GENERIC SENTENCES WITH SPECIAL REFERENCE TO SPANISH

by

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B.A., National University of Mexico, 1974

THEESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
in the Department
of
Languages, Literatures, and Linguistics

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SIMON FRASER UNIVERSITY
August 1981

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ABSTRACT

Generic sentences involve a number of different problems. The main areas of research concerning the notion of genericity touch upon generic NP's (noun phrases having classes as their referents), and verbal generics, or, more accurately, the aspectual means exhibited, if at all, as part of the verb morphology, to signal generic propositions. Another area of research is the relationship between generic NP's and generic verbs, and, more specifically, whether one determines the other.

An important problem is posed by the fact that a number of linguists have considered habituals (with individual subjects) together with generic sentences (with generic NP subjects), whereas others consider them to be unrelated. One of our aims in this thesis is to present some evidence from Spanish supporting the first position.

The present thesis is divided into two main parts. In the first one, we present the "state of the art" regarding generics. We follow the development of the most representative ideas concerning the different issues, pointing out specific problems that these approaches encounter. Our considerations lead us to propose that two axes of generalization be taken into account for the analysis: a horizontal axis representing time, and a vertical
axis representing individual members of a class. These axes allow us to make explicit the strong similarities between habituals and generics, while, at the same time, retaining their differences in view.

The second part of the thesis is data oriented. Here we turn our attention to some of the principal ways by which genericity is expressed in Spanish. In doing this, we discuss and analyze not only sentences with generic NP's and generic verbs, but also other interesting data which contrast with these. Whenever relevant, similarities and differences with the parallel English constructions are pointed out and explained. In each of the chapters of this second part, we try to assess the appropriateness of the proposals presented in our previous survey to account for our Spanish data.

Concerning generic NP's and their various manifestations in Spanish, the existing ambiguity between the 'species' and 'individual' readings is illustrated and discussed. We then concentrate on a contrast of particular interest, namely the difference between what appear to be generic NP's with the definite article and without it (that is, a zero determiner) in object position.

In relation to generic verbs in Spanish, we look at some predicates that have exclusively a habitual meaning and study the differences between them. Next, the contrast between the
imperfect tense and the preterit is discussed, as well as their interrelation with the 'series' and 'once' interpretations of verbs.

Finally, in relation to adjectives, predicate nominals, and prepositional phrases, Carlson's recently proposed ontological distinctions are shown to be necessary to explain the use of two different copulas in Spanish. However, some modifications of his account are required, specifically in terms of the non-static nature of entities. Also, the readings exhibited by Spanish NP's with the definite article raise the problem of further complicating Carlson's ontological hierarchy.

From the Spanish data presented, the strong (formal) interrelation which exists between the two axes of generalization is evidenced.
ACKNOWLEDGEMENTS

First of all, I wish to express my most sincere gratitude to Prof. Brian E. Newton for his always helpful and patient supervision, as well as for his continuous advice and support. I am also profoundly indebted to the other members of my supervisory committee -- Professors Thomas A. Perry, E. Wyn Roberts, Philip P. Hanson, and Tai W. Kim -- for their thorough readings of earlier drafts of this thesis, for many helpful discussions, and for their assistance.

Further, I wish to thank Prof. Guy Carde, from the University of British Columbia, who offered valuable comments on an earlier version of the first part of the thesis.

I am grateful to my teachers and fellow students at Simon Fraser University, as well as to the Social Sciences and Humanities Research Council of Canada, for making my doctoral studies possible.

Finally, I thank Heiner Gorrissen for his invaluable patience, support and understanding, for the typing of this thesis, and for much more.
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I. GENERAL INTRODUCTION

1.1. The notion of genericity

The term "generic" has been applied by linguists in relation to a number of issues. In the first place, it has been used in connection with NP's (noun phrases) whose referents are sets or classes rather than individuals (cf. for example, Lyons, 1977; Jackendoff, 1972; Burton Roberts, 1976; Platteau, 1980; among others). These generic NP's may have different determiners, as illustrated by the subject NP's in the following sentences:

(1) The beaver is a mammal.

(2) A beaver builds dams.

(3) Beavers are friendly creatures.

Obviously, NP's with definite or indefinite determiners can have other, non-generic interpretations. In these, the function of the determiners is to make the reference of the NP's more precise (cf. Lyons, 1977: 452) in terms of its identity (which individual in the domain is talked about). However, in the generic interpretation of these NP's, the
function of the determiners closely resembles that of quantifiers. In natural language, quantifiers are words like "all", "every", etc. which are syntactically related to determiners (they are often intersubstitutable) and indicate some quantity, or the size of the set referred to.

Using logic as a tool for a clearer, unambiguous semantic interpretation to aid the explicit statement of generalizations, many linguists and philosophers have agreed that our interpretation of sentences like (1)–(3) involves universal quantification; that is, we refer in these examples to 'all beavers'. Therefore, the general proposal has been that these sentences be represented by a formula of the form

\[ \forall x (Bx \rightarrow Mx) \]

where the universal quantifier \( \forall \) binds the individual variable \( x \), and \( B \) and \( M \) stand for predicate constants (like be a beaver, be a mammal, in our examples). The formula is paraphrased as 'For all \( x \), if \( x \) is a B(eaver), then \( x \) is a M(ammal)'. There are many problems with positing this quantified proposition as the semantic representation for sentences with generic NP subjects. One of the most patent ones is that generic NP's with different determiners are treated in the same way. In the next chapter, we shall go with some detail into the explanations that have been offered.
for the differences between them. We shall also point out further difficulties with the quantificational approach and present a survey of other proposals that have been made to account for generic reference.

The term "generic" has also been used to describe the type of sentences that have generic NP subjects, as well as the propositions expressed by these sentences. One of their striking characteristics is their non-deictic temporal status; in other words, their temporal reference is independent of the time of utterance.¹ It has even been argued that, rather, "the question of time reference (whether deictic or non-deictic), simply does not arise" (Lyons, 1977: 680), i.e. they are timeless.

Another characteristic of generic propositions is that their asserted predication is often regarded as necessary, essential, or criterial for the class denoted by the NP (cf., for example, Lyons, 1977: 195-6; Werth, 1980: 267-70). In other cases, a weaker situation obtains, as the predicate is understood to hold typically, under normal conditions (cf. Lyons, ibid.; Dahl, 1975).

¹ The term "deictic" is applied to the different means used by languages to relate the objects and events being talked about to the "spatio-temporal co-ordinates of the act of utterance" (Lyons, 1977: 636).
Since, in those languages where these properties of propositions are grammaticalized, they are most frequently part of the verbal inflection, the term "generic" has been linked to considerations of aspect, or to tense (cf. Dahl, 1975). It is also quite common to find the notion of "generic verb". As this term is applied by researchers such as Lawler (1973a), Chafe (1970), and others, it includes cases different from the ones referred to above, namely, verbs that appear in gnomic utterances, and habituals.

The term "gnomic" (from ἄνομος, 'opinion') refers to a particular use of the aorist in Classical Greek in proverbs and aphorisms (cf. Dahl, 1975: 100). It has also been used to describe poetry based on such popular sayings. For Lyons (1977: 681), gnomic propositions are those expressed by utterances of a proverbial nature, i.e. general truths. He observes that the temporal status of these propositions is very diverse: they include propositions that are timeless (such as the laws of mathematics or the like), omnitemporal (that is, those true at all moments or intervals of time), and even "tendencies, generalities and assumed regularities". Examples of gnomic sentences are the following:

(5) It never rains but it pours.

(6) The sun rises in the east.
Habituality is an aspectual notion. It refers to an event or an activity that is iterated with sufficient frequency and regularity as to be considered a "normal" or "usual" characterization of the subject of the sentence. Because of their regular distribution over time, habitu als can be viewed as homogeneous, thus resembling states, which are continuous and uninterrupted (cf. Lyons, 1977: 716; Comrie, 1976: 26-28). Stative predicates are often expressed by ascriptive sentences such as (7). Compare the habitual illustrated in (8):

(7) John is intelligent.

(8) John smokes.

1.2. An initial problem

As we have seen from the above paragraphs, genericity (or genericness) involves a number of issues. In fact, different researchers apply the term diversely. The central controversy is whether habitual (and gnomic) sentences should be considered together with generics, or whether these are unrelated notions.

On the one hand, although they grant some existing similarities, Spears (1974), Smith (1976), Lyons (1977) and,
more recently, Werth (1980) argue that habitu"als and generics should not be regarded as equivalent. One obvious difference lies in their type of subject: generic sentences proper have generic NP subjects; habitu"als do not. Regarding their temporal status, habitu"als cannot be timeless nor omnitemporal, as their subjects are individuals and their existence (at least in our actual world) is restricted in time. For Werth (1980: 267), habitu"als constitute a subset of a basic kind of predication having specific subjects, which he calls iterative predication, because it denotes "repeated (or repeatable) states of affairs". Even though this recurrence may lead us to generalize behaviour patterns for individuals, he claims that habitu"al sentences such as (8) can only make statements of probability (cf. id.: 270). In contrast, "true generics" (id.) manifest a different kind of predication, which he calls generalizing, about the sets that constitute their subjects. According to Werth, true generics make statements of necessity; they are universal, criterial for the set referred to by the subject NF.

On the other hand, the similarities between generics and habitu"als are striking. Both seem to involve recurrence or seriality. Both characterize their subject (individual or set) by some property which is at least "normal", if not essential. Their temporal status is comparable, since
habituals as well as generics have no deictic time reference (cf. Smith, 1976: 572). In most languages, both are manifested by the same verbal inflection (tense or aspect, in those languages that grammaticalize this category) 2. Moreover, both habituals and generic sentences may contain the same set of frequency adverbials or rate expressions (cf. 3.9). For all these reasons, Chafe (1970), Lawler (1972; 1973a; 1973b), Dahl (1975) and Carlson (1977; 1978) have included habituals under their notion of genericity.

In order to characterize the propositions expressed by generic sentences in this sense, i.e. including habituals (and gnomic utterances as well), Dahl (1975) uses the term "nomic" (from nomos, 'law'). Nomic statements are, thus, law-like, attributing non-accidental properties (in the Aristotelian sense) to their subjects. Their validity is in force for at least a prolonged period of time.

In the ensuing chapters, we shall be talking about generic sentences including habituals as well. The reason for adopting this position will become clearer in the body of this thesis, since we shall further discuss the similarities and differences between these notions and, in the second part

2 Lyons (1977: 716) reports of only one language, Swahili, that may distinguish between habituals and generics by means of aspect.
of the thesis, Spanish data will be presented which evidence their strong interrelation.

If "generic verb" is understood in this way, a further question arises regarding the relationship between generic NP's and generic verbs, and, more specifically, whether one determines the other. Another possibility would be for them to be mutually determining. Various positions have been proposed (e.g. Chafe, 1970; Lawler, 1973a; Carlson, 1977; 1978) which we shall discuss in turn.

1.3. Remarks about the general framework

Following the recent tradition in linguistic semantics, we are assuming that notions such as genericity, habituality, etc. are language-neutral categories of meaning. In other words, they are considered as (weak) substantive universals (cf. Chomsky, 1965: 29), "belonging to the common human faculty of language" (Leech, 1974: 234). Therefore, we hope that our observations, which will be made on the basis of data from English, Spanish, and, on occasion, German, will be applicable to other languages as well.

Although the authors surveyed in the first part of the present thesis represent diverse schools of thought, and their notations may vary greatly, an effort has been made to explain their main ideas using only the more familiar
notational systems, viz. first order predicate calculus and some basic modal logic. One of the most interesting approaches to the problems presented by genericity is that of Carlson (1977; 1978). His account is very different from all the others, and therefore we shall spend some time explaining it.

Another point worth mentioning regards the example sentences that we shall be adducing. Very often, they will be those found in the literature (especially in the first part, where we review the general development of the research on generics). The judgments of their grammaticality do not necessarily correspond to our own; for example, if some sentence has been widely discussed as a case of ungrammaticality, we shall present it as such. However, we are aware of the fact that some of the claimed readings may appear to be quite infrequent or highly dependent upon context or situation. Also, the boundary between what is acceptable as grammatical and what is not is not always clear, but it may rather appear as a continuum, depending on context or situation as well. The example sentences may also differ crucially in their potential isolability from discourse, as some of them are easily interpretable without

\[\text{This was pointed out to me by E. Wyn Roberts.}\]
further information, whereas others would be quite unnatural in that situation. The practice of analyzing sentences in isolation goes back to classical traditional grammars (also, cf. Chomsky, 1965, competence and performance).

Finally, we should point out that examples such as the ones cited in the second part of the present thesis are widely documented in grammars of Spanish, since many of the topics presented are of general interest to the learner of that language.

1.4 Basic subdivision of this thesis

The present thesis is divided into two main parts. In the first one, we present the "state of the art" regarding generics (comprising the issues defined above). We follow the development of the most representative ideas concerning the different areas of research, pointing out specific problems that these approaches encounter. We then argue for the distinction of two different axes of generalization, which allow us to make explicit the strong similarities between habituals and generics, while, at the same time, retaining their differences in view.

The second part of this thesis is data oriented. We analyze the principal ways by which genericity is expressed in Spanish. In doing this, other interesting data are also
taken into consideration. In each of the chapters of this second part, we shall try to assess the appropriateness of the proposals presented in the first part to account for our Spanish data.
A. THE SEMANTICS OF GENERICITY
II. Generic NP's

2.1. The ambiguity of determiners

In model theoretic semantics, reference of nominal expressions is defined as an assignment function onto individuals within the domain (the universe of discourse). Thus, John designates the individual that we refer to by that name, as does the cat in:

(1) The cat is on the mat.

However, nominal expressions can also refer to a class of objects (defined by some predicate, e.g. all those objects that are cats), that is, a species or kind. These expressions are therefore called "generic NP's". Generic NP's may have different determiners (cf. 1.1.). For instance, all of the NP subjects in the following sentences have generic reference:

(2) The cat is a mammal.

(3) A cat is a mammal.

This section contains material from Pease-Gorrissen (forthcoming).
(4) Cats are mammals.

In certain contexts, or taken in isolation, a nominal expression such as the cat is, thus, ambiguous between a definite description (referring to my pet cat, for example) and a generic reading (referring to the species). A cat and cats, with indefinite determiners (the zero determiner in English is usually considered as such), also show an ambiguity between an individual or subset readings, respectively, and a generic reading. For this reason, genericity is often regarded as one of the possible interpretations of (definite and indefinite) determiners (cf. Van der Auwera, 1980, and many others).

With the non-generic interpretations, the semantic function of the determiners is to assign some individual constant (or a limited subset thereof in the case of plurals) to the nominal expression. In other words, it identifies some particular referent within the universe of discourse. With the generic interpretations, the semantic function of the determiners is quite different, and it parallels the one of a closely related syntactic category, that of quantifiers. Examples of quantifiers are all, some, every, three, etc., i.e. expressions that indicate some quantity, or the size of the set referred to by the head of the NP. Although their distribution is very similar to that of determiners, it is
not identical, and sometimes a determiner and a quantifier may cooccur, whereas two determiners (and most quantifiers) may not:

(5) The three cats are dead.
(6) All three cats are dead.
(7) *The a cat is dead.
(8) *Some all cats are dead.

Natural language quantifiers are usually represented by logical quantifiers. In predicate calculus, two quantifiers are used, the existential $\exists$ and the universal $\forall$. They bind variables (individual variables in a first order system) in the propositional functions or formulae enclosed within brackets to their right, which are said to be their scope.

When a natural language sentence has a quantifier and a noun, the scope in its logical representation involves more than one atomic formula, i.e. both the head of the NP and the verb are treated as predicates. As the following illustrations show, it is most usual that the universal quantifier be associated with an implication and the existential one with a conjunction. In these more complex sentences, the quantifier binds all the occurrences of the same variable within its scope.
(9) Every student failed.

(10) \( \forall x (Sx \rightarrow Fx) \)

(11) Some students failed.

(12) \( \exists x (Sx \land Fx) \)

The formula in (10) is paraphrased as 'For all individuals \( x \), if \( x \) is a student, then \( x \) failed'; the paraphrase for (12) is 'There is at least some individual \( x \) such that \( x \) is a student and \( x \) failed.'

In semantic analyses of natural language, one of the most discussed aspects of quantifiers is the way in which they interact, i.e., their "relative scope". According to Reichenbach (1947: 101)

"When two operators of the same sort occur, their order can be reversed. However, when two different operators occur, a reversal of their order will change the meaning of the expression."

This is so because the domain of influence of the leftmost quantifier will contain the other one, which is said to have "narrow" scope. Thus, in most semantic analyses, the sentence

(13) Everybody loves somebody.

is considered to be ambiguous, depending on which of the quantifiers has wider scope. Simplifying somewhat for the sake of clarity, the readings are as follows:
(14) \( \forall x \exists y \ (x \text{ loves } y) \)

(15) \( \exists y \forall x \ (x \text{ loves } y) \)

The wide scope of the universal quantifier (as in (14)) is said to correspond to a nonspecific reading of \textit{somebody}, 'somebody or other'. That is, for each \( x \), there is a possibly different \( y \) whom he loves.\(^2\)

Returning now to the problem of determiners, it has been assumed (e.g. in Lyons, 1977; Allwood et al., 1977) that, when they have generic interpretations, their semantic function is identical to that of the universal quantifier. Therefore, the general proposal has been that all the sentences (2) - (4) be represented by a formula of the form

(16) \( \forall x \ (Cx \rightarrow Mx) \)

Summarizing what we have said in the last paragraphs, both definite and indefinite determiners (\textit{the}, \textit{a}, and zero in English) exhibit ambiguities. In one reading, the determiner selects an individual (or more, if plural) from the domain; in the other (the generic one) it behaves rather as a

\(^2\) The specific reading is not universally accepted. I only present the most widespread position in the text, without wanting to take any stand on the matter. Cf. Jackendoff (1972), Leech (1974), Kempson (1977), Lyons (1977), Allwood et al. (1977), and others.
universal quantifier.

2.2. General problems with the quantificational approach

In the framework that we are adopting here, the interpretation of the logical notation is given in terms of truth conditions within a model. A universally quantified sentence is true only in the case that every individual in the universe of discourse has the property described by the predicate. Provided that the universe of discourse is finite and that every individual has a constant assigned to it, the quantified sentence

\[ \forall x \ (Px) \]

'for all x, x has the property F'

can be regarded as a statement about individual propositions, namely a conjunction:

\[ Fa \land Pb \land \ldots \land Fn \]

where \( a, b, \ldots, n \) are names for individual constants. In other words, if one attributes a property \( F \) to all the individuals of the universe of discourse, then it must be true that the individual \( a \) has it, as well as \( b \), etc.

If sentences like

\[ \text{Cats are mammals.} \]

are
are represented by formulas such as (16), this seems quite straightforward. However, there are other cases where universal quantification is "too strong" (Lyons, 1977: 195), given its truth conditions. Consider:

(20) Cats have four legs.

(21) Cats are friendly.

In the case of (20), there may be some (pathological) three-legged cats around, and yet the sentence is not falsified. Example (21) would surely allow for even more exceptions. In the next few sections we shall be looking at generic NP's with each of the determiners, and we will review what has been said about their tolerance to exceptions.

A second problem arises when comparing sentences such as the following (due to Carlson, 1977: 443):

(22) Linguists have over 30,000 books in print.

(23) *Linguists have 62,344 legs.

In (22), what is predicated does not apply to each member of the class but only to the class as a whole. Sentence (23) is odd because this "collective" interpretation (cf. Lyons, 1977) does not arise with the predicate have n legs.

If we consider the truth conditions for the universal
quantifier again, it becomes quite clear that universally quantified formulae are inappropriate to represent sentences having collective interpretations. The immediate solution that suggests itself is to resort to set theory, representing a sentence like (22) as a subset of the larger set formed by those sets of entities having over 30,000 books in print. If L stands for linguists, and 30 stands for this larger set, we would get

\[(24) \quad [L] \not\subseteq [30]\]

'The set L is included in, but not identical to, the set 30.'

However, the properties predicated of generic NP's often do apply to each member, i.e. they are "distributive", and in that case, the quantificational approach is more explicit. In the next few sections, we shall look at how generic NP's with different determiners vary as to whether they allow or disallow collective interpretations.

A further problem regarding the quantificational approach has been raised by Lyons (1977), Dahl (1975), and Werth (1980), among others. To them, no speaker would utter

\[(25) \quad \text{Cats are friendly.}\]

I am thankful to Dr. Guy Carden for pointing this out to me.
if he believes that it is purely accidental that all the cats he happens to know are friendly. To those authors, generic sentences involve some kind of necessity, and, thus, universal quantification seems "too weak" (Lyons, 1977: 195), because it does not explain all the facts. We shall also touch upon the matter of necessity when dealing with the different cases of generic NP's.

Finally, as was pointed out in the General Introduction, the quantificational approach fails to distinguish between generic NP's with different determiners (the, a, and zero, in English), as sentences with any of these forms are represented in the same way.

We now turn our attention to each of these determiner forms. The differences between them are not totally clear yet, but we shall describe the main observations that have been made about them in the reviewed literature.

2.3. The-NP

In their generic interpretation, NP's with the definite determiner (the-NP) are understood intuitively to mean the species or class as a whole. For this reason, Chafe (1970: 191) proposes the "semantic unit" [aggregate] for these NP's. This conception is supported by the fact that the-NP allows for predicates that require a collective
interpretation: be common/rare, increase, be extinct, die out. For Lawler (cf. 1973a: 106), this means that the-NP is, for the most part, not only syntactically singular, but semantically as well; thus he explains the anomaly that he perceives with the-NP and predicates that, for him, require plurality (but have no collective reading): be numerous, kill off, decimate. Lawler observes that the collective ('class as a whole') interpretation of the-NP is also evidenced by the fact that the form of a pronoun coreferential with it must be singular; for example in

(26) The lion is extinct because {it/*they} ate poisonous grass. (cf. Lawler, 1973a: 156)

However, the-NP can also have a distributive interpretation, or rather, what Lawler labels, following Stewart (1971, cit. in Lawler, 1973a: 152), the "type" interpretation, i.e. when the-NP means 'a typical,

This example seems to be particularly troublesome. While both pronoun options are grammatical for E. Wyn Roberts, Phil Hanson finds them both objectionable. Guy Carden agrees with Lawler's judgment of grammaticality, but he feels that the requirement for a singular disappears when the generic ceases to command the pronoun:

  i.) The lion is now extinct. It seems likely that {they were/*it was} numerous.

Many interesting observations can undoubtedly be made regarding generics and coreference. However, the scope of this thesis will not allow us to go into these problems in any detail.
characteristic, representative member', as in

(27)  The cat has four legs.

As we saw in 2.2., sentences like this present a difficulty for the (strictly logical) quantificational approach, and the-NP allows for exceptions (i.e. the sentence would not be falsified by the existence of a three-legged cat). For this reason, Lawler (1973a: 146) proposes a special generic quantifier, \( \forall g \) (to mean 'almost all' or 'typically, all', or the like).

A couple of interesting remarks about the-NP in its generic interpretation regard some restrictions upon what can occur as the head in this construction. In the first place, it appears that not just any NP can be understood as a class. Vendler (1971: 127) believes that one restriction lies in the fact that the-NP heads refer to species that require the existence of a superior genus, i.e. their reference must not be "too generic". Thus, he adduces the examples:

(28)  The mouse is a rodent.

(29)  *The object is in space.

