsection 4.6.5.1 we will provide an account for the interpretations that Basque plural definites can get (see section 4.6.2); finally, subsection 4.6.5.2 will concentrate on the so called singular definite generic.

4.6.5. The Basque Article is a Definite Determiner:

4.6.5.1. Kind and Existential Interpretations (Plurals and Mass terms):

As mentioned in section 4.6.2, one very interesting property that Basque language shows is that bare nouns can never function as arguments and the definite article is always needed if those DPs are going to be interpreted in the argumental type.

This section will concentrate on both plural and mass terms and will give a unitary account for them. As we said, Basque must necessarily use noun phrases combined with the definite article in order to express generic interpretations that in English are expressed by means of bare plurals: the plural definite³⁵ with count nouns, the singular definite with mass terms³⁶. In this, Basque seems to be behaving just like Romance languages (see section 4.6.3). Examples copied from (38).

³⁴ As will be shown later on, the term *definite* includes both the definite specific interpretation as well as the definite generic (kind) interpretation.

³⁵ See section 4.6.5.2 for definite generic singulars.

³⁶ Recall from section 4.6.4.1 that the definite that combines with mass terms is only apparently singular, since mass terms have been claimed to be number neutral. This is why they pattern with plural count nouns when in object-level contexts rather than with singulars. See examples (55) and (56).

- (58a) Txakurrek arraza desberdin asko dituzte.
 dog-D.pl(erg) breed different many have
 ‘Dogs have many different breeds.’
- (58b) Chihuahuak ez dira ospetsuak Euskal Herrian.
 chihuahua-D.pl(abs) no are famous Basque Country-in
 ‘Chihuahuas are unpopular in the Basque Country.’
- (58c) Nitrogenoa ugaria da gure unibertsoan.
 nitrogen-D.sg(abs) abundant is our universe
 ‘Nitrogen is abundant in our universe.’
- (58g) Arrainak orain duela 390 milioi urte agertu ziren.
 fish-D.pl(abs) now million year appear aux.
 ‘Fishes appeared 390 million years ago.’

Thus, when Basque definite DPs are combined with kind-level predicates, their usual specific interpretation disappears and they adopt a generic interpretation.

In non-generic contexts the Basque definite article behaves just like the definite determiner of languages like English or the Romance languages, that is, it gets the normal specific interpretation.³⁷

³⁷ In English, sentences like (i), where the bare noun fills in the subject slot of an episodic object-level predicate can get existential interpretation by means of the DKP (no kind reading is allowed for the bare plural).

- (i) Cats are rummaging our garbage.

Basque definites when subject of episodic sentences on the other hand, do not permit an existential interpretation and must necessarily be interpreted specifically, that is, they make reference to a specific set of *dogs* in the case at hand.

- (ii) Txakurrak zaunkaka ari dira kalean. (-ka is a manner adverb meaning ‘in a repeated way’ and can be used to create progressive verbal forms)
 dog-D.pl bark-ka prog. aux street.in
 ‘The dogs are barking in the street.’

However, as I will show later, this does not block Basque definites from being interpreted existentially by means of the DKP mechanism.

- (59) Lapurrek banketxean ahaztu zuten lapurtu zuten dirua
 thief-D.pl bank-in forget aux.pl steal aux.pl money-D.sg
 ‘The thieves forgot the money they had stolen in the bank.’

The referential/specific reading of the definite article is explained by means of the maximalization operator (see Link (1983), Chierchia (1998b)) that returns the largest possible element in a set. In (59) it makes reference to the largest plural individual formed by the contextually relevant thieves, in this particular case, those that forgot the money that they had stolen in the bank. In the singular case, the maximalization operator will be defined in case there is a singleton set that can be taken as an input.

- (60) Lapurrak banketxean ahaztu zuen lapurtu zuen dirua.
 thief-D.sg bank-in forget aux.sg steal aux.sg money-D.sg
 ‘The thief forgot the money he had stolen in the bank.’

When the Basque definite DPs (plurals and masses) fill the object slot, the definite DP can but need not make reference to a specific set and can obtain the so called existential interpretation. Note that in all the examples in (61), the DP lacks the generic/kind interpretation and gets an existential reading similar to the existential quantifier *some*.

- (61a) Aritzek **garagardoa** edan du.
 Aritz.erg beer-D.sg(abs) drink aux
 ‘Aritz has drunk (the) wine.’

- (61b) Mattinek **lagun euskaldunak** topatu zituen Moskun.
 Mattin.erg friend Basque-D.pl(abs) meet aux Moscow-in
 ‘Mattin met (the) Basque friends in Moscow.’
- (61c) Amaiak **goxokiak** jan ditu.
 Amaia.erg candy-D.pl(abs) eat aux
 ‘Amaia has eaten (the) candies

Recall from section 4.6.2 that existential interpretations are expressed by means of bare plurals in English, Italian and Spanish but not in French, where the partitive preposition *de* plus the definite article is necessary (this construction also works for Italian, not for Spanish, neither for English) --see section 4.6.3--.

I propose that the Basque definite determiner -A is ambiguous between the kind and the normal (specific/referential) definite interpretation (just like in Romance languages, see i.e. Kleiber (1990), Zamparelli (2001)). So, the Basque definite article will take an $\langle e, t \rangle$ element³⁸ and will return an individual element of type *e*, that is, it plays the role of the type-shifter *nom* when a generic interpretation is needed (62) and the role of *iota* when a definite specific is needed (63).

³⁸ Chierchia (1998a, 1998b) assumes that mass terms, being able to appear in argument position without any kind of modification, are of type *e*. Chierchia (1998a: 95) proposes the following parameter:

- | | | |
|-----|-------------------|--|
| (i) | N → [+arg, -pred] | Nouns can be of type <i>e</i> , cannot be of type $\langle e, t \rangle$ (Chinese) |
| | N → [+arg, +pred] | Nouns can be of type <i>e</i> , can be of type $\langle e, t \rangle$ (English) |
| | N → [-arg, +pred] | Nouns cannot be of type <i>e</i> , can be of type $\langle e, t \rangle$ (French) |

Since in Basque nouns cannot be arguments (of type *e*) by themselves, it seems to pattern with French in that nouns are of type $\langle e, t \rangle$. As Chierchia (1998a: 95) claims: “This does not mean that the mass/count distinction is not attested. Such a distinction concerns primarily the extension of a predicate [...]. In such a language mass nouns will have the ten properties discussed in 1.2. But no noun (count or mass, singular or plural) will be able to occur by itself as a bare argument, for predicates are of the wrong logical type for that.”

