DEMONSTRATIVE PRONOUNS IN SPANISH: A DISCOURSE-BASED STUDY

DISSERTATION

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By

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ABSTRACT

Like other demonstrative expressions, Spanish neuter demonstrative pronouns can only be fully understood when we consider their essential discourse nature. But what make these linguistic elements special when compared to other demonstratives is their very specific referential preferences. Neuter demonstrative pronouns ‘esto’, ‘eso’ and ‘aquello’ are commonly used in discourse to refer to a particular set of higher-order, discourse entities: the so-called abstract entities. These include propositional objects and eventualities of various types that are frequently found within sentential limits. But other times, these semantic objects stretch beyond the sentence to be only found in larger pieces of discourse. These basic issues, largely ignored in the studies of Spanish linguistics so far, are fully addressed in this dissertation. Thus, a corpus study is carried out with an aim at uncovering the speaker’s preferences regarding the referential features of Spanish demonstrative pronouns and a detailed study provided that explores into the morphosyntactic and semantic nature of their most common abstract referents.

As these elements lack any sort of explicit ostension, Spanish demonstrative pronouns have been traditionally considered as not belonging in the group of deictic expressions. As a consequence of that, only their pronominal nature has been taken into consideration when applied to their discourse behavior.
Here, I provide a characterization for Spanish demonstrative pronouns as generalized quantifiers and defend the idea that these elements still retain a deictic component that would allow me to group them on a par with demonstrative determiners. This deictic component that demonstrative pronouns have, though clearly not in the form of an overt pointing act in the canonical sense, is rather conceived of as presuppositional in nature. It is still a pointing device which serves the function of directing the hearer to look for the pronoun’s referent in the set of familiar discourse referents while allowing the speaker to mark it as cognitively activated.

Based on the speaker’s referential preferences when it comes to make use of demonstrative pronouns to anaphorically refer in discourse to eventualities, and attested by a corpus study carried out with that purpose, I also defend the idea that while demonstrative pronouns ‘esto’ and ‘eso’ seem to have lost any trace of a [+ proximity] spatio-temporal condition, demonstrative pronoun ‘aquello’ is still marked with a [+ distal] feature. This content, which is also modeled in terms of setting-up presuppositional DRSs for demonstrative pronouns, it also allowed me to postulate a reduction of the tripartite system of Spanish demonstrative pronouns into a basic binary system whereby ‘esto’ and ‘eso’ would be grouped together as being unspecified with respect to proximity and ‘aquello’ being the term most frequently used in modern Spanish to mark distance in the spatio-temporal axis.
Dedicado a mis padres
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CHAPTER 1

INTRODUCTION

For decades, the study of anaphora in Linguistics has been of great interest for many scholars. It constitutes a complex subject matter, with many ramifications about which a multitude of investigations have been carried out and a vast number of studies have been written. In my opinion anaphora, in its broadest sense, still constitutes one of the most appealing and interesting phenomena to be carefully scrutinized in modern Linguistics. This is the principal reason that led me to write my doctoral dissertation on the topic of anaphora. I have always been interested in the myriad of structural and referential connections that can be found in natural language. As one of the principal linguistic mechanisms that allow keeping coherence and cohesion in discourse, anaphora still constitutes one of the last frontiers of the linguistic science. Anaphora is a complex phenomenon and, as a general term, it covers a variety of sub-phenomena that, while sharing fundamental common features, may be distinguish from one another by virtue of some particular configuration. Naturally, this dissertation can be framed within the general field of anaphora, but it will be entirely devoted to the empirical exploration of the so-called subfields of discourse anaphora and discourse deixis.
If there is an actual difference between these two terms we’ll discuss it later. For the moment let’s assume that they constitute different linguistic processes that can be put together in the same basket because their similarities are more numerous than their differences. As a matter of fact, discourse anaphora and discourse deixis can be considered the Achille’s heel of the anaphora studies. I don’t mean with that that they have not been deeply studied. Many authors have undertaken the study of discourse anaphora/deixis from many different theoretical perspectives (Asher (1993), Webber (1979; 1988; 1991), Linde (1979), Passonneau (1989), Byron (2004), Hegarty (2003; 2006), Hegarty et al. (2001; 2003); Poesio (2000), Poesio and Modjeska (2005), Poesio et al. (2000) *inter alia* having attained outstanding insights on the mechanisms underlying discourse anaphora and, which is equally important, laying the foundations for future research. For, as it is the case with many other linguistic issues, the subfield of discourse anaphora and discourse deixis is still subject to further exploration. Not to mention the scarcity of language-specific and cross-linguistic studies. Abstract entity anaphora is a case in point for this need of research. Reference to abstract objects via demonstrative pronouns represents a high percentage of the global discourse deixis and discourse anaphora most common patterns.

This dissertation is primarily devoted to study the topic of abstract anaphora in Spanish discourse with an aim at filling the gap that has existed on this phenomenon in the Hispanic linguistics studies so far. The goals are varied as the phenomenon, in my view, calls for a multi-perspectival approach. This dissertation is divided into six chapters the content of which is, succinctly, as follows. The first chapter is devoted in its entirety
to introduce the notion(s) of discourse deixis and discourse anaphora and to distinguish these from other common anaphoric phenomena. Chapter one also includes a review of the most relevant work on abstract anaphora carried out to date. Chapter two is entirely devoted to providing a detailed analysis of abstract objects as they commonly play the role of antecedents in discourse anaphora. This approach to the most common abstract objects in Spanish is carried out at the morphosyntax-semantics interface. Chapter three attempts to provide a formal characterization of the most habitual anaphors for abstract anaphora in Spanish, that is, the triple of neuter demonstrative pronouns *esto*, *eso* and *aquello*. Data gathered from a corpus-based study on naturally occurring examples of abstract anaphora in Spanish will be presented in chapter four. Based on empirical evidence, these data will allow me to better define the taxonomy of abstract entities and, in turn, to attempt a discourse-semantic representation for a sample of the most representative cases found in the corpus for each category in the taxonomy. Chapter five will be entirely devoted to describe and characterize the observable correlation that is found between tense and Spanish demonstrative pronouns in specific reference to events in discourse. Finally, chapter 6 constitutes a brief report on the most important conclusions that can be drawn from this dissertation as well as some future prospects of research in the area of abstract discourse anaphora and demonstrative anaphors.

As I barely suggested a few lines above, discourse deixis/anaphora is a multifactorial phenomenon that ideally demands an interfICIAL morphosyntactic-semantic approach. And while it is true that this dissertation will focus on the semantics of abstract objects and neuter demonstrative pronouns, I’ll be doing frequent incursions in the
morphosyntax of certain linguistic constituents. As it will be more clear later on, this will be made to better characterize the formal properties of our abstract object ontology and some particular features of neuter demonstratives. On the other hand, many references will also necessarily be made to the notion of context. Naturally, discourse anaphora is a phenomenon that is highly context-dependent. It goes beyond the limits of the sentence and, as such, cannot be explained without reference to contextual and cotextual parameters. The search for a proper antecedent of a neuter demonstrative anaphor may result sometimes a challenging task for it may be the case, as it will be, that we simply don’t have access to all the contextual circumstances. In my opinion, this is definitely one of the principal obstacles that a comprehensive study of discourse anaphora will encounter, i.e., the frequent lack of contextual clues. As in any anaphoric processes, two actants come into play in discourse anaphora: antecedent and anaphor. But unlike intersentential anaphora, in which the emphasis may be only put on providing a suitable explanation in terms of the semantics and the morphosyntax of the anaphoric link, in discourse anaphora one more factor has to be crucially taken into account, that is, discourse context.

Redundant as it may seem, clearly delimiting a proper notion of discourse context to work on is not a simple matter as regards abstract anaphora. Not only for the obvious discoursive nature of the phenomenon but also because it will be of great help to develop a comprehensive ontology of abstract objects. Thus, for example, in dealing with corpora of natural conversation we will surely find cases that are not so clearly perceptible. Take for instance typical cases of visual deixis, in which the speaker may be pointing –
although not necessarily- to some kind of event that is occurring right in front of him. Unfortunately, cases like this can be found in any corpora of transcribed natural conversation very frequently. Now, what is the referent to the pronoun *that* in cases like that? The researcher will only occasionally have access to the spatio-temporal coordinates where and when the natural conversation takes place for, once transcribed in written form, a real-world situation loses much of this information. Taken from the perspective of a researcher, our example would not be a case of visual deixis any more, but rather a case of abstract anaphora whereby a certain discourse anaphoric link obtains between an abstract object antecedent and a demonstrative pronoun. Even though the use of a demonstrative had been a purely deictic one (via pointing index finger), there is no way for the researcher to know given the lack of contextual information. Let’s consider the following example to illustrate this point:

(1) **Context:** John and Peter are in the stadium watching a football game. John talks on his mobile phone with Mary, so being not fully aware of the things happening around him. At a certain point, the local team football forward scores. And John says:

     John: Great! Hey Peter! Did you see that?

     Peter: Uhm, what? Did I see ... what?

     In this example, John uses the distal demonstrative *that* to refer to an eventuality that just happened on the football ground, that is, a scoring event by a local team player. This, I believe, it is clear enough. What is particular about this example is the fact that shouldn’t I have given the introductory set-up scene we wouldn’t have a linguistic
element that might be said to be anaphorically referred to by the demonstrative in (1). Most times we’ll be able to retrieve a proper linguistic antecedent from the immediate linguistic environment, but other times we won’t. Most of the examples that I’ll be using in this dissertation are transcriptions of Spanish as found in conversational and written corpora. In some cases, transcriptions of conversation in natural situations like the one presented above will not reflect the circumstances of the environmental context, thereby complicating the resolution of the anaphoric link. This constitutes evidence that abstract object anaphora is a highly context-dependent phenomenon where lack of contextual information may lead to uninterpretability. Thus, abstract object anaphora can be said to be a multimodal phenomenon that entails complex interplays between many meaning-making resources: language, gesture, gaze, movement, and all kinds of symbols and uses of space. Let’s compare example (1) with the following contextually non-problematic case in (2):

(2)  John: Where did you put my new sunglasses?
     Mary: I put them on the table, in the living-room.

In (2), we do not need to be acquainted with the context of utterance to be able to resolve the anaphor. The antecedent is linguistically given in the first sentence and the anaphor is fully interpretable. I don’t mean to say that context is not important for the whole range of anaphoric phenomena, but rather I want to emphasize the impact that some contextual parameters such as the time and space coordinates of the utterance situation may have on abstract anaphora resolution. In summary, different linguistic and
extra-linguistic factors need to be taken into account for a comprehensive study of discourse anaphora and the subcategory of abstract object anaphora. Naturally, abstract object anaphora is a discourse phenomenon and discourse cannot be fully understood without context; be it context understood as the surrounding textual material or the real situational medium where discourse takes place. And finally the interlocutor’s memory also plays a primary role in discourse anaphora. Memory, as human’s cognitive store, has a powerful influence in how humans configure our mental representation of discourse and will serve as an aid for a more robust explanation of anaphora resolution processes. All this is shown in the following Diagram:
Up to now, I have been using quite profusely terms such as anaphora, discourse deixis, discourse anaphora and abstract objects, but gave no hint of an explanation or definition for them so far. To this will be devoted the following paragraphs and, as a matter of fact, the whole of this introductory chapter. Traditionally, anaphora studies have put the emphasis principally on the description of the anaphor and less so in the characterization of the antecedent. Thanks to that we have gained a great understanding.

**Figure 1.1**: The Multifactorial Nature of Abstract Object Anaphora.
of the characteristic features of the varied elements that can act as typical anaphors: pronouns, empty categories, proper names, etc. According to Huang (2000), the term anaphora is commonly used in contemporary linguistic theory to refer to the observable relation that obtains between two linguistic elements. The interpretation of one of these two elements –the so-called antecedent- will eventually have an effect on the interpretation of the second element of any anaphoric relation –the anaphor-. Put it simply, the antecedent and the anaphor are said to corefer when they both refer to exactly the same entity. This is probably the most common case. But antecedent and anaphor do not have to corefer necessarily. Consider the following example where the indefinite NP una marmota (cf. a marmot) in the first conjunct refers to a single individual whereas the pronominal plural anaphor las (cf. them) in the second conjunct refers to an undetermined set of individuals.

(3) Una marmota vive en mi jardín. Las he observado durante años y son muy divertidas.
‘A marmot is living in my yard. I have watched them for years and I can say they are very funny’.

Nevertheless, the study of the linguistic (and extralinguistic) antecedent doesn’t seem to have attracted the interest of those working in anaphora so much. Particularly, the study of entities such as propositions, events and maybe other types of “unusual” objects as crucial actants in anaphoric phenomena has been scarce in linguistics until recently. Most part of the study on the semantic nature of the antecedent having been
carried out in the field of Philosophy of Language. But the fact is that this type of elements are naturally and very frequently referred to by speakers in discourse anaphora and discourse deixis uses. In my view, this scarcity might be due to the particular slippery nature of a class of elements that commonly require a great deal of abstraction to be properly characterized. Perhaps it is the fact that their extension in a model of the real world cannot find a concrete or physical correlate. For what is it a proposition but a purely mental object? and what about a fact? and a belief? The truth of the matter is that this group of entities has been called abstract entities and the anaphoric cases in which they can be commonly found are cases of abstract entity anaphora or abstract object anaphora. As of today, there is no complete and well defined taxonomy of abstract objects and a lack of consensus is still observable as to which discourse entities should be consider “abstract” and under what circumstances. In most cases lack of a consensus is only due to a lack of a proper semantic and syntactic characterization of certain objects. This is for instance the case of a group of antecedents that extend beyond the sentential limits. We also come across very frequently with disrupted and fragmented antecedents which pose difficult problems for their adequate description. But it may also be due sometimes to the high effort that is required by the hearer –and reader- in accommodating a proper antecedent. Thus, even though the linguistic constituent has been properly delimited, we need to somehow infer a suitable semantic antecedent of a pronoun.

At the start of this dissertation I mentioned, rather superficially, the distinction between the notions of discourse anaphora and discourse deixis. There appears to be some confusion about these two terms or, at least, a lack of consensus as to what could be
the most appropriate term provided that they refer to the same phenomena. On the other hand, should they refer to different modes of anaphora we should explain which are their basic differences. In either case, it is not my intention to try to make any conclusive statements about these two terms here, but rather apply them to the specific content of this dissertation. Let’s start by giving a tentative background sample of catalogued cases of discourse anaphora for Spanish. Some of them have been taken from Webber (1979) and freely adapted to Spanish.

(4) a. **Definite Pronoun Anaphora**

Ayer vi un billete en el suelo. *Lo* cogí inmediatamente.

‘Yesterday, I saw a dollar bill on the ground. I got it right away’.

*lo*¹ = the dollar bill I saw on the ground yesterday

b. **Definite Noun Phrase Anaphora**

Hoy he conocido a unos chicos de Perú. *Los chicos* son muy majos.

‘I met some guys from Peru today. The guys are very nice’.

*Los chicos* = los chicos de Perú que he conocido hoy.

c. **“Uno(s)²” Anaphora**

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¹ This definite reading of the pronoun is also known as an E-type reading.

² This type of discourse anaphora –the so-called *one(s) anaphora* in the literature on English- has been considered by some authors to have a wider range of action. Thus, for example, Webber (1979): one-anaphora occurs in both definite and indefinite noun phrases. It is usually realized as “one”, “ones” or 0 (null), but in some cases may appear as “it”, “that” or “those”. And she provides a few examples:

1. Wendy bought some cotton T-shirts. The largest *0* she gave to her father.

   *0* = cotton T-shirt

2. The red wines in Wendy’s cellar are ready to drink. **Those** she just bought should wait a few years.
Pepe se ha comprado un Ferrari rojo y yo uno amarillo.

‘Pepe bought a red Ferrari and I bought a yellow one’.

uno = Ferrari

d. **Verb Phrase Ellipsis**

Si tú te compras un ordenador nuevo, Yo también ∅.

‘If you buy a new computer, I will ∅ too’.

∅ = (me) compro un ordenador nuevo

e. **“Sluicing”**

Juan consiguió arreglar la tele, pero no recuerdo cómo ∅.

‘John managed to fix the TV, but I can’t remember how ∅’.

∅ = Juan consiguió arreglar la tele

Alguien me preguntó por tí, pero no recuerdo quién ∅.

‘Someone ask me about you, but I can’t remember who ∅.’

∅ = me preguntó por tí

—

those = the red wines

Of course most of the cases found are language specific and, as such, can’t be found/extended to other languages. In Spanish, for example, the preferred anaphor for (2) would be the definite pronoun ‘los’ as in (4).

(3) Wendy se ha comprado unas camisetas de algodón. Las 0 más grandes se las ha dado a su padre. 0 = camisetas de algodón.

(4) Los vinos tintos de la bodega de Wendy ya están listos para beber. Los 0 que acaba de comprar deberán esperar todavía unos años.

los = vinos tintos

Spanish marks gender and number morphologically and the noun (antecedent) and the pronoun (the anaphor) must show morphological concordance. Thus, it may be argued that the ∅ position is not necessary for anaphor resolution since the pronoun conveys enough information to fulfill this task.
Alguien me preguntó por tí, pero no recuerdo cuándo Ø.

‘Someone asked me about you, but I can’t remember when Ø’.

Ø = me preguntó por tí

f. “Gapping”

Juan se levantó a las seis el lunes, y María Ø el martes.

Ø = se levantó a las seis

g. Null Complement Anaphora

Yo también tuve que comprar un regalo, pero no me importó Ø.

Ø = (tener que) comprar un regalo

h. Neuter Demonstrative Pronoun Anaphora

Miguel ha metido al gato en la lavadora y eso no se puede consentir

eso = ? the fact the Miguel put the cat in the washing-machine

? Miguel’s action

The previous list is surely non-exhaustive but I think it provides a sample of the most frequent discourse anaphoric processes that can be found in Spanish discourse. Some of them are definitely incomplete for they do not show the full range of anaphors included in the category.

Other cases are still controversial in that they have been denied as having a real anaphoric status in Spanish. Take for instance the case of Null Complement Anaphora. As of today, this phenomenon does not seem to be accepted as such principally because it
is marginal and, apparently, restricted to certain non-finite complements. Besides, the complement can be arguably said to constitute a case of partial verb phrase deletion or ellipsis. But that will ultimately depend on the semantic and syntactic characterization given to the non-finite form (*tener que*) *comprar un regalo*. But crucial to this listing showing the range of discourse anaphora, is the fact that it focuses on the anaphor. As a matter of fact, the categories are given names solely on the basis of the anaphor and, in most cases, on their structural properties. But if we focus on the nature and variety of the antecedents and their referents we’ll find a completely different range.

(5) **Individuals**

a. Pepe tiene un perro y lo pasea todos los días.

‘Pepe has a dog and he walks it every day’.


‘Pepe is From Murcia and Ana from Jaen. He lives in Rome and she lives in Moscow’.

c. Tanto si Juan se compra una bici como si se compra una moto, la guardará en el garaje.

‘Whether John buys a bycicle or a motorbike, he will keep it in the garage’.

d. Es necesario que traigáis el diccionario a clase.

Bueno, traed eso y la calculadora también.
‘I need you to bring the dictionary to class.

Well, bring that and the calculator as well’.

All examples in (5) refer to individuals but they refer differently to perhaps “different” types of individuals. Thus, for example, in (5a) the definite pronoun lo (cf. *it*) refers not just to any dog (the raw meaning of the indefinite determiner) but rather to a particular dog that John has. Compare this example with (5b) where both pronouns él/ella (cf.he/she) stand just for the individuals Juan and Maria. As a matter of fact, it may be the case that there is no particular individual at all, but just a hypothetical individual that Juan might buy; either a bycicle or a motorbike as in (5c). Finally, (5d) shows a case of neuter demonstrative pronoun in what is called NP-Anaphora use where the demonstrative pronoun refers back to the referent of the antecedent NP *el diccionario* (cf. the dictionary). Again, we might probably find other possibilities of discourse anaphoric reference to individuals. In fact, this will always depend on the notion of individual we may want adopt. The notion of individual in these examples is the common semantic notion of an individual in a model\(^3\).

(6) **Pluralities (Sets)**

a. Algunos perros muerden pero afortunadamente se *los* suele llevar atados.

‘Some dogs bite, but fortunately they use to walk them leashed.’

\(^3\) In a model theoretic semantics a partial function \(f\) from a model \(M\) with universe \(U\) that maps a particular set of first order entities to extensions in accord with a particular index. Thus, for example, the partial function \(f\) would map the proper name ‘John’ into the specific individual bearing the name John at a particular time \(t\), and world \(w\).
b. Cuando Juan y María estudian, (Ellos/∅) siempre estudian juntos.

‘When Juan and Maria study, they always do it together.’

c. Todos los linguistas saben leer.

(Ellos/∅₄) saben que es fundamental para su profesión.

‘All linguists can read. They know it’s crucial in their profession’.

In all examples (6a)-(6c), the antecedent to the pronouns is a set which has more than one member. Thus, in (6a) the denotation of the determiner algunos (cf. some) can be relationally⁵ characterized as algunos(A)(B) iff |A ∩ B| ≥ 2, hence the anaphoric pronoun los in the second conjunct should refer to a set of biting dogs which is bigger than or equal to two. Similarly (6b) denotes a set consisting of the two individuals Juan and Maria and the determiner todos (cf. all) in (6c) forces a reading in which the anaphoric pronoun ellos in the second conjunct refers back to the set of all linguists who can read.

(7) Mass terms (uncountables)

a. Hemos comprado vino pero aun no lo hemos probado.

‘We bought wine today, but we didn’t try it yet’.

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⁴ Spanish is a pro-drop language. The speaker’s preference in sentences (5b) and (5c) would be dropping the verb’s subject. Nevertheless, the same sentences with the overt personal pronoun ellos are perfectly grammatical and felicitous.

⁵ Relationally determiners are assigned the type ⟨⟨(e,t),(e,t)), t⟩⟩ (a function from relations between sets to truth values). Since determiners are second order predicates they take relations or predicates as arguments. Thus, in specifying the type of the determiner, we should consider the arity of the determiner as well as the arity of its arguments.
In Spanish, the definite pronoun *lo* that appears in (7b) is to be understood as a partitive, that is, as referring to a portion or individual quantity rather than to the whole mass of stuff. Thus, we may say that by using anaphoric *lo* we may be referring to the specific quantity of wine that we bought today, let’s say, one bottle, two bottles, etc.

(8) **Generics**

   ‘Chimpanzees are intelligent animals. I have observed them for years’.

b. Una marmota vive en mi jardín. *Las* he observado durante años y puedo decir que son muy divertidas.
   ‘A woodchuck is living in my yard. I have watched them for years and now I can say that they are very funny’.

The NP *el chimpancé* in (8a) introduces a class/type discourse referent in the discourse representation, and the referent is interpreted as the property of being intelligent that can be predicated of all the individuals/instances belonging to the class ‘chimpanzee’. The plural morphology of the anaphoric pronoun *los* can be easily explained in this way. But, surprisingly, the definite pronoun *los* in the second conjunct cannot be referring to the whole set of individuals belonging to the class chimpanzee who are intelligent simply because nobody can observe all the individuals of a species for years. Anaphoric pronoun *los* must refer to some particular subset of individuals of the general class ‘chimpanzee’ that he observed and which are cognitively salient for the
speaker. A similar example is presented in (8b) where the plural [+ definite] anaphor las (cf. them) must refer to a particular subset of woodchucks and not to every individual woodchuck in the class.

(9) **Bridging (Associative anaphora)**

a. Ayer cenamos en un japonés. La camarera era muy simpática.

   ‘Yesterday we had dinner in a Japanese restaurant. The waitress was very nice’.

Bridging is not a regular class; it usually includes cases of associative (Hawkins, 1978) and indirect anaphora. The anaphor in cases of associative anaphora is an NP that has an antecedent that is necessary to its interpretation. What actually differentiates associative anaphora from other types of anaphora is the fact that the relation between the anaphor and its antecedent is different from identity. The example in (9a) is a case of this type of anaphora where the referent of the definite NP la camarera (cf. the waitress) in the second conjunct is only identifiable based on general knowledge about an association with the entity evoked by the antecedent japonés (cf. a Japanese restaurant). In Hawkins’ terminology, the antecedent would be the trigger and the anaphor its associate. The types of relations involved in associative anaphora can be varied and subject to a different degree of complexity: attributive as in house.the price, part-of as in car.the_wheel, etc.

(10) **Abstract Objects**

The heterogeneous category of so-called abstract objects comprises a variety of entities which differ from one another with respect to their semantic nature and
morphosyntactic properties. Thus, for example, within the realm of eventualities we may
distinguish actions from states, and these two from what may be considered an event
type. The following listing of commented examples of abstract antecedents does not
intend to be exhaustive but only a sample of some archetypical occurrences to illustrate
the anaphoric phenomenon of abstract entities in an introductory manner. A couple more
points have to be considered regarding this set of examples. On the one hand, these are
made-up non naturally-occurring examples but, in my view, are very similar if not
identical to the ones that can very likely be found in natural conversation or any written
discourse. This common way of “manipulating” linguistic data has at least one advantage
and one disadvantage from a descriptive point of view that are worth mentioning. The
drawback is clear and does not deserve much explanation. It may be argued that either the
abstract antecedent or the neuter anaphor have been unnaturally forced to fit the main
arguments presented here. This issue should not be of much concern to us here for natural
examples from corpora will abound in this dissertation pretty much cloning the ones
presented in this introduction. The principal advantage, on the other side, lies in the
simplicity that is attained by stripping the abstract antecedent of any disturbing material
that is normally found in transcribed natural conversation, not to mention referential
ambiguities. Probably the greatest difficulty in dealing with abstract anaphora lies not so
much in properly characterizing the abstract antecedent itself but rather in tracking down
these very often elusive entities in discourse. Chapter 4 will be principally devoted to
studying these issues related to the nature of abstract objects in “authentic” discourse and
some other equally important current contextual restrictions likely to be accounted for in
future research. In the meantime let the following de-contextualized cases serve as an initial illustration of abstract object discourse anaphora.

The first example (10a) is a simple dialogue that instantiates a case of NP-anaphora. As such this should not be included in the category of abstract objects for the antecedent is a definite nominal phrase which referent denotes a common noun (an individual, although perhaps not a very standard one) that should have been more conveniently included in (4) above. The reason why I decided to put it in here is connected with the status of the anaphor *eso*. Thus, it is important to keep in mind that the referent of a Spanish neuter demonstrative pronoun *esto*, *eso* and *aquello* doesn’t need to be an abstract entity, necessarily. And not all abstract entities have to be referred to via a neuter demonstrative pronoun. We’ll see how later on.

a. El consumo continuado de marihuana produce esto que llaman los técnicos el sindrome amotivacional.

‘The continuous consumption of marihuana causes what specialists call the amotivational syndrome’.

¿Y eso qué es?

‘What’s that?’

Having said that, the next constitute prototypical cases of abstract antecedents referred to via neuter demonstrative pronouns in discourse. At first sight, (10b) resembles the case of NP-anaphora presented in (10a) but a closer inspection reveals a different nature for the antecedent. The anaphor *eso* does clearly not refer to Juan’s novel but
rather to the fact that Juan began (writing/reading?) his novel or, it may argued, that the antecedent to the pronoun is the state of writing his own novel in which Juan currently is. Notice how in (10c) the subcategorization of the verb empezar (cf. begin) is different but the pronoun seems to be referring back to the same antecedent.

b. Juan ha empezado su novela. Eso me alegra.
‘Juan began the novel. That makes me happy’.

c. Por fin Juan ha empezado a escribir su novela. Eso me alegra.
‘Juan began to write (writing) a novel. That makes me happy’.