To Vendler, (28) is acceptable because there is a superordinate term animal, of which mouse is a subspecies; but (29) is odd because it is difficult to conceive of a
superordinate term for object, that is, it is "too generic" (ibid.).

Other restrictions on the generic definite article with noun heads are related to a notion of significance, either of the class referred to, or of what is predicated of it.
Regarding the class, we may compare Chafe's examples (1970: 200) (30) and (31) with Carlson's (1978: 279) (32) and (33):

(30) Bob smokes the hookah.

(31) *Bob smokes the cigar.

(32) The zoologists are trying to find the blue-nosed ground squirrel.

(33) *The zoologists are trying to find the cow.

For Chafe, (30) is acceptable because the noun hookah is "selectionally specified as exotic" (1970: 200). Carlson's explanation is somewhat different; to him, cases like (32) require that the context say "something momentous or significant about the species as a whole" (1978: 279). Thus, as the blue-nosed squirrel is so rare, its discovery is relevant to zoology, but not so with the cow. However, notice that in Chafe's example (30), Bob's action is not at all significant to the class. Rather, (30) and (32) are
acceptable because the class itself is regarded as significant, worth talking about.

But Carlson's explanation may very well apply to the following sentences, due to Lawler (1973a: 158):

(34) The chair was used for ceremonial purposes as early as the 10th century B.C.

(35) *The chair can be dangerous.

Here we see that even an everyday class of objects can be used felicitously in the construction we are studying, if the predicate is significant enough to the class.

To my knowledge, it is far from clear how to state such a notion of significance (either regarding NP's or the predications made of them) in a formal semantic framework. As Brian Newton has suggested to me, these restrictions may very well have to do with the fact that the-NP is stylistically marked as [technical].

2.4. A-NP

As with the definite article, NP's with indefinite determiners are ambiguous: One reading (the non-generic) concerns the identity of the referent, the other (the generic) appears to be bound by a universal quantifier. Here, we shall restrict ourselves to the latter case.
The meaning of A-NP in its generic interpretation has been described (cf. Chafe, 1970: 204-205) as selecting an arbitrary referent among the set denoted by the head NP. Thus, for example, in

(36) An elephant likes peanuts.

the identity of any elephant chosen to confirm the truth of this sentence is irrelevant; whichever one we consider should comply with the predication. For this reason, it has been suggested that A-NP is not a referring expression at all (cf. Jackendoff, 1972: 309; Lyons, 1977: 196).

Because A-NP selects one random member of the species, its interpretation is only distributional, and so, predicates that require plurality or classes rule out sentences like the following:

(37) *A lion is [extinct/widespread/numerous].

(cf. Lyons, ibid; Lawler, 1973a: 110)

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5 Actually, this is not true if a lion is understood as one subspecies of lions, as in
i.) A lion is extinct, but most varieties survive.
ii.) A lion that used to roam North America is now extinct.

We shall touch upon the species/individual ambiguity being more general, as in these examples, at a later point in this chapter (2.6.). I am indebted to Tom Perry, R. Wyn Roberts, and Guy Garden for pointing out examples like these to me.
However, a pronoun coreferential with $A$-$NP$ can be interpreted collectively. In that case, the pronoun has to be plural (whereas, if the pronoun is to be interpreted distributionally as well, it is singular). Thus, compare the following sentences:

(38) A lion is hard to find because they are (*it is) extinct. (cf. Lawler, 1973a: 155)

(39) A lion is hard to find because it hides (*they hide) in the mountains.

The representation that has been suggested for the generic $A$-$NP$ is a conditional structure with a logical universal quantifier (that is, the quantifier being interpreted as was indicated in 2.2.) (cf. Lawler, 1973a: 146). As a consequence, $A$-$NP$ sentences do not allow for exceptions, as can be shown by contraposition:

(40) $\forall x \ (P x \implies R x)$

'For all $x$, if $P x$, then $R x$'

by contraposition $\forall x \ (\neg R x \implies \neg P x)$

'For all $x$, if not $R x$, then not $P x$'.

In other words, (36) would be interpreted to mean that, if something is an elephant, then it likes peanuts; and by contraposition, any elephant with a deviant taste is simply
not an elephant. This necessary link between the two predicates in the formula (being an elephant and liking peanuts, in our example) has been carried further. For Lawler (1973a: 117), the predicates that are grammatical with A-NP have to describe "something intrinsic to the species"; they have to be nonaccidental characteristics, or what Aristotle would call "specific differences". Lawler attributes the difference in grammaticality which he perceives in the following sentences

(41) A madrigal is polyphonic.

(42) *A madrigal is popular.

to the fact that, whereas (41) implies that one cannot call a musical composition "madrigal" unless it complies with the predication (cf. 1973a: 143), popularity is hardly a necessary attribute of madrigals. Thus, for Lawler (cf. 1973a: 112), A-NP seems to be limited to a definitional type of sentences.

Burton-Roberts (1977) interprets these ideas in terms of analyticity. In general, analytic sentences are those which are necessarily true by virtue of their meaning alone. The classical example is
A bachelor is an unmarried man.

(cf. Rosenberg and Travis, 1971)

For Burton-Roberts (1977: 177), sentences with A-NP are more grammatical the more "conceivable-as-analytic" the predicates are with respect to their subject. This is linked to the fact that A-NP seems to make an ultimate appeal to the name or the word that designates the class (cf. Lawler, 1973a: 148).

It is true that sentences with A-NP are often used with a metalinguistic purpose, that is, in order to talk about language, e.g. in stating selectional restrictions or explaining certain uses of words:

(44) An egg gets addled, a piece of butter gets rancid. 6

However, the question of whether the predicated property is necessary to the head of the NP by virtue of meaning alone is easily debatable. Even more so would be the claim that these sentences are analytic. Consider

(45) A rose is called rosa in Latin. 7

since it can be argued that any other name would probably have been as appropriate.

6 This example is due to Brian Newton.
7 I am indebted to Guy Carden for this example.
Also, in a non-metalinguistic sentence, Burton-Roberts' notion of "conceivable-as-analytic" is, I think, misleading. In the perfectly acceptable sentence

(46) A whale is friendly.

it seems very hard to sustain that friendly is necessarily true of whale by virtue of the meaning alone.8

The notion of necessity has been taken up by other linguists, e.g. Lyons (1977) and Werth (1980), as was seen in 1.1. A somewhat weaker version is Dahl's (cf. 1975: 100), who talks about the predicates of generic sentences (not only with A-NP subjects) being necessary in a more restricted domain, namely a set of possible worlds defined by some alternaiveness relation, e.g. in all morally perfect worlds, or in all physical worlds with Einstein's theory of relativity, etc. While we think that the notion of necessity may be relevant in the analysis of generics, analycity seems definitely cut off of the question.

At some point in his thesis, Lawler (1973a: 148) views the necessity related to A-NP as a causal relationship with its predicate. For example, regarding the following sentence:

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8 As E. Wyn Roberts has pointed out to me, even this might be debatable to a Greenpeace militant. But in that case, we would have to understand analyticity as related to speaker's beliefs, and not as an independent notion. I owe this observation to Phil Hanson.
A teamster drinks beer. (ibid.: 126)

he explains that "the property proceeds from membership in the class" (ibid.: 129). He then adds:

"What I mean ... is that there is something about the nature of the subject indefinite generic which makes it necessary that the predication is true. Whether this means 'cause' or something else is open to serious question." (ibid.: 159)

Nunberg and Pan (1975: 415) agree with Lawler in that A-NP sentences predicate "only those properties that hold in virtue of class membership". To them, this is explainable from the fact that the interpretation of A-NP requires that no specific referent is chosen. However, they consider this to be quite a separate matter from necessity. To them,

"The important thing ... is that the individual comes by the property because of its class membership; whether the property is essential or accidental to the class is immaterial." (Id.)

Their illustration for this is a sentence like

(48) A babysitter gets $2.00 an hour.

In other words, (48) asserts that - supposing that the typical babysitter is female - she makes $2 an hour because she is a babysitter. I think that this observation is right, and it may explain the prescriptive force that A-NP sentences often have, where the speaker/listener implies, for example, that a babysitter should get that amount of money. Compare as
A gentleman opens doors for ladies.

(Burton-Roberts, 1977: 187)

This sentence would, most probably, be uttered in an evaluative sense, e.g. to tell someone who lets the door bump onto some lady's nose that he is not being a gentleman. 9

This is what Nunberg and Pan refer to when they say that the predicated property stems from class membership.

2.5. 0-NP

The zero determiner has often been considered as the plural form of A-NP (cf. Chomsky, 1965, for example) 10, and like the other determiners, it has been held to be ambiguous (cf. 2.1). But whereas the ambiguity of A- and the-NP is one between a species and one individual, the one (usually claimed) of 0-NP is more subtle, as both readings involve

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9 As Brian Newton has pointed out to me, there seems to be an implied contrast here between the listener and the other members of the class. This probably stems from the fact that A-NP selects an arbitrary referent (cf. supra).

10 Although this is the most traditional view, many do not agree. Perlmutter (1970), for instance, suggests that the plural form of the indefinite article in English is not 0-NP, but the unstressed some, represented by sm. Burton-Roberts (1976) and Carlson (1978) also give a number of arguments against considering the zero article as the plural of A-NP.
plurality: 'some individuals' versus 'members of the class, as such'.

The generic meaning of O-NP allows for collective verbs, e.g. be extinct (hence the 'class' interpretation), for plurality verbs, e.g. be numerous, and for distributive predicates as well, e.g. have four legs. In the latter case, exceptions are tolerated, i.e. the existence of a three-legged dog would not falsify the sentence

(50) Dogs have four legs.

This means that, if a quantifier is proposed for the representation of these sentences, it would not be a strict logical universal (interpreted as indicated in 2.2.), but something weaker than that: Lawler (1973a: 146) proposes \( \forall g \) (the generic quantifier) to bind O-NP.

However, Carlson (1977, 1978) argues against the use of any kind of quantifier for O-NP's. His main reason is that the number of the exceptions to be allowed varies greatly in accordance with specific predicates. Thus, as we have seen, some sentences require a strictly universal quantifier; some others do not. Compare (50) with the following examples:

(51) Dogs are mammals.

(52) Dogs are good pets.
Whereas (51) would be a good case for the consideration of the universal quantifier to represent these sentences, (52) evidently requires something weaker, since the range of exceptions tolerated would be much greater.

Further, Carlson notes that some predicates seem to apply to about half of the members, and some even to the odd member only, as can be seen by

\[(53)\] Birds reproduce by laying eggs.

\[(54)\] Bees reproduce by laying eggs.

In (53) only females do lay eggs — and we suppose that females constitute about half of the bird population. But (54) can be uttered even though only queens, but not bees in general, have a reproducing capacity. This range of variety, for Carlson, would lead us to postulate the existence of an absurd number of abstract universal quantifiers, such as \(\forall \text{fem}, \forall \text{queen}, \ldots\), or, if we wanted to account for these ambiguities by attributing them to the zero determiner, Carlson (1977: 440) says that a number of different generic 0-determiners (0-fem, 0-queen, etc.) would have to be proposed.

Of course, as the ambiguity (or the range of allowed exceptions) applies equally well to the-NP (and possibly to A-NP), it is not attributable to the determiner alone, but
only to generic NP's or to generic reference.

The last cases, with predicates that apply only to females, males, or to the queen of a species, are, I think, a different matter from the former ones. In the first place, what happens is that a species is usually referred to by an "unmarked" term (cf. Lyons, 1977: 307ff.), that is, one neutral to some features, such as gender or hierarchical status: for example, a queen bee is considered a bee in spite of her regal blood, and

(55) That is a dog.

does not necessarily imply that the speaker believes the referent to be a male dog instead of a bitch. The predicates in (53) and (54) are still understood to apply to the whole species; thus they can be regarded as instances of collective predicates.

Furthermore, sentences (53) and (54) are not parallel to our former examples because the predicate does not seem to be part of the comment, but it is part of the topic. (53) and (54) do not state either that birds reproduce nor that bees do, but rather, that when they do, it is by laying eggs. Thus, the reference class would actually not be the whole species of birds or bees, but only reproducing birds or reproducing bees, respectively. Compare as well
Humans are pregnant for nine months.

This sentence does not imply that all humans are female, and not even that all females are ever pregnant. Again, a when-clause would be a more appropriate paraphrase. Thus, we conclude that these cases are different from the previous ones ((51) and (52)). Although the range of variation for the exceptions tolerated by generics is undeniable, sentences like these should not be adduced, for they seem to me to distort our perception of the matter.

2.6. Carlson's account of bare plurals

All of the NP's that we have seen are ambiguous, that is, the "generic" reading is only one of their interpretations. Thus, the-NP is ambiguous between an individual reading (whose identity is contextually apparent, i.e. a definite description) and a species; A-NP, between an unspecified individual and an arbitrary member of the species, and O-NP, between some unspecified individuals and some (or all) members of a species. Recently, however, Carlson (1977, 1978) has been arguing against O-NP (the "bare plural") being ambiguous. To him, O-NP designates unambiguously an individual, just like John does; but the individual is special in that it is a "kind of thing". The apparent ambiguity of O-NP's stems from the fact that — for
Carlson - individuals can be conceived of as composed of temporally-bound "stages" or "realizations", which are dynamic, event-like. This is intimately related to "verbal generics" (discussed in Chapter III), since, in Carlson's framework, it is the verbs (or rather, the predicates) that determine whether the individual is understood as such ("collectively", somehow), or as a stage (that is, in some sense, "distributively"). Just as the different appearances of John make up (our conceptions of) the individual John, so the members of a class are seen by Carlson as kind-stages. But, for Carlson, just as John is not ambiguous, neither is Lions. The similitude between individuals and kinds is supported by the fact that both accept the "so-called" construction:

(57) Rufus is so called because of its colour.

(58) Cardinals are so called because of their colour.

This construction is only possible whenever there is an etymological link; thus, this is not a strong argument.

In any case, in Carlson's ontological system, all individuals, including John, are never perceived in their entirety, but only by means of temporally bound realizations or appearances, that is, stages. The stages of a kind are the individual objects that constitute it (e.g. each individual

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dog is a stage of the kind dogs). But there are no nouns or NP's (at least in English) that refer to stages of an individual object (that is, to single temporal slices of John). However, as we shall see, Carlson's motivation for postulating these lies in his account of generic versus nongeneric predicates.

Carlson's arguments against O-NP being ambiguous can be summarized as follows:

1. There are very few contexts where O-NP is systematically ambiguous. Normally, the context selects only one reading, e.g. in

(59) Dinosaurs are vertebrates. (gen.)

(60) Dinosaurs are in my garden. (nongen.)

This is clearly not a sufficient condition for an item to be unambiguous, and Carlson (1977: 432) recognizes this. For example, crow is an ambiguous lexical item ('black bird'/'cry of a rooster'), yet its interpretations are usually in "complementary distribution". But, just as there are some contexts where crow is ambiguous, as in (61), one can get both readings of dinosaurs in (62)
(61) A crow at dusk is bad luck.  

(62) Dinosaurs ate kelp. (cf. Carlson, ibid.: 430)  

However, Carlson attributes the apparent ambiguity of the NP to an ambiguity in the verb, which would also be present if the subject were an individual constant like John (cf. 3.4. and 3.5.).

2.) The "generic" reading can serve as antecedent to a pronoun with nongeneric reading (i.e. the antecedent refers to the species, but not the coreferential pronoun):

(63) I didn't believe that goats (gen.) liked tin cans (gen.) until I actually saw them (nongen.) eating them (nongen.) (Carlson, 1977: 433)

This would be impossible with a sentence such as the following,

(64) I heard a crow and then I caught it.

to be interpreted in such a way that crow would refer to the sound, and it to a bird, for example (cf. also Carlson, id.).

In other words, Carlson's argument rests on the fact that lexically ambiguous items and pronouns coreferent to them

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I am grateful to E. Wyn Roberts for this example.
cannot each have a different reading.

3.) O-NP has been usually associated with the indefinite article; it has often been said (cf. Chomsky, 1965, for example) that O is the plural form of a. Carlson shows that O and a function differently regarding opacity and scope phenomena (cf. 2.1.). For example, in

(65) He is looking for a dog.

A dog may be opaque ('any dog', the existential quantifier having narrow scope), or transparent (a specific dog, the existential quantifier having wide scope). In contrast, the same sentence with a "bare plural" object has only an opaque reading (narrow ∃):

(66) He is looking for dogs.

Carlson (1977: 417ff.; 1978: 8ff.) discusses a number of other constructions where the same phenomenon happens, i.e. A exhibits scope ambiguity, whereas O does not. In some contexts, A and O do not even share a reading, but one has the opposite interpretation from the other (cf. Carlson, 1977: 420ff.; 1978: 12ff.). For example, in the following sentences, if an existential quantifier were used to represent both A and O, it would only have a reading with wide scope in the former case ('the same dog is everywhere'),
but narrow scope in the latter (cf. 2.1.):

(67) A dog is everywhere.

(68) Dogs are everywhere. (cf. Carlson, 1977, 1978)

A further argument from Carlson against 0-NP being ambiguous is that another construction, totally unrelated to it, shows the same readings, namely, NP's referring overtly to kinds of things. Thus the phrase "this kind of animal" shows the same readings regarding scope that the bare plural does, in the sentences that we presented in the last paragraphs:

(69) He is looking for this kind of animal.

(70) This kind of animal is everywhere.

(69) does not imply that he is looking over again for the same animal, i.e. that there is one specific referent (represented by a wide scope existential quantifier) being talked about. And to Carlson, (70) has only a reading with a narrow scope existential quantifier; i.e. with different animals in every place (but cf. below).

Just as the context determines whether 0-NP has an existential (nongeneric, individual) reading, or whether it has a universal (generic, species) one, so it does with "this
kind of N", according to Carlson (1977: 434ff.; 1978: 51ff.):

(71) This kind of animal is a vertebrate. (species, universal)

(72) Max shot this kind of animal. (individual members, existential)

As a matter of fact, many other nominals exhibit these species/individual readings. This had already been noticed by other researchers, but only to a certain extent. Chafe (cf. 1970: 196-198) includes under the discussion of generic NP's some instances of NP's with the definite plural determiner (e.g. the Indians), but only with a restricted set of NP's whose members are limited in number ("bounded" NP's). Lawler (1973a: 155) also notices a range of variation in the forms of NP's with the generic/nongeneric ambiguity. He quotes as examples:

(73) Your opera singer is usually fat.

(74) This tire is manufactured by the millions.

But Carlson goes further to extend the notion of generic NP to almost any quantified NP (except for the ones with unstressed sm). Thus, even with an overt quantifier present, an NP can be interpreted generically, i.e. with the predicate
applying to all members of the class, or to the class as such:

(75) This cigarette is made in nine different countries.

(76) Many mechanical devices were invented by mistake. (Carlson, 1977: 438).

Other sentences with overt quantifiers seem to exhibit what would correspond to the "existential" interpretation of the bare plural. For instance, in (77), the quantifier every refers to 'every class', yet, for Carlson, because of the nature of the predicate, the NP is understood as 'some members of every class':

(77) This zoo has every pachyderm in it. (Carlson, 1977: 439)

From this, Carlson concludes that the (to him, "apparent") readings of these phrases cannot be attributed to the determiner alone.
2.7. Comments on Carlson's analysis

Although this last argument from Carlson is definitely of importance, we should make one clarification regarding his notion of ambiguity. Carlson never ceases to recognize that there are (at least) two distinct readings of bare plurals. However, his framework (Montague grammar) provides him with a highly complex notational system of translation into logical representations, such that it allows him to translate both readings of the NP in only one way. These readings then stem from differing representations of the rest of the sentence (mainly the predicate), which we will explain shortly. However, he does recognize that the two readings of 0-NP's have different implications, as the following arguments show:

(78) Dogs are sitting on my lawn. (individual)
Dogs are mammals. (generic, species)
\[ \therefore \text{Mammals are sitting on my lawn. (valid)} \]

(79) Dogs are good pets. (species)
Dogs are mammals. (species)
\[ \therefore \text{Mammals are good pets. (invalid, overgeneralization)} \]
(cf. Carlson, 1977: 445)
Also, we should clarify that, in his 1977 article, Carlson sometimes seems to identify the universally quantified reading of \( O\text{-}NP \) with the species, and the existentially quantified one with the 'individual member' reading. But this is clearly a confusion. He states that the context unambiguously selects one or the other. Thus, a verb like have ('possess') can only take an existentially quantified bare plural object (probably for pragmatic reasons). However, we can see that in the following sentence, although the direct object has an existential reading (i.e. not 'all pachyderms'), it still shows an ambiguity between species and individual readings: the zoo may have (some) kinds of pachyderms, or (some) individual pachyderms:

\[(80) \quad \text{The zoo has pachyderms.}\]

Thus, with \( O\text{-}NP\)'s, the ambiguity between species and individuals seems to be independent of the universal/existential distinction. Moreover, kinds and individuals cannot be made equal, as Carlson suggests, as evidenced by the existence of precisely this ambiguity in our former example.

Some data from another language constitute further evidence for maintaining the difference between kinds and individuals (for the use of evidence such as this, cf. 1.3.)
In German, the adjective denoting 'sameness' has two lexical realizations, depending on whether it applies to kinds or to individuals: *gleich* is used for kinds, *selber*, for individuals. Thus, we find:

(81) Ich reite das gleiche Pferd.
    'I ride the same (kind of) horse.'

(82) Ich reite das selbe Pferd.
    'I ride the same (individual) horse.'

(83) Sie las das gleiche Buch.
    'She read the same book.' (same title)

(84) Sie las das selbe Buch.
    'She read the same book.' (same exemplar)

Finally, some other evidence for differentiating kinds from individuals (and thus, the species/individual ambiguity) is that, apparently, in Classical Arabic, countable nouns have a "collective form" (generic), different from their plural form (nongeneric) (this is mentioned in Lyons, 1977: 462, no examples given).

Another problem is that Carlson chooses the phrase "This kind of animal" to stand for 'kinds of things'. However, the NP kind of animal can have other determiners as well (A/some ___ kind of animal), in which case his data are no longer as
coherent. In discussing scope phenomena, for example, we have seen that Carlson mentions that in both of the following sentences:

(85) Dogs are everywhere.

(86) This kind of animal is everywhere.

the existential quantifier binding the NP has narrow scope (cf. 2.6.). This means that there is another quantifier in logical representation having wider scope; namely, the universal quantifier binding places (*everywhere*). But notice that when we choose a different determiner for the classifier-phrase, wide scope existential interpretations arise:

(87) A kind of dog is everywhere: a specific kind, 

\[ \exists \text{KIND} \forall \text{PLACE}. \]

The problem is the following: phrases such as a/the/many ... kinds of N, sorts of N, groups of N (and, with mass nouns, lumps of (sugar), bottles of (wine), head of (cattle) are sortal and/or mensural classifier phrases which have as their referents (when countable) the members of the set denoted by their modifier (of N). In this modifier, the noun has a O-determiner, so it is not surprising that it behaves like
the 0-determiner in other positions. Thus, I conclude that the parallelism of 0-NP and NP's "overtly referring to kinds of things" is not as unproblematic as Carlson would like us to believe. Classifier-phrases are problematic in themselves, and they do not seem to be more related to 0-NP's than any other NP's. Note that I am not arguing against generic NP's meaning 'kinds of things', only against their behaving like the phrase "kind of N", without taking into account the determiners that this phrase can have.