(62) $\text{Nom} (\hat{\cdot}): \langle e, t \rangle \rightarrow e: \lambda P_{\langle e, t \rangle} \lambda s \iota x [P_s(x)]$

Nom is a type shifter functor that applies to the predicate meaning of an NP of type $\langle e, t \rangle$. It maps properties onto their entity correlates if these exist, that is, it is a function that takes properties and returns the maximal entity that satisfies that property.

(63) $\text{Iota} (\iota): \langle e, t \rangle \rightarrow e: \lambda P_{\langle e, t \rangle} \iota x [P(x)]$

Iota is a type shifter functor that applies to the predicate meaning of an NP of type $\langle e, t \rangle$. It maps any singleton set onto its member; that is to say, it takes the set of individuals just in case it is a singleton set and returns that singleton.

The type-shifter *nom* is taken to be the intensional version of *iota*; while *nom* is a function whose extension varies from situation to situation, *iota* is a constant function to a contextually anchored entity.

Following the Neocarlsonian approach, I also defend that in order to obtain the existential interpretation the definite noun phrase must also be able to have a kind-level meaning. That is, a necessary step in the way to the existential interpretation is the kind denotation. Chierchia (1998c) claims that in contexts (object level contexts) where the predicate cannot apply to kinds, further operations are needed to repair the type mismatch. In such situations, bare nouns are turned into indefinites providing a free variable by a type shifting operation that at the same time inserts an existential quantifier that binds the variable: Derived Kind Denotation (see section 4.4.2.).

This dissertation claims that a similar operation is needed for Basque with the difference that some parts of the derivation will be argued to be overt while some others are kept covert. Recall from section 4.6.3 that French (just like Basque) does not accept

bare nouns in argument position and that in order to create existential interpretations it makes use of the so called partitive determiner *des* for plural common nouns or *du* and its variant *de la* and *de l'* for mass common nouns. This construction has been described as a complex determiner composed of the partitive preposition plus the definite determiner (this construction is also productive in Italian).

Zamparelli (2002b) claims (based on Chierchia (1998a), and against Storto (2003) and Roy (2001)) that the nature of the preposition (*di* in Italian, *de* in French) of the so-called partitive determiner is completely parallel to the one used in partitive constructions created with strongly interpreted weak quantifiers (i.e. *many of the students*). The only particularity of the former is that the preposition+determiner complex is a raising structure built on a kind-denoting definite. He argues that the preposition is an operator (called *residue*) of two arguments, one in complement position the other in the specifier position that returns the denotation of its specifier minus the denotation of its complement. At spell-out, one of the copies (the one in the specifier or the one in the complement position) will not be pronounced (usually the upper one).

(64a) $[_{RP} [_{NP} \text{boys}]_i [_{R'} \text{of} [_{DP} \text{the} [_{NP} \text{boys}]_i]]]$ (Zamparelli (2002b: 12))

(64b) $\| [\text{boys of the boys}] \| = \| [_{NP} \text{boys}]_i \| - \{ \| [_{DP} \text{the} [_{NP} \text{boys}]_i] \| \}$

As Zamparelli claims “the NP *boys* denotes a set of plural boys (a join semi-lattice, containing all the possible pluralities that can be assembled with some number of boys in the domain, including the singularities but excluding the empty plurality). The definite *the boys* denotes the maximal element of the semi-lattice (i.e. the largest

plurality of boys in the domain). The result of the subtraction is the set of all pluralities minus the largest one”.

Before we move on to make our analysis explicit, note that the behaviour of French *des/du* is quite similar to the existentially interpreted Basque -AK and -A (for plurals and mass terms respectively) in that they are much more typical in object position than in subject position³⁹. When in subject position, there are some differences between French and Basque since the majority of sentences with *des/du* are sentences reporting events, situations in which Basque DPs are interpreted in a definite specific way as the interpretations of the examples in (66) show.

French:

(65a) Des ouvriers réparent la voie.

of-the workers are repairing the road

(65b) De la boue éclaboussait la voiture.

of-the mud splattered the car

Basque:

(66a) Arrantzaleek txalupa konpondu zuten.

fisherman-D.pl(erg) ship-D.sg repair aux

‘The (specific) fishermen repaired the ship.’

(66b) Ardoak alkandora zikindu dit.

wine-D.sg(erg) shirt-D.sg get dirty aux.

‘The (specific) wine spoiled the shirt.’

In most of the situation in which French *des/du* are ungrammatical in subject position, Basque definite determiner is interpreted specifically and no existential

³⁹ All of the French examples are taken from Bosveld-de Smet (1998).

interpretation is allowed. There are some contexts where French *des/du* are interpreted generically, for that, *des/du* NPs must be left dislocated (in the normal word order they don't accept generic interpretations); Basque definites on the other hand accept generic interpretations.⁴⁰

French:

(67a) Des enfants, ça s'ennuie le dimanche.
of-the children that feel bored the Sunday

* Existential interpretation

√ Generic interpretation

(67b) Du citron, ça agace les dents.
of-the lemon that irritates the teeth

* Existential interpretation

√ Generic interpretation

Basque:

(68a) Umeak igandeetan aspertu egiten dira.
child-D.pl(abs) Sunday-on bore do aux
‘Children get bored on Sundays.’

* Existential interpretation

√ Generic interpretation

⁴⁰ Note that aspectual properties play a very important role for the generic interpretation. For example, if aspect is changed from imperfective (*-tzen*) to perfective (*-tu*) in a sentence like (68b), the resulting interpretation can only be definite as the following sentence clearly shows. No generic interpretation is allowed in (i).

- (i) Limoiak hortzak horitu dizkit.
lemon-D.sg(erg) tooth-D.pl yellow-make aux
‘The (specific) lemon has made (my) teeth yellow.’

Chierchia (1998: 366) claims that the GEN operator he assumes for this kind of sentences is part of the verbal aspect.

- (68b) Limoiak hortzak horitzen ditu.
 lemon-D.sg(erg) tooth-D.pl yellow-make aux
 ‘Lemon makes teeth yellow.’
 * Existential interpretation
 √ Generic interpretation

This difference in subject position is kind of expected if we assume that the Basque article can obtain three different interpretations, it can denote a definite, a kind or an existential. *Des/du* NPs on the other hand are most typically used to express existential interpretations.

In object position on the other hand, their behaviour is parallel in that they are interpreted existentially in the same situations and contexts; the difference being that the Basque -AK/-A can also obtain a definite interpretation. So, in the existential interpretation, they are rejected as objects of generic sentences (69)-(70); perfectly acceptable as objects of stage-level predicates (71)-(72); grammatical also when combined with (*pendant* ‘during/for’) adverbials (73-74), etc.

Generic Sentences:

French

- (69a) * Max adores des sucreries
 Max adores of-the sweets
 (69b) * Cet enfant déteste du lait
 this child hates of-the milk

Basque:

(70a) Nik goxokiak maite ditut.