Unlike the previous two examples, (10d) doesn’t seem to allow for a factual reading for even if we force a factual interpretation of the first conjunct something like that Mary wants to come to the party is a fact, it really sounds very odd to predicate not being a possibility of that fact. Thus, if we assume that the reference of the pronoun eso in the second conjunct is factual, the result is, in my view, pragmatically unfelicitous: the fact that Mary wants to come to the party is not going to be possible is an oxymoron. But at the same time the eventive reading doesn’t seem to be a good option too unless we admit an eventive reading for the tenseless non-finite form venir (cf. to come).

d. María quiere venir a la fiesta. Pero eso no va a ser posible.
‘Mary wants to come to the party. But that won’t be possible’.
In the next couple of examples the pronoun that appears in the second conjunct seems to be referring back again to some kind of predication. In (10e), the property of being French is predicated of Michelle. That simple predication is a suitable antecedent for the anaphor, hence enabling the long-distance referential chain \((\text{French}(\text{Michelle})) - esto_j\). In (10f) the antecedent to the pronoun does not appear to be so much a property of Juan but rather to a state, i.e., the state of Juan’s not living in that particular place any more. Thus, assuming an event-based ontology, the presence of the negation operator no (cf. not) does not implicate the non-existence of a salient eventuality that can be referred to via a demonstrative pronoun.

\begin{align*}
e. & \quad \text{Michelle es francesa. Esto no me sorprende; tiene acento francés.} \\
& \quad \text{‘Michelle is French. This doesn’t surprise me; she has a French accent’}.
\end{align*}

\begin{align*}
f. & \quad \text{Juan ya no vive aquí. De esto hace ya varios años.} \\
& \quad \text{‘Juan does not live here any longer. It’s been long since that’}.
\end{align*}

The first conjunct of (10g) denotes a different type of object. The presence of the quantifier \(siempre\) (cf. always) forces an event-type reading. In consequence, the pronoun \(eso\) in the second conjunct can’t be said to refer to a unique event that may be temporally anchored at some specific reference point, but rather to all instantiations \(e_x\) of the event-type denoted.

\begin{align*}
g. & \quad \text{Juan siempre baña a su perro Toby con champú, pero eso le pone de muy mal humor.}
\end{align*}
‘Juan always baths his dog Toby with shampoo, but that gets him angry’.

But eventualities can also be conveyed with nominal constituents. This is the case illustrated in (10h), where the antecedent to the pronoun aquello (cf. that) is the event denoted by the NP la destrucción de la ciudad. A nominalization operation takes place here whereby the verb destruir (cf. destroy) becomes the noun destrucción (cf. destruction) while retaining the eventive denotation. This will be explained more in detail in chapter 2.

h. La destrucción de la ciudad fue total. Aquello sucedió sin previo aviso.

‘The destruction of the city was complete. That happened without previous notice’.

As I said before, abstract object anaphora involves a complex ontology that includes not only eventualities but also attitudinal objects. Thus, for example, the pronoun in (10i) appears to be referring to the proposition that two plus two equals four. Similarly, the demonstrative pronoun in B’s utterance of (10j) refers to a sort of propositional—or attitudinal—object triggered by the verb creer (cf. believe) in A’s utterance.

i. Dos y dos son cuatro; eso es indiscutible.

‘Two plus two equals four, that’s indisputable’.

j. A: Creo que mañana va a llover.
‘I think that it’ll rain tomorrow’.

B: Eso es muy poco probable.

‘That’s very unlikely’.

Finally, I also wanted to mention the possibility of cataphoric reference that is to be found very commonly in discourse. Notice how in (10k) the pronoun aquello is referring forward in discourse to a propositional referent. In fact this is the type of abstract object most commonly found in cataphoric reference.

k. Siempre me viene a la memoria aquello de “más vale pajaro en mano ... “.

‘It always comes to my memory that of “a bird in the hand is better ... “.

The examples (10a)-(10k) presented so far are all related to the so-called phenomenon of abstract entity anaphora. It is very likely though that these examples do not exhaust the whole inventory of abstract anaphora in discourse. As a matter of fact, it may be argued that some of the antecedents presented in previous examples should also be considered abstract for they require some inferential process by the interpreter to be fully processed. Take for instance the case of pluralities in (6) or generics in (8) as antecedents in cases of discourse anaphora. I can’t but only agree with this observation about the abstractness of some antecedents. Notwithstanding I’ll restrict myself in this dissertation to the “canonical” cases of abstract antecedents as they appear in most of the literature on this topic. A full inventory of abstract antecedents will be presented in Chapter 2.
But before going on one important point has to be made regarding the actual existence of abstract entities and the convenience of postulating a distinct semantic reality for this type of objects in a representation of natural discourse. From a purely structural view of discourse it may be argued that there is no actual semantic coreference between neuter pronouns and abstract antecedents as presented here. Under this view, a neuter pronoun such as Spanish lo (eng. it) and the neuter demonstrative pronouns esto, eso and aquello (eng. this/that) would act as pronouns of laziness that would act as simple placeholders substituting for a piece of syntactic structure. Consider again example (10j) above to illustrate this point. There, A’s belief can be syntactically represented as the complementizer phrase que mañana va a llover (cf. that it’ll rain tomorrow). Thus, if we substitute the lazy pronoun eso for that syntactic constituent the resulting configuration would be as in (11) below:

(11) B: [que mañana va a llover]CP es muy poco probable.

‘[that it’ll rain tomorrow]CP is very unlikely’.

In my opinion, the view of neuter demonstratives as lazy pronouns may be structurally valid and convenient for it may contribute to the ideal mapping syntax-semantics that should desirably achieved in all linguistic investigation. Nevertheless, there are cases of demonstrative pronouns in discourse that do not so clearly allow for an explanation in terms of structural laziness. In consequence, we must be cautious about drawing any plausible conclusions on the adequacy of this perspective. In many cases, a simple substitution of the pronoun with what may be considered its “corresponding
structural constituent” does yield a resulting configuration that misses some important semantic information of the antecedent. Let us consider again examples (10d), (10e) and (10g):

(10d) María quiere venir a la fiesta. Pero eso no va a ser posible.

‘Mary wants to come to the party. But that won’t be possible’.

(10e) Michelle es francesa. Esto no me sorprende; tiene acento francés.

‘Michelle is French. This doesn’t surprise me; she has a French accent’.

(10g) Juan siempre baña a su perro Toby con champú, pero eso le pone de muy mal humor.

‘Juan always baths his dog Toby with shampoo, but that gets him angry’.

Intuitively at least, the pronoun in (10d) seems to refer to Mary’s desire about attending some particular party. I can’t see how a piece of syntactic structure from the previous clause would fit in the place left by the pronoun after substitution. The resulting sentence as shown in (12) is syntactically ill-formed.

(12) *Pero [María quiere venir a la fiesta] no va a ser posible.

‘But [Mary wants to come to the party] won’t be possible’.

It may be argued that only the complement of the verb querer (cf. want) is the constituent that occupies the place of the pronoun. Would that be the case, the resulting sentence would be syntactically well-formed, but we would be losing some important
information about Mary being the person holding the desire. Thus, the sentence in (13) is perfectly grammatical at the cost of loss of semantic information about the agentive theta-role of the verb querer. After replacement, the second conjunct of (10d) would be as follows:

(13) Pero [venir a la fiesta] no va a ser posible.

‘But [coming to the party] won’t be possible’.

Example (10e) is not so troublesome. We only need to transform the first conjunct of (10e) into a complementizer phrase so that it may fit in the place left by the pronoun after substitution to get a grammatically well-formed sentence. In order to do so, we would need to postulate the existence of a rule that adds some specific material to a constituent, i.e., a complementizer que (cf. that) to get (14).

(14) [Que Michelle es francesa] no me sorprende. Tiene acento francés.

‘[That Michelle is French] doesn’t surprise me. She has a French accent’.

Finally, I can see no possible direct substitution for the pronoun in the second conjunct of (10g), unless we postulate some kind of syntactic transformation from a finite to a non-finite form of the verb that would meet the requirements for a typical subject in Spanish: bañar a su perro (cf. bathing his dog). Let’s recall that the antecedent was semantically a non-specific event type. Only if we accept that a non-finite form as shown in (15) denotes an event-type, would we get a plausible solution for (10g) both syntactic and semantically.

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(15) … pero [bañar a su perro con champú], le pone de muy mal humor.

‘… but [bathing his dog with shampoo] gets him angry’.

Clearly not all cases of pronominal reference to abstract objects can be given such a straightforward explanation in terms of lazy pronouns. Things get even more complicated when we consider cases of reference to larger pieces of text or discourse topics as antecedents where an explanation in terms of mere syntactic coreference is difficult to sustain. For this reason, I think that both semantic and syntactic information should complement each other to eventually provide a comprehensive explanation to the phenomenon of abstract discourse anaphora. I hope this complementary interficial approach will be made clearer in the chapters to come.

In summary, regarding the anaphor I will strictly focus here on category (4h) above: **neuter demonstrative pronoun anaphora** as can be found in Spanish discourse. I am aware of the existence of other linguistic elements that may act as anaphors in cases of abstract anaphora that ideally should have been included in a thesis dealing with discourse anaphora. The range of anaphors that may enter in discourse anaphoric processes have only been succinctly presented here. Nevertheless, to provide a comprehensive study of discourse anaphora in Spanish taking into account all possible anaphor and antecedent possibilities would surely take more than one dissertation. For quite the same reason, I’ll also restrict the study of antecedents to the cases presented in (10) as **abstract objects** and some brief incursions into bridging and pluralities for the clear connections that arise among these entities.
As I mentioned above, the field of anaphora is vast. General studies on the phenomenon are numerous and varied ranging from the mainly theoretical to the purely descriptive and language specific studies. Furthermore, anaphora has been approached from many different perspectives: syntactic, pragmatic, semantic or computational and their interface combinations thereof. Likewise, the literature on deixis, pronouns, and demonstratives is also profuse and varied. Much in the same line, we could state that events and propositional objects have been deeply scrutinized in the field of philosophy of language and natural language semantics. Within the general field of anaphora discourse anaphora and abstract object anaphora have been comparatively less studied. In particular, the long distance dependencies that arise in discourse abstract object anaphora can be thus considered to be quite unexplored so far. Nevertheless, some really valuable studies have been published that, to a varying degree, have laid the foundations for further research. Some of them are strictly computational in nature; others focus primarily on giving a semantic representation of pronoun resolution and some others put the emphasis on the cognitive or pragmatic factors involved. The purpose of this section is to only giving a brief outline of what is considered to be the most influential work on abstract entity anaphora developed so far. Unfortunately, reasons of space will prevent me to describe other important work on discourse deixis and anaphora that might be of interest for the purposes of this dissertation. Most of this work though will be touched upon in the pages to come although more superficially.
As a point of departure, Asher’s (1993) work on abstract reference in discourse constitutes one of the pioneering in-depth studies on abstract anaphora. In his work, he provides a comprehensive formal semantic characterization of the phenomenon by developing an extension of Discourse Representation Theory\(^6\) named Segmented Discourse Representation Theory\(^7\). Asher’s analysis can be said to have laid the foundations of the study of abstract reference and abstract entity representation in discourse and to having been a reference for many authors in the linguistic field up to date. Asher starts by undertaking the probably most delicate task in any study of abstract entity anaphora, i.e., a well-defined characterization of the abstract entities that will commonly act as antecedents. He categorizes abstract entities according to their position in a spectrum/hierarchy of worldly immanence. Entities are categorized based on certain parameters such as their higher or lesser degree of abstractness. This is illustrated in Figure 1.2:

\(^6\) Kamp and Reyle’s Discourse Representation Theory (1993) is based on a non-syntactic level of representation called Discourse Representation Structure or DRS, which is derived by means of some translation rules from the surface syntactic structure of a sentence. Subsequently, a DRS for a sentence - or discourse - is assigned an interpretation through a series of rules which establish some assignment functions (also called embedding conditions) in a model. Thus, a new level of representation is construed where each sentence has a corresponding DRS. A DRS consists basically of a set of discourse referents and a set of conditions on them. In Kamp and Reyle’s theory, every DP introduces a discourse referent in the discourse representation.

\(^7\) Segmented Discourse Representation Theory first appears in Asher (1993), but it will be fully developed in Asher and Lascarides (2002).
Figure 1.2: Asher’s Spectrum of Worldly Immanence

The spectrum of immanence would explain the different referential nature and behavior among abstract entities when they enter into anaphoric relations in discourse. The first chapters of his book are devoted to providing a semantic representation of abstract entities along the parameters of Discourse Representation Theory. Thus, eventualities but also higher order entities like facts or belief objects are represented as abstract discourse entities in a Discourse Representation Structure with a status akin to the one other discourse entities receive in classical DRT. He also studies the summation properties of certain abstract entities, the way they semantically interact with part-whole quantifiers, and how different anaphors show a different behavior when referring to abstract entities. A propositional entity as the one introduced by the clausal complement of the verb believe in (16), is represented as a subDRS within the DRS of a superordinate clause. Consider the dialogue in (16) and the corresponding DR-theoretical representation in Figure 1.3.

(16) Peter: John believes [that Mary is a genius].

Susan: I believe that too.
The clausally introduced proposition *that Mary is a genius* is given a subDRS representation. On the other hand, notice how the demonstrative pronoun in the second sentence of (16) introduces in the DRS a discourse entity of propositional type because the subcategorization frame of the verb *believe* requires so.

\[
\begin{array}{c|c}
\text{x} & \text{y} \\
\hline
\text{John}(x) & \text{s1-believe}(x, ) \\
\text{s1-believe}(x, ) & \text{Mary}(u_1) \\
\text{Mary}(u_1) & \text{s3-genius}(u_1) \\
\text{Susan}(y) & \text{s2-believe}(y, p_1) \\
\text{s2-believe}(y, p_1) & \text{p1} \approx \\
\text{p1} \approx & \text{u2 s4} \\
\text{u2 s4} & \text{Mary}(u_2) \\
\text{Mary}(u_2) & \text{s4-genius}(u_2)
\end{array}
\]

**Figure 1.3**: A DR-theoretical Representation of (16)

One of Asher’s main contributions lies in that it incorporates discourse relations to the study of abstract anaphora interpretation. Thus, the semantics of the discourse model gets more complex and its logic richer in detail. Discourse relations are presumed to hold among discourse fragments thereby giving coherence and cohesion to the overall discourse. Some sample discourse relations are *continuation*, *narration* or *elaboration*.
and these are particularly important to help resolve long-distance dependencies, anaphoric reference to fuzzy entities such as discourse topics, or disrupted fragments of discourse. The next example illustrates the role played by discourse relations in abstract discourse anaphora.

(17) Ambos tipos de causas pueden rastrearse sin dificultad cuando se analizan las razones de la pérdida de biodiversidad. Muchos naturalistas, y una parte de la sociedad, suelen tenerlo muy claro, pero se quedan en las causas próximas. Desaparecen los grandes animales porque se cazan, desaparecen los bosques porque se talan o se queman los árboles, desaparecen los insectos porque se envenenan… En un plano personal, ese razonamiento es tranquilizador: “Como yo no hago nada de eso, no tengo culpa”.

Both types of causes can be tracked down with no difficulty when analyzing the reasons for biodiversity loss. Many naturalists, and a part of society, have clear ideas in this respect, but they only take into consideration the proximal causes. Big animals disappear because they are chased down, forests disappear because trees are fell or burned down, insects disappear because they are poisoned… from a personal perspective, that line of reasoning is calming: “since I don’t do anything of that, I’m not to blame”.

(Vida. La naturaleza en Peligro. Temas de hoy, Madrid. 2001)
The paragraph in (17) can be semantically decomposed into its constituent propositions to get $K_1$-$K_6$ in (18). By applying rhetorical relations (continuation and elaboration) to our set of propositions we obtain a discourse structure as the one in (19):

(18) $K_1$: (both types of causes can be tracked down with no difficulty when analyzing the reasons for…)

$K_2$: (Many naturalists, and a part of society, have clear ideas in this respect, but they only…)

$K_3$: (Big animals disappear because they are being chased down)

$K_4$: (forests disappear because trees are being fell or burned down)

$K_5$: (insects disappear because they are being poisoned)

$K_6$: (From a personal perspective, that line of reasoning is calming: “since I don’t do anything of that, I’m not to blame”)

(19) $K_2$ Continuation $K_1$

$K_3$-$K_4$-$K_5$ Elaboration $K_2$

$K_4$ Continuation $K_3$

$K_5$ Continuation $K_3$-$K_4$ Continuation

A proper interpretation for (19) along the lines of SDRT is the following. Since they are part of the same argument both $K_1$ and $K_2$ are related by Continuation. The discourse structure introduces a subordinating rhetorical relation called Elaboration which, in turn, comprises $K_3$, $K_4$ and $K_5$. These are again related among them by the
rhetorical relation *Continuation* and the group formed by K₃, K₄ and K₅ constitutes an elaboration of K₁ and K₂. The resulting hierarchic structure would look like this:

![Diagram](image)

**Figure 1.4**: Hierarchical Structure of (17)

The demonstrative anaphor that appears in the last sentence of (17) anaphorically refers to the sum of those eventive discourse referents introduced by K₃, K₄ and K₅, respectively. In terms of SDRT, we may say that those three utterances are dominated by the common topic of the discourse, which includes the sum of the three propositions introduced by the narrator. The most likely topic in (17) dominating K₃/4/5 could be *las causas próximas que explican la pérdida de biodiversidad* (cf. proximal causes that explain the loss of biodiversity). The topic is accessible to the demonstrative and, consequently, the anaphor can be resolved.

Different scales have been proposed to explain the status of discourse entities that include but are not limited to abstract entities. We have already mentioned Asher’s scale
that categorizes entities by virtue of their worldly immanence. Prince (1981b) was the first to propose a hierarchy for discourse entities called the **Scale of Familiarity**, which is based on three main factors: predictability, saliency and the common knowledge shared by speaker and hearer. Prince conceives the text as a discourse model and discourse entities as objects in that model –similarly to Kartunen’s (1971) linguistic notion of a discourse referent-. She postulates a taxonomy that defines entities on the basis of the type of information they convey. Thus, we find three basic types of entities that convey new, inferrable or evoked information. The scale of familiarity is strictly ordered and is represented graphically as in (20).

(20) **Prince’s Scale of Familiarity**

\[
\{ E/E^S \} > U > I > I^C > BNA > BN
\]

Use of the scale of familiarity is made in relation with the hypothesis that the speaker has about the hearer’s set of beliefs. In other words, if the speaker can use a certain linguistic form on the basis of his/her hypothesis about the hearer’s knowledge, but instead he chooses a lower position in the scale for reference to that entity the speaker wouldn’t be cooperative or he simply would be consciously deviating from the conversational norm. For the purposes of this dissertation, it is interesting the treatment given by Prince to propositional anaphora. She treats propositional anaphora –anaphoric reference to propositional objects in discourse- as a case of **inferrable** \((I/I^C)\). An inferrable discourse entity can be defined as an entity which require of a supplementary inferential
effort by part of the hearer/reader to be fully processed. Inferrables are normally inferred from other linguistic constituent, which has been explicitly mentioned or simply evoked in previous discourse. This is illustrated in (21).

(21) [Talking about how the kids across the street threw paint in their yard]\(^8\)

Those kids are just – And she’s pregnant with another one.

The referent of the pronoun she is not explicitly mentioned in this utterance. Consequently, the hearer has to infer, via the NP the kids, that the referent of the pronoun is the mother of the kids. Inferrables are but another label for referring to the associative anaphora cases that I have collected under the rubric of bridging in (9) above. In my view, most cases of reference to propositions and events should not be considered inferrables. On the one hand, the special relations that can be observed between the trigger and the inferrable pronoun (specific entity to generic kind, generic kind to set of specific entities, individual to couple, individual to group, etc.) do not arise in most cases of abstract anaphora.

(22) A: He leído que Clinton se presenta a la presidencia.

‘I’ve read that Clinton will run for presidency’.

B: Eso será bueno para el país.

‘That’ ill be good for the country’.

---

\(^8\) This example appears in Gundel et al. (2002).
In (22), the pronoun unequivocally refers to the propositional content introduced in the first clause. It may be argued that the pronoun’s reference is ambiguous between a reading in which it refers to the whole proposition or to the proposition denoted by the complementizer phrase but in either case the propositional referent can be characterized as a discrete propositional discourse referent where no particular inferrable relation occurs between antecedent and pronoun. Here then an NP, a complementizer phrase or an entire clause can be semantically represented as an abstract discourse entity that can be informationally old or new but it constitutes a discrete discourse entity similarly to the discrete semantic entity that the common noun denoting NP *el perro* (cf. the dog) uncontroversially introduces in discourse. Thus, the anaphoric relation between a pronoun and its abstract antecedent will be direct in most cases. The difference between a propositional referent and the referent of an NP like *el perro* lies only in the different denotation of these linguistic elements.

Gundel, Hedberg y Zacharski’s (1993) **Givenness Hierarchy** is an implicational hierarchy of cognitive states and linguistic forms that aims at resolving the differential anaphoric behavior of pronominal and non-pronominal anaphors. The hierarchy for English and Spanish as proposed in Gundel et al is given in Figure 1.5.
The six cognitive states (in focus, activated, familiar, uniquely identifiable, referential and type identifiable) and their corresponding pronominal or determiner forms are intended to signal that the referent of the nominal expression is assumed by the speaker or writer to have a particular cognitive status (memory and attentional state) for the addressee. Thus, there exists a correlation between each cognitive state and one or more linguistic elements in a way that use of a particular anaphor by the speaker would allow the hearer to restrict the set of possible antecedents, hence facilitating anaphora resolution. It is an implicational scale, what means that whenever the speaker uses a specific linguistic form he/she would be implicating all other states which rank lower in the hierarchy. Another factor playing a role in the Givenness Hierarchy is Grice’s maxims of quantity.

- **Q1**: Make your contribution as informative as possible
- **Q2**: Do not make your contribution more informative than necessary
The maxims of quantity associated to the hierarchy prevent higher referring expressions from being used to refer to entities with a lower status. The Givenness Hierarchy is intended to be universal. As we can see in Figure 4, the referent of a demonstrative pronoun in Spanish must be at least activated. Being activated means that there should be a representation of the referent in short term memory. The referent of a zero pronoun or the English weak pronoun *it* must be cognitively in focus, meaning that the referent not only is in short-term memory but it is also at the current center of attention. At a given moment in discourse, in focus entities are the partially ordered subset of activated entities that are more likely to be the topic in subsequent discourse. Thus, in focus entities commonly include the topic of the previous clause as well as other still relevant topics.

In a subsequent paper, Gundel et al (2003) analyze the behavior of referential pronouns without explicit antecedents. In that paper, pronouns without NP antecedents were classified as pleonastic (lacking a referent), possibly pleonastic, or referential. Referential pronouns were further classified by virtue of the type of referent (fact, proposition, activity, reason) that were introduced by a non-NP or as an inferrable. They observed that, something already found in Webber (1991) and Hegarty et al (2003)⁹, only around a 15% of pronominal reference to clausally introduced material in English was made using the pronoun *it* as opposed to demonstrative pronouns *this*/*that*. Gundel et al’s is an empirical study based on the Santa Barbara corpus of spoken American English. 330 third-person personal pronouns (16.1%) out of 2,046 were found to lack NP

---

⁹ Webber’s work is based on written English, whereas Hegarty et al’s is based on both written and spoken English.
antecedents. In 110 out of these 330 cases, the pronoun *it* was found to refer to some type of abstract object (fact, proposition, event, etc.)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fact</td>
<td>6</td>
<td>5.45</td>
</tr>
<tr>
<td>Proposition</td>
<td>10</td>
<td>9.09</td>
</tr>
<tr>
<td>Activity</td>
<td>27</td>
<td>24.55</td>
</tr>
<tr>
<td>Event</td>
<td>3</td>
<td>2.73</td>
</tr>
<tr>
<td>Situation</td>
<td>63</td>
<td>57.27</td>
</tr>
<tr>
<td>Reason</td>
<td>1</td>
<td>.91</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>110</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Table 1.1:** Referential Pronouns without NP Antecedents as in Gundel et al’s (2003)

As table 1 indicates, the number of eventualities (activities, events and situations) found in their corpus study is comparatively much higher than that of propositional entities such as facts or propositions. They come to the conclusion, backed by Hegarty et al’s suggestions, that the Givenness Hierarchy can explain the fact that most reference to abstract objects is made via demonstrative pronouns if it is assumed that material introduced in clauses or sequences of clauses is **activated** as compared to material introduced in syntactically prominent noun phrases which is more likely to be **in focus**. The numbers in table 1, which are only based on the third personal pronoun *it*, can be explained on the basis of the higher or lower degree of immanence of the entities referred to. Thus, the fact that pronoun *it* (which correlates with *in focus* entities according to the hierarchy) is the preferred for reference to eventualities would indicate that entities with a
high degree of world immanence, i.e., showing causal efficacy and spatiotemporal location, would be more likely to be brought into focus than propositions or facts.

In a series of papers, Hegarty (2003, 2006) and Hegarty et al (2001, 2003) also studied abstract object anaphora from a purely semantic perspective. Briefly, he analyzed the anaphoric possibilities to entities such as events, situations, propositions and facts by taking into account different parameters like the cognitive status, the ontological nature of the antecedent and their position along the spectrum of immanence. One more dimension is crucially included in Hegarty's work, i.e., the syntactic category of the abstract-entity denoting expression: clausal (IP, CP) or nominal (NP, DP) for as he points out: “It will be observed that clausal and nominal expressions referring to what is, ostensibly, the same kind of entity can have divergent semantic behavior, implicating different semantic types associated with the different syntactic categories, and correspondingly, different semantic ontologies, specifically, denotation domains with different mathematical structures”. Hegarty is more interested in the semantic characterization of abstract entities rather than on pronominal anaphoric reference but the close observation of the referential properties of abstract objects will provide him with valuable information about their semantic nature.

This author demonstrates a clearly different referential behavior between events and nominals denoting propositions, facts, reasons or situations on the one hand and clausally introduced propositions, facts, reasons and situations, on the other. This differential semantic behavior would be due to the former group being first-order entities of type e as opposed to the latter being of entities of the higher semantic type 〈〈s, t), t〉.
Thus, events and proposition-denoting nominals would referentially behave as concrete entities and clauses denoting propositions, facts, situations and reasons share a common semantic behavior with respect to pronominal anaphoric reference, coordination and quantification by quantity adverbs over their denotation domains. One of the most interesting outcomes is that events are clearly separated from the rest of abstract entities. Furthermore, Hegarty’s investigation is complemented with the accessibility status of the entities under study. The following two examples from Hegarty (2003) illustrate this point.

(23) a. John broke a priceless vase. That/this is intolerable to the embassy.
   b. John broke a priceless vase. ??It is intolerable to the embassy.

In (23) above, reference is made to a situation introduced in the first sentence. This should be compared with example (24) where reference is made to an event. The two different predicates force this ontological distinction: the predicate *intolerable* apply most naturally to situations, whereas the predicate *happen* is a typical predicate of events.

   b. John broke a priceless vase. It happened at noon.

Clausally-introduced situations pattern with propositions, facts and reasons in that they are more commonly anaphorically referred to with a demonstrative pronoun (see (23)), hence indicating that the cognitive status of these entities is activated, and
consequent accessibility to pronominal reference is as shown in the givenness hierarchy (figure 4). On the other hand, clausally introduced events are immediately rendered in focus and pronominal reference is possible via the third person pronoun *it* and with the demonstrative pronoun *that*. The fact that clausally introduced propositions and facts can in some cases be referred to with a personal pronoun in discourse can be explained in terms of a change in the semantic type of the entity and a positive epistemic gradient. According to this gradient, some verbs would act as facilitators that confer a higher epistemic status to the propositional content of the referent.

(25) A: Susan’s boyfriend has graduated.

   B₁: I doubt *that/#it*; he doesn’t have very many credits.

   B₂: I don’t doubt *it*; he has a lot of credits.