2.8. Summary

As we have seen in this chapter, the different determiners of NP's have been traditionally held to be ambiguous between a generic and a nongeneric reading. In the former case, their head NP refers to the class as such or to all of its members. The nongeneric interpretation varies depending on the determiner in question.

The differences between generic NP's with each of the determiners (the ones most often discussed are the, a, and 0) are subtle. The and 0-NP, for example, both allow for collective predicates. The generalization made by sentences with these generic NP's is not invalidated by exceptions. A-NP, in contrast, seems not to tolerate exceptions as

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Another peculiarity of these phrases is that either the head (kind) or the modifier may be taken as central.
easily, and, therefore, this kind of generic NP has been linked with definitional (and even analytic) statements.

In order to express the characteristics of generic NP's by means of a logical notation, a quantificational approach has been adopted, for example by Lawler (1973a), who proposes a strict logical universal quantifier for A-NP and a weaker, quasi-universal "generic" quantifier for The and 0-NP. This quantificational proposal encounters a number of problems which we have tried to point out in this chapter.

A totally different approach is taken by Carlson (1977; 1978). In discussing 0-NP's (bare plurals), he argues against the ambiguity of determiners and claims that the two readings of NP's (which concern different entities in his ontology) can be attributed to the predicates of the sentences. As we shall see in the next chapter, the notion of ambiguous predicates, having generic and nongeneric readings, is not new, and we shall follow the development of the main ideas concerning this topic.

A very important conclusion reached by Carlson (which had some precedent in previous research) is that the notion of "generic NP's" (understood as referring to the species) cannot be restricted to the different determiners. As the following sentence shows, NP's with overt quantifiers exhibit the species/individual member ambiguity as well (which, to
me, is independent of the $\forall/\exists$ distinction that Carlson attributes to the predicates):

(88) Three cigarettes are put on display every month.

In this sentence, we have two overt quantifiers, three and every. As expected, there are two combinations due to their relative scope, and thus we have the following readings: 'the same three cigarettes are put on display every month' (three has wider scope than the universal binding time) and 'every month, any of three cigarettes are put on display' (the universal having wider scope than three). Yet, independently of these interpretations, there is a species/individual ambiguity, so that the sentence is actually four-ways ambiguous: 'the same three kinds of cigarettes', 'the same three individual cigarettes', etc. This obviously adds to the evidence against using universal and existential quantifiers to account for the generic/nongeneric distinction, since we would have to postulate the rather unlikely combination of quantifiers $\exists$ and $\forall$ (or $\forall$ and $\exists$) binding the NP.

Since the generic/nongeneric distinction has, thus, been shown not to depend on the determiners, it must be traced to the head of the NP. In our opinion, this species/individual member ambiguity has to be recognized as such, and, as we have suggested earlier, it is independent of the
distinction that Carlson attributes to the predicates.
III. Verbal Generics and their Correlation with Generic NP's

3.1. The ambiguity of verbs: Chafe's analysis

Verbs have been considered to be ambiguous in a way parallel to that of NP's. Whereas NP's can refer to one individual or to a class (a series of individuals), verbs can refer either to a single event, or to a series of them. Chafe (1970) notices that this is a pervasive ambiguity of all verbal tenses in English, and he calls the second reading "generic". Thus, the following sentence

(1) John sings.

can either refer to one act of singing that cooccurs with the time of utterance \( t_0 \), or it can describe a characteristic propensity of John's to take part in such an activity an indefinite number of times. In this latter interpretation, Chafe (1970: 169) observes that it is almost equivalent to

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1 This reading of the present tense is given mainly in stage-directions, on-the-spot reporting of events, or in the narrative historic present. Bennett and Partee (1978) call this the "reportive" reading.
"John is a singer", and he considers this propensity to be timeless. To take another example, the present progressive as in (2) John is singing.

also shows an ambiguity: reference is made either to one single event at $t_0$, or to a series of events in progress at the interval that includes $t_0$. In other words, what Chafe observes is that all tenses can be seen in relation either to moments of time (in which case we have the 'once' reading), or to intervals of time, during which an action can be iterated (and in the absence of adverbial modification, is understood to be regularly distributed, as we shall see later on). For the latter cases, he proposes an optional [generic] "inflectional unit" (ibid.: 49), i.e. a feature. Verbs marked with this feature have a "timeless state or propensity" reading, whereas unmarked verbs (i.e. verbs without this feature) refer to a "transitory event" (cf. ibid.: 186).

The relationship that Chafe sees between generic verbs and generic NP's is the following: In his semantic system, verbs are the central elements. If the verb is inflected as generic, i.e. if it is marked with the [generic] "inflectional unit" or feature and, thus, its meaning involves a propensity for the event to be iterated an indefinite number of times ('series' reading), then this genericity "radiates ... to its accompanying nouns"
(ibid.: 190), particularly the subject. Chafe (1970: 189) explicitly states that this is the case with non-definite nouns; with definite nouns, he leaves the matter quite open, although he seems to generalize to cover them as well in claims such as the following:

"the generic or nongeneric nature of a noun is not something that is established by a choice within the noun at all; it is something that is automatically determined for the noun by the verb to which the noun is attached."

Chafe exemplifies this with the sentence

(3) A bird sings songs. (ibid.: 190)

where the verb affects both the subject and the object NP's (this is seen as an argument for considering the verb, and not the noun, as the determining element). If the verb is understood as generic, then the subject NP has any arbitrary bird as its referent, and the object NP refers to 'songs in general'. But, if the verb has a 'once' reading, in relation to to t.o., that is, if the verb is understood reportively (cf. supra), then the subject NP refers to a particular (though unspecified) bird, and the songs are the particular ones that it performs. That the object case is not as clear-cut as the subject one is, I believe, fairly obvious, since, in the former generic reading, one could argue that each arbitrary referent has only a limited repertoire as well (i.e. the sentence does not mean that 'any bird sings any song').
Further, we find cases in which the verb refers to a state (and it has to be interpreted as a "propensity") and where the object NP is generic, without the subject having to be generic as well. Consider the following sentence, with its subject understood non-generically (e.g. referring to a particular elephant the speaker has in mind):

(4) An elephant likes peanuts. (Chafe, ibid.: 191)

Another problem is that, regarding definite NPs, Chafe is hopelessly vague. Although he states (1970: 189) that "a noun, provided it is not definite, must be inflected as generic in the environment of a generic verb", we are left to guess what the case is if the noun happens to be definite. In Chafe's own understanding of genericity, any definite NP can be attributed a generic (series or propensity) action. Thus, a proper name is a definite referring expression (cf. Lyons, 1977: 640), and we find that in

(5) John sings.

the verb is also ambiguous between one singing event and a series. Yet, even when the verb is understood as "generic", i.e. as having the latter interpretation, John remains an individual and does not suddenly turn into a class (of Johns?). Although, most probably, Chafe would not have put
forward such a hypothesis, the idea is not as absurd as it may seem. Carlson's ontology (1977; 1978), and, in particular, his conceptions of "stages" (cf. 2.6.), in some sense find an ingenious way around the problem that we just mentioned.

Another idea of Chafe's that seems to set some precedent for Carlson's later approach (cf. 3.4.), regards some correlation of generic/nongeneric verbs with certain kinds of states, which Chafe distinguishes, viz. absolute states, where there is no relation to a norm, and relative states, those where the existence of a norm is implied. For example, open is an absolute state, since its interpretation does not depend on the object that it is predicated of. In contrast, wide is a relative state, since, as Chafe describes it, "What is wide for a board is not wide for a table, and what is wide for a table is not wide for a road" (1970: 119). Thus, the interpretation of relative states depends on the noun that they apply to. Compare:

(6) A door is open. (nongeneric)

(7) A road is wide. (generic)

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2 Absolute states are also called intersective (cf. Siegel, 1976, cit. in Carlson, 1978: 106) or binary predicates (Leech, 1974). Relative states are also called nonintersective or polar predicates.
For Chafe (cf. 1970: 170), absolute states are transitory and necessarily nongeneric, whereas relative states are permanent and necessarily generic. For that reason, to him, the subject NP in (6) is understood to refer to a particular nonspecific door, whereas in (7), reference is made to 'any' road whatsoever, that is, a typical or characteristic exemplar.

However, absolute states need not be transitory, nor are relative states necessarily permanent, as shown by the following examples:

(8) A raven is black.

(9) A man is happy.

In (8), blackness of ravens is as permanent as can be, yet black is an absolute predicate, since its interpretation does not depend on a norm. The subject may be interpreted to refer to any raven unproblematically. In contrast, (9) shows a transient state which is relative, because its interpretation does depend on a norm. The sentence, insofar as it is interpretable out of context, is nongeneric.

Moreover, the subject NP of a sentence containing open does not necessarily have to be nongeneric, nor does the subject of wide have to be generic, as illustrated:

(10) A door is open whenever you own the key.
(11) A road (I know) is wide.  

In spite of this, Chafe's attempt to relate genericity of the NF to different categories of adjectives is important, because it set up a precedent that was to be taken up later on (Carlson, 1977; 1978).

3.2. Lawler's quantificational approach

Searching for an explanatory analysis going beyond the mere proposal of a feature, Lawler (1972; 1973a; 1973b) advocates the use of quantifiers in the semantic representation of generic sentences.

Lawler observes - and is startled by - the fact that the present tense in English is understood as referring to the (which to him, would be the expected meaning) only in limited circumstances, namely with sense verbs (verbs of perception, e.g. "I see that") and with the first person of performatives ("I say that"). With the other persons of the performatives, it is regarded as a state ("He says" = 'has said'). With nonstative verbs, the present tense, according to Lawler (cf. 1973a: 6), normally refers to a series of actions, one that has to have possible futurity - in other

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3 I am thankful to Guy Carden for pointing out sentences like these to me. Incidentally, these examples show that more complex data affect genericity as well.
words, one that is somehow understood as a characteristic disposition of the subject to perform that activity (this may be compared with Chafe's "propensity"). This meaning is, to Lawler, inexplicably similar to the meaning of stative verbs (cf. 1.1.); but this puzzles him, because he conceives of stativity as a semantic feature, whereas, to him, genericity stems from a syntactic construction (cf. 1973a: 163).

In his treatment of generics, Lawler speaks mainly about verbs in the present tense, although occasionally referring to the past and to embedded infinitives and gerunds.

To Lawler, "verbal generics", as he calls them, are similar to generic NP's in that they involve quantification as well. However, there is a problem with Lawler's understanding of this, because he vacillates on what he thinks is bound by the quantifier. On the one hand, the quantifier binding generic verbs seems to bind occasions; thus he contrasts the universal in (12) with the existential in (13):

(12) Delmer walks to school.

(13) Harry's dog chases cars.

According to Lawler, (12) means that Delmer always walks to school, although, just as we saw in relation to generic NP's (cf. 2.2.), this universal quantifier binding occasions would
allow for exceptions. Therefore, if poor Delmer broke a leg when skiing and his father drove him to school for one month, provided that Delmer walks to school again after he recovers, the sentence will still be true. In contrast, for sentence (13), some occasions (or even one single occasion) of car-chasing would suffice, in Lawler's intuition, to make the sentence true. For the representation of these sentences, Lawler (cf. 1973a: 25-26) proposes $\forall g$ and $\exists g$, the generic quantifiers. Recall that the generic universal is weaker than the strict logical universal quantifier (cf. 2.2.), thus tolerating non-walking occasions for Delmer's school visits in the above example (12).

It is worthwhile noticing that the number of necessary occasions seems to decrease the more significant the action is, as we can see by

(14) Moses (our orthodox Jewish friend) eats pork.

(15) Bill is a murderer.

which can be uttered on the basis of only one such instance.

For Lawler, the existential use is less normal, and he assumes that it could possibly be explained by means of conversational postulates that may determine, for example, what "occupations" may be seen as more relevant than others.
On the other hand, Lawler conceives of the quantifier as binding the object NP (or some PP, adverb or the like). Thus,

(16) Bill drinks beer.

is, to him, ambiguous between a universally quantified reading ('he drinks ONLY beer') and an existentially quantified one ('he may have other drinks as well'). Again, Lawler claims that the existential reading is less common and may be predictable from conversational postulates touching upon the relevance of the given information to the context of utterance.

In our opinion, the only-reading is a different matter altogether from genericity, because it is not part of the interpretation of generic sentences unless indicated by stress and focus intonation.

Moreover, Lawler's use of quantifiers for these 'only/not only' readings seem to depart radically from their use in logic. While in the 'all/some occasions' contrast the parallelism with logical quantifiers is quite clear, it is not so in Lawler's 'only/not only' distinction. Here, the use of the existential $\exists$ to indicate, for example, that Bill also drinks martinis in (16), seems especially inappropriate, given its formal definition.

One of the main problems that Lawler sees with verbal
generics is that the quantifier seems to vary from sentence to sentence. In his interpretations, some sentences only have a universal quantifier, some an existential one, and still some others are ambiguous. In this latter case, some transformations disambiguate the sentence: cleft and pseudocleft choose only the universal reading; negation, only the existential reading. Thus compare:

(17) Harry drinks beer. (ambiguous)

(18) What Harry drinks is beer. (universal, 'only', cf. 1973a: 15)

(19) Harry does not drink beer. (existential, 'no occasion', cf. ibid.: 18).

Again, notice that Lawler is unclear as to what the quantifiers are supposed to bind in the semantic representations of these sentences.

Regarding the semantic representation of these sentences, Lawler hesitantly proposes that perhaps the generic quantifiers (∀g and ∃g) bind both an event (occasion) and a sentential argument. For example, consider the following sentence and Lawler's (1973a: 26) semantic representation.

representation for it:

\[(20)\]  Bill walks to school.

\[(21)\]  \(\forall g \ (EVENT(e, \text{GO} \ (\text{TO}) \ (\text{Bill}, \text{school})) \ (EVENT(e, \text{WALK} \ (\text{Bill})))\]

which he expresses alternatively as a conditional structure:

\[(22)\]  \(\forall g \ (EVENT(e, \text{GO} \ (\text{TO}) \ (\text{Bill}, \text{school})) \rightarrow \ (e, \text{WALK} \ (\text{Bill})))\]

What this formula basically says is that any event of Bill's going to school is an event of Bill's walking as well. However, Lawler (ibid. : 26) does not want to commit himself to any of these representations, and he indicates there could be some "semantic reasons" for not wanting to view generics as an implication.\(^5\)

Regarding the correlation between generic verbs and generic NP's, Lawler (1973a: 125) differs from Chafe, reversing the determination:

"(1) the verb must be generic, in some sense, when the subject is generic;
(2) many generic readings of particular verbs, or of complements of particular verbs, can be gotten either only or much more more easily when the subject is

\[\]

\(5\) However, he unfortunately does not expand on these "semantic reasons". In spite of this, in his article (1973b), he does treat generic sentences as implications ("hypotheticals") having either the verb or the object NP in the antecedent.
This claim is rather weak, but it is probably accurate to say that, with generic NP subjects, the 'series' reading of verbs is a natural consequence of their interpretation (cf. 3.7.).

3.3. Other quantificational approaches

In spite of Lawler's hesitation, the representation of generic sentences as conditional structures bound by a quantifier has found considerable acceptance (cf. Lyons, 1977; Allwood, Anderson and Dahl, 1977; etc.). Regarding the quantifier binding events, Spears (1974) argues that even in those habituals where Lawler interprets the time variable as bound by an existential quantifier, it is in fact bound by a universal one. The difference is that in these instances, the particular occasions are not specified ('all occasions of type x'), i.e. they remain vague and have to be filled in by our pragmatic knowledge.

Newton (1979) also finds a semantic structure representing a correlation of events bound by a universal quantifier useful to describe other sorts of phenomena, viz. the use of the perfective or imperfective aspect in certain types of sentences in Greek. Carrying Lawler's and Spears' suggestions further, he proposes to represent generic sentences with what he has called, after Rescher, a
scenario-expression, of the form

\[ \forall t (p^t \rightarrow q^t) \]

'At all occasions, if \( p \) at \( t \), then \( q \) at \( t \)

or, to quote Newton's (1979: 140) paraphrase, "it is the case that at all times if \( p \) is true then \( q \) is also true", where \( p \) is called the antecedent and \( q \) the consequent. As we can see, the \( t \) variable does not stand for 'logical' absolute time, but will only take into account the occasions on which the correlation represented in the conditional expression takes place. Like Spears, Newton observed that the antecedent of a scenario-expression could be overtly expressed, as in (24), or else it could be covert, as in (25):

(24) Whenever Diane goes to a party, she puts a flower in her hair.

(25) Male geishas never unbutton their jackets.

The last example, according to Newton (1979), cannot mean on any reasonable interpretation that male geishas even go to sleep with their jackets on. What we find there is a covert scenario, where the antecedent is somehow incorporated in the subject NP: 'Whenever male geishas are (functioning as) male geishas, they never unbutton their jackets'. The conditions for the antecedent will then be the various duties (whatever
they may be) that male geishas have to perform.

In order to express these covert antecedents in generic sentences, that is, those particular occasions for the correlation of events that were either incorporated in the subject NP, or derivable only by our pragmatic knowledge, it was suggested in Pease-Gorrissen (1980) that a pragmatic variable (say, \( w \)) be present in the antecedent of these conditional structures. In fact, \( w \) would be a kind of open variable in our semantic representation allowing other cognitive structures to play a role at that particular point (cf. Chomsky, 1975: 90):

\[
(26) \quad \forall t((p \& w)^t \rightarrow q^t)
\]

Thus, \( w \) would account for the range of varying truth conditions observed by Lawler associated with generic sentences, for instance in relation to the necessary frequency of the activity (which decreases the more significant the activity is) (cf. 3.2.).

3.4. Carlson's approach

In contrast to the proposals just mentioned, Carlson (1978) rejects the idea of a quantifier binding occasions or NP's (cf. 2.5., 2.6.).

Like Chafe, Carlson (cf. 1978: 70-71) distinguishes
between two readings in all verbal tenses: an "event" reading and a "characteristic" reading. To him, this is a genuine ambiguity, as the truth conditions for each are quite distinct. Furthermore, he believes that it is an ambiguity that, far from depending on the subject NP (cf. Lawler's position, 3.2.), actually influences its reading (cf. Chafe's position, 3.1.).

Recall Carlson's ontological hierarchy of kinds, individual objects, and stages, and his identification of the "universal" NP reading with the two former entities, and of the "existential" one with the latter. His initial argument is that these readings are predictable from the context, mainly from the predicates. Thus, if a verb is understood as characteristic, O-NP's (which are what he deals with primarily) take kinds or individual objects as their subject, and therefore, these are understood as universally quantified. And if a verb refers to an (instantaneous) event, then it applies to stages, and we understand an existentially quantified subject. As a result, he proposes two distinct lexical entries for the verb in (27):

(27) Dogs bark.

Cf. also Spears' (1974) terms "unit aspect" and "multiple aspect" for these readings.
Bark 1 is the event (one barking instance of dog-stages);
Bark 2, the habitual reading (many barking instances of an
individual or of the kind "dogs"). In this way, Carlson's
ontology permits him to revert, in some sense, to Chafe's
position: genericity stems from the verb and radiates to the
NP's (cf. 3.1.).

Noticing that adjectives tend to select either the
"existential" or the "universal" reading of O-NP's as well,
Carlson separates them into two categories that are parallel
to the distinction between events and characteristics.
Following a terminology proposed by Milsark (1974, cit.
in Carlson, 1978: 71) Carlson calls these two categories of
adjectives "states" and "properties". These terms are
unfortunate because of the many other uses that they have,
but we will always mark them with quotations for
clarification and avoidance of confusion.

"States" refer to temporarily restricted characteristics
of the subject, for example, be sick (physically), be hungry.
"Properties" refer to permanent attributes, as in be sick
(mentally), be intelligent. For Carlson (1978: 105ff.), the
latter require individuals (objects and kinds) as their
subjects, and are thus parallel to the characteristic or
habitual readings of verbs; whereas the former take stages,
and therefore pattern together with the event readings of
verbs. Predicates that apply to individuals are translated (cf. ibid.: 108) (following a Montague framework, cf. 2.7.) in a way already familiar from predicate calculus, as:

(28) John is intelligent.

(29) \textsc{intelligent} (john)

But for predicates that apply to stages, Carlson proposes a more complex representation, introducing a transitive relation \( R \) ("realizes"): \( R (y^5, x^0) \) means that a stage-variable \( y \) realizes the individual object-variable \( x \). Thus, we find:

(30) John is hungry.

(31) \( \exists y^5 (R(y, \text{john}) \& \text{hungry}(y)) \)

where we can see that the predicate takes the stage, and not the individual, as its argument.

It is important that this relation be transitive, allowing Carlson a refinement in the conception of his ontology, since, now, the similarity between individual objects and kinds can be made explicit: just as individual objects are realized by stages (of objects), kinds are realized by individual objects. The relation being transitive, it follows that, if a stage realizes some object and that object realizes a kind, then the stage realizes the
kind as well. Predicate nominals pattern together with "properties", and thus take individuals as their subjects, whereas locative prepositional phrases, for example, are grouped with "states" and take stages as their subjects.

In addition to being subcategorized in this manner for the type of entity that they take as their subject, transitive predicates can also require stages or individuals as their objects. This is particularly interesting in relation to the Spanish data that we shall be looking at in Chapter IV, because the groups of verbs that Carlson distinguishes regarding the type of object that they take appear to be similar to those considered by Pease-Gorrissen (1980) bearing upon the use of the article in Spanish (cf. 4.6.). On one hand, we have affective verbs such as love, hate, etc., which, for Carlson, take individuals both as their subjects and as their objects, and therefore favour the "generic" or "universal" 0-NP readings. In contrast, verbs like chase, kill or hit, that Carlson (cf. 1978: 112) calls "extensional" because they presuppose the existence of the direct object referent, are regarded as relations between stages, and thus 0-NP's are understood as existentially

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7 For Carlson (cf. ibid.: 113), affectives are not extensional. If ghosts do not exist, for example, one can certainly fear them, but not hit or kill them.
quantified. Compare the following sentences and their proposed representations:

(32) Children love popcorn.

(33) LCVE (c,p)

(34) Dogs chased cats.

(35) \( \exists w^5 \exists z^5 (R(z,d) \& (R(w,c) \& \text{CHASE}(z,w))) \) (cf. 1978: 113)

Notice, however, that the last sentence, when given in the present, does favour a "universal" reading for the subject: 8

(36) Dogs chase cats.

This fact will find a possible solution in Carlson's revision of his theory (the \( G \) operator, cf. 3.5.). For now, it would seem to indicate that verbs perhaps change the subcategorization of their type of subject-entity depending on their tense. In any case, these verbs would still require

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8 This favoured "universal" reading may also be given in past tense examples like
i.) Roman emperors chased women.
I thank Tom Perry and E. Wyn Roberts for pointing this out to me.
stages as their direct objects, as above.

Recall now that in the case of kinds (generic NP's), the quantifier solution is problematic because sometimes it is understood as a strict universal (without exceptions), and sometimes not. In the case of individual objects like John, however, Carlson observes that the truth conditions of the sentences with them as subjects may also vary greatly regarding regularity, frequency, and exclusivity, e.g. in

(37) John mows Verdi's lawn.