I.erg candy-D.pl love aux.

‘I love candies.’

* Existential interpretation

√ Generic interpretation

(70b) Ume honek esnea gorroto du

child this.erg milk-D.sg hate aux

‘This child hates milk.’

* Existential interpretation

√ Generic interpretation

Stage-Level Sentences:

French:

(71a) J’ai rencontré des amis ce matin.

I have met of-the friends this morning

(71b) Cette promenade m’a donné de l’appétit.

this walk has given me of the appetite

Basque:

(72a) Italiar lagunak topatu ditut gaur goizean.

Italian friend-D.pl(abs) meet aux today morning-in

‘I met (the) Italian friends this morning.’

(72b) Ibilaldi honek jateko gogo eman dit.

walk this eat-for desire-D.sg(abs) give aux

‘This walk has given me (the) appetite.’

Adverbials:

French:

(73a) Marie a cueilli des fraises pendant des heures.

Marie has picked of-the strawberries for of-the hours

(73b) * Marie a cueilli des fraises en une heure.
Marie has picked of-the strawberries in one hour

Basque:

(74a) Mirenek marrubiak jaso ditu ordubetez.
Miren.erg strawberry-D.pl(abs) pick aux hour-for
'Miren has picked (the) strawberries for an hour.'

√ Existential interpretation

√ Definite interpretation

(74b) Mirenek marrubiak jaso ditu ordubete batean.
Miren.erg strawberry-D.pl(abs) pick aux hour one-in
'Miren has picked the strawberries in an hour.'

* Existential interpretation

√ Definite interpretation

Given this set of facts, the proposal that I want to put forward is partly based on Zamparelli's analysis. What I claim is that Basque is midway between English and French in that the definite generic determiner is overt while the partitive preposition is not⁴¹.

Here it is how it works: First, the Basque definite generic determiner creates an individual of type e with a kind denotation. Although in Basque we only see the determiner, I assume that there is a covert version of the partitive preposition (similar to French *de*) that gives us the predicative $\langle e, t \rangle$ type back. The role of this covert partitive preposition will be halfway the Derived Kind Predication (DKP), that is to say, it yields an $\langle e, t \rangle$ type element but no existential closure. This local existential closure will be provided by the DKP which introduces an existential quantification over instances of

⁴¹ Thanks to Ora Matushansky (p.c.) for extensive discussion on this matter.

the kind in episodic sentences (an adjustment triggered by the type mismatch). The final type of the existential DP will be quantificational $\langle\langle e, t \rangle, t \rangle$. Note that in Basque (as we will see below) this mechanism not only applies to plural terms but also to mass terms. In opposition to other languages like English, Spanish or Italian that can use them bare, Basque mass terms must necessarily appear with the definite article.

As an example:

Basque:

(75a) Jonek liburuak irakurri ditu.

Jon.erg book-D.pl(abs) read aux

‘Jon has read (the) books.’

Existential interpretation⁴²:

$\text{irakurri}(j, \text{liburuak}_k) \Leftrightarrow \exists x[\cup \text{liburuak}_k(x) \wedge \text{irakurri}(x)]$ (via DKP)

French:

(75b) Jean a lu des livres.

Jean has read of-the books

‘Jean has read books.’

Existential Interpretation⁴³:

$\text{lire}(j, \text{les livres}_k) \Leftrightarrow \exists x[\text{de les livres}_k(x) \wedge \text{lire}(x)]$ (via DKP)

Let us provide some evidence as support for the proposal put forward in this chapter by means of some examples. In all of the examples in (76), the definite object DP is ambiguous between two interpretations; apart from the typical specific reading

⁴² As already claimed -ak, the generic definite, plays the role of the *nom* operator and creates a kind, this is why the small ‘k’ is introduced.

⁴³ The definite generic creates a kind, and the partitive preposition plays the role of the *pred* operator, taking a kind and returning an instantiation of it.

(the normal definite reading), it is also possible to obtain an existential interpretation where the definite DP gets a reading similar to that of the existential quantifier *some*⁴⁴.

- (76a) Maia aldizkari zatiak bilatzen ari da.
Maia magazine piece-D.pl look for prog aux.
'Maia is looking for (the) magazine pieces.'
- (76b) Kepak satorrak hil ditu.
Kepa.erg mole-D.pl kill aux
'Kepa has killed (the) moles.'
- (76c) Idoiak oilaskoa jan du bazkaltzeko.
Idoia.erg chicken-D.sg eat aux lunch.for
'Idoia has eaten (the) chicken for lunch.'
- (76d) Etxea nazkagarri zegoen, zoruan saguak ikus zitezkeen eta harraska
house-D.sg filthy was floor-in mouse-D.pl see aux and sink
azpian labezomorroak.
Below-in cockroach-D.pl
'The house was filthy; you could see (the) mice in the floor and (the)
cockroaches under the sink.'
- (76e) Angel zurbil-zurbil dago mamuak ikusi dituelako.
Angel pale-pale is ghost-D.pl see aux.
'Angel is so pale because he has seen (the) ghosts.'
- (76f) Imanolek wiskia edan du.
Imanol.erg whisky-D.sg drink has
'Imanol has drunk (the) whisky.'
- (76g) Jonek liburuak irakurri ditu.
Jon.erg book-D.pl(abs) read aux
'Jon has read (the) books.'

⁴⁴ As expected, when existentially interpreted, the DPs do not behave like usual indefinites and must always take narrow scope, just like bare nouns in English. See section 4.5.

If, as claimed, the existential interpretation comes through kind interpretation, blocking the kind interpretation should lead to the impossibility of interpreting the DP existentially. As mentioned above, kinds are assumed to have an ‘intensional’ component that relates the kind with the intension of that same noun; it is possible to block this intensional component by means of a rigid designator in the DP as it was possible to block the intensional component of the bare nouns in English (i.e. *magazine parts* can be kind, but *parts of the “RollingStones” magazine* can not).

Thus, when a rigid designator or a definite possessive is added to the DP, the kind interpretation is suddenly blocked and the existential interpretation is also lost⁴⁵.

- (77a) Maia [*RollingStones* aldizkariaren zatiak] bilatzen ari da.
 Maia *RollingStones* magazine.gen piece-D.pl look for prog aux.
 ‘Maia is looking for the pieces of the *RollingStones* magazine.’

⁴⁵ Recall that in English what was lost was not the existential interpretation, but only the narrow scope existential interpretation. In Basque, as we will see, when the existential interpretation is lost generally the DP is interpreted specifically; in cases this does not happen and the existential interpretation is still allowed, kind reading is neither blocked. In Italian, the kind reading is blocked even when you introduce an adjective.