In (25), the fact newly introduced by clause A can be referred to with a demonstrative pronoun in B₁—thereby conferring it the common cognitive status of activated— or with a personal pronoun in B₂. In this second case, the expression *don’t doubt* acts as a facilitator, and hence facilitating the accommodation of the entity to a discourse-old status with an in focus cognitive status. For Hegarty, a proposition whose epistemic status increases is promoted to in focus cognitive status over ones whose epistemic status diminishes or remains constant. This could be explained for presumably the higher the likelihood of being true of a proposition the higher its degree of salience. There is an important point to be made regarding the theoretical appropriateness of the cognitive statuses as reflected in the givenness hierarchy. Hegarty states this point clearly.
enough: “An entity will be in focus only if it has been mentioned by a nominal expression in a prominent syntactic argument position earlier in the utterance or in the previous utterance. This supposition is compatible with Centering Theory (Grosz et al., 1995) and results in the experimental psycholinguistic literature (Bock and Warren, 1985; Gordon et al. 1993; Almor, 1999). More peripherally introduced entities, including those introduced by less prominent nominal expressions and by clauses, will be activated upon their introduction, placed in working memory within the field of attention, but not at the center of attention”. Poesio and Modjeska (2005) try to make more precise cognitive notions of **in focus, activated**, and **short term memory** as they appear in Gundel et al. They primarily adopt the computational approach to anaphora resolution of Centering Theory (Grosz, Joshi and Weinstein (1995); Walker (1998))$^{10}$ and follow previous findings on that field to better define these notions. It is worth noting that Poesio and Modjeska focus on construction of the type THIS-NPs and, as we already know from the Givenness Hierarchy, the common activation/cognitive status of the referent for this type of expressions is not ‘in focus’ but ‘activated’. Leaving quite a few details of their work apart for reasons of space, Poesio and Modjeska worked on an annotated corpus (GNOME) and tested the following hypothesis regarding the speaker’s non-preference to use THIS-NPs to refer to ‘in-focus’ entities:

---

$^{10}$ In Centering Theory it is assumed that new discourse entities (Forward-Looking Centers) introduced by each utterance are ranked based on information status. The CB is Centering’s equivalent of the notion of topic or focus. The Backward-Looking Center of Utterance $U_i$ connects with one of the Forward-Looking Centers of $U_{i-1}$.

$CB(U_i)$, the Backward-Looking Center of Utterance $U_i$ is the highest ranked element of $CF(U_{i-1})$ that is realized in $U_i$. 

---

45
• THIS-NPs are preferentially used to refer to entities other than the CB(U$_i$), the CB containing the utterance of the THIS-NP.

• They are used to refer to entities other than the CB(U$_{i-1}$), the CB of the previous utterance.

• They are used to refer to entities other than CP(U$_{i-1}$), the most highly-ranked entity of the previous utterance.

And the following hypothesis regarding the speaker’s preference to use THIS-NPs for reference to ‘activated’ (‘active’ in their own terminology) discourse entities. Thus, an entity is ACTIVE if:

• Is in the visual situation; or

• is a CF of the previous utterance; or

• is part of the implicit linguistic focus. They only considered as part of the implicit focus those entities that can be CONSTRUCTED out of the previous utterance.

And an entity can be constructed out of an utterance if:

(a) Is a plural object whose elements or subsets have been explicitly mentioned in that utterance; or

(b) it is an abstract entity introduced by that utterance. They consider two types of abstract entities:

   i. Propositions

   ii. Types$^{11}$

$^{11}$Types in Poesio and Modjeska (2005) are considered as those cases of generic reference which have concrete objects as instances.
They got the following results in terms of distribution:

<table>
<thead>
<tr>
<th>Class</th>
<th>Number (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaphora</td>
<td>45 (40%)</td>
</tr>
<tr>
<td>Visual Deixis</td>
<td>28 (25%)</td>
</tr>
<tr>
<td>Discourse Deixis</td>
<td>19 (17%)</td>
</tr>
<tr>
<td>Type</td>
<td>9 (8%)</td>
</tr>
<tr>
<td>Plurals</td>
<td>1</td>
</tr>
<tr>
<td>Ellipsis</td>
<td>1</td>
</tr>
<tr>
<td>Time</td>
<td>1</td>
</tr>
<tr>
<td>Unsure</td>
<td>5</td>
</tr>
<tr>
<td>Disagreement</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
</tr>
</tbody>
</table>

Table 1.2: Distribution of THIS-NPs (Poesio and Modjeska (2005))

With respect to the correlation between focus and THIS-NPs, they found the following principal results:

- 8-11 violations to the hypothesis that a THIS-NP is used to refer to entities other than the CB(U_{i-1}) were found, which is therefore verified by 90%-93% of THIS-NPs;
- the hypothesis that THIS-NPs are used to refer to entities other than CP(U_{i-1}) is verified by 75-80% of THIS-NPs;
- the hypothesis that a THIS-NP is used to refer to entities other than CB(U) is verified by 61-65% of THIS-NPs.
Based on these results and an in-depth study of the violation cases they proposed the version that leads to the fewest number of violations to Grice’s maxim of Quantity:

- **The THIS-NP Hypothesis**: THIS-NPs are used to refer to entities which are ACTIVE in the sense specified above. However, pronouns should be preferred to THIS-NPs for entities other than CB(U_{i-1}).

From a computational perspective, I will briefly comment on Byron’s work on reference to abstract entities (2004). Byron’s work focuses on interpreting pronominal reference to abstract entities. She develops a computational model (PHORA) that is able to resolve 72% of its test pronouns—both demonstrative and personal pronouns—by eliminating the anaphoric possibilities that simply are incompatible with the predication context of the pronoun. She used the TRAINS93 corpus of task-oriented spoken dialogs, which initially showed that demonstrative pronouns are more likely used to refer to abstract domain entities (66% as compared to 39% of personal pronouns used for the same referential purposes). Besides, the majority of personal pronouns have a noun phrase antecedent whereas demonstratives have a strong preference for some other constituents (sentential, clausal, etc.) Byron’s model differs from previous computational models for anaphora resolution in that it crucially incorporates semantics and extends the range of anaphora resolution to include complex antecedents belonging to the abstract domain. In order to do so, she builds up a computational model of discourse based on the common notions of discourse entities and the additional notions of discourse entity proxies and discourse pegs. Succinctly, discourse entities (DEs) represent the referents of noun
phrases; proxies (DE proxies) represent the meaning of verb phrases, sentences and any other type of non-NP constituent. Finally, discourse pegs are data objects which marry a discourse entity from the meaning representation of the discourse with additional information describing that particular DE’s history in the current discourse. An illustration of the computational discourse model for the sentence *Ken washes his dog* is illustrated below.

(26) Ken washes his dog

![Figure 1.6: Computational Discourse Model for Sentence (26) as in Byron (2004)](image-url)
Although primarily computational in nature, this work on anaphora resolution is very comprehensive in that it takes into account semantic, pragmatic and syntactic information. Thus, for example, salience is incorporated as of the most recent discourse model update and three categories *focus*, *mentioned* and *activated* are said to hold of discourse entities based on the type of linguistic constituent used to evoke it. The way PHORA interprets pronouns is summarized as follows by Byron:

- Determine all predicates for which the variable introduced by the pronoun is an argument in the current utterance, see if semantic type restrictions have been defined for those argument positions, and calculate the most general semantic type $T$ that satisfies all of the restrictions.

- Using the appropriate search order defined for the pronoun’s category (either personal or demonstrative), either select a DE or coerce a referent from a DE proxy of type $T$.

Thus, a pronoun’s predication context plays a crucial role by constraining the pronoun’s interpretation in different ways. For example, a semantic restriction is given by the particular argument position of the verb *happen* as in (27), where the pronoun filling the THEME argument position of the verb is constrained to be an event.

(27) That happened yesterday
The present chapter is intended to be a survey of the entities that are most commonly referred to by neuter demonstrative anaphors in Spanish discourse. These entities are the so-called abstract objects or abstract entities I have so frequently mentioned in previous chapters but gave no formal characterization for them whatsoever. From a strictly semantic point of view, they are abstract for their denotation is far from concrete, tangible individuals. Actions, situations, reasons, facts and propositions have been generally included within this category. They all seem to exclusively reside in our mental module to a varying degree. For what is it the three-dimensional correlate of a belief other than a piece of syntactic structure? Today, there is still no fully comprehensive semantic ontology for abstract objects. This still constitutes a field of active research, hence the inventory of abstract entities may shrink or expand as new entities are redefined. Speakers seem to use demonstrative pronouns for various purposes. Of course, the referents of demonstrative anaphors can also be discrete, first-order entities that are made salient in the discourse situation via an accompanying pointing gesture “attached’ to utterance of the demonstrative expression as in (1).
But neuter demonstrative anaphors in Spanish are most commonly used to refer to higher-order entities in written and spoken discourse as in (2). The present chapter will be generally devoted to exploring the nature of the latter group.

(1) (A woman pointing at a nice sports car in a car-exhibition)
   Look at that!, isn’t it gorgeous?

(2) John has accepted the invitation. That’s good news.

From a metaphysical point of view, abstract objects are considered to be those entities which do not have clear spatio-temporal boundaries, that is, they constitute entities that need to be given a higher level of abstraction to be properly represented model-theoretically. As I said, they are highly intensional elements that do not appear to have a correlate in the physical, concrete world. But abstract objects show a varying degree of abstractness. Objects of belief and other propositional entities such as facts or reasons appear to show a spatio-temporal independent existence, whereas events can be anchored to a specific time. From a structural point of view, different syntactic configurations give rise to different types of entities. The following sections will be devoted to review abstract entities as can be typically found in Spanish discourse from a semantic and morphosyntactic perspective.
2.1 Eventualities

Any attempt to provide a detailed characterization of entities conflated under the label of *eventuality* proves difficult because of the varied ontology that it reflects. So we may talk about actions, states, achievements or accomplishments as different types of eventualities, each of them having their own particular semantic features that makes it different it from the rest of the group. Today, the most accepted thesis in the field of Linguistics on the nature of events defends that the verbal material\(^1\) of a sentence is the element by means of which language users commonly convey different eventualities. As for the semantics of events, I will adopt here the thesis of the American philosopher Donald Davidson (1980), who suggests a treatment of events as genuine arguments of predicates. According to Davidson’s proposal, the sentence in (3a) constitutes a description of an event and (3b) the logical form corresponding to (3a) in which the communicated event has been overtly expressed.

\(^1\) It is essential to note here that it is the lexical component of the verbal complex the one which conveys the type of eventuality. Syntactically, this is the head of VP, that is, V. In the *Government and Binding* paradigm (Chomsky, 1981) the verbal component of any sentence is further subdivided into smaller pieces resulting in a higher projection IP which head is INFL. Therefore INFL, as the head of IP, contains the inflectional morphology and meaning of the verbal element, namely, the features TIME, PERSON, NUMBER or MODE, which ultimately constitute the head of the sentence. Graphically:

(i)

```
        IP
       /   \
  NP     I'
 /       \   
 Pedro I     VP
       /     \
 -o     V'
      /    \
 V'  PP a medianoche
      /    \
 V    NP
     /  \
 escribi- un email
```
Thus, any model adopting the davidsonian perspective on events should be a model which includes an eventuality in the extension of verbs. If we accept this thesis, the denotation of the verb *escribir* should be a triple \( \langle e, \alpha, \beta \rangle \) where \( e \) is an event and \( \alpha \) and \( \beta \) are individuals. The truth value of a verb such as *escribir* is defined in this way: a triple \( \langle e, \alpha, \beta \rangle \) either belongs or not to the extension of the verb *escribir* (cf. write). With respect to negation, a treatment like the one adopted here would imply that, given a pair of sentences like those in (4)

(4) a. Juan escribió un email el domingo

Juan write-3sg.past an email the Sunday

‘John wrote an email on Sunday.’

b. Juan NO escribió un email el domingo

Juan NOT write-3sg.past an email the Sunday

‘John did not write an email on Sunday.’

One of them should be true assuming that either an event \( e \) took place within the period of time denoted by *el domingo* such that the event \( e \) and the individuals *Juan* and
un email constitute a triple in the extension of the verb escribir, in which case (4a) will be true or, alternatively, it is the case that such event did not happen and, in such case, (4b) will be true. I will take the head of INFL (I) to be element that introduces state or event discourse referents in the semantic representation of a given sentence. State discourse referents will be denoted s, s₁, s₂, etc. while event discourse referents will be denoted e, e₁, etc. Sometimes, for the sake of simplicity, I will be simply using e, e₁,...,eₙ to denote eventuality discourse referents when there is no need to distinguish the different types of eventualities from one another. In a primarily semantic model of discourse such as Discourse Representation Theory (DRT) eventualities are treated as arguments of predicates. This is made explicit in the DRS conditions which characterize eventualities, graphically: e: [x writes y]. This point is particularly important provided that I will be making use of DR theoretical structures containing event discourse referents throughout this dissertation. Figure 2.1 illustrates how a logical form such as the one in (3b) would be represented in DRT.

<table>
<thead>
<tr>
<th>e</th>
<th>z</th>
<th>y</th>
<th>n</th>
<th>w</th>
</tr>
</thead>
<tbody>
<tr>
<td>llamado('Juan', w)</td>
<td>e &lt; n</td>
<td>escribir(x, z)</td>
<td>email(z)</td>
<td>medianoche(y)</td>
</tr>
</tbody>
</table>

**Figure 2.1:** A DRT Representation for Logical Form (3b)
The condition $e < n$ indicates that this particular eventuality ($e$) happened at some time prior to the utterance time ($n$). If we adopt a bottom-up perspective of discourse construction using lambda calculus we can offer a translation of the head $I$ as in Figure 2.2 below, where the head of INFL is taken to be a property, a two-place predicative DRS where one argument is to be filled by the subject of the sentence and the other is to be filled by the eventuality discourse referent introduced by $I$ itself$^2$.

$$
\lambda P \\
\begin{array}{c}
e \\
P(e) \\
\varphi(e)
\end{array}
$$

**Figure 2.2**: A Predicate DRS Representing the Head of Node INFL

Consequently, we should add an eventuality argument place to the translation of each verb and introduce eventuality discourse referent variables $e, e_1...$ to obtain the proper translation for, say, a transitive verb. The formula $\lambda e \lambda x \lambda y \varphi'$ indicates that a transitive verb becomes a three-place predicate and $\varphi'$ stands for the DRS predicate corresponding to the verb. Once we get the translation for the VP after combining it with its internal argument/s –if any–, the result is a two-place relation $\lambda e \lambda x \varphi$ that we may combine with the translation of $I$. It is in this sense that the semantic translation of a VP

$\footnote{This way of building-up a DRS is found in Asher (1993).}$
constitutes a property of events. The bottom-up construction procedure for (1a) would be as shown in Figure 2.3. First, we combine the translation of the verb (K) with that of its internal argument *un email* (K₁) to obtain a predicative DRS for the constituent ‘*_escribir un email*’ (K₂).

\[
\begin{align*}
&\lambda e \lambda x \lambda y \quad e\text{-escribir}(x, y) \\
&\lambda Q \quad \text{email}(z) \\
&\lambda Q \lambda x \quad \text{e\text{-escribir}}(x, z)
\end{align*}
\]

Figure 2.3: Bottom-up Construction Procedure for VPs (I)

Again, following Davidson, many adverbial phrases form predicates on events –in our case at hand, the event introduced by the INFL node-. In consequence, so that it can combine with the translation of V’, the translation of the adjunct *a medianoche* is as given in (K₃). The combination of the adjunct with the constituent *escribir un email* processed so far yields the incomplete DRS (K₄).
Finally, the head I contributes an event discourse referent \( e \) and a condition establishing that the event constitutes a past event \( escribió \) (cf. he wrote) represented in the DRS as the condition \( e < n \); where \( n \) is a discourse referent representing the speech time. The combination of I –Figure 2.2 above- and (K4) yields the DRS (K5). The last step amounts to combining the translation of the subject NP with the discourse processed so far to yield the DRS (K6)\(^3\). These final DRSs are shown in Figure 2.5.

---

\(^3\) Notwithstanding the convenience of adopting a semantics of events like Davidson’s for the purposes of discourse representation, we are still in need of considering a notion of events based on instants and intervals if we want to capture the subtle distinction among types of eventualities. Although the purpose of this chapter is not to carry out a detailed study on the structure and nature of time, I believe it convenient to provide a summarized view on the logic of time prior to analysing the semantic nature of diverse eventualities. Probably, the most common notion of time is the one which postulates the existence of moments or instants as the constitutive elements of time. For Kamp and Reyle (1993) these moments -or instants- are atomic particles of time with zero duration which yield intervals only when combined in bigger units or packages. This is the notion of time we find in physics and which identifies the basic constituents of time with the set of real numbers. Under this conception of time, these basic constituents are indivisible and they are strictly ordered according to the relation ‘earlier’ and ‘later’. Thus, for any two distinct elements \( i_1 \) and \( i_2 \) either \( i_1 \) is earlier than \( i_2 \) or else \( i_2 \) is earlier than \( i_1 \). Formally, these structures can be represented as pairs \( \langle I, \prec \rangle \) where \( I \) is the set of temporal instants and ‘\( \prec \)’ represents the earlier-later relation. This relation is assumed to be a total ordering of \( I \) so, consequently, for any \( i_1, i_2 \) and \( i_3 \) in \( I \) we have:

\[
(i) \quad i_1 < i_2 \implies i_2 \not\sim i_1
\]
Figure 2.5: Bottom-Up Construction Procedure for VPs (III)

Regarding the semantics of eventualities, I will adhere here to the canonical distinction between events and states first proposed by Vendler (1967)\(^4\). In order to do so

\[
\begin{align*}
(ii) & \quad i_1 < i_2 \land i_2 < i_3 \rightarrow i_1 < i_3 \\
(iii) & \quad i_1 \neq i_2 \rightarrow (i_1 < i_2 \lor i_2 < i_1)
\end{align*}
\]

Now, one should not make a categorical distinction between instants and intervals. We may thus consider instants as atomic moments, fragments or bits of time; and intervals will be non-atomic moments of time in the same way as individuals constitute atomic elements and plurals non-atomic elements in the linkean models\(^3\). Therefore events do not represent temporal instants but rather temporal intervals. This fact does not pose a problem for the model based on instants as basic units since intervals can be easily defined as the set of instants \(X\) such that if \(i_1, i_2 \in X\) and \(i_1 \leq i_3 < i_2\), then \(i_3 \in X\). At this point we might represent any event \(e\) as a closed interval or, equally, as a closed set of instants in accord with the view that conceives time as a dense and continuous structure isomorphic to the structure of real numbers \(\mathbb{R}\). With this tool in our hands we may move on to exploring the heterogeneous ontology of eventualities.

\(^4\)Pustejovsky (1988, 1991) proposed an alternative to reduce the four classes of eventualities first suggested by Vendler into three generic groups based on their subevent structure. These can be illustrated as in (i):

\[
\begin{array}{ccc}
\text{State} & \text{Process (Activity)} & \text{Transition} \\
E & P & T \\
e & e_1 \ldots \ldots \ldots \ldots e_n & p & e
\end{array}
\]

According to these schemata, states are eventualities consisting of only one event –homogeneous–. A process (or an activity in Vendler’s terminology) will consist of a series of identical subevents. Processes
it proves necessary to rely on the notion of situation aspect (Smith, 1991) or Aktionsart. Aktionsart corresponds to the inherent nature of the situation denoted by a word or phrase by virtue of its lexical content. Notice that the lexical aspect is generally encoded as a property of the eventuality. It is, therefore, an essential part of its meaning which is commonly expressed by a verbal head. Let us consider some examples as a point of departure.

(5) a. Pepe sabe japonés
    Pepe know:3sPres Japanese
    ‘Pepe can speak Japanese.’

b. María escribe a sus padres
    María write:3sPres to her parents
    ‘Mary writes to her parents.’

c. Pinté el techo
    paint:1sPerPas the ceiling
    ‘I painted the ceiling.’

d. El tren llegó tarde
    the train arrive:3sPerPast late
    ‘The train arrived late.’

One of the distinguishing properties of states like the one in (5a) is that they constitute a class of atelic eventualities, that is to say, they are durative but they show no

---

are durative and have various stages –heterogeneous-. Finally, achievements and accomplishments would be group together within the category Transition which represents complex eventualities which consist of a process and a resulting state.
culmination point. Furthermore, states are homogeneous, non-dynamic objects which remain constant throughout the time interval they constitute and do not experience any kind of internal change as they stretch in time. At this point an observation should be made regarding the status of the Spanish copula *estar* (‘be’) as a very productive source of state-denoting expressions: *estar agotada* (‘to be tired’), *estar disponible* (‘to be available’), *estar muerto* (‘to be dead’), and the like. These are all examples of stage-level predicates (Carlson, 1977) which denote a property or a state of an individual or group which is subject to change or temporal modification. Thus, the verb *estar* selects for stage level predicates. On the other hand, the copula *ser* (‘be’) selects for individual level predicates which denote a highly permanent property or distinguishing feature of an individual, not subject to temporal modification, generally: *Ser alto* (‘to be tall’), *ser inteligente* (‘to be smart’), *ser profesor* (‘to be a professor’). I will adhere here to Kratzer’s (1995) view who proposed treating individual level predicates as predicates lacking an event argument. The argument structure of an adjective such *inteligente* will be, consequently, *inteligente*(x) whereas the argument structure of the adjectives *agotado* and *disponible* are, respectively, *agotado*(e,x) and *disponible*(e,x) which have an event argument in their argument structure. This argumental distinction will have a reflection in the syntax whereby copulative verbs *ser/estar* will move from its base position within the VP to the head of an Aspect Projection to check aspectual features [+event] or [-event].
Figure 2.6: Aspectual Projection of Stage-level and Individual Level Predicates

Sentences (5b)-(5d) represent an activity, an accomplishment and an achievement, respectively. All three constitute what Bach (1986) called the class of events as opposed to the class of states. Both, the group of states and the group of events, will be referred to as the set of eventualities. Activities, unlike states, are heterogeneous and dynamic eventualities. An activity like *escribir* (5b) develops in time through various stages; it is therefore conceived as a dynamic process. Activities/actions are also atelic. The verb *escribir* does not intrinsically convey the notion of culmination or endpoint as accomplishments do. The following example illustrates the difference between activities and accomplishments with respect to the dichotomy telic/atelic.

(6)  a. María escribe por las mañanas

*María writes* by the mornings

‘María writes every morning.’
b. María escribe una carta

María write:3sPres a letter

‘María is writing a letter.’

As I said, activities and accomplishments differ in that the latter are inherently telic eventualities. Despite the fact that the verb is the same in both sentences, (6a) constitutes an activity whereas (6b) constitutes an accomplishment since the eventuality denoted by the sentence culminates in the existence of a letter. Notice that what makes an eventuality into telic or atelic is not the presence or absence of a direct object but rather the absence or presence of a natural culmination in the temporal interval they denote. As a matter of fact, we may find an activity-denoting verb which calls for an internal argument: conducir un coche ‘drive a car’ is an activity but arreglar un coche ‘fix a car’ is an accomplishment. Thus, the difference among eventualities can be graphically represented as follows:

(7) States/Activities >>>>>>>>

Accomplishments >>>>>>>> •

Achievements •

Finally, accomplishments differ from achievements in that the latter denote non-durative, instantaneous entities. This is illustrated by the black dot in (7) which represents the culmination of an event. Sentence (5d) el tren llegó tarde constitutes an achievement and the dynamicity linked to this type of events is represented by the change that occurs
before the situation takes place and the very instant in which they occur. But despite the clear distinction among the various existing eventualities presented so far, it is sometimes the case that a certain type of eventuality may be recategorized into a different aspectual type. The linguistic mechanism whereby a lexical item is accommodated to match the requirements of another item so that their combination is grammatically viable is known in the literature as Coercion (Pustejovsky 1995). In the realm of eventualities in which we are moving we should preferably talk of a phenomenon of Aspectual Coercion. This operation is illustrated in (8).

(8)  

a. Juan tocó una sonata.
   Juan play:3sPerPas a sonata
   ‘John played a sonata.’

b. Juan tocó una sonata durante horas
   John play:3sPerPas a sonata during hours
   ‘Juan played a sonata for hours.’

Sentence (8a) denotes a telic event –an accomplishment- with a clear and natural culmination point right after which the event is completed. It has the aspectual feature matrix [+TELIC/+DURATIVE/+DYNAMIC]. In sentence (8b) the predicate combines with a typical atelic modifier of events durante horas. Their combination results in a coerced atelic reading in which an activity is described [−TELIC/+DURATIVE/+DYNAMIC]: Juan kept playing the same sonata, or maybe excerpts of it,
for hours. Would not the adjunct expression have imposed its [–TELIC] aspectual feature on the predicate, the resulting combination would have been simply inconsistent.

2.2 Nominals and Nominalization Processes

From a structural perspective, strict subcategorization features stipulate the categorial context of lexical items. For example, the Spanish verb golpear ‘to hit’ selects or categorizes for a complement—its internal argument—(golpear [un balón]) (cf. hit/kick a ball). The subcategorization frame of a verb also indicates the category to which the selected element belongs (golpear _ [SD ] ). The notion of subcategorization is closely related to both the semantic content of the verb and the sentential structure. Nonetheless, it is convenient to distinguish between two selection types for every lexical item: (i) a semantic selection (s-selection) and (ii) a categorial selection (c-selection) or strict subcategorization. Thus, a verb such as comprar (‘buy’) s-selects for something that we might label as “goods” whereas it normally c-selects for a DP as in ayer compraron un Picasso (‘They bought a Picasso yesterday’). Notice though, that what Chomsky (1986a) the canonical realization structure of semantic elements or, in other words, their default c-selection is not always so straightforward. If we rephrase our example as in la compra del Picasso tuvo lugar ayer (literally ‘The buying of the Picasso took place yesterday’) we observe that what is bought is now realized as the prepositional phrase (PP) del Picasso.

---

5In traditional grammar the requirement that there should be or not be one or more NPs inside the VP is seen as a property of the verb involved. If a VP has a transitive verb as its head, one NP (the direct object) is required: the verb takes an NP complement. The question whether a verb belongs to the group of transitive, intransitive or ditransitive verbs is normally treated as an idiosyncratic property of the verb.
Although in natural languages the most common way of referring to eventualities of any kind is by means of a verb (VP), it is also quite common to communicate eventualities by means of a noun phrase (NP). In Spanish, as in other romance languages like Catalán, Frech or Italian this is indeed a quite frequent strategy. The mechanism is simple. It basically consists of a derivational morphology operation whereby a noun is derived from a verb. For example, the noun *saqueo* derives from the non-finite form *saquear* (*saqueo*<sub>N</sub> < *saquear*<sub>V</sub>). In cases like that, the selection features of the verb percolate to the corresponding derived noun as in the determiner phrase (DP) *El saqueo de la ciudad por los Romanos fue terrible*. Thus, the determiner phrase [SD la ciudad] constitutes the object of the event denoted by *saquean* in the sentence *Los Romanos saquean la ciudad violentamente* as well as in the derived determiner phrase *El saqueo de la ciudad por los Romanos fue terrible*. Let us consider the argument structure of the verb *saquear*.

(9)  
a. Los romanos saquean la ciudad  

The Romans sack:3plPres the city  
‘The Romans are sacking the city.’

b. *saquear*: verb; 1 2  

NP NP

If we focus our discussion on the semantic component of the verb *saquear* we notice that the valence of the verb is 2 (2-ary) being, therefore, a binary verb. The argument NP *Los Romanos* in the subject position refers to the entity that is the AGENT<sup>6</sup>

<sup>6</sup> Although there is no general agreement among linguists as to a precise taxonomy of the various thematic roles and their labels, I am adopting here what seems to be the most accepted definition of the roles of
of the activity of sacking. The argument NP la ciudad, the direct object, expresses the THEME of the activity. Thus, we say that the verb saquear takes two arguments to which it assigns a theta role: it assigns the role AGENT to the subject argument of the sentence, and the role of THEME to the object argument. The verb theta-marks its arguments.