(38) John sings Verdi arias.

only the first one of these examples invites us to infer that he does so regularly, and that probably no one else does. For Carlson (1978: 442), the universal/existential distinction that Lawler had seen in this respect does not depend on any additional ambiguity (of the NP, especially in the case of 0-NP subjects denoting kinds), but only to our varied "strategies of investigation". However, notice that Carlson has switched here from the supposed quantifier binding the NP (which he combats) to the proposed quantifier binding occasions: What he notices in the last examples is that the varying frequency of the activity may pose problems for the quantifier solution (binding occasions). From this, he believes to have found an argument against the quantifier
solution (binding NP's).

In any case, some quantification is still involved in this account as well, namely by the presence of an existential quantifier in the representation of all those predicates that apply to stages (cf. for example (35)). The fact that the quantifier is part of the predicate explains, for Carlson, why it never had wide scope (regarding the opacity phenomena discussed by him, cf. 2.6.).

3.5. Carlson's revision

In the second part of his thesis, Carlson alters his conception of those verbal predicates that exhibit an ambiguity between an event reading and a habitual one, for example bark, run, etc. The main reason for revising his theory resides in the obvious loss of generalization that would result if he postulated - as he initially did - two distinct, unrelated lexical entries for each of those readings. Thus, we would have run1 for an event reading, run2 for a habitual reading, and so forth for almost each existing verb in the language. The ambiguity that we have here is clearly not the same kind that we find, say, between the lexical items bank1 ('of a river') and bank2 ('the monetary institution'). In a effort to clarify the relationship between the two interpretations of verbs (1978: 167ff.),
Carlson postulates the event reading of all verbs as the basic one: thus, all these potentially ambiguous verbs are entered in the dictionary as stage-level predicates. Then he proposes a rule that may add an aspectual operator $G$ (for generalization), whose function is to convert the predicates that apply to a lower ontological entity into predicates applying to a next higher ontological entity. Thus, this generalization rule unfolds into two operations: an operator $G$ that converts a stage-level predicate into an individual-level one, and which is at work in the following example:

(39) John smokes. (event)

(40) John smokes. (generalization: habitual)

(41) $\exists x^5 (R(x, j) \& \text{SMOKE}(x))$

(42) $G (\hat{x}^5(\text{SMOKE}(x))(j)^9$

In the event reading of the verb, we have a corresponding

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$^9$ This is Carlson's notation (cf. 1978: 164ff.). $\hat{x}^5$ stands for a set, and, as before, the superscript clarifies the type of entity referred to. The realization relation is understood to hold between the members of this set (stages, in this case) and the individual ($j$) that constitutes the second argument of the formula. Although we shall not go into further detail about his notation, the ideas which Carlson wants to express will hopefully be clear from the text.
formula, already familiar to us, where the smoking is attributed to a stage of John. In the second formula, the operator \( G \) has applied: it takes a higher level value (an individual) and a proposition about lower level variables as its arguments. The formula basically says that the individual John \((j)\) has the generalized property of having a set of stages \((\hat{x}^5)\) that smoke.

A related, but different operator, \( G' \), converts an object-level predicate into a kind-level one. This operator would be at work in the following sentences:

\[
\begin{align*}
\text{(43)} & \quad \text{Men smoke. ('some men')} \\
\text{(44)} & \quad \text{Men smoke. ('men in general')} \\
\text{(45)} & \quad \exists x^6 (R(x, m) \& \text{SMOKE}(x)) \\
\text{(46)} & \quad G'(\hat{x}^6(\text{SMOKE}(x))(m) \quad \text{(cf. Carlson, 1978: 164ff.)}
\end{align*}
\]

Again, the first sentence refers to events of smoking by the class "men". In the second sentence, represented by the formula in (46), we see that the generalization operator has applied, and we are attributing to the individual kind "men" the property of having a set of objects \((\hat{x}^6)\) that smoke (and recall that objects realize a kind).

\( G \) and \( G' \) are very similar, and in fact one could be tempted to consider them as the same operator. However,
Carlson keeps them separate because they apply to different entities, and in addition, they have different restrictions regarding predicates: while $G$ applies only to verbal predicates, $G_1$ may also apply to adjectives and predicate nominals (cf. 1978: 171).

The generalization operators reflect, according to Carlson, what we intuitively understand to happen in inductive reasoning, where we make a generalized statement basing ourselves on the observation of several instances of a certain event. In other words, we would claim that "Bill smokes" only after having seen him (or rather, stages of Bill's) indulging in the unhealthy habit a number of times (cf. Carlson, 1978: 168). How many instances would suffice for us to make that generalized claim? It varies, but Carlson gives a meaning postulate requiring that there be a minimum (of two) such instances. How many times are actually "enough", to him, belongs to other cognitive departments, and not to the grammar. Regarding any explicit formal definition of these operators, Carlson (1978: 164) states:

"We are not going to specifically attempt to say WHICH function $G$ represents, except that if $G(\forall \theta)$ holds of some kind of thing, then necessarily there must be some realization of that kind of which the predicate $\theta$ holds."

However, that statement would be satisfied by a formula such as (45), for example, involving an existential quantifier.
Surely, Carlson wants to express something stronger than this, which should not be reducible either to a weakened universal quantifier (cf. 3.2.). His allusion to the ontological nature of the domain of application of $G$ and $G'$ must then convey that the realizations which are in the extension of the predicate are somehow characteristic for that entity. In 3.7., we shall argue that still another distinction has to be incorporated for a better understanding of $G$ and $G'$, which will hopefully become amenable to formal definition as further research advances.\(^\text{10}\)

It is one of these generalization operators (which are renamed "gncmic operators" in Carlson, 1979) that is responsible for the "universal" reading of the subject of the following sentence, which we noted previously (cf. 3.4.):

\[(47)\quad \text{Dogs chase cats.}\]

The verb \textit{chase} is basically a relation between stages, but the generalization operator allows us to convert a stage-level predicate (regarding the subject) into an individual-level one. Thus, this sentence would have a formula such as:

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\(^{10}\text{I am grateful to Phil Hanson for a lengthy discussion in this respect.}\)
That is, dogs (the individual kind) are attributed the
generalized property of having a set of objects \(\hat{x}^o\), some of
whose stages chase stages of cats. Regarding the relationship
of \(G'\) to the present tense, Carlson (1978: 271ff.) attributes
our normal understanding of it as habitual, rather than
reportive (cf. 3.1.), to the fact that, to him, events
consume time, i.e. happen within intervals of time, but the
present tense is a moment, and not an interval, of time. Only
characteristic readings of verbs (i.e. generalized
properties, via \(G\) and \(G'\)) can be true at moments of time,
since the characterization is given "in terms of no
particular time whatsoever" (ibid.: 273). Thus, for Carlson
(ibid.: 274), there is no tense in English that is "more or
... less 'generic' that any other"; the difference in the
application of the generalization operators resides in that
the present, but not the other tenses, denotes a moment of
time.

Having introduced the generalization operators, Carlson
revises his initial classification of predicates. Thus, \textit{be a
mammal}, for example, is now held to be an object-level
predicate that can be generalized via \(G'\). Unfortunately,
Carlson's final classification of predicates is never shown,
but I would presume that all of Milsark's "properties" (1974,
cit. in Carlson, 1978: 71) as well as predicate nominals, would be considered like be a mammal. One of the reasons for this reclassification of predicates is that it may allow us to distinguish between those predicates that receive "collective" interpretations when attributed to kinds, from those that receive "distributive" ones (cf. 2.2.): the former are basically kind-level predicates (for example, be extinct) and can never be applied to objects or to stages; the latter are basically object-level predicates (e.g., have four legs) and thus, if they apply to kinds, it is only via the G\(_1\) operator, hence the distributive reading that they have.

It should be pointed out that Carlson's modifications of his first proposal and the discussion of the functioning of G and G\(_1\) are not always very clear. There are many details that remain quite obscure, (to my understanding at least). However, the preceding paragraphs should suffice to give us a brief overview of his ideas.

3.6. Summary and comments

In the preceding sections, we have presented some of the main ideas concerning verbal generics. From what was said, we conclude that there are striking similarities between generic NP's and generic verbs. These similarities can be summarized as follows: Both NP's and verbs present an
ambiguity. Speaking in very general terms, NP's can have one reading where they identify an individual in the domain, and another reading where they denote a class or series of individuals. Given that NP's refer to individual constants, and a, b, ..., n are individual constants in the domain, and, given that P is a predicate constant, then the two interpretations of an NP can be represented as:

\[(49) \quad Fa\]

\[(50) \quad Fa \land Fb \land \ldots \land Fn\]

That is, the subject NP of a sentence selects one referent a in the nongeneric interpretation, and a series of referents a, b, ..., n (a class) in the generic interpretation. The conjunction in (50) is equivalent to a universally quantified sentence (cf. 2.2-)

\[(51) \quad \forall x (Fx)\]

The readings of verbs refer either to a single event or to repeated ones. However, there is an important distinction in the latter interpretation that has not been discussed in the literature. This may be illustrated as follows: Assuming a finite domain, if we represent the 'once' reading of a predicate constant as in (52), we can see that the 'series' reading can come about by conjoining different sentences, as
in (53) and (54):

(52) \( Pa \)

(53) \( Pa \land Pa \land \ldots \land Pa \)

(54) \( Pa \land Pb \land \ldots \land Fn \)

In (53) we also assume that the individual occurrences of \( Pa \) are nonsimultaneous.\(^{11}\) What we observe is that, in the 'series' interpretation of verbs, we can either have the repetition of the same proposition (i.e. the same subject is involved), or else we can have the same action or event being repeated by different subjects (the members of a class). In (53), we have, thus, a habitual sentence; in (54) we have a generic sentence proper (cf. 1.1.). Quantification appears to be related to generic verbs as well as to generic NP's. With generic verbs, the universal quantifier binds either occasions (especially for habituals) or the members of the class (for generic sentences proper).

As Lawler's observations (1972; 1973a; 1973b) suggest, the logical universal quantifier seems too strong for the representation of both generic NP's and generic verbs. In the first case, there may be some exceptional members that, although lacking the characteristic described by the

\[ \text{--------------} \]

\(^{11}\)I owe this observation to Tom Perry.
sentence, do not falsify it (cf. 2.2.). In the case of
generic verbs, exceptional occasions where the subject does
not exhibit the behavior predicted by the sentence do not
falsify it either (cf. 3.2.).

Generic NP's and generic verbs are not only very similar
in the ways described above, but also, they often cooccur. To
Chafe (1970), probably because generic verbs involve cases
other than those of generic NP's as well, the genericity of a
verb determines the genericity of a NP. We have seen,
however, that this is not so in the case of definite NP's
(cf. 3.1.) (and also in the case of other quantified NP's
that present the ambiguity, cf. 2.6.). Lawler's (1973a) claim
that it is rather the NP which is determining seems to be
more appropriate, although it is difficult to decide whether
there is in fact a determining factor or whether they are
mutually determining. What is clear, as can be seen by the
above illustration under (54), is that, if the subject is
understood generically, in a "distributive" sense (cf. 2.2.),
(i.e. referring to the members of a class), the event
referred to by the predicate has to be repeated (since it it
performed at least once by each member). We shall discuss
this further in the next section.

Since the quantificational approach was vague - the
"generic" quantifier not being strictly defined - Carlson
(1977; 1978) forwards a proposal which is quite different from the former ones. Although he claims to show that (bare plural) NP's are unambiguous, and his notational system allows him to give only one representation for their readings (cf. 2. 7.), his ontological distinctions in fact enable us to talk in a more explicit way about the ambiguity presented by NP's. In the framework that we are adopting, the value of the assignment function which defines the reference of nominal expressions is clearly different in each of the readings of NP's. Therefore, we have continued to talk about NP's being ambiguous.

Regarding the ambiguity of verbs, Carlson's (revised) proposal equates, on the one hand, the 'once' readings of verbs having individual subjects (where he considers the subject to be a stage) with the nongeneric reading of NP's (existential interpretation, where he considers the subject to be an individual object); and, on the other hand, the habitual or 'series' reading of verbs having an individual subject (which comes about via G) with the 'series' reading of verbs with NP's interpreted as generic (via G'). In the next section, we shall argue that, although it must be granted that these striking parallelisms definitely support the joint consideration of habituals and generics, we also have to keep in mind their differences.
3.7. The two axes of generalization

Our previous observations about the two 'series' readings of verbs, illustrated in (53) and (54), regard a basic difference in the domain of application of the generalization procedures that Carlson wants to describe by means of his operators. Moreover, this basic difference shows, once again, the similarity between habituals as predicated of particular individuals and of kinds (or generic NP's). What seems to be involved are two different axes of generalization. When one expresses a statement describing a habitual or characteristic activity of an individual, say, John, one is referring to something that is repeated (frequently, regularly) over the axis of time:

(55) John runs.

(56) ------x---------x---------x---------x---------x---------
     J running   J running   J running

Thus, Carlson's aspectual operator \( G \), the one that converts stage-level predicates into object-level ones, involves a generalization over time. In other words, as - at least in our world - individual objects can only have one stage at a time, in order for us to say that "John runs", we have to base ourselves on several occasions of his running, that is,
on subsequent appearances (or temporal slices) of John running. And in relation to the exceptions that these sentences allow, these would consist of (non-running) points in time as well.

Generalization involving kinds, however, is of a different nature: the perceived 'series' reading of the verb does not necessarily refer to occasions or points in time, but it extends over another axis, that of individual objects, which we shall represent as a vertical line, as illustrated:

\[(57) \quad \text{Teamsters run.}\]

\[(58) \quad \begin{align*}
\text{T1} & \quad \rightarrow \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \\
\text{T2} & \quad \rightarrow \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \\
\text{T3} & \quad \rightarrow \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \\
\end{align*}\]

It is because the axis of generalization is not a temporal one that these sentences, with generic NP's as subjects, seem to be omnitemporal or even atemporal (where time reference is irrelevant, cf. 1.1.).

A further argument for postulating these axes for the 'series' reading of the verb is that, in cases where the vertical axis is involved, each individual member could participate only once in the activity attributed to the class for us to make a valid generalization (although they could indulge more times as well). This is particularly clear in
the case of so-called semelfactive predicates, i.e. those that one (presumably) experiences once in a lifetime, for example, master a (specific) language, die, lose one's
virginity. These predicates cannot be used in habitual sentences (at least not in their literal sense) with an individual subject, as can be seen:

(59) *Rita masters Chinese every week.

But they can be attributed as a generalized property to a kind:

(60) Romans used to die at thirty.

(61) Teenagers lose their virginity younger every day.

This last sentence cannot mean that every individual teenager rejuvenates, by some mysterious means, and loses his/her virginity every day, each time at a more tender age. Rather than this admittedly bizarre reading, the only possible axis for generalization with semelfactive predicates is the vertical one, that is, taking only one such event for every (relevant) teenager.\textsuperscript{12} Thus, the only possible 'series'

\textsuperscript{12}

Or perhaps, not even that is required if a "propensity" reading is understood: something may have a property without necessarily carrying it about (there may be still some chaste teenagers, after all).
readings of semelfactive predicates necessarily have generic NP subjects. Or, in Carlson's terminology, semelfactive predicates would have to be considered as predicates that basically apply to objects, but, in the present tense at least, $G'$ has to apply obligatorily. Yet, Carlson's terminology would still not enable us to express the fact that the generalization axes (of $G$ and $G'$) are different: in the first case we have to take time into account, but this is not so in the second case (as this vertical axis ranges over members of the class, and not occasions). The possibility of generic sentences with semelfactive predicates constitutes evidence for the postulation of the individual object axis.

It may be worthwhile to observe that, in spite of its drawbacks, the quantificational approach, with the universal quantifier either binding occasions or NP's, would permit us to differentiate these axes of generalization quite neatly.

With habitual sentences in the past, we get into a further complication. If we utter the sentence

(62) Pfeiffas ate kelp.

we may be combining both axes, i.e. describing a situation where each individual pfeif Isa - pfeiffas being a species that is alive and well - had the habit of eating kelp (just as in "John ate kelp"), but then, for some reason, stopped
performing that activity:

\[
\begin{align*}
\text{Equally well, one could think of a situation where each living pfeiffa ate kelp only once, but avoided it thereafter (cf. semelfactives). Or else, if we think of pfeiffas as an extinct species, the situation would be described as well using both axes of generalization (individual members, and time), but from a certain point on in the horizontal axis, there would be no more pfeiffas:} \\
\text{(64) Pfeiffas} & \quad \text{No Pfeiffas} \\
\text{P1---x---x---} & \quad \text{---} \\
\text{P2---x---x---} & \quad \text{---} \\
\text{P3---x---x---} & \quad \text{---}
\end{align*}
\]

That is, the past tense here would be due to the fact that (the utterer believes that) pfeiffas are extinct; but they never ceased to have the property attributed to them by the sentence.

The last couple of observations point to a very important fact, namely, that individuals or even classes may change their habits or characteristics. This may happen as
well with those "properties" denoted by Milsark's adjectives (cf. 3.4.):

(65) I used to be blond as a baby.

(66) After the Empire, Romans were mentally sick and decadent.

In other words, individuals are not static entities. Even though generic sentences in this broad sense, describing properties of individuals (cf. Carlson, 1977: 451) are law-like, they can be "restricted in time", as Dahl (1975: 103) rightfully observed. In Carlson's approach, this fact would create a real problem, as his ontological hierarchy apparently does not leave room for these changes of individual-level characteristics. Incorporating the two axes of generalization, however, allows us to make these changes explicit, as illustrated above.

In his recent book, McCawley (1981) made some observations regarding Carlson's account, which coincide with some of our previous comments. He independently suggests the need to draw a distinction such as the one we have expressed here by the two axes of generalization. He also recognizes that individuals may vary their characteristics or habits through time. Regarding this last point, he suggests that
Carlson's theory be expanded either by allowing habitual sentences to have different truth values at different times for the same individuals, or by introducing a fourth kind of entity into the ontological hierarchy, one that would comprise a number of stages but not the whole individual (cf. McCawley, 1981: 447).

Probably, the best way to expand Carlson's analysis would be by actually incorporating both of McCawley's suggestions, as we shall see. The proposal of a fourth kind of entity finds evidence in the way habitual generic sentences in the past are interpreted (cf. next section), and also, in some data from Spanish that we shall present in the following chapter. Moreover, the existence of lexical items referring to ages of man or of animals, e.g. youth, adult, cub, puppy, etc. 13, may further support this proposal.

The incorporation of our temporal axis of generalization would amount to McCawley's first proposal, since the axis of time can be divided in such a way that the attribution of some property to individuals or classes can be true up to some point and false thereafter, as shown in (63) and (64). Another way to incorporate the dimension of time into the logic is suggested by Dowty (1979: 73), who introduces

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I am grateful to E. Wyn Roberts for drawing my attention to these items.

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variables and constants for points in time and
an operator $AT$. Still another possibility is offered by
following the lines of Dahl's (cf. 1975: 106ff.) ideas, who
proposes to consider nomic statements (cf. 1.2.) as those
that are true in a set of alternative worlds, that is, in
possible worlds definable by a certain relation. To
incorporate the dimension of time as well, Dahl suggests
that, most probably, rather than possible worlds
(independently of time), we would need a succession of
world-states. In this framework, one way to allow a
non-static conception of Carlson's ontological entities would
be to define $G$ as true if and only if there are $n$
world-states in the succession ($n \geq 1$), in which a stage of the
subject is in the extension of the predicate. Similarly, $G'$
could be defined as true if there are $n$ object-realizations
of the subject within the extension of the predicate in at
least one given world-state. This suggestion, of course, is
highly tentative.

Carlson's ontological distinctions, provided that
entities are not static, together with the realization
relation and the generalization operators, allow us to
express the parallelism between habitual and generic
sentences (cf. 3.6.). In order to also be able to express
their difference, we are extending Carlson's analysis by

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proposing two axes of generalization. The temporal axis allows us to take into account the possibility of individuals and classes changing through time. The operators $G$ and $G'$ need to incorporate in their definition not only the type of entity they apply to, but also the axis that each of them generalizes over. Finally, we must allow for the combination of both generalization axes (and operators), as was shown above.

3.8. The nomic expression "used to"

As we illustrated in (60) and (65), sentences referring to former characteristics of the subject may contain the expression \textit{used to}, which has been considered a habitual form (cf. Comrie, 1976; Dowty, 1973). This form requires the 'series' or 'characteristic' reading of the predicate that it embeds. For example, the embedded verb \textit{sing} in (67) cannot be interpreted as a single event:

\begin{equation}
(67) \quad \text{I used to sing when I was young.}
\end{equation}

The form \textit{used to} may embed any aspectual class of verbs, including statives, as has been shown before. We repeat the relevant example:

\begin{equation}
(68) \quad \text{I used to be blond as a baby.}
\end{equation}
What is required is that the proposition embedded under used to be nomic (cf. 1.2.), expressed either by stative predicates or by 'series' reading of verbs. The similarity between states and habituals (cf. 1.1.) stems from the fact that, whereas states are continuous, uninterrupted over an interval, the iteration of events referred to by the habitual interpretation of predicates has a homogeneous distribution over an interval (cf. Lyons, 1977; Comrie, 1976).

Dowty (1979: 179) compares the way in which the truth of sentences containing stative predicates is confirmed to the validation of habituals in Carlson's (1978) theory (cf. 3.6.). For Dowty, both are confirmed not by the truth of the predicated property at the current moment of time, but in relation to "our total experience with prior stages of an individual".

In our framework, nomic statements are validated by the proposition being true at points along the axes of generalization. Both statives and habituals find confirmation along the horizontal axis of time; generic sentences involve the vertical axis as well.

We call used to a "nomic expression" because it obligatorily embeds clauses denoting nomic propositions, as explained above. This form is only found in the past in English, thus indicating that the characteristic or habit no
longer holds. Therefore, its existence constitutes strong evidence against considering entities as static, as in Carlson's (1977; 1978) account. Furthermore, the interpretation of sentences containing this form which involve the vertical axis of generalization supports McCawley's (1981) proposal for the consideration of 'sets' as an entity in Carlson's ontology. This may be illustrated by

(69) In my days, youngsters used to be better.

In this sentence, the referents in the universe of discourse are patently divided into two sets, that is, better youngsters in some past time, versus worse youngsters thereafter. In other words, the members of the class youngsters along the vertical axis of generalization are grouped into two contrasting sets.

The use of the nomic form used to once again points to the strong interrelation between habitual and generic sentences, both of which it may embed. Also, we have suggested in this section that the interpretation of this form can be illustrated by means of our proposed axes of generalization.
3.9 Rate expressions.

Generic sentences may be vague in respect to the frequency or regularity of the activity described, or they may contain rate expressions, that is, adverbial phrases "having to do with the relative or absolute frequency of events" (Newton and Veloudis, 1980: 26). Rather than just expressing frequency (as would be the case in once, n times, etc.), the adverbial expressions that appear most commonly in generic sentences involve regularity as well. Examples are: hourly, twice a month, regularly...; always, seldom, occasionally, often, etc.:

(70) Every morning she rides a stationary bicycle, does leg lifts, and runs a mile.

Another type of adverbial expressions (or sentences) found in generics are those that refer to a (more or less prolonged) interval of time: In the Middle ages, these days, when I was young, before X became fashionable, etc. Finally, we find expressions or sentences that indicate a correlation of events: whenever X, at X(place), etc.:  

Smith (1969: 263) calls these expressions "framing adverbials".

These adverbial expressions constitute overt antecedents in Newton's (1979) scenario-approach (cf. 3.3.). As Tom Perry

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Whenever Diane goes to a party, she wears a flower in her hair.