- (i) Gianni è così pallido che sembra abbia visto i paurosi fantasmi.
 Gianni is very pale that seems he.has.seen the frightfull ghosts

In Basque, the introduction of an adjective (as is the case in (i)) does not block the existential reading of the DP. The DP *mamu beldurgarriak* can also get a specific reading.

- (ii) Angel zurbil-zurbil dago mamu beldurgarriak bilatu dituelako.
 Angel pale-pale is ghost frightful-D.pl find aux.
 ‘Angel is so pale because he has find (the) frightfull ghosts.’

Now, two notes are in order: (1) the existentially interpreted DP *mamu beldurgarriak* is necessarily interpreted with narrow scope, and (2) the kind interpretation is not blocked.

- (iii) Mamu beldurgarriak ohikoak dira ingurune hauetan.
 ghost frightful-D.pl typical are region these-in
 ‘Frightful ghosts are rare in this region.’

Since the kind reading is still available, the existential interpretation of the DP is not blocked.

- (77b) Kepak [nere aitaren baratzako satorrak] hil ditu.
 Kepa.erg [my father.gen vegetable garden mole-D.pl] kill aux
 ‘Kepa has killed the moles from my father’s vegetable garden.’
- (77c) Idoiak [bere amak azokan erositako oilaskoa] jan du bazkaltzeko.
 Idoia.erg [her mother market-in buy chicken-D.sg] eat aux lunch.for
 ‘Idoia has eaten for lunch the chicken her mother bought at the market.’
- (77d) Etxea nazkagarri zegoen, zoruan [bizilagunaren etxeko saguak]
 house-D.sg filthy was floor-in [neighbour.gen house.from mouse-D.pl]
 ikus zitezkeen eta harraska azpian [lagunek oparitutako labezomorroak].
 see aux and sink below-in [friend-D.pl give as present cockroach-D.pl]
 ‘The house was filthy; you could see the mice from our neighbour’s house in the
 floor and the cockroaches given as a present by friends under the sink.’
- (77e) Angel zurbil-zurbil dago [kanposantuan dauden mamuak] ikusi dituelako.
 Angel pale-pale is [graveyard-in are ghost-D.pl] see aux.
 ‘Angel is so pale because he has seen the ghosts that are in the graveyard.’
- (77f) Imanolek [nere osabaren upeltegiko ardoa] edan du.
 Imanol.erg [my uncle.gen winery.from wine-D.sg] drink has
 ‘Imanol has drunk the wine from my uncles’ winery.’
- (77g) Jonek [bere neskalagunaren liburuak] irakurri ditu.
 Jon.erg [bere girlfriend.gen book-D.pl(abs)] read aux
 ‘Jon has read the books of his girlfriend.’

All the definite expressions above must refer to some contextually unique group of magazine pieces, moles, chicken, mice/cockroaches, ghosts, red pepper, and books respectively; and the existential interpretation is blocked. Furthermore, the DPs in (77) cannot get the kind reading and can only be interpreted in a specific manner when combined with kind-level predicate. See the following as example.

- (78a) # [Bizilagunaren etxeo saguak] ohikoak dira ingurune hauetan.
 [neighbour.gen house.from mouse-D.pl] typical are region this-in
 ‘The mice from our neighbours’ house are common in this region.’
- (78b) # [Amak azokan erositako oilaskoa] munduan zehar zabalduta dago.
 [mum.erg market-in buy chicken-D.sg] world-in around spread is
 ‘The chicken that my mum bought in the market is widespread.’

This impossibility to obtain kind readings offers clear evidence in favour of the Neocarlsonian approach: the only way to get kind interpretation in Basque is through the definite generic determiner; a half overt-half covert DKP mechanism provides a free variable for existential closure. According to the ambiguity hypothesis, blocking the kind reading by means of a rigid designator or a definite possessive should not block the existential interpretation, but it does. From here, we can conclude that the existential interpretation is derived from the kind reading and that the Neocarlsonian approach gets the facts correctly.⁴⁶

⁴⁶ Artiagoitia (2002: 82) gives two examples where the DPs are inside a relative clause and, quite unexpectedly (if the analysis proposed in this dissertation is on the right track), can still allow for the existential interpretation. Many of the speakers with whom I’ve checked these sentences agree with Artiagoitia’s judgement when it refers to (i), but not so when it refers to (ii), which is claimed by some speakers to be interpreted obligatorily in a specific way.

- (i) [Ikusita ez neuzkan trenak] ikusi ditut gaur goizean.
 [seen not aux.COMP train-D.pl] see aux this morning-in
 ‘This morning I saw trains I hadn’t seen before.’
- (ii) [Ezagutzen ez dudan ardoa] ematen dute taberna honetan.
 [know not aux.COMP wine] give aux bar this-in
 ‘In this bar, they serve wine I don’t know.’

These DPs cannot get a kind reading and if the Neocarlsonian analysis is on the right track they should not allow an existential interpretation, but they do. I have nothing interesting to say right now and I’ll leave it for future research, but note that it does not seem to be a coincidence that in the examples offered by Artiagoitia (only two) there is a negative particle inserted in the relative clause that appears with the DP; maybe, negative relatives are not rigid designators.

Now, as we said in section 4.4.2, in characterizing sentences, the Neocarlsonians have claimed that there is a type mismatch since the predicate does not accept kinds. Observing Basque data, it seems possible to claim that in fact these sentences do apply to kinds since the definite (generic) article -AK/-A can appear in this context with no problem. Note that French *des/du* can also get generic interpretations (see examples (67)) but special conditions are needed. Note also that we have claimed that Basque generic definite determiner is midway English and French in having the determiner overt while the preposition is covert. It does seem possible to analyse characterizing or habitual sentences by claiming that the Generic GEN operator provided by the habitual or characterizing predicate itself binds the variable provided by the Basque DP (and the French DP when generically interpreted).

(79a) Txakurrek zaunka egiten dute.
 dog-D.pl(erg) bark do aux.
 ‘Dogs bark.’

(79b) GEN_x [[∪]txakurrak_k(x)] [zaunka egin(x)]

However, I will go in a different direction and I will claim (as mentioned above) that these sentences directly apply to kinds, the only condition for this is that the DP that combines with this type of sentences must be formed with the definite generic version of the article -AK/-A. Crucially, note that in French (as well as in other Romance languages), the usual way to create characterizing sentences is by means of the definite article.

- (80a) French : Les pommes de terre contiennent de la vitamine C
the apples of ground contain of-the vitamin C
‘Potatoes contain vitamin C.’
- (80b) Italian: I cani abbaiano alla luna.
the dogs bark to the moon
‘Dogs bark at the moon.’
- (80c) Spanish: En otoño, las palomas vuelan al sur.
in fall the pigeons fly to the south
‘In fall, the pigeons fly south.’
- (80d) Basque: Txakurrek zaunka egiten dute.
dog-D.pl(erg) bark do aux.
‘Dogs bark.’