According to the Theta Theory predicates in general have a thematic structure. The semantic definition of a predicate does not oblige us with considering predicates only as projections of the head of a lexical verb. The logical analysis of a predicate only requires it to express a propositional function which, once fully saturated, expresses a complete proposition. Therefore, from a purely semantic perspective, every relation between a propositional function and its argument will constitute a predicative structure. In this line we might represent the deverbal noun el saqueo as a pair (argument₁, argument₂) or, equivalently, saquear (x, y) = saqueo (x, y). We may then propose the following argument structure for the noun saqueo.

(10) a. El saqueo de la ciudad por los Romanos

   The sack:noun of the city by the Romans

   ‘The Roman’s sacking of the city.’

   b. saqueo: noun; 1  2
      PP   PP

   The relationship between a deverbal noun and the verb from which it derives constitutes an argumental relation which establishes a relation between elements which

_________________________________________________________________________
AGENT and THEME. It seems, though, a general practice in the literature on the topic to amalgamate the roles of PATIENT and THEME under a unique label THEME.
AGENT: the one who intentionally initiates the action expressed by the predicate.
PATIENT: the person or thing undergoing the action expressed by the predicate.
THEME: the person or thing moved by the action expressed by the predicate.
express predicative relations. Nevertheless, from the fact that both elements might express the same semantic relationship does not follow a syntactic correspondence. Let us consider the syntactic derivation for sentences (11) and (12) as shown in Figures 2.7 and 2.8, respectively.

(11) Los romanos saquean la ciudad violentamente
The Romans sack:3plPres the city violently

Figure 2.7: Syntactic Tree for sentence (5)

7 I am following here the DP hypothesis as formulated by Abney (1987) according to which determiners are functional categories which project a maximal projection (DP) and take an NP as their complement. Abney’s proposal would lead us to suggest the existence of an INFL projection within the DP to which the head of NP would move eventually to check gender and number features. I will be ignoring for the sake of clarity, though, further developments of the DP hypothesis such as those by Picallo (1991) and Ritter (1991) who postulated a further division of the internal agreement projection IP into two independent functional projections corresponding to gender (GEN) and number (NUM) features to explain the linear order of morphological material as it appears in, for example, the Spanish noun chicos (‘boys’): chic -o - s .
Chomsky’s (1981) **Projection Principle** postulates that lexical information is syntactically represented. More precisely, it postulates that every syntactic representation constitutes a projection of the lexicon so as to satisfy the subcategorization properties of lexical elements. Furthermore, this principle establishes that every lexical item should be
properly saturated at every level of representation. The intuition underlying the Projection Principle is clear: syntax may alter the position of lexical elements and establish diverse distance relations among them, but it should not alter the selection requirements that the lexicon imposes. On the basis of syntactic configurations in Figures 2.7 and 2.8, it appears that deverbal nouns inherit the argument structure of the verbs from which they derive. In our sample sentence, *el saqueo de la ciudad por los romanos*, the PP [PP de la ciudad] fills in the internal argument slot of the noun *saqueo*. In turn, the PP [PP por los romanos] saturates the external argument slot. Both, verb and deverbal noun, denote the same event and, therefore, they share the same theta-eventive structure as illustrated in (13).

(13) \[ \text{saquear} (e, x, y) \land \text{Agent}(e, \text{los romanos}) \land \text{Theme}(e, \text{la ciudad}) \]

\[ \text{saqueo} (e, x, y) \land \text{Agent}(e, \text{los romanos}) \land \text{Theme}(e, \text{la ciudad}) \]

A compositional account similar to the one provided for fully-inflected expressions at the beginning of this chapter can also be given for derived nominal expressions. Provided that we want nominalizations of VPs and VPs be treated in parallel, the DRS built from VP nominalizations would always have a $\lambda$-abstracted

---

8 It might be argued that the intended parallelism between nouns and verbs on the lexico-semantic level as stated here is not always complete – see also Lees (1960) and Chomsky (1970) on the Lexicalist Hypothesis. The application of the projection principle to nominal argument structures does not appear to necessarily require the realization of every argument.

9 We are dealing here with a case of total inheritance of argumental structure between *golpear$_V$* and *golpeo$_N$_N*. There are, nevertheless, cases of partial inheritance as in, for example, the Spanish derived noun *risa* (‘laugh’). Thus, the verb *reírse* (cf. to laugh at sb/sth.) has the following argument structure [A, S] where S stands for the thematic role of Source. Interestingly, the noun *risa* does not inherit the external argument S from the verb: *su risa de la gente* (cf. *his laugh at the people).
eventive discourse referent. In order to do so, I will need to postulate the existence of a principle whereby the eventive argument of the nominal expression gets somehow realized at some point in the derivation. Given the fact that derived nominals like the ones treated so far lack tense and/or aspectual information, a movement of the head N to I does not appear to be a natural explanation. Naturally, N moves to the DP-internal head I but it does so to check NUM and GEN features as the grammaticality of the combination *el saqueo* witnesses. With all this in mind, I will propose that it is the head of the DP the element which introduces a discourse referent that fills the eventive argument place of a VP nominalization. The definite determiner *el* existentially binds the event under consideration\(^\text{10}\). Consequently, the translation of the deverbal noun *saqueo* would be \(\lambda e \lambda x \lambda y \{e \text{-} \text{saqueo} (x,y)\}\) and the compositional derivation for it is given in Figure 2.9:

---

\(^{10}\) This idea about the discourse referent introduced by the head of DP going into the event argument place is not novel. As far as I know, Asher (1993) was the first to propose that although his proposal differs from mine in that he postulates the existence of a null determiner in the D slot –called *sthε* for silent ‘the’-, which assigns possessive case to the material in SPEC/DP position in English. Consequently, the syntactic representation for the nominal expression *the army’s destruction of the city* would be as in (i):

(i)  
```
DP            D’
   the army’s    D
      D          NP
         null sthe MP  N’
               N  PP
        destruction  of the city
```

71
la destrucción de la ciudad por el enemigo fue terrible
\{e,y,x| ciudad(y); e-saqueo(x,y); enemigo(x); terrible(e)\}

la destrucción de la ciudad por el enemigo fue terrible
\(\lambda Q\{e,y,x| ciudad(y); e-destruir(x,y); enemigo(x); Q(e)\}\)

la destrucción de la ciudad (por) el enemigo
\(\lambda x\lambda Q\{e, y| ciudad(y); e-destruir(x, y); Q(e)\}\)

la destrucción de la ciudad (de) la ciudad
\(\lambda P\lambda Q\{u| P(u); Q(u)\}\)

FIGURE 2.9: Sample Compositional Derivation

Various other event-denoting constructions can be found in Spanish quite commonly concealed under different disguises. Unlike the previous examples, the nominalized construction in (14) *Su descripción del accidente duró horas* (`his description of the accident took hours`) has the possessive determiner *su* (3p.sg/pl. masc./fem.) as the head of DP. The idiosyncrasy of this configuration lies on the fact that a possessive determiner saturates the external argument of the noun *descripción* unlike the case of (12) where the same slot was filled in with a full prepositional phrase [pp por...
los Romanos]. In providing a syntactic structure for (14) I will be assuming that the possessive determiner *su* fill the D slot in the configuration.

\[(14) \quad \text{Su descripción del accidente duró horas}\]

His description of-the accident last:3sPerPas hours

‘His description of the accident lasted for hours.’

![Syntactic Tree for Sentence (14)](image)

**Figure 2.10:** Syntactic Tree for Sentence (14)

There are instances of derived nouns in which the possessive saturates the internal argument of the noun whereas the external argument slot is filled in with a full phrase, as in the sentence *su anuncio por el presidente* (‘his announcement by the president’), where
the third person possessive *su* would stand potentially for an overt prepositional phrase *el anuncio del acuerdo por el presidente* (‘the announcement of the agreement by the president’). Possessives can equally saturate the unique argument of an unaccusative nominalization, as in (15).

(15) Su llegada al aeropuerto

His arrival to-the airport

‘His getting to the airport.’

![Syntactic Tree for Sentence (15)](image)

**Figure 2.11:** Syntactic Tree for Sentence (15)

In order to be able to provide a compositional semantic account for constructions (14) and (15), I’ll be assuming that the determiner contributes an event discourse referent which is maximally salient in the context. The possessive determiner will be given a
translation equivalent to that of other determiners, that is, \( \lambda P \lambda Q \{ u \mid P(u); Q(u) \} \). Whereas the outcome of the derivation in Figure 2.9 was a fully saturated object, this will not be the case for (14)-(15). Here, the semantically unsaturated discourse referent represented by the bound variable \( x \) will have to be saturated somehow in the context with some salient entity. I illustrate the compositional derivation for the sentence *su descripción del accidente duró horas*. Notice that an almost equivalent translation would be provided for the unaccusative nominalization *su anuncio por el presidente* (“his announcement by the president”) but in this case the unsaturated discourse referent \( \lambda x \) would correspond to the internal argument of the derived nominal *anuncio*. This is shown in Figure 2.12.

\[
\begin{align*}
\text{su descripción del accidente duró horas} & \\
& \lambda x \{ e, y \mid \text{accidente}(y); e-\text{descripción}(x,y); \text{duró horas}(e) \}
\end{align*}
\]

\[
\begin{align*}
\text{su descripción del accidente} & \\
& \quad \quad \lambda Q \lambda x \{ e, y \mid \text{accidente}(y); e-\text{descripción}(x,y); Q(e) \}
\end{align*}
\]

\[
\begin{align*}
\text{su descripción del accidente} & \\
& \lambda P \lambda Q \{ u \mid P(u); Q(u) \} \\
& \quad \quad \lambda e \lambda x \{ y \mid \text{accidente}(y); e-\text{descripción}(x,y) \}
\end{align*}
\]

\[
\begin{align*}
\text{descripción} & \\
& \quad \quad (\text{de}) \text{ el accidente} \\
& \lambda e \lambda x \lambda y \{ e-\text{descripción}(x,y) \} \\
& \lambda Q \{ y \mid \text{accidente}(y); Q(u) \}
\end{align*}
\]

\[
\begin{align*}
\text{el accidente} & \\
& \lambda P \lambda Q \{ u \mid P(u); Q(u) \} \\
& \lambda y \{ \text{accidente}(y) \}
\end{align*}
\]

**Figure 2.12**: Compositional Derivation for Sentence (14)
As we have observed so far, the semantic relationship between a certain kind of nouns and the verbs from which they originate appears to be regular and predictable; we may say that the derived noun *llegada* (‘arrival’) denotes the set of events in which someone arrives to a certain location. Equally, the noun *saqueo* (‘sacking’) refers to the set of events in which someone sacks something. There is, nevertheless, another productive Spanish event-denoting kind of expressions: the so-called **nominalized infinitives** as exemplified in (16).

(16) a. El frenético publicar de los académicos.
the:sg frantic to-publish of the scholars

?? ‘The frantic publishing of the scholars.’

b. El comer manzanas
the:sg to-eat apples
‘Eating apples.’

There is evidence of some related constructions in Italian (Grimshaw and Selkirk, 1976) and Dutch (Zwart, 1987). The Italian examples (17a-b) constitutes a case of the so-called *Infinito Sostantivato* (“nominalized infinitive”) which has been extensively studied by Zucchi (1993).

(17) a. Giovanni udì il mormorare sommesso
Giovanni hear:3sPerPas the to-whisper soft
‘Giovanni heard the soft whispering.’

b. Het aanhoudend appels eten begint mij te vervelen
the continuously apples to-eat begins me to bore

‘Eating apples continuously is starting to bore me.’

The idiosyncrasy of these constructions poses the puzzle as to whether treating them as nominal or verbal elements. As a matter of fact, it is difficult to provide a fully conclusive response to that question. Let us explore why. On the one hand, Spanish infinitives admit the definite determiner, and only the singular definite, \( \text{el} \) (‘the-masc.sg’); and they also admit adjectival modification all of which might be a hint of their nominal status in certain constructions. But, on the other hand, they also admit aspectual modification which is a particular feature of verbs (\( \text{el haber comido tantas manzanas me sentó mal} \)). Again, I will adopt here the DP hypothesis (see footnote 5) to syntactically analyze Spanish nominalized infinitives as a DP taking an IP as a complement\(^{11}\). Figure 2.13 provides the structure for the data introduced in (16).

\(^{11}\) An X-bar analysis of nominalized infinitives based on the NP projection would be problematic. The X-bar perspective would generate determiners in the specifier of an NP [Spec/NP] but never in the specifier position of an IP. Therefore, the presence of a determiner in this type of structures would never obtain unless one of the following alternatives is proposed:

(i) There is a nominalization phenomenon at structure level N’ as a result of which the sequence \( \text{llegar tarde} \) can be inserted or recategorized as N’:

\[
\begin{array}{c}
\text{NP} \\
\text{Det} \\
\text{el} \\
\text{N'} \\
\text{IP/CP}
\end{array}
\]

(ii) To argue in favor of the existence of a null nominal head and leave the infinitival phrase as the complement of that null head:

\[
[\text{NP } \text{el } [\text{N'} [\text{∅ } \text{[IP hacer ruido] } ] ] ] \text{ con la sopa es de mala educación.}
\]

Notwithstanding the problems that an alternative such as (i) would pose, Zucchi (1993) is lead to adopt the so-called NP-over-VP analysis to explain the behaviour of English gerundive nominals like \( \text{his performing the song} \). Adopting this analysis amounts to regarding gerundive NPs as exceptions to X-bar theory.
The internal structure of these constructions is complex as the following data from Spanish show. Whenever the logical subject of the infinitive is introduced by the preposition *de* (‘of’), adjectives, but not adverbs, may modify the infinitive:

\[
\begin{align*}
\text{(18) a. } & \quad \text{El suave murmurar de las olas} \\
& \quad \text{the:sg soft to-whisper of the waves} \\
& \quad \text{‘The soft whispering of the waves.’} \\
\text{b. * El murmurar suavemente de las olas} \\
& \quad \text{the:sg to-whisper softly of the waves} \\
& \quad \text{‘The softly whispering of the waves.’}
\end{align*}
\]

Furthermore, the infinitive cannot occur with a direct object when the subject of the infinitive is introduced by a prepositional phrase headed by *de* as shown in (18b). In cases like these the only possible interpretation of the PP *de Juan* is that Juan is the owner of the book in question (‘Juan’s book’). Compare:

\[
\begin{align*}
\text{(19) a. } & \quad \text{El escribir de Juan}
\end{align*}
\]
the:sg to-write of Juan

‘Juan’s writing.’

b. * El escribir el libro de Juan (*Juan is the agent of the writing event)

the:sg to-write the book of Juan

?? ‘Juan’s book writing.’

Both adverbs and direct objects may occur, however, when no of-subject is present.

(20) a. El escribir una/la tesis me llevó una eternidad

the:sg to-write a / the thesis cl take:1sPerPas an eternity

‘Writing my thesis took me for ever.’

b. El insultar indiscriminadamente

the:sg to-insult indiscriminately

‘Insulting indiscriminately.’

The following set of data is intended to compare the pairs above with their corresponding derived nouns.

(21) a. El suave murmullo de las olas

the:sg soft whisper:noun of the waves

?? ‘The soft whispering of the waves.’

b. * El murmullo suavemente de las olas

the:sg whisper:noun softly of the waves
?? ‘The (softly) whispering (softly) of the waves.’

(22) a. El comer manzanas
the:sg to-eat apples
‘Eating apples.’

b. El haber comido manzanas
the:sg to-have eaten apples
‘Having eaten apples.’

c. * El haber comido manzanas de María
the:sg to-have eaten apples of María
?? ‘Maria’s having eaten apples.’

d. El comer manzanas de María
the:sg to-eat apples of María
‘Maria’s eating apples.’

The hypothesis of a Determiner Phrase as a projection in the syntax that I have adopted here would help us explain most of the great variability showed for Spanish\textsuperscript{12}. Those

\textsuperscript{12} Grimshaw and Selkirk (1976) and Salvi (1982) provide similar evidence for the Italian \textit{infinito sostantivato} as the one provided here. Zucchi (1993) comes to the conclusion that there are three different types of Italian infinitival NPs: (i) N-infinitival NPs, (ii) VP-infinitival NPs, and (iii) S-infinitival NPs with their corresponding syntactic structures:

\begin{equation}
\begin{array}{c}
(i) \quad \begin{array}{c}
\text{DET} \quad . \\
\text{N}^n \\
\text{N} \\
\end{array} \\
\begin{array}{c}
\text{Il suo} \\
\text{VP} \\
\text{avere egli scritto quella lettera} \\
\end{array} \\
\end{array}
\end{equation}

\begin{equation}
\begin{array}{c}
(ii) \quad \begin{array}{c}
\text{Il suo} \\
\text{N'} \\
\text{S} \\
\end{array} \\
\begin{array}{c}
\text{avere egli scritto quella lettera} \\
\end{array} \\
\end{array}
\end{equation}

\begin{equation}
\begin{array}{c}
(iii) \quad \begin{array}{c}
\text{L'} \\
\text{S} \\
\end{array} \\
\begin{array}{c}
\text{avere egli scritto quella lettera} \\
\end{array} \\
\end{array}
\end{equation}
cases where an adjective appears in front of the infinitive as well as an *of*-phrase playing the role of logical subject would be given the following structure. Notice that the *of*-phrase never corresponds to the object or internal argument of the infinitive unlike the case of event-denoting derived nouns *el golpeo de balón* or *la destrucción de la ciudad*.

\[(23)\] El frenético publicar de algunos académicos

The:sg frantic to-publish of some scholars

‘Some scholars’ frantic publishing.’

---

Each of these structures would correspond to each of the following patterns, corresponding to (i)-(iii) above:

(i) Il mormorare sommesso del mare
    The:sg to-whisper soft of-the sea
    ‘The sea’s whispering softly.’

(ii) a. Il suo mormorare sommessamente
    The:sg his to-whisper softly
    ‘His whispering softly.’

b. Il suo mormorare parole dolci
    The:sg his to-whisper words sweet
    ‘His whispering sweet words.’

(iii) L’avere egli scritto quella lettera
    the’to-have cl written that letter
    ‘His having written that letter.’

As Zucchi points out, Italian nominalized infinitives can be listed into two main groups according to their syntactic configuration: first, an operation of infinitival nominalization whereby a verb becomes a noun and no verbal node is present. This would correspond to syntactic configuration (i). On the other hand, an operation of infinitival nominalization whereby a full verb phrase, even possibly a clausal projection S, has nominalized. This second group would correspond to syntactic trees (ii) and (iii), respectively. It is the absence or presence of a verbal node what constitutes the crucial point to distinguish these groups from one another. From all this we can deduct that the *of*-phrase and the pre-infinitival adjective can only occur when the verb has become a noun – as in (i)-, whereas adverbs and auxiliary verbs can only occur when a VP node is present -(ii) and (iii)-.
From a semantic point of view, the adjective *suave* (‘soft’) in (18a) belongs to the group of qualitative adjectives. More precisely, within the group of qualitative adjectives *suave* belongs to those which convey a subjective quality of the noun they modify. One of the defining features of this group of adjectives in Spanish is their positional freedom, they may appear in prenominal and postnominal position. Prenominal adjectives in Spanish have been named Intensional or Non-Restrictive adjectives inasmuch they do not restrict the denotation of the noun but rather add an appreciative quality. Since prenominal qualitative adjectives do not receive a theta-role, we might hypothesize that they fill the Specifier position of the IP within DP.  

13 This hypothesis regarding the syntactic position of prenominal adjectives is not completely satisfactory though. The main disadvantage is that it cannot provide an empty position for successive adjectives in sequences of two or more prenominal adjectives. See Cinque (1994) for an alternative proposal.

---

**Figure 2.14:** Syntactic Tree for Sentence (18a)
convenient to note that the presence of the article is potestative is Spanish. It is my belief that this fact lies outside the process of nominalization described above, but it will prove to be important when I argue about the nature of perception verbs and small clauses as event-denoting expressions in the next section.

(24) Fumar es malo para la salud.
    to-smoke be:3sPres bad for the health
    ‘Smoking is bad for one’s health.’

Traditional grammar considered non-finite forms like the one in (24) as a nominalized form where the presence or absence of the definite determiner was simply a matter of choice. The fact is that it is possible to insert the determiner *el* in front of the non-finite form without a change in meaning. Therefore, (25) is a well-formed sentence in Spanish:

(25) El fumar es malo para la salud
    the:sg to-smoke be:3sPres bad for the health
    ‘Smoking is bad for one’s health.’

Nevertheless, the intended parallelism in (24)-(25) seems to be unreal. On the one hand, bare infinitives do not accept external arguments realized by prepositional phrases whereas fully nominalized forms do.
(26)  a.  El comer *manzanas de Juan me pone enfermo
      the:sg to-eat apples of Juan cl put:3sPres sick
      ‘Juan’s eating apples makes me sick.’

     b.  * Comer *manzanas de Juan me pone enfermo
         to-eat apples of Juan cl put:3sPres sick
         ‘Juan’s eating apples makes me sick.’

Secondly, bare infinitives do not accept prenominal adjectival modification, but they do admit adverbial modification.

(27)  a.  El suave murmurar
      the:sg soft to-whisper
      ‘The soft whispering.’

     b.  * Suave murmurar
         soft to-whisper
         ‘?? ‘Soft whispering.’

(28)  Murmurar suavemente
     to-whisper softly
     ‘Whispering softly.’

The differences found in (24)-(28) call for an explanation which can be found in the Principles and Parameters paradigm. The Extended Projection Principle (EPP) requires of every sentence to having a subject. If we postulate the existence of a non-overt subject of the infinitive in (24), an arbitrary PRO (PROarb), then we can easily
explain the idiosyncratic behavior of both expressions with respect to adverbs and preposition-headed external arguments.

(29) \[ \text{CP[IP PRO}_{\text{arb}} \text{ fumar }] \] \text{es malo para la salud}

to-smoke is bad for the health

One of the features of arbitrary PRO is that is not controlled by another NP and refers freely. The PRO_{arb} in (29) is roughly equivalent to a pronoun, and it may be interpreted as equivalent to the arbitrary pronoun \textit{uno} (‘one’). The argument structure of the verb \textit{fumar} (‘to smoke’) requires an external argument which must receive the theta-role of AGENT of the action denoted by the verb. PRO receives the theta-role AGENT from the non-finite verb in the non-finite clause.
Now, if we propose a similar analysis for (26b) the source of ungrammaticality becomes evident. In (26b) we have a \( \text{PRO}_{arb} \) filling the external argument position and receiving the theta-role AGENT from \textit{comer manzanas}. Since the theta-role has been assigned already to \( \text{PRO}_{arb} \), the introduction of a logical subject by means of an \textit{of}-phrase \textit{de Juan} violates the \textbf{Theta Criterion} \(^{14}\). Moreover, PRO does not receive case because it does not have phonological manifestation and only DPs with phonetic content or those associated with another member of a chain with phonetic content receive case \(^{15}\).

\(^{14}\) The Theta Criterion establishes that:
1. Each argument is assigned one and only one theta role.
2. Each theta role is assigned to one and only one argument.

\(^{15}\) Chosmky and Lasnik (1995) postulate an alternative hypothesis to account for the special case-marking of PRO. For them, PRO would be minimally marked for case C. The null-case mark C would not be associated with time or agreement features and it would be the only possible mark for the INFL of an infinitive to check.
According to the **PRO Theorem** PRO must be ungoverned; and this is the case in (24) and (26b) where the head of IP, I, is a weak I, i.e., one that is negatively specified for both [Tense] and [AGR] features. So, infinitival I is not strong enough to govern PRO. The projection of this weak infinitival I is not a barrier for outside government. But the finite inflection of the higher clause -which is a potential governor-, is blocked by CP/DP which constitute barriers to government.

There are a number of infinitival constructions that will be of interest for the purposes of this dissertation. The so-called infinitival purpose clauses belong in this group. In Spanish prototypical purpose clauses lack an overt subject as we would expect from their having a non-finite verbal head. Normally, the purpose clause is embedded in a finite clause.

(30)  

(a) \[ [CP [IP Juan invirtió en bolsa [para ganar dinero]]] \]  
Juan invest:3sPas in stocks for to-make money  

(b) \[ [CP [IP Invertir en bolsa [para ganar dinero]]] es conveniente \]  

to-invest in stocks for to-make money be:3sPres convenient

The AGENT of the purpose clause *para ganar dinero* in (30a) is understood to be same as the AGENT of *invertir en bolsa*, i.e., it is the subject of the immediately dominating clause: *Juan*. In (30b) the non-finite clause *invertir en bolsa* appears not to have an overt subject; but again the AGENT of the purpose clause *para ganar dinero* is identical to the AGENT of *invertir en bolsa*. The external argument of *invertir en bolsa*,

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though not overt, is understood and determines the interpretation of the subject of the purpose clause.

### 2.2.1 The Optionality of Arguments

At this point we might ask ourselves why it is possible for preposition-headed arguments to be absent from certain event-denoting nominalized constructions. So far, I have provided data showing that prepositional phrases fill in the theta grid positions of certain deverbal nouns. Furthermore, those PPs are necessary to fulfill the structural requirements of the Projection Principle, the Extended Projection Principle and the Case Theory. So, the question arises as to why the absence of arguments in certain expressions. The pattern showed in (31) illustrates the problem.

(31) a. \( \text{La destrucción de la ciudad por el enemigo fue terrible} \)

the destruction of the city by the enemy be:3sPerPas terrible

‘The enemy’s destruction of the city was terrible.’

b. \( \text{La destrucción de la ciudad fue terrible} \)

the destruction of the city be:3sPerPas terrible

‘The destruction of the city was terrible.’

c. \( \text{La destrucción fue terrible} \)

the destruction be:3sPerPas terrible

‘The destruction was terrible.’
For Grimshaw (1986) the optionality of the *of*-phrase in event-denoting nouns is only apparent for the noun which combines with the *of*-phrase and the noun which appears without an *of*-phrase are different nouns. Therefore, in Grimshaw’s view the apparent optionality of the prepositional phrase is due to the existence of a result-denoting noun which is morphologically identical to the event-denoting noun, but semantically different. As a consequence, result-denoting nouns do not have an argument that expresses the role of THEME simply because they lack theme participants. We have, then, an event-denoting noun in (31a) and a result-denoting noun which does not admit any arguments in (31c). We are now left with the task of explaining the optionality of the phrase headed by *por* (the *by*-phrase). Grimshaw’s proposal amounts to treat *by*-phrases as adjuncts. The argument position corresponding to the logical subject is inherently satisfied (suppressed) in the lexicon and, therefore, cannot be saturated by the *by*-phrase. In my opinion, Grimshaw’s proposal is problematic with regard to the intended correlation between event/result-denoting nouns and their corresponding acceptance of arguments. The problem arises when we consider the data in (32).

(32) a. La destrucción duró horas
    the:sg destruction take:3sPerPas hours
    ‘The destruction lasted for hours.’

b. La destrucción comenzó al mediodía
    the:sg destruction start:3sPerPas to-the noon
    ‘The destruction began at noon.’
As we saw, for Grimshaw the noun *destrucción* (‘destruction’) may be interpreted as denoting a result, the result of a destruction process—with the meaning of ruins, debris, etc.—, what would explain the absence of arguments as compared to the eventive meaning of *destruction*. Let us say that there are two different lexical entries for the noun destruction: *destrucción*$_{\text{event}}$ and *destrucción*$_{\text{result}}$. But in my view, our sample clauses do not convey the idea that the result of the process of destruction lasted for hours or began at noon. What they rather convey is that the very process of destruction lasted for hours in (32a), or set up the starting point of the process in (32b) and, interestingly, the arguments of the noun are absent. We might say that both result and process denoting nouns differ from event denoting nouns in that they do not have an internal argument but this hypothesis would fail in view of the following example.

(33)  La destrucción de la ciudad duró horas

‘The destruction of the city lasted for hours.’