She wears something different according to who she is going out with.

Some types of predicates require the presence of either a rate expression or an overtly habitual verb (such as the English used to) in order to allow a generic interpretation. One such type is given by initiation, resumption, and cessation verbs (for this terminology, cf. Bennett and Partee, 1978):

Sheila starts knitting every month and then she stops.

An interesting remark can be made concerning rate expressions and progressive forms. The progressive may be regarded as almost the opposite of the habitual aspect, as the former, but not the latter, makes reference to a (particular) moment of time (within an interval) and it refers to a dynamic situation (cf. Lyons, 1977: 707). This...
has led Carlson to regard the progressive as a function that "turns a property [in Milsark's sense] into a state" (1977: 450). Thus, although in (74) the predicate refers to a characteristic of individuals, in (75) it refers to a (temporally restricted) "state" of a stage (cf. 3.4.):

(74) John is a fool.

(75) John is being a fool.

That means that a sentence containing a progressive form is difficult to interpret as generic (since the 'series' readings apply to individuals or kinds, but not to stages). However, if a rate expression is overtly specified, this is possible, especially if some comparison is involved:

(76) [Children/You] are eating better lately.

(77) John is being a fool these days.

These sentences are understood as habitual and often carry an implicature that the characteristic described is a newly acquired one. 16

Regarding the analysis of rate expressions, Carlson

16 But not necessarily:
   i.) John is always being a fool. Always has.
Thanks to Tom Perry for this observation.
(1978) devotes some attention to adverbials such as often, seldom, occasionally, etc. He observes that the sentence

(78) Texans are often tall.

does not describe a sequence of states of affairs where Texans change their height and often grow, but rather, to him, these adverbs have to be described "as quantifying over realizations of the subject of the sentence" (1978: 124). In other words, if we interpret often as "having many realizations", (78) would say that many individual Texans are tall - since individual objects realize kinds. This seems to me to be correct, but again, I would like to point out the necessity of considering the two axes of generalization. These adverbial expressions may, as in the last case, quantify over the (vertical) object axis. In other cases - just as we have seen with present progressives - predicates that normally apply only to stages can, nevertheless, be understood as generic or habitual (states) if one of these rate expressions is present, but then, only the temporal axis seems to be involved:

(79) I'm often hungry.

Yet, when predicates such as these, rate adverbials, and generic NP's referring to classes as subjects cooccur, we may
get cases where both axes seem to be involved, that is, *often* may be interpreted as quantifying over members of the class as well as recurrence in time:

(80) Pregnant women are often hungry.

(81) Students often attend conferences.

This can only be explained by taking into consideration the two axes of generalization. Rate adverbials (*often* and similar ones) could then be defined as quantifying over points in one or both of these axes.

3.10. Concluding remarks

As was pointed out in 1.2., a controversial problem was whether habituals and generic sentences proper should be equated or not. We believe that their striking similarities definitely support their joint consideration. Both habituals and generic sentences express nomic statements which are law-like, characteristic, either of individuals or of kinds. Carlson’s proposed ontological distinctions, his generalization operators, and the realization relation, furnish us with the means to make their parallelisms explicit. However, we have argued that the distinction between habituals and generics must also be expressed in our semantic description. For that purpose, we have incorporated
two axes of generalization to the analysis, which can be made part of the definition of $G$ and $G'$. The interpretation of theonomic form used to and of rate expressions, illustrated in the previous sections, constitutes further evidence for postulating these axes of generalization.

With this, we now turn to the second part of the present thesis. In the chapters that follow, we shall examine how genericity is expressed in Spanish and whether our data pose further problems for the analysis as it stands.
B. GENERICITY AS EXPRESSED IN SPANISH
IV. Generic NP's in Spanish

4.1. The ambiguity as exhibited in Spanish

In Chapter II, we have analyzed the distinction between individual and species readings which has been observed for NP's in English. We concluded that this ambiguity is more general than has usually been considered, since it arises not only with NP's having different determiners (the, a, and zero), but with demonstratives, possessives, and overt quantifiers as well (cf. 2.6., 2.8.). In Spanish, we find that the situation is parallel, as shown by the following examples:

(1) Por fin vendí aquellos tres cigarros.

'Finally I sold those three cigarettes.'
(species/individual)

(2) Mi perro se encuentra en Siberia y en Alaska.

'My dog is found in Siberia and in Alaska.'
(species)

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This chapter contains material from Pease-Gorrissen (1980).
El zoológico tiene cantidad de serpientes.
'The zoo has many (lit. quantity of) snakes.'

(species/individual)

However, since the definite and indefinite articles and the zero determiner have been the issues most widely discussed regarding the species/individual ambiguity, we shall look at these contrasts as they are perceived to operate in Spanish. In doing so, we shall point out the similarities and differences with the parallel English constructions, both in terms of their semantic interpretation and of their syntactic distribution, whenever relevant.

4.2. The Spanish determiners

Just as in English, grammarians have traditionally held (cf. Bello and Cuervo, 1964; Real Academia, 1973) that there is a three-way distinction in the use of the article in Spanish, the contrast being one between the definite article, the indefinite article, and zero (that is, the absence of the article). However, this existing contrast in Spanish is different from the one expressed in English.

First, the use of the zero determiner is highly constrained in subject position. In the cases where it does occur, 0-NP is almost never found sentence-initially without
a modifier (an adjective, a prepositional phrase or a relative clause). We find cases of 0-NP subjects with a generic meaning in proverbs, where they occur mostly in the singular:

(4) Árbol que crece torcido nunca jamás se endereza.
    'A) tree that grows twisted never ever untwists.'

(5) Perro que ladra no muerde.
    'A) dog that barks does not bite.'

Other examples are also proverb-like in that they claim a sort of general law, but have the peculiarity of incorporating in their NP a comparative construction and occurring mostly in negative contexts:

(6) Hombres así no debieran existir.
    'Such men should not exist.'

Finally, we may find some cases of 0-NP subjects which receive an existential interpretation (i.e. not 'all members'):

(7) Indígenas industriosos elaboran las artesanías.
    'Industrious natives work on the crafts.'
En el invierno, olas gigantescas batían contra la costa.

'In the winter, gigantic waves would break against the shore.'

However, it must be stressed that the use of O-NP in subject position is not at all common in Spanish. It is stylistically marked either for proverbial expressions (as in (4) and (5)) or for a specific literary style (as in (7) and (8)).

In other positions, i.e. direct object or prepositional object, the use of O-NP in Spanish is productive. Thus, we find sentences such as the following:

(9) Margarita da lecciones a niñas.
    'Margaret gives lessons to children.'

(10) Trajimos pastel y refrescos.
    'We brought cake and refreshments.'

(11) A los chicos les gusta asustar niñas.
    '(prep.) (def. art.) Boys like to scare girls.'

The interpretation of O-NP's is problematic, and we shall devote our attention to it later on. For the moment, we have merely illustrated that the distribution of O-NP's in Spanish is different from that of the seemingly parallel construction
in English, since its occurrence in the former language is highly constrained in subject position.

Another difference is that, in Spanish, zero could not possibly be regarded as the plural form of the indefinite article. I believe that the fact that the English indefinite article a does not have a morphologically related plural form is one of the idiosyncrasies of this language. In Spanish, we find the indefinite article un with a plural form, unos. Besides, O-NP can occur in Spanish in the singular (with count nouns as well as mass nouns), thus presenting further reason not to group it together with the indefinite article.

The indefinite "article" un has been considered by some grammarians (cf. Alonso, 1967; Alarcos Llorach, 1967) to be a quantifier, and as such, it has been argued that it does not contrast with the definite article el, since it belongs to a different category altogether. Un-NP presents, just as a-NP does in English, the species/individual (or generic/nongeneric) ambiguity:

(12) Una mujer tiene que estar en la casa.
    'A woman has to be at (def. art.) home.'

(13) Un chico sabía pescar.
    'A youngster knew (how to) fish.'

In (12), we can refer to some (particular) woman that we
assume to be at home by now, or else we may be talking about
cwomen in general and what is expected of them. In (13) as
well, reference may be made to an individual young man, or
else we may be describing what any youngster was supposed to
know at some time (e.g. when I was young myself, etc.).
Whether un is an article or a quantifier, it has to select an
individual in the domain for its interpretation. When the NP
is understood as generic, un-NP chooses an arbitrary member
of the class, hence the markedly prescriptive force that
these sentences exhibit (cf. 2.4.).

Un-NP's show the well known ambiguity of
transparent/opaque readings in combination with other scope
elements (just like a-NP does, cf. 2.1., 2.6.). This happens
with the plural form as well:

(14) Todos los estudiantes saben una lengua extranjera.

'All the students know a foreign language.'

(15) Cada día traíamos a unos amigos.

'Each day we brought (prep.) some (pl. indef.)
friends.'

In (14), una lengua extranjera ('a foreign language') may be
represented as an existentially quantified NP with wider
scope than the universally quantified *todos los estudiantes*, in which case they all know one specific language, or else the existential quantifier may have narrower scope than the universal one, and the reading would be one where each student knows some foreign language or other. For (15), the situation is parallel: *unos amigos* ("some friends") may be represented as bound by an existential quantifier with wider scope than the universal binding *cada día* ("each day"), if we refer to the same group coming every day, or else the existential may have narrow scope, and the friends may vary from one day to the other.

It is interesting to note that Spanish can disambiguate sentences like these by the use of the morphologically related quantifier *algún*², which selects only the opaque reading (narrow scope of the existential). Thus, while the above sentences were ambiguous, the following are not, and the object NP's refer only to 'some or other language' or 'some or other friends', respectively:

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² E. Wyn Roberts draws my attention to the etymology of this quantifier, from Latin *aliquis unus* 'some(one) other'. For him, it may eventually prove fruitful to compare Spanish *algún*-NP's and English *some-other*-NP's together and with other quantifier pairs; in cases such as this one, etymological or so-called historical information may be explanatorily valuable, indicating continuity, developmentally and comparatively, over and beyond static, logico-semantic decriptivism. I am thankful for these observations.
(16) Todos los estudiantes saben alguna lengua extranjera.

(17) Cada día traíamos a algunos amigos.

Un and algún can also appear in sentences where there is no other scope element, and the difference between them is not easy to assess. However, the same 'some' versus 'some or other' contrast seems to be involved, although of course in these cases it cannot be represented by means of an existential quantifier with differing scope - as there is no other element over which it may or may not hold its scope. Thus, compare:

(18) Traje unas cosas.
'I brought some things.'

(19) Traje algunas cosas.
'I brought some things (or other).'

In contrast with the indefinite article, 0-NP's show no ambiguity in relation to other scope elements. Only a narrow scope reading would be available for:

(20) Todos los estudiantes saben lenguas extranjeras.
'All (the) students know foreign languages.'

(21) Cada día traíamos amigos.
'Each day we brought friends.'

That is, neither the languages nor the friends are claimed to be the same ones for all the students or for each day, respectively. Recall that Carlson (1977; 1978) uses this observation about 0-NP's in English as evidence against considering zero as the plural form of the indefinite article a (cf. 2.6.). But as we saw earlier in this section, this possibility does not even arise in Spanish, as un has its own morphologically related plural form unos.

As for NP's with the definite article, they too show an ambiguity between species and individual readings. In the singular, el-NP may be understood as either some specific individual whose identity is known, or as the class as a whole (cf. 2.3.):

(22) El gato duerme mucho.
    '(Def. art.) cat sleeps a lot.'

(23) El hombre es alegre.
    '(Def. art.) man is happy.'

(24) Voltaire despreciaba al hombre.
    'Voltaire despised (def. art.) man.'

(25) El pan se cocinaba en el horno.
    '(Def. art.) bread was cooked in the oven.'
In each of these sentences, the referent may be some identified individual cat, man, bread, and oven, respectively, or else we may be describing a typical situation that holds - or held - within a particular period of time.

It is worthwhile mentioning that mass nouns can occur with the definite article in Spanish, as we saw in the last example. Thus, el pan may refer to a particular instantiation of bread or to the substance in general. The same goes for el oro ('gold') and la gente ('people') in the following examples:

(26) El oro es muy valioso.
    '(Def. art.) gold is very valuable.'

(27) El oro de mi anillo es muy valioso.
    '(Def. art.) gold of (in) my ring is very valuable.'

(28) La gente asiste a conferencias.
    '(Def. art.) people go to conferences.'

(29) La gente estuvo muy contenta anoche.
    '(Def. art.) people were very happy yesterday evening.'

(30) La gente que vino ayer me dijo algo
extraordinario.

'(Def. art.) people who came yesterday told me something extraordinary.'

In (27), the modifier de mi anillo requires an interpretation of el oro as a particular instance of the mass noun 'gold'. The last two examples are also of considerable interest: la gente is understood as 'a group' in (29), that is, as a number of instances of the mass noun 'people'; but it may be read as one instance only in (30), i.e. as one person. From (26) and (28) we also see that mass nouns (referring to substances in general) in Spanish differ from their English correlates in that they may have the definite article.

Plural NPs with the definite article, e.g. los-NP, show an ambiguity between a specific set of referents that we know, and members of the class in general. In English, plural NPs with the definite article do not have a generic reading except for a restricted number of NP's that are somehow delimited as a class (for instance, Chafe's (1970) example the Indians, cf. 2.6.). In Spanish, however, most NP's found in generic sentences are of this type. Thus, we have:

(31) Los gatos duermen mucho.

'(Def. art.) cats sleep a lot.'

(32) A los chicos les gusta asustar a las niñas.
'(Prep.) (def. art.) boys like to scare
(prep.) (def. art.) girls.'

It may be noticed that, in sentence (32), there is a preposition a marking the direct object. It has generally been accepted (cf. Bordelois, 1974) that the use of the preposition a for direct objects in Spanish is determined by the features [+specific, +animate] on the NP. However, the feature of specificity is inapplicable to the generic readings of direct object NP's such as in our sentence, since in those readings, reference is not made in terms of identity of individuals or sets (cf. 2.1.). Although at this point in time I am unable to give a full account of the use of the preposition a for direct objects in Spanish, it is certain that it is required if the NP is definite. To illustrate further, consider

(33) Veo a Juan y a mi madre.
'I see (prep.) John and (prep.) my mother.'

Here, the preposition a is due to the feature of definiteness present in proper names and possessives, for example.

Regarding the required presence of the feature [+animate] on the definite direct object in order to trigger the presence of a, there is some dialectal variation. There are dialects that use the preposition not with [+animate] but
with [+human] object NP's only. Thus, in cases such as (34), there is some vacillation in the use of the preposition:

(34) Los chicos llevan (a) los perros a la playa.
    '(Def. art.) youngsters take ([prep.]) (Def. art.)
gogs to the beach.'

Summarizing what we have said in this section, we have exemplified the species/individual ambiguity of NP's as exhibited in Spanish with the various determiners. We see that these contrast differently in Spanish from their English correlates.

Thus, we find the ambiguity in singular NP's with the definite article; this construction is quite parallel to the English The-NP, except that it also extends to mass nouns. Plural NP's with the definite article also present both interpretations. This construction is the most frequent one in generic sentences. In contraposition to English, its generic interpretation is in no way restricted. English 0-NP's, especially in subject position, would necessarily be translated into Spanish by using the definite article.

NP's with the indefinite article also show the species/individual distinction, both in the singular and in the plural, which are morphologically related forms in Spanish. We illustrated briefly the way in which un-NP's
interact with other scope elements, as well as the contrast between un and algún.

Finally, we find cases of 0-NP's in Spanish, normally in non-subject position. We pointed out that their interpretation remains problematic. For one thing, it is not clear whether the ambiguity that we have been discussing is present at all in these cases. In the next sections, we shall turn our attention to their analysis.

4.3. Zero versus the article in direct object NP's

In order to attain a better understanding of the use of the zero determiner in Spanish, let us contrast sentences which differ only in the presence or absence of the definite article. One of the most puzzling problems in the data presented above is the difference between examples such as:

(35) A los chicos les gusta asustar a las niñas.
     '(Prep.) (def. art.) youngsters (dat. pron.) like to scare (prep.) (Def. art.) girls.'

(36) A los chicos les gusta asustar niñas.
     '(Prep.) (def. art.) youngsters (dat. pron.) like to scare girls.'

As may be seen, there is a preposition a and a definite article las in the object NP of (35) which are lacking in
(36). The presence of a in the former sentence is triggered by the definite article, as we have seen above. But what is the precise semantic contrast expressed by the use of the article as opposed to its absence? For one thing, the NP's in (35) are ambiguous between a 'group' or 'specific set' reading and a generic one ('boys in general', 'girls in general'). The 'set' reading is absent in the bare plural niñas. But taking only the generic reading of the NP's in (35), there is still a very subtle difference in meaning that is quite hard to explain.

In Pease-Gorrissen (1980), an attempt was made to give semantic representations for sentences like these, i.e. habitual or generic sentences differing only in the presence or absence of the definite article, using a quantificational approach, and, more specifically, by means of scenario-structures (cf. 3.3.). Some of the most interesting data presented there concern a number of verbs that, on the one hand, do not allow 0-NP objects and allow the ambiguity of NP's with the definite article, and on the other, allow 0-NP objects but not the generic interpretation of NP's with the definite article. Affective verbs belong to the first group. Unless their object is a proper noun, these verbs always take a direct object with an overt determiner. If it is the definite article, the NP can have the generic reading.
Example (37) illustrates the case:

(37) Juan odia (a) las ballenas.
   'John hates (def. art.) whales.'

(38) *Juan odia tallenas.
   'John hates whales.'

While sentence (38) is ungrammatical, (37) exhibits the ambiguity between a 'specific set' reading and a generic one, i.e. John may hate either a group of whales that we know about (say, the ones in the aquarium pond) or whales in general.

In the second group, we find a number of verbs denoting occupations, for example:

(39) Juan colecciona estampillas.
   'John collects stamps.'

(40) Pedro lee libros todo el día.
   'Peter reads books all day (long).'

(41) Margarita da lecciones a niños.
   'Margaret gives lessons to children.'

If these verbs had an object with the definite article (say, los libros for (40)), only the 'specific set' interpretation would be possible.
One subclass of these verbs are factitives as in

(42) Los arquitectos construyen casas.

'(Def. art.) Architects build houses.'

where the existence of the object comes about as a result of
the activity denoted by the verb. Again, if the object had an
article (las casas), the NP would be interpreted as referring
to a specific set of houses. Other factitive verbs are
escribo 'write', fabrico 'fabricate', canto 'sing', dibujo
'draw.'

Another peculiarity of the "occupational" verbs is that,
if their direct objects have no overt determiner, they have
to be plural:

(43) *Pedro lee libro.

'Peter reads book.'

(44) *Margarita da lección (a niño).

'Margaret gives lesson (to child).'  

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Notice that in the latter paragraph we have not referred to
"occupations" in the sense of Lawler (1972; 1973a). He labels
"occupational habituals" those readings of sentences which
refer to occupations that can be sources of income. There is
no appreciable difference between these and "non-profit"
habituals in respect to the use of the article in Spanish,
whereas there is between verbs that denote occupations (as
above) and other kinds of predicates, such as affectives.
The only examples with singular object NP's in these cases are restricted to mass nouns like vino 'wine', agua 'water', etc.:

(46) Juan vende vino.
    'John sells wine.'

Of particular interest regarding the contrast expressed by the use of the article or its absence in Spanish are ambiguous verbs such as querer and conocer. If these verbs appear with a 0-NP object, only one of their readings is possible, namely 'want' and 'meet', respectively. With the definite article, these verbs are ambiguous only in the case of the NP being read as a 'specific set'; but they have only the other readings ('love' and 'know', respectively), if the NP is understood as generic. Thus, compare:

(47) María quiere niños.
    'Mary wants children.'

However, singular 0-NP objects can be found, although they are very restricted, e.g.

i. Juan busca novia.
   'John looks for (a) girl friend.'

Cf. also the examples given in 4.5.
(48) María quiere a los niños.
'Mary [wants/loves] the children.' OR
'Mary loves (def. art.) children.'

(49) María conoce hombres.
'Mary has met men.'

(50) María conoce a los hombres.
'Mary [has met/knows] the men.' OR
'Mary knows (def. art.) men'
   (i.e. she knows how they are)

However, the great majority of Spanish transitive verbs can take both possibilities. That is, they allow for O-NP objects and also for the ambiguity of NP's with the definite article. Thus, we get pairs like the following:

(51) Los pastores llevan a los borregos a pastar.
'(Def. art.) shepherds take (prep.) (def. art.) sheep to graze.'

(52) Los pastores llevan borregos a pastar.
'(Def. art.) shepherds take sheep to graze.'

(53) Los hombres virtuosos evitan las malas compañías.
'(Def. art.) virtuous men avoid (def. art.) bad companies.'
Although the difference in meaning between these pairs of sentences is a very subtle one, in Pease-Gorrissen (1980) we tried to make it explicit by means of a quantificational approach, which we shall explain in the following section.

4.4. A quantificational approach to the use of the article in Spanish habitual and generic sentences.

Regarding the generic interpretation of NP's with the definite article in Spanish, it was proposed in Pease-Gorrissen (1980) that the representation of these sentences be a scenario-structure of the kind found in Newton
(1979) (cf. 3.3.):

(59) \( \forall t (p^t \rightarrow q^t) \)

'At all times, if p at t, then q at t'

Recall that p is called the antecedent and q the consequent.

If the article was present, it was suggested that we could represent the corresponding NP in the antecedent of a scenario-expression:

(60) Los pastores llevan a los borregos a pastar.

means both

(61) \( \forall t \forall x (x \text{ SHEPHERD}^t \rightarrow x \text{ TAKES SHEEP TO GRAZE}^t) \)

(62) \( \forall t \forall x (x \text{ SHEEP}^t \rightarrow \text{SHEPHERDS TAKE} x \text{ TO GRAZE}^t) \)

Thus, the complete structure for the sentence appears at first sight to be

(63) \( \forall t \forall x \forall y (x \text{ SHEPHERD}^t \& y \text{ SHEEP}^t \rightarrow x \text{ TAKES} y \text{ TO GRAZE}^t) \)

and the scenario-correlation takes place whenever both parts in the antecedent coincide. In these cases, we have what
Lawler (1973b: 324) called a "noun-conditioned hypothetical", as

"the existence of an argument describable in a particular fashion [here, as a shepherd and a sheep] allows us to conclude that the instantiation of the proposition occurs."

However, since the representation in (63) above means that every shepherd takes every sheep to graze, which is clearly not the case, we proposed the presence of a pragmatic variable (w, for example) in the antecedent of these conditional structures. This variable would stand for pragmatic conditions such as, in our example, the owning of the sheep, it being grazing time, etc. w was left unspecified in the formula because it is derivable only from the context or from our factual or cultural knowledge. Thus, it is a kind of "open variable" in our semantic representation that allows other cognitive structures to play a role at that particular point (cf. Chomsky, 1975: 90). Nevertheless, it has to belong to the antecedent, for it is clearly one of the things which have to coincide to bring about the constant conjunction of events indicated by the scenario-structure:

\[(64) \quad \forall x \forall y (x \text{SHEPHERD}^t \land y \text{SHEEP}^t \land w^t \rightarrow x \text{TAKES} y \text{TO GRAZE}^t)\]

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5 Newton (1973) calls these "circumstance-timed" scenario-structures.
Another claim put forward in Pease-Gorrissen (1980) was that if an NP constitutes the antecedent of a scenario-structure, it could be the topic of the sentence. This is very straightforward when we are dealing with articulated NP's in subject position -- because subjects are usually the topic anyway -- but not so if we are talking about object position. Yet, our habitual sentence above can be used both when talking about shepherds or about sheep, whereas in English passivization would be more natural in the second case. Maybe we can explain in part the resistance that Spanish shows towards the passive construction, on the basis that it is sufficient to articulate an NP in order to mark the topic of the sentence irrespective of whether it is in subject or object position (in these generic readings).