It seems as though this kind of examples can be explained in the terms I’m claiming; the only thing we would have to assume is that i.e. in Basque as well as in Romance languages characterizing sentences can be formed in two different ways: real indefinites (i.e. *A dog barks at the moon*) will need the GEN operator to be able to appear in these sentences; DPs formed with generic definites on the other hand provide the kind interpretation themselves (see also Giannakidou & Stavrou (1999)). This would mean that there is no type mismatch and that GEN needs not be introduced to bind the free variable (there is no variable to be bound).⁴⁷

⁴⁷ If this analysis is correct, it could be possible to postulate that English bare nouns are also definite expressions created by means of a covert definite generic determiner, just like in Basque and in Romance languages. The only difference is that Basque and French definite generics are overt.

The generalization that follows from all this is expressed in (81).

- (81) A Basque definite DP can only get an existential (indefinite-like) interpretation if it can first have a kind-level meaning.⁴⁸

Let me address a potential objection to the argument that the Basque definite generic, when existentially interpreted needs the presence of a covert type-shifter to end up with the correct type for interpretation. This claim appears to be inconsistent with what was claimed in Chapter 2. There, arguing about the internal structure of strong quantifiers (where the Basque definite determiner has been defended to be an overt domain restrictor), I assumed that languages with overt type shifters are able to block covert shifts (Chierchia (1998c)). There, I was able to block covert type shifts on the grounds that Basque has an overt partitive postposition (*-tik*).

Now, note that the partitive preposition used in constructions such as *beaucoup des étudiants* ‘many of the students’ in French is just the same that is used in partitive constructions as those presented in this chapter *des étudiants* ‘of the students’. Basque makes use of the partitive postposition *-tik* ‘of’ in quantificational partitive constructions such as *ikasleetatik asko* ‘lit.: student-D.pl/of many’, and apparently, the role that the *pred* type-shifter (in DKP) is claimed to play is exactly the same as the one carried out by *-tik*; that is to say, they both take an individual of type *e* and return a set of predicative type $\langle e, t \rangle$. Now, if this is the case, how is it possible to explain that there

⁴⁸ The same generalization has been proposed by Zamparelli (2002a) for Italian definites. However, Zamparelli applies this condition to both existential as well as generic (in characterizing sentences) interpretation. For obvious reasons, I will only assume the need for covert type shifting in existential interpretations.

is in fact a covert type shifter that does exactly the same job an overt partitive preposition (postposition in Basque) does?

Here is how: if we assume (in line with Zamparelli (2002b)) that the French [preposition+determiner] complex *des/du* is a structure built on a kind-denoting definite we could argue that the partitive constructions *beaucoup des étudiants* and *des étudiants* or *mutiletatik asko* and *mutilak* (in its existential interpretation) are distinguishable in that the former means “being part of N” while the meaning of the latter is “being an instantiation of the kind”. In fact, note that crosslinguistically, the behaviour of these two partitives is not the same. The “being part of” is a partitive construction everywhere, as the examples (82a) shows. On the other hand, the “instantiation of a kind” is a bare plural in English and in Spanish (can also be so in French and Italian -- see Zamparelli (2002a)), it can be a partitive construction in French and in Italian (not in English or in Spanish) and it is a definite DP in Basque (can also be so in Italian --see Zamparelli (2002a)). So it seems as though the fact that the morphological realization of the two constructions is parallel in some Romance languages leads us to a misleading conclusion.⁴⁹

- (82a) English: many of the students
Spanish: muchos de los estudiantes
French: beaucoup des étudiants
Italian: molto dei studenti
Basque: mutiletatik asko

⁴⁹ Thanks to Ora Matushansky for pointing this out to me.

- (82b) English: students
Spanish: estudiantes
French: des étudiants
Italian: dei studenti
Basque: mutilak

There is still another point that has not been clarified: why is it that the Basque definite determiner can not get the existential interpretation when in subject position? Recall from chapter 2 that we mentioned that subjects have usually been described to be topic positions (in opposition to object positions). This is in fact quite a common assumption for many languages (i.e. see Ordoñez & Treviño (1999) for Spanish, Kiss (1995) for Hungarian, a Discourse Configurational Language like Basque, Frota (1995) for Portuguese, etc.). In Japanese for example the topic marker only attaches to generic noun phrases in subject position. If this is the case, the topicalization of the subject will block the existential interpretation, and the interpretation of the subject will only be definite or generic.

The last section of this chapter concentrates on the singular definite generic determiner and will try to explain the way in which this determiner can get kind interpretation. It will be claimed (following Dayal (2004) and Zamparelli (2002a)) that the common noun can denote in the object domain (yielding the normal specific reading) as well as in the taxonomic domain (yielding taxonomic readings). Hence, the kind reading of the singular DP comes from the combination of the taxonomic common noun and the normal definite determiner, that is, the normal *iota*.

4.6.5.2. The Singular Generic Determiner:

Singular definites, apart from the typical definite reading (specific), can be used to express kind interpretations when combined with kind-level predicates as shown by the examples in (83).

- (83a) English: The lion will become extinct.
- (83b) Spanish: El tigre desaparecerá dentro de 250 años.
the tiger disappear-fut in of 250 years
‘The tiger will disappear in 250 years.’
- (83c) French: Le castor abonde dans cette région.
the beaver is abundant in this region
‘The beaver is abundant in this region.’
- (83d) Italian: La volpe è rara in queste regioni.
the fox is rare in this region
‘The fox is rare in this region.’
- (83e) Basque: Lehoia desagertu egingo da.
lion-D.sg⁵⁰ disappear do.fut aux
‘The lion will become extinct.’

The question that immediately arises is why a language accepts two different ways of expressing kinds. In English, kinds can be formed by means of bare plurals or by means of the singular definite generic. In Romance languages, both plural as well as singular definites can be used to express kinds. In Basque too, plural as well as singular

⁵⁰ In this case, ‘D.sg’ is really singular. See below for some differences between mass terms and this kind of singular expressions.

definites are used to form kinds (recall that although mass terms have been claimed to be number neutral --see section 4.6.4--, can also express kinds).

The most common answer is that singular and plural kind-denoting expressions are not alike (see Kleiber (1990), Krifka et al. (1995), Chierchia (1998c), Dayal (2004) and references therein). But, how can this be explained? Chierchia (1998) claims that in order to get a kind reading with the singular definite generic the property *tiger* in (84) is turned into a mass by neutralizing the singular-plural distinction with a function he calls MASS creating a group out of it (see Schwarzschild (1996)). The generic interpretation of *the tiger* in (84) will be derived as follows.