Dowty (1978, 1981) has suggested the existence of some satisfaction lexical rules which bind existentially and implicitly the object noun phrase. The existence of a set of rules which saturate the arguments in the thematic grid of some elements was also proposed by Rizzi (1986) to account for the optionality of certain arguments. Zucchi (1993) postulates the existence of two rules which bind both arguments with an existential quantifier. The first of these rules takes a noun which subcategorizes for two arguments as input. One of the arguments is headed by *de*—an *of*-phrase— and the second
is headed by *por* – a *by*-phrase-. The rules give as output a noun which subcategorizes for an *of*-phrase. The second rule receives as input a noun which subcategorizes for an *of*-phrase and produces as output a noun without arguments. Following Zucchi, provided that phrases headed by *de* and *por* constitute arguments, then a noun as *destrucción* would have a subcategorization frame as in (34a) and a semantic structure as in (34b).

\[(34) \quad \text{a.} \quad [N \text{ destrucción}]^{<\text{de-NP, por-NP}>} \]
\[(34b) \quad \lambda x \lambda y \lambda e (\text{destrucción'}(x)(y)(e)) \]

The alternation between (35a) and (35b) is accounted for by the rule in (36a) and its corresponding semantic rule in (36b).

\[(35) \quad \text{Alternation} \]
\[(35a) \quad \text{a) La destrucción de la ciudad por el enemigo} \]
\[\text{the:sg destruction of the city by the enemy} \]
\[(35b) \quad \text{b) La destrucción de la ciudad} \]
\[\text{the:sg destruction of the city} \]

\[(36) \quad \text{a.} \quad [N \alpha^{<\text{de-NP, por-NP}>}] \Rightarrow [N \alpha^{<\text{de-NP}>}] \]
\[(36b) \quad \lambda x \lambda y \lambda e (\alpha'(x)(y)(e)) \Rightarrow \lambda x \lambda e \exists y (\alpha'(x)(y)(e)) \]

By applying this rule to transitive nouns it returns nouns which combine with phrases headed by the preposition *de*. The argument position corresponding to the phrase headed by *por* has been existentially quantified. Now, given the rule in (36) the alternation shown in (37) is accounted for by the rule in (38).
(37) **Alternation**

c) La destrucción de la ciudad por el enemigo
the:sg destruction of the city by the enemy
d) La destrucción
the:sg destruction

(38) a. \[ N α_{<de-SN>} ] \Rightarrow [ N α_{<......>} ]
b. \[ \lambda x \lambda e (α'(x)(e)) \Rightarrow λe \exists x (α'(x)(e)) \]

The new rule in (38) applies to nouns which subcategorize for phrases headed by *de* and yields as output nouns which argument positions corresponding to the *of*-phrase have been saturated implicitly by being existentially quantified over. Therefore, given these rules, we would expect (39) to be ill-formed. This is due to the fact that a phrase can only combine with the noun to saturate argument positions and, whenever the argument position of the *of*-phrase is implicitly satisfied, the argument position of the *by*-phrase is also implicitly satisfied.

(39) * La destrucción por el enemigo
the:sg destruction by the enemy

Contrary to the idea that the implicit arguments of event-denoting nouns like *destrucción* are existentially quantified over, Dowty (1981) pointed out that the implicit arguments of some verbs are contextually understood. The difference between *comer* (cf. eat) and *darse cuenta* (cf. to notice) illustrates this point.
According to Dowty’s view, (40a) means that John ate nothing but (40b) does not mean that John noticed nothing, it means that he didn’t notice some contextually salient entity. Following Heim (1982), we might assume that the context of utterance of a sentence contains a variable assignment g that serves to provide a value for variables that occur free. In order to account for this thesis, Zucchi changes the rules he first proposed as follows (repeated here as (36’) and (38’)).

(32’)  
a. \[ N \alpha_{\text{de-NP, por-NP}} \Rightarrow N \alpha_{\text{de-NP}} \]  
b. \[ \lambda x \lambda y \lambda e (\alpha'(x)(y)(e)) \Rightarrow \lambda x \lambda e (\alpha'(x)(y)(e)) \]

(34’)  
a. \[ N \alpha_{\text{de-SN-}} \Rightarrow [N \alpha_{\text{<.....>}}] \]  
b. \[ \lambda x \lambda e (\alpha'(x)(e)) \Rightarrow \lambda e (\alpha'(x)(e)) \]

Variable assignment function g assigns a value to free variables x and y. Thus, their interpretation is now determined by the context of utterance.
It has been suggested the existence of a null pronominal category \textit{pro} that would structurally explain the optionality of the internal argument of verbs. The unrestricted adoption of this view would soon run into problems since object suppression in Spanish is not an arbitrary operation.

\begin{tabular}{ll}
(41) & a. Juan comió \textit{pro} \\
     & Juan eat:3sPerPas \textit{pro} \\
     & ‘Juan ate \textit{something}.’ \\
     & b. Juan estudió \textit{pro} \\
     & Juan study:3sPerPas \textit{pro} \\
     & ‘Juan studied \textit{something}.’ \\
     & c. * María visitó \textit{pro} \\
     & María visit:3sPerPas \textit{pro} \\
     & ‘María visited \textit{someone}.’ \\
     & d. * María solucionó \textit{pro} \\
     & María solve:3sPerPas \textit{pro} \\
     & ‘María solved \textit{something}.’ \\
\end{tabular}

As the examples in (41) illustrate there are a number of transitive verbs which do not admit object deletion. What is then the source of ungrammaticality in those examples?. As argued in Campos (1986) the corresponding null element should be indefinite. Consequently, Fernández Soriano (1989) suggested the existence of an indefinite \textit{pro} in Spanish (\textit{pro}^{\text{indef}}) in the object position of verbs with so-called inherent
implicit arguments. These implicit arguments present two distinguishing features. On the one hand, the implicit object can be lexically recovered from the meaning of the verb: beber una bebida, comer una comida, etc. On the other hand, the implicit internal argument refers generally to an undetermined or indefinite quantity, as shown in (42).

(42) a. ¿Compraste agua? Sí, compré pro\textsuperscript{indef}  
    buy:2sPerPas water? Yes, buy:1sPasPer pro\textsuperscript{indef}  
    ‘Did you buy any water? Yes, I did.’

b. ¿Compraste café? * Sí, lo compré pro\textsuperscript{indef}  
    buy:2sPerPas coffee? Yes, it buy:1sPerPas  
    ‘Did you buy any coffee? Yes, I did.’

Thus, pro\textsuperscript{indef} recovers its content from its corresponding indefinite antecedent agua in (42a) whereas the use of a definite pronoun is not possible as shown in (42b). So we may say that both antecedent and pronoun should agree in the feature [definiteness]. As we have already seen, several proposals have been presented to account for argumental optionality in derived nominals. An analysis in similar terms might be applied to derived nouns like la destrucción or el golpeo to account for the optionality of their arguments at the structural level.

2.3 Small Clauses

As a point of departure, consider the following examples:

(43) a. Vi a Juan bailando hasta el amanecer
see:1sPerPas to Juan dancing until the dawn
‘I saw John dancing until dawn.’

b. Vi a María correr como loca
see:1sPerPas to María to-run like mad:fem
‘I saw Mary running like hell.’

c. Tengo la moto con la rueda pinchada:adj
have:1sPres the motorbike with the wheel punctured
‘My bike has a flat tyre.’

d. María llegó a casa cansada
María arrive:3sPerPas to house tired
‘Mary arrived home tired.’

e. Prefiero a Juan calladito
prefer:1sPres to Juan quiet
??’I prefer John with his mouth shut.’

All previous constructions belong in the group of the so-called small clauses. For the purposes of this dissertation, the importance of this type of construction lies in the fact that the peculiar predicative configuration that serves as complement of the main verb (ver ‘see’, tener ‘have’, llegar ‘arrive’, preferir ‘prefer’) denotes some kind of eventuality. Thus, although formally the complement of the main verb appears to be a determiner phrase (DP) la moto con la rueda pinchada in (43c), it receives a propositional interpretation since what we are considering here is not a mere individual but, rather, some state of affairs. For example, notice that what I prefer in (43e) is not
Juan but rather a propositional entity that may be interpreted as a state; something close to Juan esté callado (‘John keeps his mouth shut’). Juan receives accusative case from preferir, but there is no semantic relation between the verb and a Juan but rather between preferir and [Juan calladito] which is the quasi-propositional entity under consideration. The predicate calladito theta-marks the element Juan, thereby becoming its external argument.\footnote{In the literature this configuration constitutes a case of Exceptional Case Marking (ECM). Succinctly, an element X which is the subject of a secondary predicate Y receives case from another predicate Z. The same applies to derived nouns as in la destrucción de la ciudad, where the NP la ciudad (cf. the city) would receive the theta-role THEME from destrucción (cf. destruction) while receiving accusative case from the preposition de (cf. of).}

\begin{equation}
\text{(44) } \text{pro } \begin{array}{l}
\text{prefiero} [\text{a Juan calladito}]. \\
+\text{C} +\theta \\
\end{array}
\end{equation}

These non-inflected, quasi-propositional units satisfy all necessary requirements to be considered predicative structures. Consequently, the right analysis suggests a treatment of small clauses as a single constituent X: preferir a [X … ], where X stands for the constituent Juan calladito.

\begin{itemize}
  \item a. Tengo [X [la moto] [con la rueda pinchada]]  
  \hspace{2em} have:1sPres the bike \hspace{1em} with the wheel punctured  
  \item b. Pienso en [X [mi tesis] [terminada]]  
  \hspace{2em} think:1sPres in \hspace{1em} my thesis \hspace{1em} finished
\end{itemize}
c. Vi a [x [ María] [agotada]]

see:1sPerPas María tired

Semantically, this analysis has an advantage since it allows us to think of these complements as denoting a state, a situation and an event, respectively. Stowell (1981, 1983) proposed to extend the notion subject to every category. Thus, the subject of a phrase XP should be now the argument of X which is immediately dominated by XP or, in other words, the subject of XP is the specifier of XP. Consequently, the small clause (43e) would have the following structure:

```
        PP
         P
          | XP= SmallClause
       /   \
  a     a
       DP   X’
   Juan   calladito
```

**Figure 2.16:** Syntactic Tree for Sentence (43e)

Now we are left with the task of explaining the nature of XP/SC. This constituent cannot be treated as an IP since, as I noted above, it lacks INFL. I will adopt here Stowell’s syntactic proposal for whom a small clause is defined as the projection of the constituent which acts as the predicate, the Specifier of the projection being the subject of the predicate as well as the element which is case-marked from outside the maximal
projection. Therefore, applying Stowell’s hypothesis to our examples in (43) we get the following results.

(46)  a. Tengo [\textit{PP la moto }[\textit{P'}con la rueda pinchada] ]
   b. Pienso en [\textit{AP mi tesis }[\textit{A'}terminada] ]
   c. Vi a [\textit{AP María }[\textit{A'}agotada]]

2.4 A Unified Treatment for Infinitives, Gerunds and Other Propositional Expressions

Situation Semantics\(^{17}\) (Barwise and Perry, 1983; Landman 1986; Kratzer, 1989a) offers an interesting alternative to the purely Davidsonian treatment of events. It is best suited to account for the semantics of propositional expressions such as gerunds and infinitives. Portner (1992) develops a situation based account of gerunds and infinitives in English. He takes as a point of departure Vendler’s (1967) observation about the dual nature of gerunds.

(42)  a. John denied eating the apple.
   b. John denied that he ate the apple.

(43)   Eating that apple was fun.

\(^{17}\) The central idea in Situation Semantics is that propositions are not sets of possible worlds but rather sets of possible situations. Possible situations are primitive objects which are intuitively ways a part of the world could be. Sentences denote sets of situations and a proposition \(p\) is said to describe a situation \(s\) iff \(s \in p\).
For Vendler, the gerund in (42a) denotes a proposition. That is the reason why it can be paraphrased as in (42b). Other gerunds, such as the one in (43), denote event-like entities. This general observation can be extended to Spanish infinitives (Ovalle 2005), but it is my hypothesis that it can also be extended to certain Spanish gerunds and other controversial propositional expressions. Let us consider a first set of data.

(44) a. Juan negó haberse comido los caramelos

Juan deny:3sPerPas to have-rfxvcl eaten the candy

‘Juan denied to have eaten the candy.’

b. Juan negó que se hubiera comido los caramelos

Juan deny:3sPerPas that (he) rfxvcl have:3sPasSubj eaten the candy

‘Juan denied that he had eaten the candy.’

(45) a. Comer caramelos fue divertido

to eat candy be:3sPerPas funny

‘Eating candy was funny.’

(46) a. Pepe se arrepintió de haber escalado el Everest

Pepe rfxvcl regret:3sPerPas of to have climbed the Everest

‘Pepe regretted having climbed the Everest.’

(47) a. Vi a María correr

see:1sPerPas to Mary to run

‘I saw María run.’

b. Vi que María corria.

see:1sPerPas that María run:3sPasInd
‘I saw that Maríá was running.’

(48) a. Me imagino a Juan bailando en la discoteca

cl imagine:1sPres to Juan dancing in the disco

‘I imagine Juan dancing at the disco.’

b. Me imagino que Juan baila en la discoteca

cl imagine1sPres that Juan dance:3sPres in the disco

‘I imagine that Juan is dancing at the disco.’

(49) a. Prefiero a Juan callado

prefer:1sPres to Juan quiet

‘I like Juan with his mouth shut.’

b. Prefiero que Juan esté callado

prefer:1sPres that Juan be:3sPresSubj quiet

‘I like that Juan be quiet.’

As we see in the previous examples, all (44a)-(48a) can be given a propositional paraphrase (44b)-(48b), except for the infinitive in (45a) that appears to denote an event. So that I can provide a uniform analysis for this heterogeneous type of expressions I will adopt Portner’s analysis for English gerunds. He considered that verbal gerunds always denote a proposition—i.e. a set of possible situations—but within situation semantics such a meaning can also serve the function of picking out an individual situation or event. The situations in a gerund’s proposition are all minimal situations of the relevant sort, and because they are minimal they are able to play the role of events. This will allow us to solve the apparent ambiguity between the propositional vs. eventive reading for
infinitives while allowing us also to provide a semantics for Spanish gerunds and certain types of so-called small clauses. Thus, the infinitive in (44a), repeated here, will denote the proposition in (50), ignoring aspectual considerations:

(49) Juan negó haberse comido los caramelos.

(50) past(negar(Juan)(–er(com-(Juan)(los caramelos)))) = \{ s : \text{for some } s', s' < s \text{ and } s' \text{ is past and for all } s'' \text{ which Juan denies in } s', s'' \text{ is a minimal situation of Juan having eaten the candy} \}

This proposition is the argument of the matrix verb *nagar* (‘deny’) which is a propositional attitude verb. Thus, the verb *nagar* denotes the set of situations which x denies in s or, equally, the set of situations that represent the content of Juan’s denial. (50) is the set of situations s such that the set of situations which represent the content of Juan’s denial in s contains only situations of his having eaten the candy. On the other hand, the infinitives in (45)-(47a) denote events. Although it is true that the infinitive in (47a) has a propositional reading (see (47b)), I agree with Portner’s view that infinitives as complements of perception verbs denote events in the sense that for their interpretation one brings an image to one’s mind. The translation for sentence (45a) is given below:

(51) \{ s : s \in \{ s' : g(x_j) \text{ is a minimal situation of } comer caramelos \} \text{ and } s \in \{ s' : \text{for some } s'' < s', s'' \text{ is past and } s'' \text{ is a minimal situation of } ser divertido g(x_j) \} \} = \{ s : g(x_j) \text{ is a minimal situation of } comer caramelos \text{ and for some } s' < s, s' \text{ is past and } s' \text{ is a minimal situation of } ser divertido g(x_j) \}
2.5 Event-types and Discourse Anaphora

A DR-theoretical account can be provided for problematic structures of the type illustrated in the previous section. It can also be extended to provide an analysis for infinitives and other types of anaphora like concept anaphora and VP ellipsis. What I propose is that small clauses be semantically translated as properties of eventualities. This object will be denoted by a predicative DRS with an abstracted eventuality argument place. Let us recall that fully inflected verbal phrases are given a translation of the form \( \lambda e \lambda x \varphi \) so they may combine with the translation of the INFL node. Given that small clauses lack verbal inflection, the event argument position of the translation of the small clause will be left unfilled. This will preserve the quasi-propositional status of these structures while giving them a semantic representation. As the following example illustrates, small clauses, or the entities they denote, can be referred anaphorically with a pronoun in the subsequent discourse. I believe that the denotation of a small clause is some type of eventuality as its compatibility with a traditional predicate of events like \textit{suceder} (‘happen’) indicates.

(52) Yo prefiero a [Juan calladito]. Aunque, desgraciadamente, eso, sucede muy de vez en cuando.

Thus, the DRS representation for (52) would be as in Figure 2.17:
Here, the predicative DRS $\lambda e$ K denotes the small clause [Juan calladito], where the event argument is unsaturated.

### 2.6 Attitudinal Objects

To undertake the task of explaining how human mind represents and process information is well out beyond this dissertation. As a matter of fact, this is still an open question even for those working in purely cognitive areas. Consequently, an attempt to theorizing about this subject matter here would be highly speculative and lack proper empirical basis. Nonetheless, it is my belief that we should take advantage of the study of natural language in order to try to shed some light on the nature of attitudinal objects and,
more concretely, of belief attribution. Whether this would only lead us to be able to provide a semantics for attitude reports but will not yield any structural insights into the propositional attitudes of language users I do not really know. But again the point I want to emphasize is that it appears possible to draw important clues about the likely form and organization of our attitudes by analyzing natural language. For the purposes of this dissertation, I will adopt a view of objects of belief –and other attitudinal objects- as being computational in nature. These objects would have a certain kind of finite structure on which the inference mechanisms of the ratiocinating believer can operate. As a representational theory of belief and propositions as objects of belief, DRT provides us with the theoretical apparatus we need to undertake this task. Although DRT does not say what a proposition exactly is, it implies that if propositions are to be identified with objects of attitudes they would have to be taken as having a complex structure, articulated within DRT in terms of conceptual discourse referents, individual discourse referents and logical predicates. These proposition-resembling structures are DRSs. They are not linguistic objects per se, but they do have linguistic elements in them according to the DRS construction procedure. In this respect, I agree with Asher’s view who points out that we should rather talk of contents of mental states instead of propositions. Propositions are, then, abstractions of bits of contents and structures of cognitive states which DR-theoretic structures attempt to model.

Given that I have chosen DRT as the base-theory to develop the thesis presented in this dissertation, I must, as a natural consequence, equally provide a treatment as the one given in DRT for propositional attitudes. In order to develop a model of incremental
natural language understanding, the theory articulates a system of rules—the so-called 
*construction algorithm*—which maps discourses belonging to the language, or language fragment, into certain “interpretative structures” or DRSs. The theory that DRT offers on attitudes is of a highly contextual nature. The context in which an agent’s attitudes are to be evaluated includes other attitudes of the agent for an agent’s attitudes are connected in a variety of ways to other mental states. The incremental nature of language interpretation equates with the assimilation of information by verbal means and it is in this respect that we can view DRT as a model of the processes by which the recipient of a discourse acquires new beliefs as he takes in successive sentences. In theoretical terms, this implies that the processing of new material —let us called it sentence s— produces an increment of information that corresponds to the change which processing s according to the construction algorithm in the light of the already built DRS produces in that DRS (cf. Kamp 1990). Belief formation is thus a function, according to DRT, from DRSs to DRSs that we may call an *updating*. In summary, information assimilation leads to belief formation and this process is incremental in nature. Now, the new information conveyed by a sentence or discourse fragment contributes to the content of the discourse and cannot be logically detached from the content of the preceding sentences. This leads to the assumption that the content of a new belief is associated with the agent’s other beliefs thereby creating a *belief state*. As a consequence, it is not possible to specify the truth-conditional content of each of the individual beliefs that a given individual has; rather, it will only be possible to specify the truth-conditional content of the belief state as a whole or, at most, a substantial part of it.
Given that a certain attitude is part of one’s attitudinal state we can make it the subject of further predication. Consequently, a higher-order component of a complex attitudinal state will be needed so that we can explain conditions associated with attitudes. This higher-order component will be represented as conditions which combine attitudinal predicates with discourse referents that represent propositional attitudes. So, for example, if I remember of a certain belief of mine about the president of the United States that I got such belief from a book I read two weeks ago, I am attributing to that belief a certain property. Knowing that the first belief is a belief -and not other different attitude such as a desire or an intention- is given as an inseparable feature of the attitude itself. With all these in mind, a complex attitudinal state will be defined set-theoretically as having the structure of sets of pairs, where each pair consists of (i) a mode indicator which specifies whether the attitude is a belief, or a desire, etc. and (ii) a DRS. The different DRSs may share the same discourse referents, and this may be so even when their modes differ. Such sets of pairs consisting of a mode indicator and a DRS were called by Kamp (1990) articulated DRSs\textsuperscript{18}. Representing then that there is an object of a certain kind—a belief that is held by A and which has a certain properties relating to its structure and content we require: (i) a discourse referent \( p \) representing a belief, (ii) a discourse referent \( a \) representing the believer A, (iii) a condition to the effect that \( p \) is a belief of \( a \), and (iv) one or more conditions which specify the required structural and

\textsuperscript{18} See also Asher (1993) on the notion of delineated DRS.
content properties of \( p \). Figure 2.18 illustrates the attitudinal state of a hypothetical believer.

\[
\text{(53) Bruto fue senador}
\]

\[
\begin{align*}
\text{Brutus be:3sPast senator} \\
\text{‘Brutus was a senator.’}^{19}
\end{align*}
\]

\[^{19}\text{So that DRT can provide an account of belief which fits in the postulates of a theory of direct reference it introduces the notion of external anchors. This device will allow us to endow a DRS with the truth conditions of a singular proposition by connecting it with the appropriate entity in the domain about which it intends to speak. An external anchor is a pair consisting of a discourse referent and an entity } \{\langle x,Y \rangle \}\text{ which will not be part of a DRS itself but, rather, it will only be a remainder that its truth conditions are different from those of an unanchored DRS. The DRS representation of a sentence with a directly referential expression such as } \text{Pepe es calvo ‘Pepe is bald’ would be as in (i) where } n \text{ stands for the present tense of the verb which refers to the time of utterance; and } x \text{ for the rigid designator } \text{Pepe. On the other hand, } T \text{ and } a \text{ are arbitrarily used to denote the entities to which the discourse referents are anchored.}
\]

\[
(i) \begin{array}{c}
\begin{array}{c}
\text{x} \\
\text{n} \\
\text{s}
\end{array} \\
\text{Incl(n,s)} \\
\text{s...calvo(x)}
\end{array}\{\langle n, T \rangle, \langle x, a \rangle \}
\]

Thus, with the help of an external anchor we may now say that any proposition \( p \) that is singular with respect to the individual \( a \) can be understood as the attribution of a certain property \( P \) to the individual \( a \); where \( p \) is expressed by the anchored DRS \( \langle K,A \rangle \) and \( A \) contains the anchor \( \langle x,a \rangle \), which is the property that, in any world \( w \), is true of an object \( b \) iff the anchor \( \langle A-\langle x,a \rangle \rangle U\langle x,b \rangle \) can be extended to a correlation of the remaining discourse referents in \( K \) which satisfies all conditions of \( K \) in \( w \) (\( P \) is expressed by \( \langle K,A \rangle \) with respect to \( x \)).

But the construction algorithm for DRT not only introduces discourse referents for each sentence constituent which happens to be directly referential, it also attaches to this discourse referent a sort of ‘signal’ that \( x \) is to be treated as directly linked to the entity that it represents. The identity of the entity in question will be given by the descriptive conditions on \( x \). These ‘signals’, called formal anchors, look like this in our DRSs:

\[
(ii) \begin{array}{c}
\begin{array}{c}
\text{Anch[x]} \\
\text{V_1(x)} \\
\vdots \\
\text{V_m(x)}
\end{array}
\end{array}
\]

\( \text{Anch[x]} \) constrains the role of the discourse referent in that it must be rigidly and directly linked to whatever object the descriptive conditions \( V_1(x) \ldots V_m(x) \) associated with \( x \) determine. Consequently, a condition of the form \( \text{Anch[x]} \) within a DRS \( K \) means that the referent \( x \) is formally anchored in \( K \) and the notion of a formally anchored DRS is;
A formally anchored DRS $K$ is a pair $(K,A)$, consisting of (a) a DRS $K$, which may contain one or more conditions of the form “$\text{Anch}[\ldots]$”; and (b) a function $A$ which assigns to each discourse referent $x$ that is formally anchored in $K$ a DRS $K_x$ not containing conditions of the form “$\text{Anch}[\ldots]$”. $K$ will be called the principal DRS of $K$.

Following Kamp, the idea behind the definition just provided is that the DRS $K$ determines the content of the formally anchored DRS (modulo the individuals which the formally anchored discourse referents pick out), whereas the DRSs $K_x$ have the function of picking out those individuals. It is possible to define the truth value of a formally anchored DRS $K$ with respect to a world $w$ when anchored in a world $w'$ as follows:

(iv) a. $K$ is true with respect to $w$ when anchored in $w'$ iff
   i. For each $z$ such that “$\text{Anch}[z]$” occurs in the principal DRS $K$ of $K$ there is a unique entity $a_z$ in $w'$ such that there exists a correlation between the discourse referents of $K_z$ and entities in $w'$ which correlates $a_z$ with $z$ and satisfies all conditions of $K_z$ in $w'$; and
   ii. There is a correlation of entities in $w$ with the discourse referents of $K$ which correlates with each formally anchored discourse referent $z$ of $K$ the entity $a_z$, and satisfies all predicative conditions of $K$.

b. $K$ is false with respect to $w$ when anchored in $w'$ iff
   i. as (a.i) above, and
   ii. there is no correlation as described under (a.ii).
We may go even further and postulate in accordance with the pragmatic doctrine that in verbal communication when A says something to B and B accepts it as (probably) true, B assumes that A is being sincere or, in other words, that he has a belief corresponding to what he is uttering. So B’s adopting the belief that A himself has a belief as expressed in (53) may be represented as in Figure 2.19:

Thus, the DRS $K$ which characterizes the content of the belief which B attributes to A is obtained by the same process as the representation of B’s own belief, that is, $\langle Bel, (53) \rangle$. B’s reception of the utterance *Bruto fué senador* produces some changes in $K(B)$: B
adds to $K(B)$ not only his own belief of *Bruto fue senador* -{$Bel$, (53)}-, but he also adds a belief to the effect that A holds a similar belief. Consequently, this should be the pair {$Bel$, (53)}. As a result of this, B attributes to A a belief which has the same content as that which he himself adopts. This is why the two contents are given by isomorphic DRSs in (53): the DRSs following $\vdash$. Also, DRS (53) presents a device used to represent the aspect of identity of the two beliefs. Kamp (1990) called this device internal link which is a pair $\langle x', x \rangle$ of two discourse referents which simply stipulates that those discourse referents represent the same individual or, more accurately, that they are *about the same things/individuals* 20. Asher’s development of attitude formation is in essence identical to the one presented here and due to Kamp (1990). It is, nonetheless, visually more

---

20 It may be the case, as it happens, that the participants in the conversation not only share the relevant discourse referents in a psychological or purely attitudinal sphere as in Figure 2.19. Standard communication is bidirectional and thereby not only some of B’s attitudes become dependent on those of A, but equally some of A’s become dependent on some of B’s attitudes. This idea is directly related to the notion of *common knowledge*. The link used in 2.19 $\langle x', x \rangle$ is internal to the attitudinal state of one individual. Now, if we want to represent the idea that two discourse participants share discourse referents that figure in their respective attitudinal states we need a device to indicate sharing as well as internal linking. This may be represented as in (i), where the link is external to each of the two states.

(i) $K(B)$

![Diagram](image)

$K(A)$

![Diagram](image)
transparent in that it allows better to divide attitudinal states into their component parts. By accepting sentence (54) forms a belief that can be so represented by the following DRS (K1) as shown in Figure 2.20:

(54) El senador Bruto asesinó a Julio César

the senator Brutus assassinate:3sPerPas to Julius Caesar

‘Senator Brutus assassinated Julius Caesar.’