To illustrate further, let us take a well known legend which exists in the (not very pedagogical) tradition of some Hispanic countries. It tells about a monster-like thing named "el coco" who eats up all the children that do not want to go to sleep. A usual way to mention this to a child is

(65) El coco se come a los niños que no se duermen.

'The coco (refl. pron.) eats (up) (prep., def. art.) children who do not (go to) sleep.'

What this sentence means is that this monster will eat up
whatever is a child who fits the description, so that our little listener gets scared and decides that he better march into his bedroom. The logical structure is, thus

(66) \( \forall t \forall x (x \text{ CHILD THAT DOES NOT SLEEP}^t \& w^t \rightarrow c \text{ EAT UP} \ x^t) \)

where \( w \) can be that the coco learns about this disobedient child, comes within its range, etc. Obviously, in order to use this example, as a warning, the topic has to be the situation described in the antecedent, i. e. the one related to the syntactic object of the sentence. The same is true for all of the sentences in the data which have an article in this position.

The meaning of the habitual sentences with unarticulated object NP's was found much more difficult to represent. In Pease-Gorrissen (1980) we first investigated the possibility of trying to find a contrasting scenario-structure for these sentences, again basing ourselves on Newton (1979), who in his analysis for parallel Greek examples, had proposed for the equivalent of

(67) Juan colecciona estampillas.

a very similar interpretation to the one that Lawler (1973b) calls a "verb-conditioned hypothetical", and Newton, an
"agent-timed" scenario-structure, paraphrased as 'What John collects is stamps.' Here the predicate, and not the argument in question, goes into the antecedent:

$$\forall t \forall x (j \text{ COLLECTS } x^t \rightarrow x \text{ STAMP }^t)$$

'For all t and for all x, if John collects x, x is a stamp.'

Although this may be true for Lawler's 'only'-interpretation (cf. 3.2.), it is not the exact meaning of the sentence, as evidenced by the following illustrations, among them Lawler's (1973b) De Var example, none of which has an articulated object NP in Spanish:

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Newton (1979: 160-161) suggests that English uses focal stress to signal the semantic distinction which Greek, as well as Spanish, marks by means of the presence or absence of an article. Therefore, he contrasts the following sentences and representations:

i.) She kills BEETLES.
$$\forall t \forall x (\text{SHE KILLS } x^t \rightarrow x \text{ IS A BEETLE }^t)$$

ii.) She KILLS beetles.
$$\forall t \forall x (x \text{ IS A BEETLE }^t \rightarrow \text{SHE KILLS } x^t)$$

where we assume that the antecedents are related to the following presuppositions:

iii.) She kills something.

iv.) She does something to beetles.

However, Spanish may also exhibit focal stress on either the NP or the verb in both cases, i.e. when the direct object has zero or the definite article. With focal stress on either element, the above presuppositions seem to hold for both of these cases. This points to the fact that the contrast between the presence or absence of the article in Spanish must be independent of focal stress.
(69) De Var eats vegetables.

(70) My rabbit eats vegetables.

(71) Moses eats oysters.

(72) De Var come verduras.

(73) Mi conejo come verduras.

(74) Moises come ostiones.

In these sentences, the possible interpretations will be quite different in each case. In (72), if De Var is our vegetarian friend, it will be true that 'at all times and for all x, if he eats something, he will eat vegetables' (although this seems to be quite a simplistic description of what a vegetarian is). Or, if De Var is very concerned about healthful food, he will always include vegetables in his meal; or perhaps even this is not true, and he only eats vegetables twice a week (which would correspond to Lawler's (1972; 1973a) existential reading). In (73), as we know that rabbits normally eat only vegetables, a scenario where the verb is in the antecedent seems plausible again. But when we come to the case of Moses, who happens to be an orthodox Jew, the situation gets more difficult, for we cannot read the sentence to mean that he only or always eats oysters in all
circumstances. The only reading here is one which is also possible in all other cases, namely, that at some unspecified times, Moses ingests the food his religion prohibits him from eating. It does not say anything else, and therefore I do not think that our linguistic knowledge permits us to make any more inferences.

In order to incorporate these unspecified times without abandoning the idea of representing these sentences by means of scenario-structures, we analyzed in Pease-Gorrissen (1980) the possibility of using our pragmatic variable once again. However, this suggestion was finally rejected, since we ended up with a representation quite parallel to the one given for the cases with the definite article. The only difference was that, for sentences with 0-NP objects, one specific pragmatic factor would play a crucial role in the antecedent. Thus, this proposal did not allow us to differentiate neatly between the two cases, and it could easily lead to confusion. Hence, we concluded that, although a scenario-structure seemed to be a satisfactory semantic representation for the cases with the article, it was questionable for the sentences with zero NP objects. For that reason, we then explored the possibility of a different approach to the latter cases, which we shall describe briefly in the next section.
4.5. The lambda solution: zero as a class former

In his insightful article, Alonso (1967) had suggested that the zero determiner is used in Spanish, in general, whenever we want to speak about the NP in an evaluative sense, referring to some essential characteristic of the denotatum it refers to. He adduced the example

(75) Juan ha comprado automóvil.

'John has bought (a) car.'

which would be uttered only if John has done this for the first time.

This observation led us to suggest that the 0-NP object seems to form a logical predicate together with the verb. In other words, the meaning of the sentence is that John is now a 'car-buyer', which he formerly was not. It was further suggested in Pease-Gorrissen (1980) that what appears to be happening in Spanish is quite similar to the logical operation of lambda abstraction.

McCawley (1981: 395) describes the lambda abstraction as a means to "construct functions galore", a function being a mapping from some kind of objects onto another. He gives the following definition of what the lambda abstraction basically does:

"Let $\lambda$ be an expression of any type (say, a sentence) and $x$ a variable of any type (say, an individual variable)
that occurs in A. Then \((\lambda x)A\) denotes a function that maps objects of the type over which \(x\) ranges into objects of the type of \(A\) and is defined as follows: for any object \(a\) that can be a value of \(x\), \([(\lambda x)A](a)\) is the result of substituting \(a\) for all occurrences of \(x\) in \(A\)." (ibid.)

In other words, the use of lambda abstraction lets us consider anything we want as a predicate and apply it to some element as an argument. With respect to our unarticulated cases, we would thus be able to apply the verb plus the unarticulated object NP as a complex predicate to the subject. Hence, the lambda notation provides us with some formal means to express the meaning that "John is a car-buyer". In Pease-Gorrissen (1980), we further assumed that there is an 'at least one' reading for the unarticulated object NP, which calls for an existential quantifier. Thus, we would get:

\[(\lambda x)[(\exists y)\ y\ \text{CAR} \& x\ \text{BUY}\ y] \text{Juan} \]

This says that Juan is a member of the class of those \(x\) such that there is a car which \(x\) has bought. In logic (cf. Carnap, 1958), this is equivalent to

\[(\exists y)\ y\ \text{CAR} \& y\ \text{BUY}\ y \]

but this representation, again, could very well use the article in Spanish, most probably the indefinite one:

\[\text{Juan ha comprado un automóvil.}\]
'John has bought a car.'

Therefore, the difference in meaning between un-NP and 0-NP (cf. De Mello, 1980) is not captured by these representations. Or else, in order to adopt the lambda-abstraction formulation for the zero cases, we would have to claim that a natural language actually differentiates between what in logic are definitionally identical expressions. 7

Notice that not every verb-phrase qualifies as a possible one-place predicate (such as 'car-buyer' above). The cases seem to be constrained by pragmatic factors. For instance, it would be odd to say

(79) *Juan ha comprado {libro/silla}.

'John has bought {book/chair}.'

probably because these objects do not have any significance in improving our socio-economic status. Therefore, it was suggested that the use of the zero determiner in Spanish, which allows an NP to form a one-place predicate together with the verb, points to cultural values, that are thus

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7 Phil Hanson has indicated to me that, in logical systems other than Carnap's (1958), this problem of equivalence may not arise. I am grateful for this observation.
reflected by linguistic means.

Extending this analysis to the generic sentences with 0-NP objects presented in the last section, we interpreted our Moses and De Var's examples (72, 74) as including their subjects in a class of specific food-eaters, labelling them as members of distinct classes of people; in the shepherd's example ((52), with zero in object position), as attributing them to be sheep-leaders, etc.

It was claimed that the NP forming a unity with the verb to constitute a predicate is never the topic of the sentence; only the argument NP can be. Thus we would differentiate the contexts for these cases with respect to the scenario ones, where the NP had the definite article.

Although I believe that the lambda solution put forward in Pease-Gorrissen (1980) was an interesting attempt, it still presents some problems. Firstly, as was pointed out before, our use of the lambda notation would have to be qualified so as to suspend (at least some of) its logical equivalences. Next, it might be argued that this classification of the subject as belonging to a certain class is a characteristic of all nomic statements, and not only of

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Brian Newton has observed that this lambda reading actually appears to come about with a limited choice of verbs, when the relation between verb and object is almost predictable from our cultural background.
sentences containing $O\text{-NP}$ objects. Recall, for example, that Carlson's (1978) formulae containing $G$ or $G'$ also attribute some property to the subject of the sentence (cf. 3.5.).

Finally, although our account seemed to be satisfactory for $O\text{-NP}$ cases in generic sentences, unfortunately it could not be extended to cover all occurrences of $O\text{-NP}'s$ in Spanish, for instance, Alonso's (1967) example:

(80) La vaca le salió toro.

(Lit.) 'The cow (dative pron.) came out bull.'

i.e. 'The cow turned out to be a bull.'

(where it would not make much sense to paraphrase this sentence to mean that the cow belonged to the class of things that turned out to be bulls).

In the following section, we shall try to see whether Carlson's (1978) proposals help us in finding a better solution for the problem of the zero determiner in Spanish.

4.6. Carlson's theory and the article in Spanish

In 3.4. we pointed out that Carlson's subdivision of predicates, regarding the types of entities that they subcategorize, presents some similarity to a subdivision of transitive verbs in Spanish, namely concerning whether they allow $O\text{-NP}$ objects or the generic interpretation of $NP's$ with
the definite article (cf. 4.3.).

Recall that, to Carlson, affective verbs such as love, hate, etc. take individuals (individual objects or kinds) both as their subjects and as their direct objects, and, hence, they favour the "generic" or "universal" readings of bare plurals in English. I assume that in Carlson's revision (cf. 3.5.), these verbs would actually be subcategorized to take individual objects, and then $G'$ would have to apply to both subject and object for us to obtain the 'kind' reading, as in:

(81) Children adore cats.

If we want to use this approach for affective verbs in Spanish, we immediately see that some modifications will be needed. As we have seen before, affectives in Spanish disallow 0-NP objects, but allow the ambiguity of NP's with the definite article. Thus, we find:

(82) Los niños adoran a los gatos.

'(Def. art.) children adore (prep.) (def. art.) cats.'

(83) *Los niños adoran gatos.

(82) can be interpreted to mean that a specific group of children love either a specific group of cats or cats in
general; or else, that children in general love either a specific group of cats or cats in general. These four combinations can be made explicit by having $G'$ apply optionally to both subject and object in Spanish. However, in English, the application of $G'$ would appear not to be optional when subject and object are bare plurals, since no "existential" readings are possible (e.g. 'some children' and 'some cats' in (81)).

A further problem is presented by the fact that we would have to consider groups, that is specific sets, as another type of entity in Carlson's ontological hierarchy. Recall that the generalization operators convert predicates that apply to a lower ontological entity into predicates applying to a higher one. Thus, in (84), if $G'$ has not applied, we read the NP to correspond to 'some individuals':

(84) Dogs bark.

(85) A dog barks.

(86) The dog barks.

In (85) and (86), we also have an 'individual object' reading if the sentence has the "event" (reportive) interpretation. When $G'$ applies to all of these sentences, we attribute to the kind dog the generalized property of having a set of
realizations that bark (cf. 3.5.).

In the cases of Spanish singular NP's, either with the definite or the indefinite article, we have the same situation, since they present an ambiguity between an 'individual object' and a 'kind' interpretation. But with plural NP's with the definite article, we would have to convert a predicate applying to a 'specific set' into one applying to a 'kind'. In other words, we have to conclude that kinds are realized by groups as well as by individual objects. Thus, the interpretation of plural NP's with the definite article in Spanish constitutes evidence for postulating 'groups' or 'sets' as a fourth type of entity in Carlson's ontological hierarchy, as was one of McCawley's (1981) suggestions for extending his analysis (cf. 3.7.). Also, this interpretation is needed to account for English data as well, namely for those "bounded" NP's (e.g. the Indians, cf. 2.6.) adduced by Chafe (1970: 196), which present exactly the same difficulties as plural NP's with the definite article in Spanish.

But let us now return to Carlson's subdivision of predicates and address the question of whether there is some parallelism to our problematic zero cases in Spanish. As we have seen earlier, Carlson opposes to affectives "extensional" verbs such as chase or kill, which he considers
to be relations between stages (cf. 3.4.). Thus, in

(87) Dogs chased cats.

both NP's receive an "existential" interpretation ('some
dogs', 'some cats'). We find that Spanish correlates of
these "extensional" verbs may take plural object NP's with
any determiner. If it is the indefinite unos, the favoured
reading of the existentially quantified NP is 'specific', and
the sentence is understood as reportive, unless unos is
interpreted to contrast with otros, that is 'some ... but not
others'. NP's with the definite article are ambiguous as
objects of these "extensional" verbs. Moreover, with the
'specific set' reading, the verb can also be ambiguous
between a reportive and a habitual interpretation, if the
action denoted is such that iteration is not pragmatically
odd (as in (89), but not in (91)). Finally, "extensional"
verbs allow 0-NP objects. Let us suppose that these denote
'stages of kinds'. To make matters clearer, we shall
illustrate these points with sentences having individual
subjects:

(88) Fido persigue a unos gatos.

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9 G! applies in the present tense, according to Carlson,
yielding the 'kind' readings of NP's (particularly the
subject, cf. 3.5.).
'Fido chases (prep.) (indef. art.) cats.'

(89) Fido persigue a los gatos.
'Fido chases (prep.) (def. art.) cats.'

(90) Fido persigue gatos.
'Fido chases cats.'

(91) Ese criminal mata a unas mujeres.
'That criminal kills (prep.) (indef. art.) women.'

(92) Ese criminal mata a las mujeres.
'That criminal kills (prep.) (def. art.) women.'

(93) Ese criminal mata mujeres.
'That criminal kills women.'

The described interpretations seem to be appropriate, as the following contexts show. (91) could very well be uttered by some detective trying to define the characteristics of those women chosen by the criminal (in the 'some, but not others' interpretation of the NP). Thus, it would make sense to ask ¿a cuáles? ("which ones?"). (92) might be used as a warning directed to all women, so that they stay home at night, for instance. It carries an implication that men are not chosen as victims. (93), in contrast, does not have this
implication, but it asserts that among the victims of that particular criminal are (some) members of the class women. Notice that our former lambda proposal would have interpreted (93) to mean that the criminal in question is a 'woman-killer', which seems to be appropriate to this case as well, and quite similar to the 'stages' interpretation.

Recall now that in 4.3. we opposed to affectives in Spanish a number of verbs denoting occupations, such as 'collect' and 'build', for example. We said that, whereas affectives do not allow O-NP objects but permit the ambiguity of NP's with the definite determiner, these "occupational" verbs take O-NP objects quite naturally, but they disallow the 'generic' or 'species' reading of NP's with the definite article. When these verbs have the indefinite article, we have the same situation as that obtained with "extensional" verbs, i.e. either the reading of the sentence is reportive and the existential quantifier is specific, or there is an implied opposition to '... but not others'. Thus, compare the following sentences:

(94) Construyo unas casas.
    'I build (indef. art.) houses.'

(95) Construyo las casas.
    'I build (def. art.) houses.'
(96) Construyo casas.
'I build houses.'

It may be argued that, in sentences such as (95), the object NP with the definite article cannot receive a generic interpretation because of pragmatic reasons, since no architect's lifespan would allow him to build all the members of the species houses. This is also the case for the object of (97), which, when uttered by a simple mortal, would only have the 'specific set' reading of las leyes:

(97) Escribo las leyes.
'I write (def. art.) laws.'

However, if we conceive of God uttering (97), the generic interpretation would appear plausible. Hence, our "occupational" verbs are in fact very similar to the "extensional" ones described above.

In order to account for the ambiguities of NP's with unos and los following the lines of Carlson's theory, we may suppose that G' applies optionally to these direct objects, thus converting predicates taking individuals and specific sets (as seen above), respectively, into predicates taking
kinds or species.\footnote{10}

However, the only possible interpretation of sentences with $0$-\textsc{NP}'s is the one given above. In other words, the application of the generalization rule (regarding direct objects) has to be constrained in Spanish, so as not to apply to bare plurals.\footnote{11}

An alternative solution which might be proposed would be to consider that, if $0$-\textsc{NP}'s refer to stages of kinds, then perhaps the application of the $G^1$ operator has the insertion of the definite article as its surface reflex. In fact, if this could be sustained, it would be quite agreeable to Carlson (1978: 202), who hopes that the generalization operators "show up morphologically in other languages". However, this solution is not viable, since we still have to account for the 'specific set' or 'group' readings of \textsc{NP}'s with the definite article, and this both in subject and in object position.

\footnote{10}{Here we are concentrating on the direct object position because this is where the occurrence of $0$-\textsc{NP}'s is productive in Spanish. But it may be recalled that Carlson conceived of the generalization operators as rather applying to the subject of sentences, in which case there is a correlation to the 'once' or 'series' reading of the verb.}

\footnote{11}{The generalization rule cannot apply to \textsc{NP}'s with \textit{algun} (cf. 4.2.) either, since their interpretation is always nongeneric.}
In his analysis of the use of the article in Spanish, Alonso (1967) opposes NP's with the article (especially the definite article) to those without it. To him, whereas the former denote the "existence" of something (i.e. they are referential), the latter denote its "essence". Thus, in the following example:

(98) Dejé hijos y mujer.
'I left children and wife.'

Alonso (1967: 137) claims that the referents are not important, but

"The absence of the article corresponds to the purely qualitative character with which the object is named; it refers to the guid or essence of the object, not in order to define it, but to point to the range which that class of objects occupies in the categorial scale ... [with which a cultural community] orders ... the world."
(Translation M.P.G.)

To paraphrase this in terms more familiar to us, we may say that in sentences with O-NP direct objects such as (98), the speaker is not interested in identifying some individuals in the domain. Rather, what is important is to identify the class of objects which the head of the NP denotes, and also, all the connotations that this class may have associated, given the cultural (hence, pragmatic) background.

It seems to me that the interpretation of O-NP's which we described before, namely as 'stages of kinds', can serve
to make explicit precisely this observation of Alonso's. The way to understand these Spanish bare plurals is by combining Carlson's (1977; 1978) two notions, viz. 'stages' and 'kinds'. Thus, regarding sentences such as (75), repeated here as (99), what we wanted to express with our lambda proposal in Pease-Gorrissen (1980) was that the kind or species seems to be involved (hence the concept of a 'car-buyer'), but, at the same time, some existentially quantified instantiation of the kind is present in the semantic structure. In other words, we propose that 0-NP direct objects may be represented by using Carlson's realization relation, as illustrated:

(99) Juan ha comprado automóvil.

'John has bought (a) car.'

$\exists y (R(y, \text{car}) \& \text{BOUGHT}(j, y))$

However, our previous observation regarding unos and los had an implicit suggestion to use the notion of 'stages' in their representation as well (although we did not go into this in any detail). To express what we want to say about 0-NP's more clearly, we might rather want to follow Van Langendonck's (1980) ideas (regarding partitive structures). In my judgment, his proposal stresses the presence of both the stage and the species in semantic representation:
\[
\exists x \ (x \in x \in (\text{CAR} \times \in \text{BOUGHI}(j,x)))
\]
where \(x=\text{exemplar}, \ X=\text{species}\) (cf. 1980: 214).

This may be paraphrased in the following way: 'There is some exemplar (or stage) \(x\) of the species \(X\), such that \(X\) is the species \text{CAR} and John bought the exemplar.' We are, thus, in fact identifying the class of objects denoted by the head of the \(0-NP\), as Alonso's interpretation requires, and by naming the class, all its (culturally determined) connotations can be adduced. As we have said before, the generalization rule does not apply to bare plurals in Spanish. Thus, the notion of 'species' does not arise via \(G\), but both notions of 'stage' and 'species' are relevant in the interpretation of these sentences.

4.7. Summary

At the beginning of this chapter, we pointed out the species/individual distinction present in Spanish NP's, which we exemplified by analyzing the interpretation of NP's with various determiners. We noticed the similarities with and differences to the equivalent English constructions. In Spanish, the ambiguity is clearly exhibited in both singular and plural NP's with the definite or indefinite article. However, there are also bare plurals, which are productive in nonsubject position, and whose interpretation was
nonambiguous but rather problematic.

Pursuing to attain a better understanding of 0-NP's in Spanish, we have presented examples contrasting their occurrence to that of plural NP's with the definite article. This has led us to distinguish two categories of transitive verbs, according to whether they allow 0-NP objects and to the way in which their direct objects are interpreted when they carry the definite article.

After describing a quantificational approach using scenario-structures, which we had formerly advanced in order to describe the difference between the presence of the article and its absence in Spanish, we explained the interpretation of 0-NP's by means of a lambda expression. In that solution, the bare plural direct object was regarded as forming a complex logical predicate together with the verb. However, some problems still remained with this solution, and we set out to find a more suitable one by taking Carlson's ideas into account.

A comparison between our subdivision of verbs in Spanish and the one proposed by Carlson (1978) regarding the types of entities that they subcategorize has proven to be useful and has made clear that his proposal has to be modified in a number of ways in order to account for the Spanish data.

First, the generalization operator seems to apply
separately and optionally to subject and object, yielding the four possible combinations that we have recognized in our example sentences with unos and los. Second, the interpretation of plural NP's with the definite article supports the inclusion of 'groups' or 'specific sets' in the ontological hierarchy proposed by Carlson. Groups, as well as individuals, have to be regarded as realizations of kinds, in order for the application of the generalization rule to have as a result the generic ('species') reading of the NP.

Finally, we again concentrated O-NP's in Spanish. By adducing Alonso's (1967) remarks, we noticed that their only interpretation makes reference to both stages and kinds. We have expressed this by following Van Landendonck's (1980) suggestion to incorporate exemplars of species into the semantic representation of sentences.