(84) The tiger is widespread \Rightarrow THE(MASS(*tiger*)) = g(t MASS(*tiger*))

The expression in (84) will denote the group of all tigers, and this is consistent with the fact that the noun has singular morphology. The choice of groups is based on Kleiber (1990), who noted that the definite generic has a mass-like behaviour in that it cannot combine with numerals.

(85a) * The tiger is three/many/numerous.

(85b) Tigers are three/many/numerous.

Zamparelli (2002a) claims that the effect shown in (85) is due to some other factors related to the syntactic singularity of expression like *the tiger* (note **the group is three/many*). *Numerous* can be predicated of a group since *the group is numerous* is grammatical; however, *numerous* is also deviant when applied to kind-constructions.

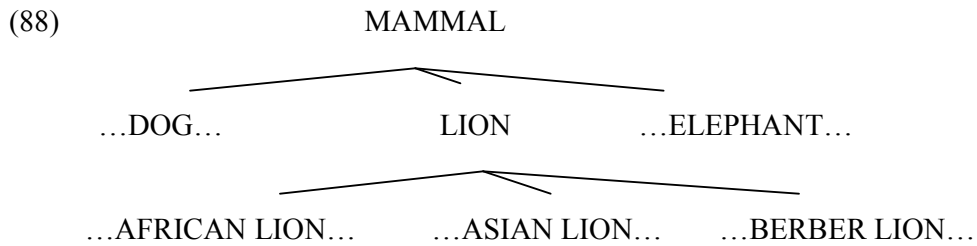
(86) ?? This kind of animal is numerous in this region.

As a consequence, he claims that Chierchia's analysis cannot be on the right track and proposes (see also Dayal (2004)) an analysis where common nouns are assumed to denote properties of ordinary individuals (sets of individuals) or properties of sub-kinds (sets of kinds). The second denotation will be the one required to express meanings like the ones in (83). Hence, the singular definite determiner which appears in singular generics will be the normal definite determiner (*iota*) applied to the kind meaning of the noun and will return the largest possible sub-kind out of it, i.e. the kind itself.

In favour of the fact that the singular definite generic is the normal *iota* operator, Dayal (2004) claims that in order to fulfil the uniqueness requirement of this operator it is necessary to access the correct set of taxonomic entities. Thus, in order to satisfy the uniqueness requirement of a sentence like (87),

(87) The lion will become extinct.

the set of taxonomic entities will be {DOG, WHALE, TIGER ...} (see (88)). Now, when instead of the singular definite, the plural is combined with the set of sub-kinds, the interpretation will refer to different sub-kinds such {ASIAN LION, AFRICAN LION, BERBER LION, ASIAN LION + AFRICAN LION, AFRICAN LION + BERBER LION ...} (see (88)).



Now, in order to differentiate singular definite generics from bare nouns, something more needs to be said. According to Dayal, singular kinds are determinate in size and the fact that they are able to combine with kind-predicate (i.e. *to be common*) or collective verbs (i.e. *to gather*) is not problematic if it is assumed that while semantically plural they are grammatically atomic; this is what permits them to fulfil the requirement of singularity imposed by the number morphology and still be conceptually able to be interpreted as a kind. The difference between singular kinds and plural/mass (bare) kinds is that the former does not have a semantically transparent relation to their instantiations. This is why the singular definite generic is not allowed in episodic sentences unless the statement is attributed to the whole group, the whole species denoted by the noun *rat* in (90b).

(89a) Dogs are barking. √ Existential interpretation

(89b) The dog is barking * Existential interpretation

(90a) Rats reached Australia in 1770.

(90b) The rat reached Australia in 1770.

Dayal (2004) provides more evidence for the claim that the singular definite generic cannot simply be derived by quantifying over instances of the kind. Singular

kinds have been assumed to be acceptable in generic (characterizing) contexts, but clear differences arise between bare plurals and singular kinds. Examples (92) and (93) are taken from Dayal.

(91a) Tigers roar when they are tired.

(91b) The tiger roars when it is tired.

(92a) Yesterday, between 3 and 4 whenever thieves entered the house, the police caught them.

(92b) # Yesterday, between 3 and 4 whenever the thief entered the house, the police caught him.

(93a) University professors seem to be born on a weekdays.

(93b) # The university professor seems to be born on a weekday.

Dayal thus concludes that singular kind terms are atomic entities, and their only instantiation set includes a representative or a prototypical object.

This is the line of argumentation that will be adopted in order to explain the Basque singular definite generic and the interpretations it can obtain. Let us take back the example in (83e), repeated here as (94).

(94) Lehoia desagertu egingo da.
lion-D.sg disappear do.fut aux
'The lion will become extinct.'

In line with Dayal (2004), I assume that the singular definite generic -A is the normal *iota* operator but that instead of combining with a common noun that denotes properties of ordinary individuals; it combines with a noun that denotes properties of sub-kinds (see the taxonomic hierarchy presented in (88)). Of course, the uniqueness requirement of the *iota* operator will be satisfied by the selection of the correct set of taxonomic entities, in the case at hand, the set of mammals.⁵¹

This taxonomic interpretation can also be obtained by plurals as well as by mass terms. Note that in opposition to what happens in English, where the taxonomic interpretation of masses is expressed by means of the bare mass noun, Basque mass terms (as well as the rest of Basque nouns that appear in argument position --see previous sections--) in their taxonomic reading (and everywhere) must necessarily appear with the definite article. With plurals too, the presence of the definite article is obligatory.

- (95a) Ardoak barietate asko ditu, ardo txuria, ardo gorria, ardo beltza...
 wine-D.sg variety many has wine white-D.sg wine red-D.sg wine black-D.sg
 ‘Wine has many varieties, white wine, rose wine, red wine.’
- (95b) Lehoiek arraza desberdin asko dituzte, lehoi Afrikarra, lehoi Asiarra...
 Lion-D.pl breed different many have lion African-D.sg lion Asian-D.sg
 ‘Lions have many different breeds, the African lion, the Asian lion...’

⁵¹ The sentence in (94) can also make reference to a specific singular lion. Of course, for this interpretation, the verb *desagertu* is not interpreted as ‘become extinct’ but rather as the episodic predicate ‘disappear’ (from our sight, from the jail it is in, etc.), possible in a situation where a magician is performing and her most important challenge is to make a lion disappear. This specific interpretation does not concern us here.

There is a clear difference between the taxonomic interpretation of the singular definite generic and that of mass and plurals terms. While the former (as we said before, see example (94)) refers to the kind as a whole (lion kind), the latter refer to sub-kinds of the kind expression (African lion, Asian lion... / white wine, red wine...). Now, beside the differences we just noted when in taxonomic contexts, mass terms and plural terms' behaviour shows some properties that singular kinds do not.