<table>
<thead>
<tr>
<th>n</th>
<th>v</th>
<th>u</th>
<th>e</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>llamado(v, ‘Bruto’)</td>
<td>llamado(u, ‘Julio César’)</td>
<td>e &lt; n</td>
<td>e-asesinar(v, u)</td>
</tr>
</tbody>
</table>

\{ \langle v, Bruto \rangle, \langle u, Julio César \rangle \}  

Figure 2.20: Belief Formation (I)  

Let us suppose that an agent who accepts (54) has certain beliefs about the individual Julius Caesar (that he was appointed dictator of Rome for more than ten years, that he was responsible for the conquest of Britain, the defeat of the Gaul, etc.). Let us also suppose that our hypothetical agent already knows that Brutus was a senator in Caesar’s times, but he does not know anything about Julius Caesar having been assassinated.
The delineated DRS \((K1)\) which represents some of our agent’s beliefs about Julius Caesar has three well-defined parts: (i) a set of DRSs or delineated DRSs (each of which represents an agent’s particular object of belief), (ii) a set of discourse referents common to these DRSs (the universe of the delineated DRS) and (iii) a set of conditions on the DRSs which determine the type of attitude – the attitudinal mode. A condition of the form \(\{\langle v_1, \text{Brutus}\rangle, \langle u_1, \text{Julius Caesar}\rangle\}\) is an external anchor (see footnote 17) meaning that there are two individuals in the domain of the model against which the DRS is to be evaluated and who are the bearers of the names Brutus and Julius Caesar.

\[
\begin{array}{|c|c|}
\hline
e' & v_1 & u_1 & x_1 \\
\hline
K_1: \text{llamado}(v_1, ‘Bruto’) & \text{senador}(v_1) & e'\text{-asesinó}(v_1, u_1) \\
K_2: \text{llamado}(u_1, ‘J. César’) & \text{emperador de Roma}(u_1) \\
\hline
\text{creencia}(K_1) & \text{creencia}(K_2) \\
\hline
\end{array}
\]

\(\{\langle v_1, \text{Bruto}\rangle, \langle u_1, \text{Julio César}\rangle\}\)

**Figure 2.21**: Belief Formation (II)

Given our agent’s previous attitudinal state \((K_1)\) and the new belief \((K)\) built upon receiving (54), there occurs an integration of old and new information which gives rise to the delineated DRS \((K_1.a)\). This integration of information is represented DR-
theoretically as a DRS incorporation. The discourse referents declared in the universe of \((K)\) should appear now in the universe of \((K1.a)\). Thus, by accepting (54), the agent comes to believe that there is an event whereby Brutus assassinated Julius Caesar. The corresponding eventive discourse referent appears in the universe of \((K1.a)\), what amounts to an existential commitment about the existence of such discourse referent.

\[(K1.a)\]

\[
\begin{array}{|c|c|c|}
\hline
v_1 \quad e \quad u_1 \quad x_1 \quad e \quad x \quad v \quad u \\
\hline
K_1: \text{llamado}(v_1, \text{‘Bruto’}) & K_2: \text{llamado}(u_1, \text{‘J.Cesar’}) & K_3: \text{e-asesinar}(v, u) \\
\text{senador}(v_1) & \text{emperador Roma}(u_1) & \text{senado}(x) \\
\text{e’-conspiró}(v_1, u_1) & \text{en}(x, e) & u = u_1 \\
\text{conspiración}(x_1) & v = v_1 & \\
\text{contra}(u_1, x_1) & & \\
\hline
\end{array}
\]

\[
\begin{align*}
\text{Creencia}(K_1) & \quad \text{Creencia}(K_2) & \quad \text{Creencia}(K_3) \\
\{ \langle v_1, \text{Bruto} \rangle, \langle u_1, \text{Julio César} \rangle \} & & \{ \langle v, \text{Bruto} \rangle, \langle u, \text{Julio César} \rangle \}
\end{align*}
\]

**Figure 2.22:** Belief Formation (III)

Hence, the process of belief formation illustrated here can be understood in terms of a change in the agent’s attitudinal state and, therewith, in the agent’s cognitive state. Acceptance of new information generates a new belief and the new object of belief thereby created changes the agent’s attitudinal state. It is this dynamic belief formation process that we must conceive as an update function from DRSs to DRSs.
2.7 Attitude Reports

Attitude reports of the form \( x \text{ cree que } p \) ("x believes that p") will constitute the bulk of data in my study of anaphoric reference to objects of belief. From a structural point of view, X-bar theory began to analyze Comp as a functional head in the mid-eighties (Chomsky 1986b). As a functional head Comp projects a Comp phrase (CP) having its own Specifier and complements. The complement of the head C is Infl what gives rise to the following structure in Figure 2.23:

![Figure 2.23: Complementizer Phrase Projection](image)

One of the advantages of treating CP as a constituent is that it allows us to explain its occurrence in syntactic positions normally reserved for NPs such as complement of verbs and sentential subject. The verb creer (‘believe’) belongs to the set of verbs which select for a sentential complement. This point is illustrated in the following example from Spanish and its corresponding syntactic representation.
Thus, the structure of a belief report involves a verb which takes an S’ as a complement. The sentential complement introduces a subDRS representing the object of belief of the agent Juan, but which is only a portion of the agent’s total attitudinal state. This object will be a propositional discourse referent \( p \) and K a DRS characterizing \( p \). Consequently, \( \beta(x,p) \) and \( \beta(x,K) \) are conditions, where \( \beta \) stands for an attitude verb\(^{21}\). The question as to how a recipient interprets a simple belief report can be taken to be like this:

\(^{21}\) The introduction of propositional discourse referents like \( p \) or \( q \) that range over DRSs will prove convenient to allow for quantification over the DRS arguments of attitudinal relations, i.e. \( \text{todo lo que cree Juan es falso} \) (‘All of John’s beliefs are false’).
first, he has to process the report *x believes that p*. Then, as I illustrated above with respect to DRS integration, he must integrate the result of processing the report with his previous beliefs. Finally, he must integrate the DRS for the clause *p* into his representation of what he believes the agent already believes. All that amounts to a complex processing operation which comprises two articulated DRSs: a DRS which obtains from the updating of the interpreter’s attitudinal state with the new information and DRS the interpreter has for the agent. Processing of (55) yields the DRS in Figure 2.25. Notice that the condition s-cree(x, K), where K is a DRS, amounts to saying that there is a state of x believing K and K represents a portion of x’s attitudinal state and K is a belief.

\[
\begin{array}{|c|}
\hline
\text{x, s} \\
\hline
\text{llamado(x, ‘Juan’)} \\
\text{s-cree(x, )} \\
\hline
\text{y, z, e} \\
\text{llamado(y, ‘Miguel’)} \\
\text{llamado(z, ‘Oxford’)} \\
\text{estudiar medicina(e)} \\
\text{en(e, ‘Oxford’)} \\
\text{e < ahora} \\
\hline
\end{array}
\]

\{<x, Juan>, <y, Miguel>, <z, Oxford>\}

**Figure 2.25**: A Interpreter’s Initial Attitudinal State (I)

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As I anticipated above the next step in the processing of the belief report consists of the integration of the new information in 2.25 with the interpreter’s previous beliefs about the subject matter, i.e. what he knows about Miguel, about studying medicine at Oxford, etc. The communication process I am delineating here is based on the pragmatic assumption that the utterer of (55) U knows that the interpreter/hearer I knows that the agent Juan A has certain background beliefs about the subject of the embedded clause Miguel and studying in Oxford, among other beliefs he might have. The fact that the interpreter I is also familiar with the noun phrases that appear in the belief report must be somehow represented in 2.26. It will be made by means of internal links \(<<\gamma, \delta>>\) that are part of the cognitive state of the Interpreter and which indicate that a referential link has been established between the discourse referents introduced by the report with the same entities in I’s attitudinal state. Notice how in Figure 2.26 K represents R’s depiction of the agent’s attitudinal state. In order to distinguish between those beliefs that belong to A’s and I’s, beliefs within DRSs are labeled with conditions of the form believe\((x,K)\), where believe\((x_i,K)\) refers to a belief of Juan’s and believe\((I,K)\) to a belief of the interpreter’s.
Finally, we arrive to the last stage in the processing of (55) whereby the interpreter must now integrate the belief that \( p \) with the agent’s background beliefs of which the interpreter is aware (the agent’s attitudinal state). This process is made explicit in the DDRS 2.27 by means of identification of discourse referent \( \alpha \) with some discourse referent already declared in the universe of the DDRS representing the interpreter’s knowledge about the agent’s beliefs. Notice that the main articulated DRS (3.c) has only three DRS components \( K_1-K_3 \) as compared to 2.26. On the other hand, the interpreter’s representation of the agent’s attitudinal state has been augmented to three component DRSs (see \( K= \) in Figure 2.27) as a result of having integrated the content of the belief.
report (K’ in Figure 2.27) with the interpreter’s previous knowledge about the agent (K= in 2.26)\textsuperscript{22}.

\textsuperscript{22} So that he can provide the truth conditions for belief reports, Asher sets forth a few required notions. First, the content of a DRS K consists of the set of world-time pairs at which K has a proper embedding. Second, a DRS K is at least as determinate as a DRS K’ just in case the content of K is a subset of the content of K’. He also states that a belief report of the form a believes that φ is true at w relative to a given context that includes K just in case the processing of the report yields an augmented delineated DRS K’ written K+Kφ and the component of K+Kφ that is derived from the complement of the report (Kφ) approximates the content and structure of some component K* of a’s total cognitive state K at w.

(i) the content of K* is at least as determinate as that of Kφ,
(ii) there is a function f from K+Kφ into the universe of K such that for any discourse referent x (of any type) in Kφ,
   (a) the content of the DRS containing just those conditions of K* involving f(x) as an argument is at least as determinate as the content of the DRS containing just those conditions of Kφ involving x as an argument;
   (b) if x occurs as an argument of some other portion Kψ of K+Kφ, f(x) occurs as an argument to conditions in some other portion K** of K such that the content of K** is at least as determinate as that of Kψ.

With respect to our sample belief report 2.27, let us suppose on interpreting (55) that the relevant portion of the agent’s cognitive state is as represented in the delineated DRS K included within the component DRS K\textsubscript{1} of 2.27. Then, the role of K* in the definition of the satisfaction conditions is played by the rightmost component of K. On this assumption for the internally linked discourse referent e\textsubscript{1}, K\textsubscript{2}’ would play the role of K** and for z\textsubscript{2} K\textsubscript{1}’ would play the role of K** (cif. Asher 1993).
To begin with, an important point has to be made regarding the status of propositions as discourse referents. The subDRSs that characterize propositional entities can act as antecedents for discourse referents introduced by pronouns. But it is important to underline the fact that complementizer clauses (que-clauses) give only rise to subDRSs which behave like rigid terms denoting DR-theoretic structures. Thus, a subDRS $K$ will be accessible to a discourse referent $\delta$ if all discourse referents not declared in $U_K$ but occurring in $K$ are accessible to $\delta$. As we see in the following examples DRT predicts the
inaccessibility of indefinites in structural positions where subDRSs denoting propositions are available antecedents.

(56)  a. * Juan no cree que María tenga [un caballo]k.

Juan not believe:3sPres that María have:3sSubj a horse.

Pro lok cepilla todos los días.

(María) it brush:3sPress every the:pl days.

‘Juan doesn’t believe that María owns a horse. She brushes it everyday.

b. Juan no cree que [María lo trate mal]k,

Juan not believe:3sPres that María cl treat:3sSubj bad

Pero Pepe está seguro de ellok.

but Pepe be:3sPres sure of it.

‘Juan doesn’t believe that María treats him badly, but Pepe is certain of it.’

c. * Si Juanj cree que [Pedroi maltrata a un burro]k,

if Juan believe:3sPres that Pedro mistreat:3sPres to a donkey,

proj loi denunciará.

(Juan) it denounce:3sFut

pero Juan no cree que proj lo maltrate.

but Juan not believe:3sPres that (Juan) it mistreat:3sSubj

‘If Juan believes that Pedro beats a donkey, he will denounce him. But Juan
does not believe that he beats it.’

d. Si Juanj cree que [Pedroi maltrata a un burro]k,

if Juan believe:3sPres that Pedro mistreat:3sPres to a donkey,
If Juan believes that Pedro beats a donkey, he will denounce him. But Juan does not believe that.

In (56a), the indefinite is embedded within a negation operator and the attitude verb *creer*. The indefinite is not accessible to the pronoun *lo* (*it*) in the second sentence. Equally, the indefinite in (56c) which is embedded under the implication operator and the attitude verb is not an accessible antecedent to the pronoun if we stick to the requirements for accessibility as stated in DRT\(^{23}\). Nevertheless, the subDRSs constructed from the complementizer phrases in both (56b)-(56d) are accessible to the discourse referent introduced by the pronoun. The DRS that obtains from processing of discourse (56d) is shown in Figure 2.28:

\[^{23}\text{Under the wide scope reading of the indefinite in (9c) the sentence could be acceptable but I think this is not the preferred reading at all.}\]
Figure 2.28: A DRS for Sentence (56d)

The partial DRS above corresponding to (56d) shows that a treatment of subDRSs characterizing abstract entities as definite NPs is appropriate. Only under the assumption that abstract entity characterizing structures behave as the discourse referents introduced by definites can we explain the acceptability of the anaphoric link that obtains between p and the subDRS que Pedro tiene un burro. Under this premise, the subDRS would get identified with a discourse referent or delineated DRS occurring in the delineated DRS of the interpreter of the attitude report. This DRS or discourse referent would be outside the

24 The bracketed conditions [ … ] indicate incompletely processed conditions.
scope of all the operators occurring in the DRS above as it is customary of definite expressions; making it accessible thereof.

Let us consider two more examples of proposition anaphora. One of them is just a simple case of attitude report with no other embedding operators but the typical attitudinal verb *creer*. The second one instantiates an abstract entity denoting nominal *el argumento de Marta* (‘Marta’s claim’).

(57) Pepe cree que [Mark es francés]. Juan también lo cree
Pepe believe:3sPres that Mark be:3sPres French. Juan too it believe:3sPres
‘Pepe believes that [Mark is french]. John believes that/it too.’

(58) Si Juan se cree el argumento que Marta está haciendo,
if Juan rfxvcl believe:3sPres the claim that Marta be:3sPres making
entonces pro se creerá cualquier cosa.
then (Juan) rfxvcl believe:3sFut any thing
Pero pro es, simplemente, absurdo.
but (that) be:3sPres simply absurd
‘If John believes [the claim that Marta is making], then he will believe anything.
But that/it is simply absurd.’

Here, similarly to our previous examples in (56), the subcategorization frame of the verb *creer* (cf. believe) calls for a proposition as its internal argument. In the second sentence, the weak pronoun *lo* introduces a propositional discourse referent *p1* that
equally gets the propositional type from the subcategorization frame of the attitude verb. Thus, there must be an accessible antecedent of propositional type to which \( p_1 \) can be anaphorically linked. The only antecedent of propositional type is the subDRS which is built from the complementizer phrase in the first sentence. This case of abstract entity anaphora is represented in the following DRS for (57).

![Figure 2.29: A DRS for Sentence (57)](image)

With respect to (58), the DP *el argumento*… introduces a proposition discourse referent that is entered into the universe of the main DRS. This discourse referent is accessible to the discourse referent introduced by the null pronoun.
Figure 2.30: A DRS for Sentence (58)
CHAPTER 3

THE CONTENT OF SPANISH DEMONSTRATIVE PRONOUNS

The primary goal of this chapter is that of providing a detailed semantic characterization of Spanish neuter demonstrative pronouns. Although the previous chapter was entirely devoted to the issue of what it is considered a suitable antecedent for neuter demonstrative pronouns, many references will be made to abstract object anaphora in the following paragraphs too given the discourse anaphoric character of these elements.

Traditionally in the literature, pronouns in general have been considered linguistic elements having a poor descriptive content. This argument may be barely put in dispute as regards the semantics of many pronominal elements. But demonstrative pronouns and, more particularly neuter demonstrative pronouns seem to apparently have a bunch of idiosyncratic properties that may partly challenge the previous general statement about pronominal simplicity. Much of the descriptive content of neuter demonstrative pronouns presented here will be given an explanation in terms of semantic and/or pragmatic presuppositional content and most, if not all, of this presuppositional content won’t have a direct correlate in the morphosyntax.
In my opinion, this was the best solution at hand to adequately represent some of the idiosyncratic features of demonstrative pronouns in discourse, which are only visible in use but have no apparent visible realization at the morphosyntactic level. That is the case of, for example, the demonstration and uniqueness presuppositions for demonstratives as will be presented here. This novel characterization will permit us to gain a better understanding of the discourse anaphoric properties for these elements while exploring into their basic semantic nature.

3.1 Demonstrative Expressions and their Deictic Nature

As their own name clearly indicates, Spanish neuter demonstrative pronouns are pronouns which show a demonstrative component. This duality between a pronominal and demonstrative nature calls for a special treatment that may account for both linguistic realities. As a matter of necessity, the demonstrative nature of these elements forces us to naturally interpret them relative to the different theoretical proposals on demonstrative expressions that have been developed so far in the field of Linguistics. But given that the literature is vast, and demonstratives have been approached from many different perspectives I’ll have to limit myself to offer here a general picture of the most influential research made on demonstrative expressions in the subfield of formal semantics/pragmatics in recent years. These will provide with the sufficient and adequate framework to place the view of demonstratives pronouns that will be presented in this chapter.
Along with the seminal work on deixis by Bühler (1937), probably one the most influential work on demonstratives from both a philosophical and linguistic perspective has been Kaplan’s (1989). Kaplan’s theory is general in scope. In this respect, his ideas do not particularize on any subset of demonstrative expressions. Thus, the term demonstrative expression, as treated in Kaplan, covers “typical” demonstratives (this/that or this-NP/that-NP) but also demonstrative uses of non-canonical demonstratives such as third person pronouns (he/his/they, etc) Kaplan’s essential thesis is that demonstratives are directly referential expressions. Under the directly referential approach, demonstratives are rigid designators similar to, for example, proper names (John, Mars, etc.). For Kaplan, demonstratives are incomplete expressions which are only made complete by a demonstration gesture (a pointing finger, a nod, etc). Only when a demonstration ($\delta$) is performed along with utterance of the demonstrative expression (d) we obtain the complete demonstrative expression $d[\delta]$. Kaplan’s idea of direct reference is straightforward. The referent of a demonstrative does not vary with the circumstances of evaluation, once the referent of a demonstrative has been determined –via a demonstration- it is then fixed for any possible contingent circumstance of evaluation.

But what are the circumstances of evaluation? and what does it mean for a demonstrative to be directly referential as compared to other non-directly referential elements?. In order

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1 In a Russellian view of direct reference (1905), the content of a proper name such as ‘Mark Twain’ or the content of an indexical such as ‘he’ is just its referent. In other words, a singular term (name, pronoun, definite description, etc.) is directly referential if and only if its content directly fixes its extension (its reference).

2 See also Recanati (1993).
to answer these two questions we need to assume a two-level interpretation for every demonstrative expression\(^3\).

- **Character**: a function from contexts of utterance to contents.
- **Content**: a function from worlds/circumstances of evaluation to extensions.

For Kaplan, the context of utterance’s parameters, i.e., a time \(T\), a speaker \(S\), an addressee \(A\) and a pointing gesture \(\delta\) will determine the character of a demonstrative expression. Let us consider the following example:

(1) *(John’s pointing at a house while he utters:)*

Esa casa es mía.

‘That house is mine’.

Thus, for example, the content of the demonstrative *esa* in (1) will be determined by the time at which the expression is uttered, by the particular speaker and addressee of that utterance and, principally, by the demonstration associated to the demonstrative, which in turn will fix its referent. On the other hand, different worlds or circumstances of

\(^3\) Similarly, Nunberg (1992, 1993) postulates a double-step interpretation for indexical expressions. The first step in Nunberg’s account would be that of identifying the index, that is, an aspect of the utterance situation to which particular expression draws the hearer’s attention and in terms of which he can identify the content of that expression. Thus, for example, the index of the English distal demonstrative *that* would be the demonstrated object. The second step would be the identification of the expression’s content (or reference) in terms of the index. Again, the content of the demonstrative *that* will be, under this view, identical to its index but, for example, the content of the indexical expression *today* will be a 24 hour span of time containing the index. But, of course, there are alternative views for a suitable index for a demonstrative expression. Recanati’s (2005) view, while he generally agrees with Nunberg’s notion of index, thinks of the particular index of a demonstrative as a position, which can be physical or mental. Thus, the index of the demonstrative expression that man would be analyzed as ‘the man who is there’, where there indexes a place.
evaluation will determine the content of an expression. Under this view, the content of a demonstrative will vary as the contextual parameters vary, but in a given context the content will be rigid. Non-deictic expressions will have rigid characters for their content does not vary as the contextual parameters change. The content of the common noun *house*, for example, will always be the same regardless of the time when that particular expression is uttered (T), or who utters it (S).

In my opinion, the following example serves as a good illustration of the rigid view for demonstratives. But firstly, a certain contextual information is needed for a proper understanding: let’s consider the following scenario in which John is from New York and Peter is from Chicago, $\delta$ is a pointing by the speaker in the direction of Peter, who is seating in front of myself (the speaker). Then I could utter (2)$^4$:

(2) Si John and Peter cambiaran de silla...

‘If John and Peter would switch chairs ...’

a. ... el hombre al que señalo sería de Nueva York.

‘... the man I’m pointing at would be from New York’.

b. ... él [$\delta$] sería de Nueva York.

‘... he [$\delta$] would be from New York’.

c. ... este hombre al que señalo [$\delta$] sería de Nueva York.

‘... this man I’m pointing at [$\delta$] would be from New York’.

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$^4$ This example appears in Roberts (2003).
Notice how in (2a) the demonstration associated with the definite description *el hombre* (cf. the man) does not fix the referent; the demonstration does not actually play a role in determining the referent of the expression. The referent of the definite expression can thus vary with the circumstances of evaluation. If we consider, for example, the alternative world in which John and Peter would have switched chairs utterance of (2a) would be pragmatically felicitous. On the other hand, both (2b) and (2c) would be anomalous for once the demonstration (pointing in this case) associated with the demonstratives *él* and *este hombre* (cf. he, this man) has fixed the referent (Peter, the demonstratum of δ), the descriptive content of the demonstrative will be interpreted with reference to that particular context of utterance. For this reason, and given that Peter has been fixed as the referent for both demonstratives, the predicate *sería de Nueva York* (cf. would be from New York) denotes a false proposition in these sentences.

A theory like Kaplan’s in which demonstratives, as deictic elements, are treated as directly referential is able to elegantly account for canonical uses of demonstratives as the ones in (2b) and (2c) above. By canonical uses I mean here those in which the demonstrative is accompanied by a demonstration δ that fixes the referent in that particular context of utterance. Most of the times, these are typical uses of visual deixis in which the demonstratum is a physical, concrete entity in the perceivable world that surrounds the interlocutors. But there are many other uses of demonstrative expressions that do not adhere to this common contextual pattern. These cases include, but surely do not exhaust, textual deixis and discourse deixis/anaphora in its various forms. Thus, for example, as argued in Gutiérrez-Rexach (2002, 2005), there is clear evidence that go
against a treatment of demonstrative expressions as either purely referential terms –along the lines of Kaplan (1989), Perry (1993), Recanati (1993), Soames (2002)– or as purely quantificational elements (Gutiérrez-Rexach 2002). There are numerous occurrences of demonstrative expressions where there is no demonstratum in the canonical sense or, in other words, where there is no particular object to which the demonstrative may anchor its reference. As King (1999) points out, cases can be found where a proper demonstration or act of pointing and even any speaker’s reference are totally absent.

(3) Ese escalador que subió siete veces al Everest

That climber that climb-1sg.past seven times to-the Everest
debe ser un superhombre.
must to-be a superman.

“That climber who climbed seven times Mount Everest must be a superhero.”

A proper interpretation for (3) is that in which all the speaker knows is about the existence of one man who climbed Mount Everest on seven different occasions –he might have read it in a newspaper magazine or he might have been told about him-, but it is for sure that the speaker does not have a specific individual in mind in uttering (3). But in this particular case the speaker does not perform any act of pointing or demonstration and, furthermore, he is not talking about somebody who is present in the utterance situation. A theory of demonstratives as directly referential elements wouldn’t account for this type of usage. Other cases that challenge a directly referential view of
demonstrative expressions are those in which a complex demonstrative embeds a bound pronoun that, in turn, behaves as a variable bound by an external quantifier.

(4) Todo padre recuerda aquel día en que su hijo

Every father remembers that day in which his son

se emancipó.

rflxv emancipate-3sg.perf.past.

‘Every father remembers that day when his son left home’.

Given the variable nature of the pronoun the embedding demonstrative _aquel_ in (4) cannot act as a directly referential expression by any means. The interpretation of the sentence should be better viewed as a general statement about non-particular fathers and non-particular sons that left home on a non-particular day. Equally, there are cases where the demonstrative can take narrow scope with respect to the universal distributive Spanish quantifier _cada_ (cf. each), hence the demonstrative is quantificationally dependent on it.

(5) Solo se ascenderá a aquel empleado con más experiencia

Only rflxv promote-3sg.fut. to that worker with more experience
de cada departamento.

of each department.

‘Only that most experienced worker in each department will be promoted.’
The fact that the demonstrative noun phrase varies with respect to the value taken by the distributive quantifier *cada* explains the following as a possible continuation for (5): *in total ten workers will be promoted*. Here also it is clear that the demonstrative is not accompanied by a demonstration. As a matter of course, utterance of the complex demonstrative expression *aquél empleado con más experiencia de cada departamento* (cf. that most experienced worker in each department) along with an accompanying demonstration would be non-felicitous for it would cancel the distributive meaning of the quantifier *cada*. More evidence in favor of a view of demonstrative expressions as quantificational elements comes from sentences in which two quantified elements occur, each one of them containing a pronominal expression bound by the other. This type of sentences –also known as *Peter-Bach sentences*– have been traditionally viewed as evidence of the process of quantifier absorption undergone by two quantificational elements (May 1985, 1989).

(6) Every pilot who shot at it hit the Mig which was chasing him.

The crucial point here is that the crossing anaphora pattern still obtains when we substitute the definite or the universal quantifier for a demonstrative. This can be observed in the following example.

(7) Aquel estudiante tuyo que lo preparó aprobó

That student yours that it prepare-3sg.past pass-3sg.past

aquel examen que tanto temía.
that exam that so-much be-afraid-3sg.past.

‘That student of yours who prepared for it passed that test he was so afraid of.’

Demonstrative determiners, definite expressions and pronouns show a similar behavior under certain circumstances. Thus, for example, demonstratives also allow E-type readings:

(8) El Prado permitió que solo algunas de sus obras se exhibieran en el Louvre, sin embargo estas fueron las más visitadas.

‘The Prado Museum allowed few pieces from their collection to be exhibited at Louvre, but these were the most visited.’

Demonstratives also have an anaphoric character. Like definites and pronouns they can have other NPs as antecedents. In the following example the demonstrative NP ese director refers back to the NP Stanley Kubrick in the first clause.

(9) A Ana le gusta Stanley Kubrick,

To Ana to-her like-3sg.pres. Stanley Kubrick,

pero a mí no me gusta ese director.

but to me not me like-3sg.pres that director.

‘Ana likes Stanley Kubrick, but I don’t like that film director.’

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5 This example has been adapted from MacLaran’s (1982).
In other cases—we’ve already considered quite a number of examples in previous chapters—the antecedent is an abstract entity which is clausally introduced in the discourse model or needs to be somehow inferred via some inferential bridging mechanism. That’s the case in (10) where the demonstrative anaphor *eso* in the second sentence refers back to the proposition introduced by the clausal complement of *creer* (cf. believe) in the first sentence.