The analysis put forward in this chapter may not be definitive; it is probably in need of future revisions. However, what we have to offer at this point in time may help to better understand the contrasts expressed by the use of the article in Spanish, as well as the ways in which the distinction between the individual and species readings of NP's are manifested in that language.
V. Verbal generics in Spanish

5.1 The ambiguity of verbs in Spanish

As we have seen in Chapter III, all verbal forms in English have been considered (e.g. by Chafe, 1970; cf. 3.1.) to exhibit the 'once'/'series' - or in Carlson's terminology, the 'event/characteristic' - ambiguity. Although the present tense most often receives only the latter interpretation (cf. Lawler, 1973a; cf. 3.2.), for Carlson (1978: 271ff.) the explanation for this lies in the fact that the present, unlike the other tenses, refers to a "point" in time and not to a "stretch" of time. To him, the event readings of verbs are true at stretches or intervals. Whereas we would certainly expect the 'series' of events on which we base our generalization procedure to involve longer intervals, once the $G$ and $G'$ operators apply, the resulting characterization is given "in terms of no particular time whatsoever" (ibid.: 273). This means that the characteristic reading of a sentence such as "John smokes" can be true at $t$, without it having to be the case that there actually is a stage of John currently smoking. Characteristic readings are thus true at moments, although they may be based on intervals. For this
reason, the present, which is a point in time, favours the characteristic reading. Or, put differently, it does not favour an event reading of verbs because it does not denote an interval, and therefore only marked contexts would allow a reportive interpretation. Thus, for Carlson (1978: 274), there is no tense in English that is "more or ... less 'generic' than any other", the difference resides only in that the present, but not the other tenses, denotes a point or moment of time (cf. 3.5.).

In Spanish, many verbal forms are also ambiguous between 'once' and 'series' readings. To illustrate, consider the following examples:

(1) Juan canta.
    'John sings.'

(2) Vamos a ir a la escuela.
    'We are going to go to (def. art.) school.'

(3) Clara ha escuchado música.
    'Claire has listened (to) music.'

Just as in English, the present tense in Spanish is not ordinarily understood as reportive, although this interpretation is also possible, especially in certain situational contexts (cf. 3.1., footnote 1). In (1), the
reportive reading corresponds to one act of singing that cooccurs with the time of utterance. The 'series' reading, however, is more natural for this sentence, and means that John has the characteristic of singing an indefinite number of times, or in Carlson's terms (cf. 3.5.), that John has a number of stages that sing. Examples (2) and (3) also show the 'once'/'series' ambiguity: reference is made either to a single event (e.g. in the context of ...hoy, '...today'), or an iteration of events (e.g. in the context of ...todas las tardes, '...every (def. art.) afternoon').

Generic NP subjects often cooccur with generic verbs in Spanish, as they do in English, thus supporting the strong interrelation between generic and habitual sentences. Thus, as we observed in 3.6., if the subject is understood generically, in a "distributive" sense (i.e. referring to the members of the class), the event referred to by the predicate is normally performed at least once by each member, hence the resulting 'series' reading. This is illustrated in:

(4) Los pajaritos cantan.
'(Def. art.) birds (diminutive) sing.'

(5) La gente se muere tarde o temprano.
'(Def. art.) people die (refl. pron.) late or soon (= sooner or later).'
In (5) we have a semelfactive predicate. The 'series' reading of the verb stems from the application of the generalization rule over the member axis (cf. 3.7.). In contrast, in (4), both axes of generalization are involved for the most natural interpretation of the sentence, which attributes an iteration of singing events to each member of the class pajaritos.

Although, as has been illustrated above, many verbal forms in Spanish are ambiguous between 'once' and 'series' readings, as they are in English, this ambiguity is most often absent in the past tense, where a distinction between an imperfect and a preterit form is exhibited. Thus, it seems that Spanish does have tenses that are "more or less generic" than others (pace Carlson, 1978: 274). In the following sections, we examine these forms more closely.

5.2. The Spanish imperfect

In general, we can say that the Spanish imperfect expresses durative aspect, either in the sense of a single event in progress (within whose duration some other event is located), or else in the sense of a state or a recurring event (activity, accomplishment, or achievement). This latter meaning can be described as "nomic", given the similarities between states and habituals (cf. 1.1., 3.8.). With this, we
contrast the "progressive" meaning of the imperfect.

It is the nomic interpretation of the Spanish imperfect that is considered unmarked, in that it is the most natural interpretation in isolated sentences containing such verb forms, e.g.:

(6) Juan corría.

'John ran (impf.) (=used to run)'

The progressive reading is always contextually determined. Most often, it arises when reference is made to a single event that comes about at some point during the interval of the action or state described by the imperfect form.1 In other words, the imperfect refers to a situation that constitutes background discourse. The single event, coexisting at some point with the ongoing situation, is expressed by a preterit form in Spanish (cf. 5.3.). For example, we have

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1 However, we may find cases describing coexisting events in progress (at the time of some other event, referred to in the context), or also, coexisting nomic situations. Both interpretations are possible in the following example:

i.) Mientras Julia planchaba, Martha cosía.

'While Julia ironed (impf.) (={was ironing/ would iron}), Martha sewed (impf.) (={was sewing/ would sew})'.

Because of this notion of coexistence with some other event (or with another situation), Bello and Cuervo (1964) use the name "copretérito" ('co-preterit') for the imperfect. Cf. also Alonso and Henríquez Ureña (1967).
Progressivity may also — and unambiguously — be expressed by another form, with the auxiliary estar plus the gerund, as in:

(8) Juan estaba corriendo.

'John was running.'

Stative predicates exhibit the well known restriction (cf. Dowty, 1979) of being odd in a progressive form, particularly with respect to estar plus gerund, as the meaning of this combination is exclusively progressive. If statives appear in the imperfect, the reading is unambiguously nonprogressive. We may illustrate these last points by the following examples using the stative predicate saber la verdad ('know the truth'):

(9) *Juan estaba sabiendo la verdad.

'*John was knowing the truth.'

(10) Juan sabía la verdad cuando llegué.

'John knew (impf.) (=*was knowing) the truth when (I) arrived.'
The reason for the semantic incompatibility between statives and the progressive aspect can be explained in different ways. We can attribute it to the fact that the progressive may be conceived of as referring to a "dynamic situation" (cf. Lyons, 1977: 707; cf. 3.9.), whereas states are "homogeneous" (hence, non-dynamic, "static", cf. Comrie, 1976: 13). Alternatively, we may view statives, as well as habituals, as properties of an interval and not of a moment of time (cf. Comrie, 1976: 28). Since the interpretation of the progressive involves a moment within an interval (cf. Dowty, 1979: 175), the clash could be thus explained. Still another possibility is offered by Dowty (1979), for whom the function of the progressive is to refer to the current moment \( (t_0) \). Since statives are true at any moment during a vaguely specified interval, there is no need to single out \( t_0 \). However, this is necessary for events, which Dowty defines as "changes of states".

In any case, stative predicates in the imperfect in Spanish are interpreted as nomic. This is also the natural interpretation with other kinds of predicates (unless it is overridden by the context). The imperfect refers to a vaguely specified interval, i.e. an interval whose boundaries are not clearly delimited. Although the use of a past tense normally carries the implicature that the situation does not hold true.
anymore, this is not necessarily so, and the implicature can be overtly suspended (cf. Horn, 1976), as in:

\[(11)\quad \text{El templo estaba en la cima del monte, y probablemente esté ahí todavía si no ha habido terremotos.}
\]

'The temple was (impf.) on (def. art.) top of the hill, and (it) (will) probably still be (subjunctive) there if (there) have not been (any) earthquakes.'

The nomic interpretation of the imperfect in Spanish may involve generalization either along the horizontal temporal axis, as in (12), along the vertical object axis, as in (13), or perhaps even along both, as in (14):

\[(12)\quad \text{María llegaba tarde invariablemente.}
\]

'Mary arrived (impf.) late invariably.'

\[(13)\quad \text{Las chicas perdían la virginidad en esas fiestas.}
\]

'(Def. art.) girls lost (impf.) (their) (def. art.) virginity at those parties.'

\[(14)\quad \text{Los mexicanos llegaban tarde invariablemente.}
\]

'(Def. art.) Mexicans arrived (impf.) late invariably.'
In (12), we have iteration of an event along the axis of time. In (13), since the predicate is semelfactive, the only possible axis of generalization is the vertical one, i.e., once for each member of the class. Finally, (14) could be interpreted to mean that each Mexican, on some unique occasion in his (her) life, arrived late; or else the interpretation could involve both axes, that is, attributing repeated delays to each member of the class. These examples illustrate, once again, the close relationship between habitual and generic sentences, since in Spanish the same form is used to manifest both.

Recall that for Carlson (1978: 274) all tenses are equal regarding genericity, and the 'once'/'series' ambiguity is given for all of them. If we wanted to maintain this position for Spanish, in view of the interpretations of the imperfect we would be forced to consider the progressive as its 'once' reading. For Carlson (cf. 1978: 167ff.; cf. 3.5.), this reading is the basic one, as the habitual is derived from it via the G operator. However, the difference between the progressive and the nomic interpretation of the imperfect involves more than just the 'once'/'series' ambiguity, and thus the generalization rule does not suffice to explain it. Moreover, recall that Carlson (1977: 450; cf. 3.9.) views the progressive in English as a function that applies to
"properties" in order to convert them into "states" (cf. "John is a fool" --- > "John is being a fool"). If this is true, then the "property" (or 'characteristic, series') reading cannot be derived from the progressive. Thus, we conclude that the imperfect in Spanish does not have a more basic 'once' interpretation. It is basically generic, i.e. the generalization operators apply obligatorily. The progressive reading, which is contextually determined, is obtained by the application of a function which is optionally manifested in Spanish as estar plus gerund. As we saw in 3.9., the progressive may be interpreted as habitual, e.g. when a rate expression is overtly present; thus, the generalization operator is not necessarily deleted by the progressive function. This is also the case in

(15) Juan [estaba cantando/cantaba] en la ópera cuando lo vi.

'John [was singing/sang (impf.]) at the opera when I saw him.'

The main sentence in this example is ambiguous in spite of being interpreted as progressive: it may refer to a single event or to John's activities in general at the time of our last encounter.

Summarizing our main conclusions in this section, we
have seen that Spanish exhibits one verbal tense which is basically generic, viz. the imperfect. It signals nomicity along any of the axes of generalization. The imperfect can also have a progressive reading which is contextually determined. This reading is best explained as derived from the nomic one, following Carlson's ideas concerning the progressive in English.

5.3. The Spanish preterit

In contrast to the imperfect, the preterit form in Spanish is most naturally interpreted as referring to one single event, e.g. in sentences in isolation:

(16) Juan corrió.

'John ran (pret.).' (once)

Also, some rate expressions are odd in combination with the preterit, although they are quite natural with the imperfect:

(17) *Llegó en las mañanas.

'(He) arrived (pret.) in the mornings.'

(18) Llegaba en las mañanas.

'(He) arrived (imperfective) (=used to arrive) in the mornings.'
However, we may not conclude from this that the Spanish preterit cannot express nomic statements. On the one hand, we find that statives denoting properties which are basically nomic can occur in the preterit form. On the other hand, we shall study a number of contexts which determine a 'series' interpretation of events denoted by a verb in the preterit form.

Regarding statives, we may have examples such as the following:

(19) Juan fue casado.

'John was (pret.) married.'

Although the predicate in this sentence describes a characteristic that must have held over an interval of time, the interpretation of the Spanish preterit necessarily conveys that the situation has changed, e.g. in our example, either that John died or that he divorced. In contrast with the imperfect, where a vaguely specified interval is involved in the interpretation, the notion of a turning point seems very important for the preterit. Thus, we need at least two moments of time for our interpretation: one where the predicate holds, and one where it no longer does:

(20) \( Fx \mid \neg Fx \)
If single events are conceived of as changes of state, as in Dowty (1979), it follows that the 'once' interpretation is most natural for activities, achievements, and accomplishments in the preterit form. The turning point which is part of the interpretation of the preterit separates two stages of the subject. But our above example (19) shows that the turning point can separate sets of stages as well. Thus, in our sentence, it was a characteristic property of John to be married up to a certain point in time, from which on further stages of John lacked that characteristic property.

That this notion of a turning point is part of the meaning of the preterit, and not just an implicature as in the case of the imperfect (cf. 5.2.), may be shown by the impossibility of suspending the entailment:

(21) *El templo estuvo en la cima del monte, y
probablemente esté ahí todavía si no ha habido terremotos.

'The temple was (pret.) on (def. art.) top of the

2 This is further evidence for McCawley's (1981; cf. 3.7.) suggestion to include sets of stages in our ontology, and versus Carlson's (1978) conception of entities as static.

3 Of course, this notion of a turning point can be expressed by other linguistic means. For example, it is lexicalized in initiation and cessation verbs (start, stop, etc.). I thank E. Wyn Roberts for drawing my attention to this.
hill, and (it) (will) probably still be (subj.)
there if (there) have not been (any)
earthquakes.'

The notion of a turning point may help explain why some
stative predicates acquire an ingressive meaning (referring
to the entry into that state) when they occur in the preterit
(cf. Comrie, 1976; Alonso and Henriquez Ureña, 1967), as
illustrated by the following contrast between the imperfect
and the preterit in Spanish:

(22) Sabía la verdad.
   ' (He) knew (impf.) the truth.'

(23) Supo la verdad.
   ' (He) knew (pret.) (=came to know) the truth.'

(24) María lo conocía.
   'Mary knew (impf.) him.'

(25) María lo conoció.
   'Mary met (pret.) (=came to know) him.'

* The change of meaning illustrated in these two sentences with
the verb conocer is parallel to the one discussed in the
previous chapter (cf. 4.3.), where the presence of the
article on the object NP determined the 'know' reading, and
its absence gave rise to the 'meet' reading. Unfortunately,
the other stative verbs in the group, i.e. those that acquire
Here, the interpretation of the preterit refers to the point in time after which the individual can be characterized by the property. In other words, the interpretation of stative predicates in the preterit divides all the stages that constitute the individual into (at least) two clearly delimited sets.

This is also the case in all instances where events in the preterit form can be interpreted in their 'series' reading. A certain number of contexts do favour this less frequent interpretation of the preterit.

First, the preterit refers to an iterated action if the verb has an individual subject (i.e. not a kind) and a bare plural object NP:

(26) Los chicos mataron conejos.
    'The boys killed (pret.) rabbits.'

(27) San Agustín leyó libros pornográficos.
    'St. Augustin read (pret.) pornographic books.'

As was seen in 4.3., these 0-NP direct objects occur with

(continued) ingestive meaning in the past (e.g. creer = 'believe', ver = 'see'), do not exhibit a parallel situation. Thus, the coincidence in meaning given with the imperfect and generic NP objects with the definite article, and with the preterit and generic objects with the zero determiner may be just restricted to the verb conocer and therefore not systematic.
"occupational" verbs. Since the plurality of the direct object indicates that a number of stages are being talked about (cf. our interpretation of 0-NP's in Spanish, 4.6.), the verb in these sentences has to refer to various events, which are relations between stages of the subject and stages of the direct object. Although the plurality of the direct object thus forces a 'series' reading, in this case it is not necessarily equal to a nomic interpretation. For example, (26) may describe some non-characteristic activity of the boys we are referring to, something that they undertook for just an afternoon. Furthermore, in (26), as it stands, los chicos cannot receive a generic interpretation; only the 'specific set' reading of the NP is possible. Sentence (27), however, could be regarded as nomic if (taking our pragmatic knowledge into account) we understand it to refer to the moral turning point in St. Augustin's life. It then separates two clearly delimited stage-sets.

This delimitation is clearer in the other contexts that favour a 'series' reading of the Spanish preterit. In second place, we find this to be the case whenever the context makes overt reference to a correlation of events, as in:

(28) Juan mató un conejo cada fin de semana.
'John killed (pret.) a rabbit every weekend.'
(29) Los vampiros reaparecieron cada siglo.
    '(Def. art.) vampires reappeared every century.'

Here, we have the stages of the subject separated into sets by one stage (or more) which engages in the activity described at the intervals referred to by the rate expression (cf. 3.9.). In (29), the generic reading of los vampiros is possible, given this sentence in isolation, if the kind or species is understood to be extinct.

The third case of preterit forms having habitual reading occurs when the sentence contains a durative phrase that refers to an interval of time sufficiently prolonged as to make the iteration of events possible, especially if that durative phrase alludes to ages of man or animals, or to historic periods. Of course, our pragmatic knowledge plays an important role here. Compare:

(30) Cantó durante una hora.
    '(He) sang (pret.) during (=for) an hour.'

(31) Cantó durante su juventud.
    '(He) sang (pret.) during his youth.'

For example, in (26) all of John's non-hunting stages are grouped into sets which are separated from each other by one hurting stage every weekend.
(32) Los misioneros desembarcaron en América durante varios siglos.
'(Def. art.) missionaries disembarked in America during (=for) various centuries.'

In these examples, we see that (30) favours the 'once' reading but not so (31) and (32), where the durative phrases separate two distinct sets of subject-stages. In (32), the durative phrase forces the 'species' reading or los misioneros.

Finally, sentences containing preterit forms may express nomic statements when the turning point is overtly specified:

(33) Jugó tenis hasta que se lastimó el codo.
'(He) played (pret.) tennis until (he) injured (pret.) (refl.) (def. art.) (his) elbow.'

(34) Los indígenas cazaron (a) las ballenas hasta que las exterminaron.
'The natives hunted (pret.) (prep.) the whales until (they) exterminated (pret.) them.'

An interesting remark may be made in respect to the durative expression hasta que ('until'), which is usually interpreted to denote the moment of time up to which the action was carried out and after which the action ceased. In
colloquial Spanish - at least in Latin America - however, the phrase seems to have acquired a more general meaning, denoting only a turning point. This is evidenced by sentences such as the following, where the negation is optional:

(35) (No) lo hice hasta que me dieron permiso.
'I [(did not do)/did] it until they gave me permission (=allowed me to).'

If the negation no is present, the meaning is the same as the one we described above, but if the negation is absent, hasta que denotes the point in time up to which the action did not take place, but it did thereafter. We may schematize these two meanings of hasta que in the following figure:

(36) ---|->

stop
Normal meaning

(37) -|--->

start
New meaning

Another example of a 'series' interpretation of the preterit with an overtly specified turning point illustrates the delimitation of sets along the vertical axis of generalization. Thus, consider:
(38) Los hombres caminaron erectos cuando cambió su fisonomía.

'(Def. art.) Men walked erect when their physiognomy changed.'

This is an interesting example which further supports our interpretation of the preterit in Spanish. The predicate caminaron erectos is understood as ingressive, i.e. reference is made to the point in time when each member of the class started to walk erect.

From the above paragraphs we conclude that the preterit in Spanish is vague with respect to the 'once'/'series' ambiguity. In sentences in isolation it favours the 'once' interpretation, since single events denote changes of state (cf. Dowty, 1979), i.e. delimit the boundaries between stages, which is also part of the meaning of the preterit in Spanish. However, the preterit may also receive a nomic interpretation, especially in certain contexts. In that case, the turning point which it entails separates two or more stage-sets (along any of the generalization axes) characterized by a certain property.
5.4. Nomic expressions in Spanish

Parallel to the English expression used to (cf. 3.3.), we find in Spanish some verbs that lexicalize the nomic status of the propositions which they embed: soler and acostumbrar. To our knowledge, their semantic difference has never been discussed. The meaning of soler is quite similar to the English used to, but it may also be found in nonpast tenses. In the past, it is most often an imperfect, embedding any aspectual class of verbs, including statives and semelfactives, just as its English counterpart does:

(39) Juan solía ser rubio cuando era chico.
    'John used to be blond when (he) was small.'

(40) Antes la gente solía morirse más joven que ahora.
    'Before (def. art.) people used to die (refl.) younger than today.'

Soler can also occur in the present tense. In this case, a sentence with an individual subject is odd if soler embeds a stative predicate:

(41) *María suele ser rubia.
    'Mary uses to be blond.'

(42) *Juan suele saber la verdad.
    'John uses to know the truth.'
However, sentences such as these present no oddity if their subject is a class. We conclude from this observation that *soler* can only be used in the present tense if at least one generalization operator applies; that is, there must be a 'series' reading of the embedded predicate along any of the axes (or there may be a combination of both axes). If the embedded predicate is stative or semelfactive, then the subject of the sentence has to be a class, so that the interpretation of the sentence generalizes over the members of the class (i.e. the vertical axis):

\[(43)\]

Los suecos suelen ser rubios.

'(Def. art.) Swedes use to be blond.'

\[(44)\]

Los filósofos suelen saber la verdad.

'(Def. art.) philosophers use to know the truth.'

Example \((43)\), for instance, is interpreted to mean that many Swedes (i.e. realizations of the class) have the property of being blond. Incidentally, notice that this interpretation of *soler* is quite similar to the one resulting from the presence of adverbials such as *often* (cf. 3.9.) or its Spanish correlate *frecuentemente*. Thus, sentences \((43)\) and \((45)\) are practically synonymous:
For obvious reasons, individual subjects and *soler* are odd when the embedded predicate is semelfactive, as there would be a clash between the 'once in a lifetime' meaning that these predicates convey, and the obligatory habituality of *soler*. However, if the subject NP is generic, i.e. refers to a class, these sentences are easily interpretable, again, along the vertical axis of generalization (recall that this is a general restriction with semelfactive predicates, cf. 3.7.). Let us illustrate this with the following Spanish examples:

'Mary [uses/used] to lose (def. art.) (her) virginity at those parties.'

(47) Las chicas [suelen/solían] perder la virginidad en esas fiestas.  
'(Def. art.) girls [use/used] to lose (def. art.) (their) virginity at those parties.'

Unless the sense is ironic - and clearly not literal - (46)
cannot normally receive an interpretation. In contrast, (47) can without any problem: the predicate *perder la virginidad* is understood to apply only once to each girl, and the verb *soler* remits us to the vertical axis of generalization ('different members of the class').

The Spanish verb *acostumbrar* also embeds predicates which are necessarily interpreted as 'series' or characteristics. This verb is parallel to the English expression *have the habit of.*

*Acostumbrar* differs from *soler* in that it cannot generalize exclusively over the vertical member axis. This is evidenced by the fact that stative or semelfactive predicates produce ungrammaticality with *acostumbrar* even if the subject is a class:

(48)  *Los suecos {acostumbran/acostumbraban} ser rubios.*

'(Def. art.) Swedes {have/had} the habit of being blond.'

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Brian Newton has indicated to me that other English forms which behave like this expression are *be accustomed to* and *be wont to*. Probably, the difference between *acostumbrar* and *soler*, which we shall describe shortly, also applies to these forms versus *used to.*
*Las chicas [acostumbran/acostumbraban] perder la virginidad en esas fiestas.
'(Def. art.) girls [have/had] the habit of losing
(def. art.) (their) virginity at those parties.'

In other words, acostumbrar may be used only if iteration
over the temporal axis is involved, which is possible with
embedded activities, achievements, or accomplishments. Since
scler can also indicate generalization over the horizontal
axis, the following pairs of sentences are nearly synonymous:

(50) Juan [suele/solía] cazar conejos.
'John [uses/used] to hunt rabbits.'

(51) Juan [acostumbra/acostumbraba] cazar conejos.
'John [has/had] the habit of hunting rabbits.'

(52) Los soldados [suelen/solían] cruzar puentes colgantes.
'(Def. art.) soldiers [use/used] to cross hanging bridges.'

(53) Los soldados [acostumbran/acostumbraban] cruzar puentes colgantes.
'(Def. art.) soldiers [have/had] the habit of crossing hanging bridges.'
The only difference that we perceive between these sentences is that acostumbrar conveys more strongly the idea of an acquired habit; it is as if in (53) the crossing of the bridges is definitely a voluntary act, for example, for training purposes; whereas in (52), such an act of volition may not be present, and the crossing of the bridges may stem from necessity. Perhaps this difference is due to the range of possibilities available to soler, but not to acostumbrar: soler may also embed statives which can refer to innate characteristics, hence the interpretation that it is not only constrained to acquired (and voluntary) habits. This may also be illustrated by the following examples where, although iteration over the axis of time is involved, the acquisition of a state produces ungrammaticality if embedded under acostumbrar, but not under soler:

(54) [Suelo/solía] ponerme triste.
    'I [use/used] to get sad.'