In episodic sentences, both mass terms in (96a) and plural terms (96b) allow making reference to instantiations of a kind⁵², in other words, they can be interpreted existentially (see section 4.6.5.1). Singular kinds (singulars in general) on the other hand cannot pick out members of the instantiation set, and can only be interpreted as taxonomic kinds (or as a normal definite making reference to a single specific *monkey* that Alaitz has seen in Africa), in (96c).

(96a) Mass terms: Jonek **sagardoa** edan du.

Jon.erg cider-D.sg drink has
 'Jon has drunk (the) cider.'

(96b) Plural terms: Julenek **liburuak** irakurri ditu.

Julen.erg book-D.pl read has
 'Julen has read (the) books.'

(96c) Singular kind: Alaitzek **tximinoa** ikusi du (Afrikan).⁵³

⁵² Recall from section 4.6.5.1 that mass terms and plurals can not obtain existential interpretations when in subject position; there, they are only able to get either the specific interpretation or the generic (kind) interpretation depending on the predicate they appear with. Of course, being grammatically atomic, the singular definite generic can only be interpreted specifically or taxonomically.

⁵³ It seems to me that we could get the same taxonomic (kind) interpretation with a mass term if someone who has never tried Basque cider comes to the Basque Country and tries it for the first time.

- (i) Mirenek sagardoa dastatu du Euskal Herrian.
 Miren-erg cider-D.sg taste has Basque Country-in
 'Miren has tasted cider in the Basque Country.'

Alaitz.erg monkey-D.sg see has (Africa-in)

‘Alaitz has seen the monkey (in Africa).’

The difference between singular kinds and plural/mass (bare) kinds is that the former does not have a semantically transparent relation to their instantiations and necessarily forces taxonomic interpretations; the latter on the other hand, have a transparent relation to their instantiations and as a consequence, can obtain existential interpretation. Note that in the examples in (96), plurals and mass terms can not be interpreted taxonomically.

In Basque, just as in English, singular kinds do not show the same behaviour as mass and plural terms in generic statements. While at a first glance it seems singular kinds are accepted in such contexts, clear differences arise between singulars and plurals. The examples have been translated from (91-93).

(97a) Tigreek orro egiten dute nekatuta daudenean.

tiger-D.pl(erg) roar do aux tired are-comp

‘Tigers roar when they are tired.’

(97b) Tigreak orro egiten du nekatuta dagoenean.

tiger-D.sg(erg) roar do aux tired are-comp

‘The tiger roars when it is tired.’

Although maybe not the most typical interpretation, *sagardoa* in (i) could refer to the *cider* as a kind and the correct taxonomic set would be *beverages*: {wine, water, beer...}. In this case, -A would still be number neutral, the difference would come from the common noun, that in this case would denote in the taxonomic domain. Note that apart from the taxonomic reading, the sentence in (i) can also be interpreted existentially, an interpretation that singular count nouns are not able to get.

- (98a) Atzo, 3-etatik 4-ak bitartean lapurrak etxera sartzen ziren guztietan,
 yesterday, 3-from 4-D.pl between thief-D.pl house-to enter aux.pl all-in
 poliziak harrapatzen zituen.
 police catch aux.pl
 ‘Yesterday, between 3 and 4 whenever thieves entered the house, the police
 caught them.’
- (98b) # Atzo, 3-etatik 4-ak bitartean lapurra etxera sartzen zen guztietan,
 yesterday, 3-from 4-D.pl between thief-D.sg house-to enter aux.sg all-in
 poliziak harrapatzen zuen.
 police catch aux.sg
 ‘Yesterday, between 3 and 4 whenever thieves entered the house, the police
 caught them.’
- (99a) EHU⁵⁴-ko irakasleak astegunetan jaio zirela ematen du.
 EHU-from teacher-D.pl weekdays-in born were seem aux
 ‘EHU professors seem to be born on weekdays.’
- (99b) # EHU-ko irakaslea astegunean jaio zela ematen du.
 EHU-from teacher-D.sg weekday-in born was seem aux
 ‘The EHU professor seems to be born on a weekday.’

Basque sentence (99a) could be uttered in a situation where all the EHU professors were born in weekdays; the singular kind in (99b) can not express the same meaning.

With all this data, the Basque plural -AK⁵⁵ and the number neutral -A that appears with mass terms (which are ambiguous between the ‘∩’ and the ‘ι’ operator --see section 4.6.5.1--) are shown to pattern with English bare nouns. The singular definite

⁵⁴ EHU stands for Euskal Herriko Unibertsitatea ‘University of the Basque Country.’

⁵⁵ Note that this dissertation has shown that the parts the plural definite Basque determiner -AK is composed of (definite article -A + the plural marker -K) have different base positions: -A is base generated in D while the plural marker -K is based in NumP. See Chapter 3 section 3.4; see also section 4.6.4.1 in this chapter.

generic -A on the other hand behaves just like the singular definite generic of English and creates taxonomic interpretations. These properties offer a perfect environment to distinguish the denotation of the uppercase “KIND” (that in Dayal’s terms indicates the taxonomic domain) and the lowercase “kind” (that indicates kind readings associated with bare nouns in English and the definite generic plural and mass in Basque). Once these entities are shown to be different, no blocking effect is expected between the kind interpretations since the question of why a language accepts two different ways of expressing kinds is easily answered: they express different kind interpretations.

The most significant property that distinguishes these two types of kind interpretations is related to Number, a singular kind is really a singular and behaves as such as we have seen in the sentences like (97-99) above. Recall that mass terms have been shown to be number neutral (see section 4.6.4.1 as well as chapter 4) while plurals are just that, plurals.⁵⁶

The sets of facts that have been introduced in this section predict that since singular kinds (being atomic) do not have a semantically transparent relation to their instantiations are unable to obtain existential interpretation in episodic object-level sentences. However, in section 4.6.4.1 it was claimed that there are some contexts

⁵⁶ Dayal (2004) proposes a *scale of determinacy*:

- (i) Type I: identity determinate.
Type II: identity indeterminate, size determinate
Type III: identity and size indeterminate

A nominal that refers to a contextually salient and identifiable entity belong in Type I, normal definites would go in here. English bare nouns as well as Basque plural -AK and mass -A, being indeterminate in size, would belong in Type III. Finally, singular kind terms, having an atomic character will belong in Type II. This scale is claimed to be universal; languages differ in the respective point of the scale that they choose “as the cut-off for lexicalization”. English use the lexical determiner for type I and II, Romance languages do so for the three types, Basque must be grouped with Romance languages since it lexicalises for Type I, II and III.

where Basque singular count terms seem to be behaving as real indefinites in that they can get an existential interpretation.