(10) A: Creo [que el actual presidente no saldrá reelegido].
A: ‘I believe that the current president won’t be reelected.’
B: Eso, creo yo también.
B: ‘I believe that too.’

From some of the evidence presented so far we could be initially tempted to conclude that Spanish demonstratives can be characterized as quantificational elements; at least in those cases where these elements do not show a directly referential nature. But unfortunately the picture is not that simple. Let’s recall that there are typical cases of demonstratives that clearly work as rigid designators in discourse (example (3) above a propos our discussion on Kaplan’s theory). Thus, if we accept that neither the theory of direct reference nor the quantificational view can account by themselves for the wide range of demonstrative cases, we are left with the task of either providing an alternative, homogeneous account or accept an hybrid explanation for the complex nature of demonstratives. But there have been other approaches that, in my view, account better for a higher number of demonstrative uses while elegantly providing a satisfactory
explanation for their most defining characteristics. I am referring here principally to the
general work of Roberts (2003) on demonstratives and pronouns as well as Gutiérrez-
Rexach’s (2002, 2005) on Spanish demonstratives. Here, I will adopt many of their ideas
which, I believe, are fully compatible with the treatment of Spanish neuter demonstrative
pronouns that will be presented in this chapter.

As an extension of her previous work on pronouns, Roberts gives demonstratives a
treatment akin to the one given for pronominal elements and definite descriptions. For
her, what makes demonstratives special –either in a determiner or pronominal use- will
be a particular presuppositional feature that unlike pronouns and definite descriptions
demonstrative expressions have, i.e., a demonstration presupposition. Furthermore, she
will also assume that this presupposition of a demonstration is general for all uses of
demonstratives and not only to those uses involving a deictic gesture. Roberts starts by
assuming that all demonstratives are definite, that is, they carry presuppositions of
familiarity and informational uniqueness and they, furthermore, carry a demonstration
presupposition.

A few theoretical notions should be explained so that Roberts’ account of
demonstratives can be properly understood. As a point of departure, the context⁶ of

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⁶ Roberts adopts Heim’s (1982) notion of context as the general framework to further develop her ideas on
definite expressions (definite NPs, pronouns and demonstrative NPs). For Heim, the context of utterance is
an ordered pair consisting of a set of familiar discourse referents (the Domain) and a set containing the
information in the interlocutors’ common ground about the discourse referents in the Domain (the
Satisfaction Set). Formally:

Given

✓ A model \( M = (W, A, \text{Int}) \), \( W \) a set of worlds, \( A \) a set of individuals, \( \text{Int} \) a function from basic
expressions to functions from worlds to extensions.
✓ the set of natural numbers \( N \), and
✓ \( G \), a set of assignment functions from \( N \) into \( A \)
utterance is informational (the **Common Ground** or CG). This informational context can be interpreted as a Context Change Semantic notion and, thus, any given expression will have a **Context Change Potential** or, in other words, the potential ability to change the context of utterance based on its content. The Context Change Potential of a given expression has a double nature: the presupposed content and the proferred content.

- **Presupposed Content**: what the context must be like so that the Context Change Potential can be defined for that context.

- **Proferred Content**: the asserted (non-presupposed) content which utterance of the expression adds to the context.

It is important to note that Roberts’ account of definite NPs –let’s recall that demonstratives are all definite in her theory- constitutes the presuppositional counterpart of Russell’s logical form for definite description. Thus, all definite NPs will have an existence presupposition and a uniqueness presupposition which are to be taken as the counterparts of the Russellian existence and uniqueness clauses. Contra Russell’s, the existence and uniqueness of definites are part of the presuppositional content of these

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C is a context (relative to M) iff C = (Sat, Dom), where

Dom ⊆ N is the **Domain** of C, the set of familiar discourse referents, and

Sat ⊆ W × G, the **Satisfaction Set** for C, = \{ \langle w, g \rangle : \text{for all } i \in \text{Dom}, g(i) \text{ is an individual which verifies in } w \text{ all the information the interlocutors share about } i \}\n
If in C = <Sat_c, Dom_c> the interlocutors know that i is a cat, then every \langle w, g \rangle \text{ in Sat_c} will be such that g(i) ∈ Int(cat)(w), in the model in question.
expressions and not of their asserted content. Crucial for Roberts’ theory of definite expressions and, consequently, for her theory of demonstrative NPs is the assumption that the existence of definites is informational uniqueness. What this means is that we won’t be considering existence as existence of an individual in a model but existence of a discourse referent in the domain of discourse “Use of a definite description does not entail that there is some entity in the model/world which uniquely bears the descriptive content of the NP, but only that there is a familiar discourse referent in the context which is the only element in the Domain that is entailed by the common ground to bear the NP’s descriptive content”. Thus, uniqueness has to be understood as informational uniqueness and not as uniqueness in the world.

Another crucial concept is that of Familiarity. There are two basic types of familiarity for a discourse referent that license its introduction into the interlocutors’ common ground: Strong and Weak Familiarity. The latter can be, in turn, subdivided into three subtypes.

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7 Informally, the informational existence and uniqueness is defined by Roberts (2003) “Given a context C, use of a definite description NPᵢ presupposes that there is a discourse referent i in the Domain of C which is the unique familiar discourse referent contextually entailed to satisfy the (possibly liberalized) descriptive content of NPᵢ. The formal characterization for the Familiarity and Uniqueness Presuppositions of Definite NPs are the following:

For context C = ⟨Sat_C, Dom_C⟩, if a definite NP with (possibly liberalized) descriptive content Desc is felicitous in C then

(i) \( \exists i \in \text{Dom}_C [ \forall \langle w, g \rangle \in \text{Sat}_C [\text{Desc}(w)(g(i))] \land \)

(ii) \( \forall k \in \text{Dom}_C [\forall \langle w, g \rangle \in \text{Sat}_C [\text{Desc}(w)(g(k))] \rightarrow k = i ] \),

where Desc \( (w)(g(i)) \) is true iff the individual assigned to \( i \) by \( g \) has the property denoted by Desc in a world \( w \).
• **Strong Familiarity:** the discourse referent which serves as the antecedent of the NP has been introduced in the discourse representation via utterance of a preceding NP.

• **Weak Familiarity:**
  
  (i) The discourse referent is familiar to the interlocutors either through perceptual acquaintance or simply for belonging to the common general culture.

  (ii) The discourse referent is contextually entailed.

  (iii) The discourse referent has to be accommodated or inferred from another NP which is semantically associated with it.

The taxonomy of familiarity offered by Roberts and reflected above can be subject to reformulations. As she points out, Heim (1982) considers the first subtype of weak familiarity as strong familiarity. In my opinion, Heim’s is a correct observation. In both cases the discourse referent is highly salient in the context of utterance; it has a discrete textual (NP) or situational correlate (a real world entity) which marks unequivocally the antecedent. The following examples (13)-(16) illustrate different status of familiarity for the discourse referents that serve as antecedents of demonstrative NPs. Notice that even though the use of the demonstrative in none of these examples carries a pointing gesture stricto sensu, they all presuppose a demonstration. This point will be taken over and explained later on at the end of this chapter.
(11) Mi vecino se ha comprado un bulldog. ¡Ese bicho no para de ladrar!.

‘Mi neighbor just bought a bulldog. That animal can’t stop barking.’

In (11) above, the discourse referent that serves as the antecedent for the demonstrative expression has been introduced in the discourse through utterance of the NP *un bulldog* (cf. a bulldog) in the first sentence. The discourse referent is maximally salient\(^8\) and, in consequence, is strongly familiar. In my opinion, the cases in examples (12) and (13) are also cases of strongly familiar discourse referents. In (12), the discourse referent is made maximally salient by virtue of being the actual location of the interlocutors at utterance time, and the museum can be visually perceived by the interlocutors. Likewise, although the bus cannot be perceived by speaker and addressee simply because it didn’t arrive yet, the antecedent discourse referent for the

---

\(^8\) As of today the linguistic notion of Salience is still subject to great controversy. The degree of salience of a discourse referent *x* as compared to other competing discourse referents in the same utterance situation has been characterized in terms of cognitive focus (Gundel et al. 1993) or according to a ± degree of topicality (Givon1983), being these two perspectives the most commonly cited in the semantics and pragmatics literature. Gundel et al’s Givenness Hierarchy has been extensively studied in the introductory chapter of this dissertation. Roberts (2003), calls *Sal(C)* –the salient set in the context *C*– the set of discourse referents that are salient at a certain particular point in the discourse, which is a subset of the set of familiar discourse referents in *C*, *Dom(C)*: *Sal_c* ⊆ *Dom_c*. She further assumes that there is an order of relative salience on the set *Sal(C)*, ≥salience that reflects the degree of salience of the discourse referents in *C* “Given a context *C*, use of a pronoun Pro, presupposes that there is a discourse referent *i* familiar and salient in *C* which is the most salient discourse referent satisfying the descriptive content suggested by the person, number and gender of Pro,”. She characterizes the Familiarity and Uniqueness presuppositions for pronouns formally as:

**Familiarity and Uniqueness Presuppositions of Pronouns** (Roberts 2003):

For Context *C* = ⟨*Sat_c*, *Dom_c*⟩, with the salient discourse referents *Sal_c* ⊆ *Dom_c*, if a pronoun with descriptive content *Desc* (given by its person, number and gender) is felicitous in *C* then

(i) \(\exists i \in Sal_c \left[ \forall \langle w, g \rangle \in Sat_c \left[ Desc(w)(g(i)) \right] \wedge \right] \right) \wedge

(ii) \(\forall k \succeq_{\text{salient}} i \left[ \forall \langle w, g \rangle \in Sat_c \left[ Desc(w)(g(k)) \rightarrow k = i \right] \right] \right),

where *Desc(w)(g(i))* is true iff the individual assigned to *i* by *g* has the property denoted by *Desc* in *w*, and \(\succeq_{\text{salient}}\) is a partial order over *Sal_c* \(\times\) *Sal_c* such that *x* \(\succeq_{\text{salient}}\) *y* iff *x* is at least as salient as *y*.
demonstrative NP *este autobus* (cf. this bus) should be in the interlocutors’ domain and, in consequence, be in their common ground. For it is expected that in a situation where someone is waiting for a bus that bus should be maximally salient at least for that specific person in that specific contextual situation.

(12) Context: John and Mary visiting the MOMA at New York City.

¡Me encantan estos museos de arte moderno!.

‘I really like these modern art museums!’.

(13) Context: Two strangers at a bus stop waiting for the bus to come:

Me parece que *este autobús* no llega.

‘I think this bus is not coming.’

Unlike those above, the following two examples (14)-(15) instantiate typical cases of weakly familiar discourse referents. In (14), an inferential effort by the hearer is needed in order to find the proper antecedent for the demonstrative NP *esa canica* (cf. that marble). Notice that the discourse referent is not overtly expressed in the previous sentence and thus only via inference we guess the speaker must be referring to the missing marble that is only contextually entailed. The case shown in (15), in turn, can be defined as a case of bridging inference. There is no NP in the first sentence that can unequivocally introduce a discourse referent in the domain, but rather the discourse referent must be somehow accommodated from a semantically associated trigger *una película* (cf. a movie). Thus, by virtue of the inferred association that all movies have a
director we are able to find the proper antecedent for the demonstrative NP in the second sentence.

(14) Se me han caído diez canicas y solo he encontrado nueve. Esa canica seguramente estará bajo el sofá.
    ‘I dropped ten marbles and found only nine of them. That one is probably under the sofa.’

    ‘Yesterday we watched a great movie. That director is a genius’.

The formal characterization for demonstratives as given by Roberts is provided in (18) below:

(16) **Presupposition of Demonstrative NPs**

Given a context of evaluation C, with common ground CG such that Dom_{CG} \subseteq Dom_{\text{C}}, and discourse referent S such that

\forall i \in \text{Dom}_{CG} \forall \langle w, g \rangle \in \text{Sat}_{CG} \left[\text{speaker} (w)(g(i)) \rightarrow i = S\right],

if a [+(−)proximal] demonstrative NP, with (possibly liberalized) descriptive content Desc is felicitous in C, then

(i) \exists \delta \in \text{Dom}_{CG} \land \forall \langle w, g \rangle \in \text{Sat}_{CG} \left[\text{demonstratum} (w)(g(\delta)) \land \right.

    \text{accompanies}(w)(g(\delta), \text{utterance}(\text{NP}_i))\left.\right]\land

(ii) \exists j \in \text{Dom}_{CG} \left[\forall \langle w, g \rangle \in \text{Sat}_{CG} \left[\text{proximal} (w)(g(j), g(S)) \text{ and} \right.\right.

    \text{demonstratum}(w)(g(j), g(S), \delta)\left.\right]\land

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∀k ∈ DomCG [∀ ⟨w, g⟩ ∈ SatCG [+(−)proxiimal (w)(g(k), g(S)) ∧ demonstratum(w)(g(k), g(S), δ)] → k = j] ∧ Desc (w)(g(j))] ∧ (iii) j = i ]]

where Desc(w)(g(i)) is true iff the individual assigned to i by g has the property denoted by Desc in world w; and +(−) proximal (w)(g(j), g(S)) ∧ demonstratum(w)(g(j), g(S), δ) is true iff the individual assigned to j by g is in the set of entities (non-)proximal to the speaker g(S) and is the demonstratum intended by g(S) for the demonstration g(δ).

The first clause of the presuppositional characterization for demonstratives expresses the defining presuppositional feature of demonstratives, which makes them different from other definite expressions, that is, there is a demonstration that it is familiar by virtue of belonging in the Domain of the interlocutors’ common ground.

(17) Presupposition of Discourse Deictic Demonstrative NPs

Given a context of evaluation C, with common ground CG such that DomCG ⊆ DomC, and discourse referent S such that

∀i ∈ DomCG ∀ ⟨w, g⟩ ∈ SatCG [speaker (w)(g(i)) → i = S],

if a [+(−)proximal] demonstrative NP, with descriptive content Desc is felicitous in C, then

(iv) ∃δ [δ ∈ DomCG ∧ ∀ ⟨w, g⟩ ∈ SatCG [demonstration-in-discourse(w)(g(δ)) ∧ accompanies(w)(g(δ), utterance(NP,))] ∧
(v) \[ \exists j \in \text{Dom}_{CG} \left[ \forall \langle w, g \rangle \in \text{Sat}_{CG} [\text{proximal}(w)(g(j), g(S)) \text{ and } \text{demonstratum}(w), (g(j), g(S), \delta)] \wedge \right. \]

\[\forall k \in \text{Dom}_{CG} \left[ \forall \langle w, g \rangle \in \text{Sat}_{CG} [\text{proximal}(w)(g(k), g(S)) \wedge \text{demonstratum}(w)(g(k), g(S), \delta)] \rightarrow k = j \right] \wedge \text{Desc}(w)(g(j))] \wedge \]

(vi) \[ \forall \langle w, g \rangle \in \text{Sat}_{CG} [\text{discourse-referent}(w)(g(j)) = i ]] \]

where \text{demonstration-in-discourse} is true of an individual at a world just in case that individual is a constituent (e.g., NP) in the linguistic structure of the discourse in question;

\text{Desc}(w)(g(i)) is true iff the individual assigned to \( i \) by \( g \) has the property denoted by \text{Desc} in world \( w \); and \( \text{proximal}(w)(g(j), g(S)) \wedge \text{demonstratum}(w)(g(j), g(S), \delta) \) is true iff the individual assigned to \( j \) by \( g \) is in the set of entities \textit{(non-)proximal} to the speaker \( g(S) \) and is the demonstratum intended by \( g(S) \) for the demonstration \( g(\delta) \), and discourse-referent is a function which maps a world and a linguistic constituent to the discourse referent whose introduction into \text{Dom}(CG) the constituent licenses in the discourse in that world, so that \text{discourse-referent}(w)(g(j)) = i \ is true iff the entity assigned to \( j \) by \( g \) is a constituent which has triggered the introduction of the discourse referent \( i \) into CG in \( w \). 

Roberts’ insights on demonstrative expressions can be carried over with only some slight modification to the account of neuter demonstratives that will be presented in this...
dissertation. As we already know, neuter demonstrative pronouns serve a crucial role in discourse, that is, that of helping maintain coherence and cohesion of the overall discourse via their discourse deictic and anaphoric properties. Their principal anaphoric property is that of referring back (and forward, though less frequently) in discourse to a myriad of so-called “abstract” entities that comprise, among others, facts, propositions, events, and pluralities of these aforementioned entities thereof. Here, I will propose a characterization of Spanish demonstrative pronouns as generalized quantifiers. I will follow previous research on the presuppositional content for demonstratives (Roberts (2002), Zeevat (1999), Gutierrez-Rexach (2005)) with an aim at providing an enriched DR-theoretical characterization for demonstrative pronouns that will also include information about the cognitive status of these referential expressions. This semantic-pragmatic information will be a crucial factor that will help us in resolving/interpreting demonstrative pronouns whenever they enter into abstract discourse anaphoric relations.

3.2 Neuter Demonstrative Pronouns as Generalized Quantifiers

Unlike other languages with demonstrative binary systems, Spanish instantiates a three-term system of demonstrative determiners and pronouns ESTE/ESE/AQUEL with their corresponding GENDER (Masculine/Feminine) and NUMBER (Singular/Plural) morphological variants. The Spanish demonstrative system includes a set of three neuter demonstratives which are morphologically invariant. These are the neuter forms ESTO/ESO/AQUELLO, which are pronominal elements. The present chapter and the whole dissertation will be devoted to explore the semantic and pragmatic content of these
neuter pronouns and their discourse anaphoric/deictic properties. Thus, as a point of departure, let me sketch briefly how the Spanish demonstrative system works in general.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Determiner/Pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masc.</td>
<td>Sg.</td>
<td>Este/Ese/Aquel (CN)</td>
</tr>
<tr>
<td>Fem.</td>
<td></td>
<td>Esta/Esa/Aquella (CN)</td>
</tr>
<tr>
<td>Masc.</td>
<td>Pl.</td>
<td>Estos/Esos/Aquellos (CN)</td>
</tr>
<tr>
<td>Fem.</td>
<td></td>
<td>Estas/Esas/Aquellas (CN)</td>
</tr>
<tr>
<td>Neuter</td>
<td>Ø</td>
<td>Esto/Eso/Aquello</td>
</tr>
</tbody>
</table>

Table 3.1: Demonstrative Determiners and Pronouns of Spanish

For those who are not familiar with Romance languages in general and particularly with Spanish, the multiplicity of forms as shown in Table 3.1 might appear a bit confusing at first. As I mentioned above, this is due to the fact that Spanish realizes categories such as GENDER and NUMBER morphologically. Furthermore, morphosyntactic agreement is required among the elements that realize these categories – and others- morphologically. Thus, morphosyntactic agreement regarding GENDER and NUMBER is required among the elements within the DP. This is illustrated in (18) below, where the affix –a– carries the feminine gender information and the affix –s carries number information.

(18) Las casas blancas.

The-fem.pl. houses-fem.pl. white-fem.pl.

‘The white houses’
Now the multiplicity of variants in Table 3.1 is thus explained morphosyntactically. The parenthesized Common Noun (CN) that follows most of the grammatical forms stands for its obligatoriness in their use as determiners but for its absence in the pronominal use. Notice that the three neuter elements ESTO/ESO/AQUELLO can only work as pronouns, but the rest of forms show both a determiner as well as a pronominal use. This dual possibility shown by most demonstratives is illustrated with the following two sentences where feminine singular *esa* allows for a typical determiner use of the type *esa*-NP in (19) as well as for a pronominal use (20).

(19) Quiero *esa* muñeca.

want-1sg.pres. that doll

‘I want that doll’.

(20) Quiero *esa*.

want-1sg.pres. that

‘I want that one’.

As it stands, the sentence in (19) shows an occurrence of a complex demonstrative expression (*esta*-CN). The noun is overtly expressed and utterance of the expression is normally accompanied by a pointing gesture, although this is not a necessary requirement as we will see later on. As regards (20), we let’s set a scene in which a child, facing the window of a toy store, points at a toy doll that she wants to be given for her coming birthday. In this case there is no linguistically expressed CN and, consequently, use of a pointing gesture here becomes a necessary condition for the felicitous use of the
demonstrative. Notice that in this particular case it is the child’s very pointing act that makes an object salient in the utterance situation, hence resolving the pronoun’s reference. But the pointing gesture that commonly accompanies the use of a demonstrative, be it an index finger pointing at an object, a head movement or any other gesture, is not a necessary condition for a felicitous use of the demonstrative. Even for (19), we might easily construct a context in which the demonstrative could be used, pronominally, without an ostension. The pronominal use of determiners –the so-called pronominal determiners- presented here can be arguably said to constitute a case of a pure determiner disguised as a pronoun. Regarding the series of neuter demonstrative pronouns ESTO/ESO/AQUELLO, the reason why these expressions only show pronominal but no determiner uses can be inferred from the requirement of morphological agreement. Thus, given that there are no morphologically neuter nouns in Spanish the combination DET [+neuter] N [+neuter] is not a morphologically plausible option. But despite the validity of this statement from a purely morphological perspective, the study of the semantic content of neuter demonstrative pronouns will show that some specific sort of agreement –not morphological, but rather a semantic and pragmatic one- can be postulated for these elements when they enter in abstract anaphora processes. Some particularities of this idea will be initially developed in the present chapter, and

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9 The notion of ‘context set’ (Westertåhl. 1985) has proven very useful to explain the behavior of some pronominal determiners. Thus, a context set would determine the argument that is absent from the sentence surface structure hence giving the pronominal determiner the following interpretation: D_{pron} (B) iff D (X)(B). With demonstrative pronominal determiners such as the one in (20) there appears to be no reason to postulate such a context set, for it is the pointing-act itself that unequivocally singles out the missing argument.
Chapter 5 of this dissertation will be devoted to this issue. Before we go on, let us first consider some other canonical uses of demonstratives in Spanish:

(21) (a man holding a trilobite in his hands:)  
Esto debe ser muy antiguo.  
This must to-be very old.  
‘This must be very old.’

(22) (a doctor to a nurse, pointing at a patient)  
Enfermera, ese paciente necesita una transfusión.  
‘Nurse, this patient needs a blood transfusion.’

(23) Esta palabra tiene ocho letras.  
‘This word has eight letters.’

(25) El tipo ese no para de mirarme.  
the guy that not stop of to-look-to-me  
‘That guy is staring at me all the time.’

The Venezuelan Grammarian Bello (1942) was the first scholar to characterize the differences among Spanish demonstratives in terms of a proximal/distal distinction in combination with some other parameter. For Bello demonstrative expressions were basically used to point at objects indicating their situation with respect to a person – one of the participants in the utterance situation. Thus, in Bello’s account demonstrative este would denote proximity of the object with respect to the first person (the utterer); ese
would indicate proximity of the object with respect to the second person (the addressee); and *aquel* would demonstrate an object that is distant with respect to both utterer and addressee. Bello’s characterization can be translated in terms of different valuation of the features [*+/− PROXIMAL*][10] and [*+/+ UTERER] / [*+/+ ADDRESSEE*]. A tentative definition is provided in Table 3.2.

<table>
<thead>
<tr>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
</table>
| *Este*   | [*+ proximal] [*+ speaker*]  
**Denotes proximity of the object with respect to the first person (the speaker)** |
| *Ese*    | [*+ proximal] [*+ addressee*]  
**Denotes proximity with respect to the second person (the addressee)** |
| *Aquel*  | [*− proximal]  
**Denotes that the object pointed at is distant with respect to the speaker and addressee** |

**Table 3.2: The Canonical Characterization of Spanish Demonstratives**

But upon closer inspection the picture presented above is not completely accurate. A careful study of both constructed and naturally occurring conversation from diverse corpora showed that the demonstrative determiner *ese* – and its neuter pronominal counterpart *eso* – should be better viewed as the neutral terms of a main binary distinction. Thus, the traditional tripartite system, organized on the basis of positional reference to the participants of the utterance presented above (see Table 3.2), becomes a more fluid

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[10] It will be important to bear in mind throughout this dissertation that whenever the feature PROXIMAL takes the negative value (−), the resulting − PROXIMAL can be equated to the feature DISTAL.
system reduced to a basic opposition between a proximal term *este* and a distal one *aquel*; with *ese* acting as a substitute for either of the two other demonstratives. This idea was firstly developed in Gutiérrez-Rexach (2002, 2005) and further elaborated in Gutiérrez-Rexach and Zulaica (2005, 2006) and Zulaica (2006, 2007). Basically, this idea will be maintained for neuter demonstrative pronouns but it’ll need to be slightly modified to account for the particular features of demonstrative pronouns.

Evidence in favor of this hypothesis abounds although it basically derives from two basic facts. On the one hand, speakers show a strong tendency to use *ese* in situations in which the relative-proximity relation is not relevant. In the following example\(^{11}\), one of the subjects, pointing at a car passing by, stated the following:

(26) No me gusta ese coche.

Not to-me like-3sg.pres. that car

‘I don’t like that car’.

Clearly here the relevant car is not proximal to the addressee(s) or closer to him/them than to the utterer. Thus, this example appears to go against a view of demonstrative *ese* as an element characterized by the features [+ PROXIMAL] [+ ADDRESSEE]. Similarly, in another dialogue, a student utters (27) pointing at a glass of beer that is actually closer to him than to other participants thereby making the purported semantic characterization for the demonstrative imprecise.

\(^{11}\) This example is an excerpt from one of the recorded sessions in Gutiérrez-Rexach [2005].
(27) Esa cerveza es la más cara.

That beer be-3sg.pres. the more expensive

‘That beer is the most expensive one’.

Thus a strict order theory as the one postulated by Fernández-Ramírez (1951) for Spanish demonstratives is clearly insufficient. In synthesis, his theory postulates that given a reference point \( r \) and \( d_r \), from the distance of the demonstration \( \delta \) with respect to \( r \) follows: \( d_r (\delta[este]) < d_r (\delta[ese]) < d_r (\delta[aquel]) \). But in view of the previous examples any attempt to completely characterize the system of Spanish demonstratives solely in terms of a +/- PROXIMAL feature is condemned to failure. Furthermore, demonstrative \( ese \) – and its neuter counterpart \( eso \) – show a higher rate of occurrence when compared with the other two demonstrative elements. As a matter of fact, the use of neuter demonstrative \( eso \) in natural conversation clearly supports the hypothesis of a reduction of the demonstrative system into a more basic binary distinction. But before we go on to analyze the behavior of neuter \( eso \) it seems convenient to make a more detailed exposition of the theoretical foundations that led to this theory.

Given the evidence presented so far we should accept the fact that demonstrative expressions have a heterogeneous nature. Aware of this problem Gutiérrez-Rexach (2002) developed a presuppositional account of Spanish demonstratives that satisfies their dual behavior. Following previous work on the presuppositional semantic content of demonstratives (Zeevat 1999, Roberts 2002), demonstratives are treated as denoting
determiner functions\textsuperscript{12} that, like quantifiers, introduce duplex conditions in a Discourse Representation Structure (DRS).

(28) Este perro ladra.

This dog bark-3sg.pres.

‘This dog barks.’