(55) *[Acostumbro/acostumbraba] ponerme triste.
    'I [have/had] the habit of getting sad.'

The unacceptability of (55) probably stems from the fact that acostumbrar involves intentionality on part of the subject.

Summarizing this section, we have illustrated the use of two nomic expressions in Spanish, i.e. forms which require
that the predicates they embed, if nonstative, be interpreted as 'series' or 'characteristics', and how their difference can be expressed by our two axes of generalization. *Soler* is parallel to the English *used to*, but unlike this English form, it is not restricted to the past. When *soler* occurs in the present tense, it may not embed statives unless its subject is a class. This evidences that the use of this form in the present requires at least one axis of generalization to be involved in its interpretation. *Acostumbrar* differs from *soler* in that it may not generalize exclusively over the vertical axis, i.e. it requires generalization over time, as evidenced by the ungrammaticality that results when the embedded predicate is stative or semelfactive. Another difference is that *acostumbrar*, unlike *soler*, necessarily conveys intentionality on the part of the subject.

5.5. Ascriptive sentences in Spanish

In 3.5. we saw that parallel to the 'once'/'series' ambiguity of verbs, a subdivision of adjectives, predicate nominals and some prepositional phrases was proposed by Carlson (1978). Milsark (1974, cit. in Carlson, 1978: 71) had noticed earlier that some adjectives, but not others, may occur in the following constructions:

(56) John caught Bill drunk.
(57)  *John caught Bill intelligent.

(58)  There are some men drunk.

(59)  *There are some men intelligent.

Those adjectives that may be used in these contexts are classified as "states", and the others as "properties". Carlson (1978) observes that these categories of adjectives also differ in whether they choose the "existential" or "universal" readings of bare plural subjects. Whereas "states" select the former interpretation, "properties" require the latter. Therefore, Carlson draws a parallelism to the 'once'/'series' ambiguity of verbs and concludes that the difference between these two adjective categories rests on the type of entity that they take as their subjects. Thus, "states" require stages and are grouped together with 'once' readings of verbs; "properties" select individual objects (corresponding basically to the level where G has applied, i.e. habituals), and may be generalizable to kinds via the G' operator. For Carlson, while predicate nominals pattern together with "properties", locative prepositional phrases are grouped with "states". In his notational system, the difference between these two categories is coded in the translation of the copula (cf. 1978: 108ff.) He proposed that the surface copula be1, which links "properties" to their
subjects, is not to be translated at all. In contrast, BE2, which is a different copula occurring with "states", has to be given a representation to make explicit that it applies to stages. Thus, the following sentences are represented as illustrated:

(60) Bill is intelligent.

(61) INTELLIGENT (b)

(62) Bill is drunk.

(63) \( \exists y^g(\text{R}(y,b) \& \text{DRUNK}(y)) \)

"States" are not generalizable, since \( \text{G} \) can only apply to verbal predicates (cf. Carlson, 1978: 171, and 3.5.). Therefore, the examples below have the following translations (cf. ibid.: 164ff.):

(64) Women are drunk.

(65) \( \exists x^o(\text{R}(x,w) \& \text{DRUNK}(x)) \)

(66) Women are intelligent.

(67) \( \text{G}'(\hat{x}^o(\text{INTELLIGENT}(x))(w) \end{quote}

\[ \]

It may be recalled that in Carlson's notation, kinds are treated as individual constants (cf. 2.6.).
In (64), the "existential" reading of the NP women comes about because the semantic representation of be drunk refers to stages. Because the realization relation is transitive, a stage which realizes an object also realizes the kind that objects belong to; hence, the superscript on the variable in the representation (65). In contrast, we see that sentences such as (66) differ completely in their representation from the seemingly parallel example (64). In (67), the generalization operator attributes to (the individual kind) women the property of having a set of objects (x) that are intelligent.

In Spanish, we find some data which support Carlson's subdivision of adjectives, predicate nominals and locative phrases in the use of different copulas for each of the two categories mentioned above. Therefore, these categories are crosslinguistically relevant.

The two copulas that appear in ascriptive sentences in Spanish are ser and estar. Their use has been widely discussed in traditional Spanish grammars, reviewed in detail by Navas Ruiz (1963). Basically, most authors have described the difference in terms of the attributed characteristic: ser is used with predicate nominals and with adjectives or prepositional phrases denoting essential, normal, inherent, or permanent qualities of the subject; estar is used with
adjectives or prepositional phrases denoting accidental, contingent, new, non-normal (in relation to other referents), temporary states of the subject. Thus, we find:

(68) Guillermo es inteligente.
    'William is (ser) intelligent.'

(69) Guillermo está borracho.
    'William is (estar) drunk.'

(70) Juan es doctor.
    'John is (ser) (a) doctor.'

(71) Juan está en su oficina.
    'John is (estar) in his office.'

From these examples we can see that Carlson's "properties" are used with ser, whereas "states" require the copula estar. Therefore, his ontological hierarchy and the realization relation provide us with the means to make explicit the semantic difference between these copulas in Spanish.

The occurrence of either of these copulas is also correlated with the possibility of interpreting an NP as generic. Recall that noun phrases with the plural definite

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This difference is evidenced in other languages as well, such as Scots Gaelic, Irish, and Portuguese, for example (cf. Lyors, 1977).
article in Spanish exhibit an ambiguity between a 'specific group' and a 'class' reading (cf. 4.2.). If we have such a NP as the subject of an ascriptive sentence, this ambiguity is present when the copula is *ser*, but not when we find *estar*; in the latter case, it is only possible to interpret the subject NP as referring to a specific group:

(72) Los hombres son inteligentes.
    '(Def. art.) men are (ser) intelligent.'

(73) Los hombres están borrachos.
    'The men are (estar) drunk.'

In (72) we may be referring to some specific group of men (this would correspond to the English gloss 'the men'), or to men in general (if generalization over the vertical axis applies). In (73), however, only the latter interpretation is available.

From these observations we conclude that *ser* is used for the expression of nomic statements, attributing some "property" or characteristic to an individual or a class. The sentences containing *estar* are not nomic, since the "state" denoted by the adjective is not regarded as characteristic and only applies to realizations of the subject NP.

Although at first sight it is intuitively correct to define "properties" as permanent versus "states" as
temporally restricted characteristics, the difference cannot be reduced to a matter of duration. For example, in Spanish, 'to be dead' can only be expressed using estar, and not ser:

(74) Está muerto.

(75) *Es muerto.

If we compare (74) with a sentence containing a predicate nominal (e.g. 70), we can clearly observe that the use of the copulas does not depend on the length of the interval in which the proposition holds, since presumably, one is dead for a longer time than, say, one is a doctor.

Also, we have insisted (cf. 3.7., 3.8., 5.2., 5.3., 5.4.) on the fact that even "properties" which are felt as characteristic of individuals or classes may change through time. Therefore they are not necessarily permanent; it suffices that they hold for at least some (significant) set

Lyons (1977: 717) also observes that whether a quality is regarded as essential or contingent is quite independent of its temporal duration. Thus, he adduces examples where a subject is said to be (essentially) from a certain place, but never to be (non essentially) there. In Spanish, a parallel sentence to the one he quotes would be the following:

i.) Fulano es de aquí, pero nunca está aquí.
'Fulano is (ser) from here, but (he) never (estar) here.'

This shows that quantification ranging over time would be inadequate, and, to Lyons, even irrelevant, to account for the difference between the two copulas in Spanish and in the other languages that formalize it.
of stages. Thus, a nomic statement may refer only to some period of time during the existence of an individual object or kind, and Spanish may very well exhibit the attribution of some "property" with *ser* in the preterit, as in:

(76) Juan fue mi marido.

'John was (ser, pret.) my husband.'

(77) Los tigres fueron herbívoros.

'(Def. art.) tigers were (ser, pret.) herbivorous.'

As we have observed in 5.3., the use of the preterit separates the sets of stages possessing the characteristic from those that lack it, but the property itself is no less defining. However, it is generally true that "properties" are valid for a longer period of time than "states".

The notion of realizations, especially if we understand them as having distinct boundaries and therefore implying a contrast with other realizations, is useful in explaining number of semantic nuances that may be expressed with *estar* in Spanish.

For example, although predicate nominals in general are used with the copula *ser*, it is also possible to express a temporary functioning of the subject of the sentence as a
member of the class of referents denoted by the predicate nominal. In English, this would be done using the progressive form; in Spanish, the noun is dominated by the preposition de ('of') or como ('as'), and, most importantly, the copula has to be estar:

(78)  Juan está de doctor.

'John is (estar) (prep.) (=being a) doctor.'

The meaning of sentences like this is that the subject is acting like/as a doctor, although in reality he may not be one. In other words, the contrast between John's doctor-stages and non-doctor-stages conveys the meaning of 'behaviour' in the interpretation of (78).

With respect to the adjective group, we can first identify a number of adjectives that collocate exclusively with estar: for instance, hambriento ('hungry'), contento ('happy'), desnudo, ('naked'), lleno ('full'), perplejo ('perplexed'), among others (cf. Roca Pons, 1958):

(79)  *Soy hambriento.

' (I) am (ser) hungry.'

(80)  Estoy hambriento.

' (I) am (estar) hungry.'

Some adjectives vary in meaning quite noticeably according to
the copula they appear with. For example, malo ('bad') refers to 'morally bad' if used with ser, but to physical illness if used with estar; vivo ('alive') and listo ('ready') characterize the subject as 'smart' if the attribution uses ser, but retain their literal meaning (given above) with estar:

(81) Pepe es malo.
 'Pepe is (ser) bad.'

(82) Pepe está malo.
 'Pepe is (estar) sick.'

(83) Rosa es lista.
 'Rosa is (ser) smart.'

(84) Rosa está lista.
 'Rosa is (estar) ready.'

Of particular interest are a great number of adjectives in Spanish which may be used with either of the copulas. Whereas with ser we have the simple attribution of a property to a subject, with estar there may be various shades of meaning, which can, however, all be reduced to imply a contrast between realizations. The cases have been described as follows by Navas Ruiz (1963). In the first place, we have cases where the adjective with ser simply denotes class
inclusion, but with \textit{estar}, it describes the behaviour of the subject ("act", cf. supra):

\begin{quote}
(85) Eres amistoso (*hoy).
'You are (ser) friendly (*today).'
\end{quote}

\begin{quote}
(86) Estás amistoso (hoy).
'You are (estar) (=being) friendly (today).'
\end{quote}

Those adjectives that have been usually classified by most authors as collocating exclusively with \textit{ser}, viz. those denoting nationality, tendency, intelligence, etc., actually belong to this group as well. Consider

\begin{quote}
(87) Juan es tonto.
'John is (ser) dumb.'
\end{quote}

\begin{quote}
(88) Juan está tonto.
'John is (estar) (=being) dumb.'
\end{quote}

Other adjectives, when used with \textit{estar}, refer to the perceived (physical) appearance of the subject, whereas with \textit{ser}, the quality is viewed as defining:
'Irma is (ser) very {beautiful/white (=fair)}
(*today).'

Irma está muy [guapa/blanca] (hoy).
'Irma is (estar) very {beautiful/white (=pale)}
(today).'

Thus, for example, (90) does not describe the normal appearance of the subject; it could be uttered if Irma is wearing something special (for guapa), or if she is feeling sick (for blanca).

Finally, we find adjectives which, when used with estar, have been described to imply some sort of comparison, either with previous states of the subject (in which case estar is similar to 'become'), or with other members of the class. Navas Ruiz (1963: 148) gives a very nice example of the former type, with the adjective calvo ('bald'):

"If you are introduced to a man whom you do not know—...
and, in noticing that he lacks hair, you will say Es calvo ['(He) is (ser) bald'], because it is impossible for you to think of him at that moment in a different way. ... But if it is a friend whom you meet again after some time, you will exclaim Está calvo ['(He) is (estar) bald']." (Translation M.P.G.)

An example where implicit comparison is made to some other member of the class is the following:
(91) Este ejercicio es difícil.
'This exercise is (ser) difficult.'

(92) Este ejercicio está difícil.
'This exercise is (estar) difficult.'

We observe, in summary, that the use of estar conveys the meaning of uncharacteristic behaviour ('act'), appearance ('look'), or it implies comparison or acknowledgement of change. As we have already indicated, all of this may easily follow from the notion of realization, especially if this is understood as contrasting with other realizations of the subject. Therefore, we propose that the difference between the copulas in Spanish be expressed following Carlson's (1978) framework, for example:

(93) Miguel es calvo.
'Michael is (ser) bald.'

(94) BALD (m)

(95) Miguel está calvo.
'Michael is (estar) bald.'

(96) \( \exists x^s (R(x, m) \& \text{BALD}(x)) \)

"Properties", which occur with ser in Spanish, are generalizable along the vertical axis, i.e. by the
application of $g$, whereas "states" with estar are not. Thus, only in (97) and (99) can the subject be understood as generic:

(97) Los niños son felices.

'(Def. art.) children are (ser) happy.'

(98) Los niños están felices.

'The children are (estar) happy.'

(99) Los leones son feroces.

'(Def. art.) lions are (ser) fierce.'

(100) Los leones están feroces.

'The lions are (estar) fierce.'

The last sentence would be represented by use of the realization relation (recall that we regard 'specific groups' as realizations of kinds, cf. 4.6.). Leaving the representation of specificity aside, we would propose as a representation for this sentence something along the following lines:

(101) $\exists \{x\}^a (R(\{x\}, l) \land PIERCE(\{x\}))$

As Navas Ruiz (1963) points out, there are other predicates that pattern either with ser or with estar in respect to the adjectives (or predicate nominals) that they
collocate with. \textit{Estar} is originally a locative verb, and other locative verbs which behave like it are quedarse ('stay'), and encontrarse ('find oneself'), for example:

\begin{center}
\textbf{(102)} Juan se encuentra borracho.
\end{center}

'John finds himself (=is) drunk.'

Also, different predicates denoting the 'entry into a state' are used for "properties" and for "states". For the former we find volverse, literally 'turn (oneself) into', and hacerse ('make oneself into'); for the latter, ponerse, literally 'to put oneself (into some place)'. All of these form mean 'to become'. To illustrate these cases:

\begin{center}
\textbf{(103)} Juan se pone borracho.
\end{center}

'John gets drunk.'

\begin{center}
\textbf{(104)} Juan se volvió homosexual cuando se hizo médico.
\end{center}

'John turned into a homosexual when he made himself (=became) (a) doctor.'

Finally, different causative constructions may be used depending on whether they embed "properties" or "states". Whereas the predicates dejar and poner take only the latter, hacer and volver take only the former. Compare:

\begin{center}
\textbf{(105)} Su mamá lo hizo médico.
\end{center}
'His mother made him (a) doctor.'

(106) Lo dejó contento.

'(She) left him happy.'

We hypothesize that all of the predicates which pattern together with ser express nomic statements characterizing individuals or kinds (via G'). In contrast, predicates that behave like estar do not express nomic propositions, and their representation should involve reference to realizations. This hypothesis seems to be borne out, as the interpretation of the following examples show:

(107) Entonces, los leones se volvieron feroces.

'Then, (def. art.) lions turned fierce.'

(108) Entonces, los leones se pusieron feroces.

'Then, the lions got fierce.'

Here again, we observe that in (107) the subject NP is ambiguous. In its generic reading, the sentence could refer to the historical moment from which onwards the members of the species "lions" started behaving in the way we know them today. In (108), however, the only available reading of the NP refers to some 'specific set' or group of lions, i.e. to some realization of the kind.
Throughout this section, as before, we have found that NP's can be interpreted as generic in Spanish only in the context of those predicates that may signalize nomicity for individual subjects as well. This constitutes further evidence that nomic statements, whether made of individual subjects or classes, are a uniform phenomenon (cf. 1.2.).

5.6. Summary

In this chapter, we have analyzed different ways in which predicates in Spanish may express nomic statements. We have observed that most verbal tenses exhibit the 'once'/'series' ambiguity, as they do in English. However, the Spanish imperfect is basically nomic, i.e., if the predicate is nonstative, generalization along any of the axes is obligatory. The imperfect also exhibits another reading, which corresponds to a past progressive. This was shown to be best analyzed as derived by a function, which may be formally manifested and which does not necessarily exclude the habitual or 'series' reading of the verb.

The Spanish preterit has been studied as well, and we have observed that its interpretation crucially involves the notion of a turning point. Since events can be regarded as changes of state (following Dowty, 1979) which also delimit the boundaries between stages of the subject, the preferred
'once' interpretation of the preterit follows as a natural consequence from our previous observation. However, we have noticed that the turning point may also separate sets of stages. If the context indicates this to be the case, the preterit can receive a nomic interpretation unproblematically.

Next, two nomic expressions, **soler** and **acostumbrar**, have been analyzed and compared. Their difference in meaning has been explained by use of our proposed axes of generalization.

Finally, Carlson's (1978) ontology and the realization relation has proven to be very helpful to describe the use of the copulas **ser** and **estar** in Spanish. Adjectives, predicate nominals, and locative phrases have been taken into consideration. Adjectives which may take either of these copulas, resulting in a semantic contrast, are of particular interest. We have concluded that, when adjectives and predicate nominals occur with **ser**, they correspond to Carlson's "properties", which are attributed to individuals and can be generalized via **G'**, along the vertical axis, to the members of the kind. When adjectives occur with **estar**, they correspond to Carlson's "states". These refer to realizations of the subject and are not generalizable. After taking into account Navas Ruiz' (1963) observations regarding the different shades of meaning conveyed by the use of **estar**,
we have concluded that all of these can be expressed by semantic representations involving realizations of the subject.

Throughout this chapter, we have repeatedly encountered evidence relating habitual and generic sentences as well as habitual and stative predicates. This evidence validates our position concerning nomicity. Thus, for example, the same contexts which favour the 'series' readings of verbs in the preterit allow for subject NP's to be interpreted generically. Moreover, the same forms, viz. the imperfect, the nomic verbs *soler* and *acostumbrar* and the copula *ser* are used in Spanish to signal nomicity, which may involve generalization along any of our proposed axes.
VI. CONCLUSIONS

In the preceding chapters, we have analyzed the main areas of research concerning the problem of genericity as manifested both in English and in Spanish. These main areas focus on generic NP's, which constitute the subjects of generic sentences proper, and generic verbs, which appear in generic and habitual sentences.

We divided this work into two parts. In the first one, the most representative accounts of the issues raised by generics were presented and discussed. One of our aims was to give a brief but thorough overview of the "state of the art" regarding these topics, since the increasing literature on them may obscure the ways in which these ideas have developed and the relationship between the different approaches that have been suggested. We also endeavored to take a critical standpoint in the presentation of our review, such that it would allow us to recognize and discuss some difficulties that the various approaches encounter. In doing this, we were led to consider that the best foundations for an analysis of generics is Carlson's (1978) proposed theory, which, by introducing an ontological hierarchy, transcends the former generally accepted quantificational account. However, we differ from Carlson's views in a number of ways.
In the first place, we hold that (in our framework at least) the 'species'/"individual" ambiguity of NP's cannot be dispensed with and reduced to find its origin in some other sentential element. In Chapter II, we presented evidence showing that even in those contexts which, for Carlson, determine an "existential" reading of the NP, the ambiguity is still exhibited. In spite of our conclusion that the ambiguity of NP's is not simply attributable to that of verbs, we demonstrated that both phenomena definitely show a strong relationship.

Carlson's generalization operators were discussed in the third chapter of this work. Although no formal definition of the function that these operators represent is given, we consider that their domain of application to different ontological entities constitutes an advantage over the previous, merely quantificational, approaches. The generalization operators also allow us to express in an explicit manner the intricate relationship between generic sentences (with generic NP subjects) and habituals (with individual subjects). We then proposed to extend Carlson's (1978) theory by introducing the important distinction of two axes of generalization which must be taken into account for the definition of $G$ and $G'$. Thus, these operators differ in their domain of application not only with respect to the
entities that they take as arguments, but also in the axes that they generalize over. The interpretation of nomic expressions containing semelfactive and stative predicates was adduced as evidence for postulating the vertical member axis. Moreover, sentences whose interpretation involves both axes of generalization further support our proposal.

In order to make more explicit the non-static nature of individuals and classes, another proposal which we put forward (coinciding with McCawley's (1981) suggestion) is to consider 'sets' of stages as realizations. There still remains the problem of determining when (or how) these sets of realizations become significant enough to warrant a nomic interpretation. However, the need for their consideration was clearly demonstrated in our analysis of generic and habitual sentences in the past and of the nomic expression used to.

Further evidence supporting this last proposal concerning 'sets' as realizations of classes was presented in the fourth chapter, with which we entered into the second part of the thesis. In this part, we analyzed a large amount of data from Spanish which had not been previously considered in relation to the topic of genericity.

In Chapter IV, we discussed the ambiguity of NP's as manifested by different constructions. One problem of particular interest is raised by bare plurals (0-NP's) in
Spanish, which are mainly constrained to non-subject position. Their interpretation is nonambiguous; however, accounting for them presented some difficulties. From contrasting the occurrence of O-NP's to that of plural NP's with the definite article, an interesting subdivision of predicates emerged, which was seen to be similar to Carlson's (1978) grouping of transitive verbs regarding the types of entities that they subcategorize. In attempting to express the semantic interpretations of our Spanish data by means of his operators and ontological hierarchy, we were led to conclude that, in Spanish, the O operator may apply optionally to either subject and object in a structure. Also, whereas the interpretation of plural NP's with the definite article links up with the notion of 'sets' or groups as realizations of kinds, the interpretation of O-NP's is best explained by taking into account both realizations and kinds.

In Chapter V, Spanish data concerning the manifestation of nomic statements as expressed by the verbal system were analyzed in terms of the theory as presented up to that point. From their consideration, further developments of the theory were proposed. Various topics were discussed which had not previously been related to each other, such as the contrast between the imperfect and the preterit, the interpretation of the nomic expressions soler and
acostumbrar, and the contrast between the ascriptive copulas ser and estar. We concluded that the imperfect in Spanish is basically a generic tense, whereas the preterit is vague with respect to genericity. The interpretations of both forms were presented in an extensive analysis. We advanced the incorporation of the notion of a 'turning point' for the preterit, which makes its more frequent 'once' reading follow quite naturally. In relation to the contrast between the two nomatic expressions discussed, we explained their difference in meaning in terms of intentionality and of the proposed axes of generalization. Finally, our extension of Carlson's ontological hierarchy proved to be fully motivated in the analysis of otherwise seemingly unrelated data regarding the interpretation of estar versus ser.

Throughout this thesis we stressed the fact that generic sentences, habituals and a number of stative predicates are inseparable in an explanatory account, thus validating Dahl's (1975) notion of nomicity (explained in Chapter I).

The specific semantic representations of our data are necessarily tentative, e.g. our characterization of the axes of generalization, as well as our proposal for 'sets' as realizations of individuals and kinds. More needs to be done in order to attain a satisfactory and explicit account of all the problems which were raised and discussed, and also, for a
proper understanding of the data. However, what we have presented here as a contribution will hopefully enrich the basis for future research.
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