(100) Julenek kotxea erosi du. (=54)
Julen.erg car-D.sg buy has

⇒ Existential: ‘Julen has bought (a) car’

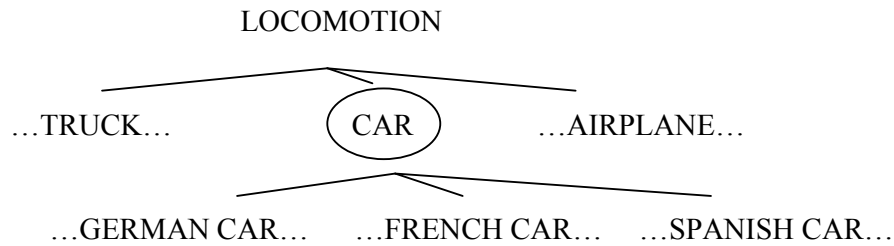
⇒ Specific: ‘Julen has bought the car’

The most significant characteristic of the interpretation of sentences like (100) is that the subject (Julen in this case) can only be interpreted as having bought a single car. Now, recall from section 4.6.4.1 that singular count nouns in object position (*kotxea* in (100)) can only get an existential interpretation in so-called stereotypical contexts. These contexts are usually related to verbs of possession: buying a car, buying a house, having a husband, having a wife, having a baby, wearing a hat, etc.

Following the line of argumentation proposed in this section, it seems plausible to claim that *kotxea* (100) is just the *iota* operator combined with a common noun that denotes properties of sub-kinds (sets of kinds).⁵⁷

⁵⁷ Another possible explanation of these facts could go as follows: In Basque, even singular count terms are able to force existential interpretation in some very specific (stereotypical) contexts. Thus, what we would have to assume (following the explanation proposed for plurals and mass terms) is that the existential reading is derived through the kind reading. According to this analysis, the fact that the existential interpretation of the singular object in *Julenek kotxea erosi du* can only refer to a single car will be due to the fact that the determiner that combines with the noun is a singular determiner. However, this analysis makes plurals, masses and singulars completely equal in their readings, when they clearly are not; that’s why I take the taxonomic analysis to be the correct one.

(101)



The only extra assumption that we would have to make is that it is the stereotypical context what forces the DP to only make reference to a single car (in (100)). Note also that we have claimed that the singular definite generic is in fact singular and atomic.

One argument in favour of this proposal is that in a society where having a spacecraft as the typical means for transportation, that is, a society where buying a spacecraft can be taken as stereotypical, it would be possible to utter the following sentence with the DP making reference to a single spacecraft.

(102) # Jonek espazio-ontzia erosi du.

Jon.erg space-craft-D.sg buy has
'Jonek has bought (a) spacecraft.'

The same could be said about a society where having a lion as a pet would be stereotypical.

(103) # Tysonek lehoia erosi du.

Tyson.erg lion-D.sg buy has
'Tyson has bough (a) lion.'

In our current society, the sentences in (102) and (103) can not be taken to be stereotypical; this is why they are hash-marked. The correct way to express these sentences would be by means of the indefinite.

(102') Jonek espazio-ontzi bat erosi du.
Jon.erg space-craft a buy has
'Jonek has bought a spacecraft.'

(103') Tysonek lehoi bat erosi du.
Tyson.erg lion a buy has
'Tyson has bough a lion.'

4.7. Conclusions to Chapter 4:

(i) In line with the so-called Neocarlsonian approach (see Chierchia (1998c), Dayal (2004), Zamparelli (2002a, 2002b) and references therein), which has been shown to be preferable to the Ambiguity approach (Wilkinson (1991), Diesing (1992), Gerstner & Krifka (1993) and Kratzer (1995)), this chapter has claimed that Basque -A is a definite article and as such is always base-generated in [Head, DP] (as standardly assumed for the definite determiner crosslinguistically). I claim that -A is a definite determiner everywhere (contra Artiagoitia (2002)), but very flexible in its ability to type-shift, the latter properly accounts its range of different interpretations.

(ii) Although mass terms share the property of triggering singular verb agreement with singular count terms this chapter postulates that they are number neutral (see Delfitto & Schrotten (1991), Doetjes (1997), Dayal (2004), Krifka (2004), among many others). Semantically, mass terms share more properties with plurals than with real singulars; so despite agreement facts with verbs, masses are closer in behaviour to plurals than to singulars. Thus, count terms will be referred as (morphologically) singular or plural and their syntactic structure will contain the NumP functional projection while mass terms will be claimed not to bear number morphology at all and as a consequence no NumP functional projection will be needed. The analysis proposed in this thesis goes against Artiagoitia (2002)'s proposal who claims that in the existential interpretation the definite determiner is not a real determiner but a number marker that is placed in [Head, NumP], -A when singular, -AK when plural. The problem with Artiagoitia's analysis is that it forces us to treat mass terms as singulars, an undesirable conclusion (see § 4.6.4.1).

(iii) The different interpretations that definites can get in Basque follow from the Neocarlsonian approach. The existential interpretation of definites (in object position) depends on the kind-level reading (see Chierchia (1998c)). Here, it is claimed that Basque is typologically in between English and French: the former makes use of bare plurals to get existential interpretation while the latter needs the definite plus the partitive preposition *de* (*du* for mass terms, *des* for plural count terms) to express the same meaning; in Basque, the article is there while the preposition is not. Following Zamparelli (2001b), where it is argued that the definite determiner that combines with the partitive preposition in French and in Italian is a kind-denoting definite; existentially

interpreted Basque definite determiner is also claimed to be a kind denoting definite. Then, a covert version of the partitive preposition (similar to French *de*) gives us the predicative $\langle e, t \rangle$ type back. The role of this covert partitive preposition will be halfway the Derived Kind Predication (DKP), that is to say, it gives as an $\langle e, t \rangle$ type element but no existential closure. This local existential closure will be provided by the DKP which introduces an existential quantification over instances of the kind in episodic sentences. The difference between strongly interpreted weak quantifiers that cannot make use of the covert partitive preposition (see Chapter 2) and the existential interpretation of definites that are formed by means of the covert version of the partitive is that the former means “being part of N” while the meaning of the latter is “being an instantiation of the kind”.

(iv) Common nouns have been assumed (Dayal (2004), Zamparelli (2002a)) to denote both in the object domain (yielding the normal specific reading) as well as in the taxonomic domain (yielding taxonomic readings). With this assumption, I have claimed that the singular definite generic (see § 6.5.2) is derived from the combination of the taxonomic common noun and the normal definite determiner, the normal *iota* operator.