Thus, for example, consider how the occurrence of the complex demonstrative expression in (28) above would be given the DR-theoretical representation in Figure 3.1. The demonstrative \textit{este} introduces a duplex condition of the form $Z \ DEM \ W$, where $Z$ and $W$ are DRSs and DEM represents the quantificational force of the demonstrative determiner.

\begin{figure}[h]
\centering
\begin{tabular}{|c|c|c|}
\hline
 & ye & t \\
\hline
y & perro ($y$) & ESTE \\
\hline
ladra ($y$) & & \\
\hline
\end{tabular}
\caption{Duplex Condition Triggered by Demonstrative \textit{este}}
\end{figure}

\textsuperscript{12} Under this view, demonstrative determiners constitute functions from sets to generalized quantifiers (demonstratives) and their type is $\langle\langle e, t \rangle, \langle e, t \rangle \rangle$.\footnote{Under this view, demonstrative determiners constitute functions from sets to generalized quantifiers (demonstratives) and their type is $\langle\langle e, t \rangle, \langle e, t \rangle \rangle$.}
Yet the DRS is still incomplete. Following previous work on the presuppositional content triggered by demonstratives (Kamp, 2001a,b; Zeevat, 1999; Roberts, 2001), Gutiérrez-Rexach provides a detailed characterization of Spanish demonstratives. Zeevat, applying in turn Van der Sandt’s (1992) ideas on presupposition binding, develops the theory that the DRS algorithm first generates the presupposition/s of a certain presupposition-triggering expression as a separate presupposition DRS. The algorithm then searches the accessible part of the old DRS for an occurrence of the material in the presupposition DRS. Then, provided that the material is found, the discourse markers occurring in both DRSs are unified. Accommodation of a particular antecedent will be necessary only when there is no available antecedent for the presupposition. Assuming a model of discourse as DRT, the presuppositional content of these expressions can be represented with a presupposition DRS. Thus, for example, the initial presupposition DRS of a sentence $\beta$ would be as in Figure 3.2 below; where discourse referents $e$ and $x$ represent the utterance’s event and agent, respectively.

<table>
<thead>
<tr>
<th>$e, x$</th>
</tr>
</thead>
<tbody>
<tr>
<td>utterance ($e$)</td>
</tr>
<tr>
<td>agent ($e, x$)</td>
</tr>
</tbody>
</table>

**Figure 3.2**: The Initial Presupposition DRS for a Sentence
Now, the presupposition DRS of a demonstrative would include the condition *point* that stands for the pointing gesture carried out by the speaker in the demonstrative’s “normal” condition of use. The DRS also includes the aforementioned condition *agent* as well as the condition *time* to express that the utterance event and the pointing gesture occur at a particular point in time. In order words, there is a certain time *t* that anchors the occurrence of the utterance event and pointing act in time. All these conditions are reflected in Figure 3.3 below. Notice that the presuppositional DRS shown in this figure represents the initial presuppositional content of the demonstrative prior to introduction of its quantificational force into the discourse representation.

<table>
<thead>
<tr>
<th>e, x, e₁, t</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent (e, x)</td>
</tr>
<tr>
<td>time (e, t)</td>
</tr>
<tr>
<td>point (e₁)</td>
</tr>
<tr>
<td>agent (e₁, x)</td>
</tr>
<tr>
<td>time (e₁, t)</td>
</tr>
</tbody>
</table>

**Figure 3.3:** The Initial Presupposition DRS for Demonstratives

Thus, the initial presuppositional set for a demonstrative expression can be summarized as follows:

- there is an **utterance** *(e)*
• there is an utterer and agent of pointing (x)
• there is a pointing act \((e_1)\) (identifying a discourse entity \(\alpha\))
• there is a time \((t)\) that anchors the utterance event and the pointing event

This initial set of presuppositions will constitute the so-called setting-up context of a demonstrative in such a way that absence of that presuppositional content would make the use of the demonstrative unfelicitous. As a last step, the DRS in Figure 3.2 is updated with the DRS in Figure 3.3, which contains the demonstrative presuppositional material via a regular DR-theoretical updating function. Thus, a presuppositionally enriched DRS for the sentence \(Este \ perro \ ladra\) in (28) (cf. this dog barks) is as given in Figure 3.4 below.

\[
\begin{array}{|c|}
\hline
\bf{e, x, e_1, y} \\
\hline
\text{utterance \((e)\)} \\
\text{agent \((e, x)\)} \\
\text{point \((e_1)\)} \\
\hline
\begin{array}{|c|}
\hline
\text{perro \((y)\)} \\
\hline
\end{array} \quad \begin{array}{|c|}
\hline
\text{ESTE} \\
\hline
\end{array} \quad \begin{array}{|c|}
\hline
\text{ladra \((y)\)} \\
\hline
\end{array} \\
\hline
\langle \text{anchor \((y, \alpha)\)} \rangle
\end{array}
\]

**Figure 3.4:** A Presuppositionally Enriched DRS for Sentence (5)
In my opinion, this line of analysis for demonstratives is clearly advantageous for various reasons. On the one hand, it allows us to treat demonstratives as quantificational elements hence providing an explanation for those cases where the content of the demonstrative shows a clear variable-like behavior. On the other hand, it still allows us to maintain the more traditional view of these elements as directly referential expressions by enriching their semantic characterization with a bundle of strict presuppositional preconditions such as a pointing gesture and a certain speaker’s perspective (proximal/distal). This latter aspect on the presuppositional nature of certain semantic features will also be crucial later on when exploring into the semantics of Spanish neuter demonstrative pronouns. For the time being we will limit ourselves to the general view of demonstratives as “hybrid” elements showing quantificational and directly referential uses.

Having said that we are now in a good position to providing a first characterization for the three paradigmatic Spanish demonstratives, namely, *este* ese and *aquel* in these terms. Notice here that the following are the characterizations of demonstratives taken in isolation, that is, without the constraints that other discourse entities would impose on them in terms of box splitting or duplex conditions into the discourse structure. But it is important to keep in mind that the introduction of a discourse referent $x$ into the universe of the DRS as a required precondition for a proper set-up of the demonstrative is necessary given the existence of some ‘pointing’ and ‘perspectival’ conditions. For an act of pointing accompanying the use of a canonical demonstrative cannot be understood
without the presence in the immediate environment of an object that can be pointed at and, likewise, a perspective cannot be properly established without the existence of an entity or a point acting as an anchor upon which the perspectival analysis can be drawn.

Figure 3.5: DRSs for Demonstrative Determiners

All three terms naturally share the same universe that includes an utterance discourse referent \( e \), an agent or speaker \( x \), and a discourse referent \( y \) standing for any discrete first, second or higher-order entity that may be present in the utterance situation. But notice the differences among terms with respect to the conditions on such discourse referents. On Gutiérrez-Rexach preliminary analysis \textit{este} presupposes that the object pointed at \( y \) is proximal to the speaker, \textit{ese} presupposes that the object is proximal to the addressee and \textit{aquel} that the object pointed at is non-proximal or distal to both speaker and addressee. Naturally, all three terms equally presuppose a pointing
gesture carried out by the speaker and represented by the presuppositional condition point \((e, x)\). Notice also the existence of an addressee so that the ± PROXIMITY conditions can be properly understood within the context of utterance.

As I briefly anticipated above (see footnote 7), Westertahl’s (1985, 1989) notion of context set can be conveniently adopted in our proposal for demonstrative expressions. Thus, Gutierrez-Rexach (2002) offers a view of demonstrative determiners in terms of generalized quantifiers restricted to context sets. Semantically, this characterization includes three conditions of a presuppositional nature: the condition  \(\text{Demonstrated}_\text{utt}(C)\) indicates that the context set is demonstrated in the utterance situation. The other two conditions (proximity and cardinality) also constitute properties of the context set. Notice that the cardinality of the context set is set to 1 in every case, reflecting differently the uniqueness presupposition of definite NPs. The characterization of demonstrative determiners as generalized quantifiers restricted to context sets is given in (29):

\[
\text{este}_C^{\text{utt}}(A)(B) = 1 \text{ syss } \text{Demonstrated}_\text{utt}(C) \land \text{Proximity}(C, \text{speaker}_\text{utt}) \land \text{Card}(C) = 1 \\
\land (C \cap A) \subseteq B
\]

\[
\text{ese}_C^{\text{utt}}(A)(B) = 1 \text{ syss } \text{Demonstrated}_\text{utt}(C) \land \text{Proximity}(C, \text{hearer}_\text{utt}) \land \text{Card}(C) = 1 \\
\land (C \cap A) \subseteq B
\]

\[
\text{aquel}_C^{\text{utt}}(A)(B) = 1 \text{ syss } \text{Demonstrated}_\text{utt}(C) \land \neg \text{Proximity}(C, \text{participant}_\text{utt}) \land \\
\text{Card}(C) = 1 \land (C \cap A) \subseteq B
\]
But the presuppositionally enriched DRS as shown in Figure 3.4 is not complete yet. Notice that further additional conditions on the discourse referent $x$ have to be included in the DRS to reflect the demonstrative presuppositional content at its fullest: a CARDINALITY condition (uniqueness), a PROXIMITY condition (proximal/distal), a FAMILIARITY condition (familiar) to reflect the fact that the discourse referent that serves as the antecedent of the NP *este perro* (cf. this dog) has been introduced in the discourse representation via utterance of a preceding NP or is familiar via perceptual acquaintance (Roberts 2002); and a SALIENCE condition to reflect the fact that the aforementioned discourse referent is not only familiar but also salient among the potential candidates within the set of familiar antecedents. This is shown in Figure 3.6, and Figure 3.7 shows the complete DRS for sentence (28), once the presuppositional content of the demonstrative expression has been entered in the discourse representation structure. The expression $\langle \text{anchor } (y, \alpha) \rangle$ underneath the DRS indicates that the discourse referent $y$ is anchored to a particular individual in a model.
Figure 3.6: Enriched Presuppositional DRSs for Demonstratives

Figure 3.7: Enriched Presuppositional DRS for Sentence (5)
As the reader may have noticed from Figures 3.5 and 3.6, the presuppositional DRS for “medial” demonstrative determiner *ese* lacks an overt PROXIMITY presupposition. Instead, in *ese*’s presuppositional DRS there is now a new condition **unspecified**($y, x$) to reflect the fact that demonstrative determiner *ese* plays the role of an unspecified term, in terms of a PROXIMITY condition, in the Spanish demonstrative system. Further evidence to support this unspecificity—and a corresponding reduction from a ternary to a binary demonstrative system for Spanish—comes from the observed behavior of neuter demonstrative pronouns in a corpus-based study. Details and results of the corpus will appear in the following paragraphs and, specially, in chapter 4.

As we already know from the content of this dissertation, in their most frequent use Spanish neuter demonstrative pronouns serve the function of referring to higher order entities in discourse. For this reason I will have to modify the definitions for demonstrative determiners as given in (18) to account for those cases in which anaphoric reference is made to entities that lack spatio-temporal boundaries. In the essential I will go on treating neuter demonstratives *esto, eso* and *aquello* as **neuter demonstrative generalized quantifiers** (Barwise and Cooper, 1981), that is, functions from sets to truth-values. Briefly, the type of a generalized quantifier is $\langle (e, t), t \rangle$, denoting families of sets. A generalized quantifier can be alternatively represented with the expression $Q(\lambda x.P(x))$ which is considered a true formula if and only if the set denoted by $(\lambda x.P(x))$ belongs to the denotation of the quantifier $Q$. Thus, for instance, **ESO** $(\lambda x. P(x))$ will be considered a true formula iff the set denoted by $(\lambda x. P(x))$ belongs to the denotation of the quantifier.
**ESO.** Given their pronominal status, demonstrative neuter pronouns will show a similar behavior as any other pronominal expressions but provided they refer to abstract entities they are bound by the operation of replacing an abstract entity variable (ρ) with a salient abstract entity that needs to have been mentioned in the previous discourse.

(30) Juan vino. Eso me sorprendió.

Juan come-3sg.past. That to-me surprise-3sg.past

‘John came. That surprised me.’

(31) \([\text{Juan vino}]_n \Rightarrow \rho_n\)

\[\text{ESO}_n \Rightarrow \lambda \rho. \ Q(\rho)\]

\[\text{ESO}_n \Rightarrow Q(\rho_n)\] by lambda conversion

\[\lambda Q(Q(\rho_n))\]

sorprender \(\Rightarrow (\text{sorprender}')\) expression of type \(\langle e, t \rangle\)

sorprender(Juan vino) by lambda conversion

A brief explanation is in order about the derivation given in (31). What we encounter in (30) is a case of intersentential anaphora that must be understood dynamically. That is, the discourse proceeds incrementally and for that reason the second sentence cannot be properly understood without the contribution of the first sentence in terms of the introduction of discourse referents in the common cognitive space that both speaker and hearer share. The first utterance constitutes by itself a complete proposition: *Juan vino*. Furthermore let us assume that it constitutes an eventuality and let us represent it with the variable symbol ρ for abstract entities. The eventuality that *Juan vino* denotes
constitutes a potential antecedent for the demonstrative pronoun. Recall that eventualities and objects of belief are both equally treated as discourse abstract entities. Let us also provide it with the subindex \( n \), that is, \( \rho_n \). The second utterance, which is a continuation of the first, opens with an occurrence of the neuter demonstrative \( \textit{eso} \). I will also provide the neuter expression with a subindex \( n \) to show agreement between these elements (\( \textit{ESO}_n \)). As I mentioned above, the demonstrative elements I am considering here are demonstrative pronouns and, as such, they are taken to be demonstrative generalized quantifiers with the following set-theoretical representation, namely, \( \lambda \rho.Q(\rho) \). Given that we are translating a neuter demonstrative as a bundle of properties (the properties that \( \textit{ESO} \) has) and since properties are extensionally sets of individuals, we take the denotation of the demonstrative as a set of sets, that is, the set of all those sets \( X \) such that \( \rho \) is a member of \( X \). Formally, \( [\textit{ESO}] = \{ X \subseteq U \mid \rho \in X \} \). The lambda abstract \( (\lambda \rho) \) binds an abstract entity variable in the contextual space. Thus, via lambda conversion, we are left with the formula \( Q(\rho_n) \). Yet as it stands this formula is still incomplete.

Now that we have processed the pronoun we need to end up with the processing of the whole utterance. In the second sentence of (30), a certain property is predicated of the eventuality represented by \( \rho_n \), namely, \( \rho_n \) \textit{surprised me} or, equally, \textit{surprised me} \((\rho_n)\). The predicate (\textit{surprender}) is an entity of type \( \langle e, t \rangle \); a set of individuals. This is formally represented here with the functional abstractor \( \lambda Q. \). \( Q(\rho_n) \). Thus the function \( \lambda Q. \). \( Q(\rho_n) \) maps any property \( Q \) to the eventuality \( \rho_n \). The outcome of the operation is a truth-
value or, equally, the complete proposition \textbf{sorprender}(Juan vino). The appropriate type-cancellation operation (interpreted in a bottom-up fashion) is given below.

\begin{align*}
(32) \quad & t \\
& \langle \langle e, t \rangle, t \rangle \quad \langle e, t \rangle
\end{align*}

The discourse semantic notions on demonstrative neuter pronouns presented above can be easily translated in DRT terms. The first utterance of our sample discourse in (30), repeated here in (33), will give rise to the DRS in Figure 3.8 which includes only two discourse referents in its universe: a discourse referent $j$ standing for the individual named \textit{Juan} and an eventuality discourse referent $e$ standing naturally for the event of Juan coming. Then the corresponding conditions on those discourse referents are thus included in the main body of the DRS.

(33) Juan vino. Eso me sorprendió.

‘Juan came. That surprised me.’

\begin{center}
\begin{tabular}{|c|}
\hline
\textit{j, e} \\
\hline
\textit{Juan (j)} \\
\textit{e-venir (j)} \\
\hline
\end{tabular}
\end{center}

\textbf{Figure 3.8:} Initial DRS for Sentence (22)
The construction of the second DRS corresponding to the second sentence of (33) requires resolving the anaphoric link as a first step. Given the dynamic nature of discourse construction, the DRS in Figure 3.8 is updated via an update function that maps in its universe an abstract entity discourse referent $\rho_n$ standing for the complete DRS in Figure 3.9. It also includes an event discourse referent $e_1$ as well as a discourse referent $z_n$ that represents the content of the neuter pronoun prior to resolving the anaphor. The symbol ‘$\approx$’ stands for referential identity.

\[
\begin{align*}
\rho_n, e_2, z_n \\
\rho_n \approx \\
\begin{array}{c}
j, e \\
Juan (j) \\
e-venir (j)
\end{array}
\end{align*}
\]

\[
eso_n = z_n = \rho_n \\
e_2-\text{sorprender} (\rho_n)
\]

$\langle$anchor (Juan, $\alpha$)$\rangle$

**Figure 3.9:** Complete DRS for Sentence (22)
Notice that the condition $z_n = \rho_n$ amounts to the underspecified condition $z_n = \ ?$ but only once the anaphora has been resolved. And the anaphoric relation gets resolved for two principal reasons. One of them belongs to the very content of the neuter demonstrative. In its discourse anaphoric dimension, the neuter expression always refers to an abstract entity. Thus, in our case at hand the only available abstract antecedent for the pronoun is the abstract entity $p_n$, which was introduced in the first utterance and is now salient in the discourse situation. On the other hand, both discourse referents share the same set of features, that is, they show feature agreement. This is represented by the subindex $n$ that both elements have in common.

The characterization of neuter demonstrative pronouns as generalized quantifiers presented here can be extended and be plausibly given a representation as generalized quantifiers restricted to context sets, as the one given above for demonstrative determiners (Gutiérrez-Rexach, 2002). Naturally, the idiosyncrasy of neuter demonstratives will force us to carry out some modifications to the original proposal for determiners. The first thing we’ll need to do is to eliminate the nominal argument of the demonstrative determiner (A) for pronouns, by definition, do not have one. In consequence, we’ll need to get rid of the intersection condition between sets $(C \cap A)$, that is, the intersection of the context set and the nominal argument. We’ll keep the cardinality condition since, even though anaphoric reference to pluralities with a singular anaphor is feasible, we saw in Chapter 2 how eventualities and other abstract entities commonly sum together to form singular entities. This is again illustrated in examples
(34), (35) and (36)\textsuperscript{13}. In (34), anaphoric reference is made with the singular demonstrative pronoun *aquello* (cf. that) to the conjunction of the two eventualities in the first sentence for, in my view, although it is possible that the anaphor may be referring back to one of the two events in isolation, the most salient interpretation is that what it was really surprising was that the president was reelected and, only a few days later, impeached.

In (35), we have two coordinated nominal syntactic constructions (DP-CP) in the first sentence and the singular neuter pronoun *lo* (cf. it) anaphorically referring to them in the second conjunct. Thus, the property for a singular anaphor to refer to two coordinated abstract object referring expressions is shared by other neuter expressions.

\begin{itemize}
    \item[(34)] [El presidente fue reelegido] \text{y, sólo unos días más tarde, [fue procesado]}.
    \item[(35)] Juan lamenta [el que estuvieras en América] \text{y [el que nunca conocieras}
\end{itemize}

\textsuperscript{13}These two examples (34)-(35) appear in Picallo (2001).
a Luisa pero no lo lamento en absoluto.

Luisa but I regret at all

‘Juan regrets that you were in America and that you never met Luisa, but I don’t regret it at all.’

It may be argued that this characteristic behavior is a direct consequence of the neuter nature of the anaphor, that is, their morphosyntactic neutrality with respect to gender or number and has nothing to do with the semantics of the antecedent. But the antecedent type it has a role to play too as is shown in (36), where two proposition-denoting CPs are again coordinated but there is no neuter anaphor in this sentence. Instead we find that the verb must be conjugated in the singular form so that the resulting example is grammatical and semantically and pragmatically felicitous.

(36)  [Que el presidente sea reelegido] y [que sea procesado]

that the president is reelected and that is impeached

es/son igualmente probable/probables en este momento.

is/are equally probable at this moment

‘That the president will be reelected and that he will be impeached are equally probable at this moment.’

In view of previous examples, I’ll postulate here that the cardinality of the context set is still Card(C) = 1 for neuter demonstrative pronouns, even though the unique member of the set is, for example, a group of eventualities that constitute a thematically
coherent whole. I’ll also keep the proximity condition since, as it’ll be explained more in detail in Chapter 5, it constitutes a crucial factor when it comes to interpret the abstract deictic/anaphoric discourse relation.

\[(37) \quad \text{esto}^C(B) = 1 \, \text{syss} \, \text{Demonstrated}_{\text{utt}}(C) \land \text{Proximity}(C, \text{speaker}_{\text{utt}}) \land \text{Card}(C) = 1 \land C \subseteq B\]
\[(37) \quad \text{eso}^C(B) = 1 \, \text{syss} \, \text{Demonstrated}_{\text{utt}}(C) \land \text{Proximity}(C, \text{hearer}_{\text{utt}}) \land \text{Card}(C) = 1 \land C \subseteq B\]
\[(37) \quad \text{aquello}^C(B) = 1 \, \text{syss} \, \text{Demonstrated}_{\text{utt}}(C) \land \neg \text{Proximity}(C, \text{participant}_{\text{utt}}) \land \text{Card}(C) = 1 \land C \subseteq B\]

Now, as with the complex demonstratives of the type ESTE-NP considered in (14), demonstrative neuter pronouns esto/eso/aquello also require of a particular setting-up context that is of a presuppositional nature. A tentative setting-up presuppositional DRSs for the three Spanish neuter demonstrative pronouns are given in Figure 3.10:
But at first sight the characterization in Figure 3.10 for neuter demonstrative pronouns still calls for further explanation. There is clearly a demonstration in some typical uses of neuter demonstratives, that is, an overt index finger pointing act or any other type of pointing gesture (a nod, a gaze towards the intended object, etc.), as in example (35):

(35) (a mother to her child pointing at a pile of toys scattered on the floor)

¡Recoge todo esto inmediatamente!

‘Put all this away right now!’

But the most common use of neuter demonstrative pronouns in discourse is that of anaphorically referring to abstract discourse entities that have been previously introduced...
in the discourse and for that particular purpose they are not commonly accompanied by a canonical pointing gesture. Now the question arises as to what is the necessity of maintaining a demonstration presupposition in the characterization of neuter demonstrative pronouns, or even if this presupposition is necessary at all. Here, I will advocate for keeping the demonstration presupposition in the semantic characterization of neuter demonstratives. I’ll defend here that this demonstration presupposition of neuter demonstratives, although naturally not an overt pointing gesture but rather a psycholinguistic mechanism inherently contained in the semantics of these pronouns, serves to direct the hearer/addressee’s attention to a unique abstract (or neuter, genderless) “demonstratum” which is merely cognitively activated in discourse—in Gundel et al’s terminology (see again the Givenness Hierarchy in Chapter 1 and the explanation contained therein)—Thus, neuter demonstrative pronouns would still retain a demonstration presupposition in their setting-up context that will help the interlocutor/s to look for a particular type of abstract discourse entity from a potential set of familiar discourse referential candidates. The revised presuppositional DRSs are illustrated in Figure 3.11:
In my opinion, this hypothesis is convenient for two reasons. On the one hand, it allows us to very uniformly characterize all type of demonstrative uses (be it determiner uses or purely pronominal, with or without an explicit deictic gesture). On the other, it consistently observes previous other current research on demonstratives. Thus, it adheres to Roberts’ (2002) view pronouns in that they presuppose a familiarity condition for the discourse referent but, in the case of neuter demonstrative pronouns, we have redefined this familiarity of the referent as activated. Let us recall once more that the antecedent of a neuter demonstrative is a discourse entity not perceptually accessible in the context of utterance and, therefore, the referent cannot be pointed at. But the referent of a neuter demonstrative is cognitively accessible because the speech participants have it mind for they have located it in the previous discourse or, as Recanati (2005) points out *a propos*...
anaphoric pronouns in the mental representation resulting from the hearer’s processing of the previous discourse. This type of salience will be discourse salience.

As the reader can observe from Figure 3.11, the characterization for neuter demonstrative *eso* retains the unspecified condition that relates to PROXIMITY while neuter demonstrative pronouns *esto* and *aquello* still retain a proximal and a distal condition, respectively. This fact, in line with the characterization already provided for demonstrative determiners (see Figure 3.6), supports the hypothesis of a reduction of the traditionally considered Spanish ternary demonstrative into a binary system with two elements marked for proximity (*esto* and *aquello*) and an unmarked, proximity-unspecified term (*eso*). Some data supporting this hypothesis will be given in the next section (for additional details on the corpus-based study, please refer to Chapter 4).

3.3 A Study of Demonstrative *eso* in Conversation

As we have already seen, the discourse referential properties of neuter demonstrative pronoun *eso* as compared to *esto* and *aquello* in Spanish discourse present some initial evidence supporting the reduction hypothesis from a ternary system of demonstrative reference into a binary one. Some extra evidence comes from the attested behavior of neuter demonstrative *eso* in short answers. For the purposes of this dissertation we will be considering occurrences of neuter *eso* as they commonly appear in certain Spanish expressions from colloquial everyday-conversation dialogue. As a point of departure, let us consider a few examples that illustrate this point:
(36) A: Creo que hoy deberíamos ir al cine

‘I think we should go to the movies today.’

B: Eso, eso (*esto/*aquello)!

‘That’s great!’

In (36), speaker B replies affirmatively to A’s proposal with the neuter pronoun *eso*. Interestingly, there is no possibility for the speaker to use a concatenation of either *esto, esto!* or *aquello, aquello!*. In this example, speaker B is clearly referring anaphorically to A’s belief that they should go to the movies; an abstract referent with no apparent spatial boundaries. Consequently, there is no need for the speaker to be relevant along a spatial dimension. Similarly, in (37) the short answer *eso digo yo* uttered by B confirms the statement made in A’s utterance.

(37) A: Juan es un prepotente.

‘Juan is very arrogant.’

B: ¡Eso (*esto/*aquello) digo yo!

‘I agree.’
Here again, the use of the neuter demonstrative *eso* is the only valid alternative, while use of *esto* or *aquello* being clearly infelicitous. As it was the case with (36), *eso* refers anaphorically to what A has just said, that is, A’s opinion about the nature of a certain individual which is likely to be salient in the context of utterance. The critical fact here is that, when using the neuter *eso*, the speaker does not refer to that particular individual but, rather, to A’s whole statement.

The fact that demonstratives *esto* and *aquello* do not appear in short answers in dialogical discourse —where reference to propositional objects is to be made— shows that the proposed reduction of the Spanish demonstrative system into a binary one is on the right track. Example (38) illustrates a case in which reference is made to a proposition with the neuter demonstrative *eso*.

(38) A: ¿Te refieres a lo que te acabó de decir?

‘Do you mean what I just said?’

B: No, no me refiero a eso (*esto/*aquello)

‘No, I don’t mean that.’
The occurrence of *eso* in B’s response anaphorically refers to something that has been previously uttered by A. A careful review of natural data from electronic corpora revealed zero (0%) occurrences of either *esto* or *aquello* in short answers in cases where reference was made to propositional objects.

Additional support comes from some special occurrences of neuter proximal demonstrative *esto* in Spanish. When we compare the uses of neuter *eso* in short answers and continuative *esto* in (39) below, a clear differential behavior can be observed:

(39) Esto … me parece que llegamos tarde.

This … rflxv seem-3sg. that arrive-1pl.pres. late

‘Mmm … I think we are getting late.’

In its continuative use, *esto* does not have anaphoric or even deictic content. Here, its role is only that of a specialized discourse connective: a discourse marker with an introductory/presentational role in discourse. The use of *eso* or of distal *aquello* with the same use yields an ungrammatical result. The ungrammaticality of neuter *eso* in its continuative role can be explained by the fact that continuative uses lack an anaphoric character. In other words, demonstrative *esto* in (12) does not refer to a proposition or any other object that has been mentioned in previous discourse.

In summary, language users take advantage of the presuppositions and content-related conditions of different demonstratives to express nuances in demonstration or
perspective association. The fact that Spanish neuter *eso* is the only demonstrative expression that appears in short answers anaphorically referring to propositional objects supports the hypothesis that the semantic content of *eso* does not have a proximity presupposition. Given the fact that propositions are higher-order entities that lack spatio-temporal boundaries, use of neuter proximity-vacuous *eso* is the preferred element for speakers when the relative-proximity notion is not relevant for the purposes of the conversation. As a consequence, the use of *esto* or *aquello* in the same linguistic environment is clearly not allowed due to the fact that these elements are not spatially neuter. They still have a proximity presupposition in their semantic characterization, i.e. *esto* [+ proximal] and *aquello* [− proximal].
CHAPTER 4

A CORPUS-BASED STUDY OF DEMONSTRATIVE PRONOUNS

4.1. Preliminaries

This chapter presents the general findings after an empirical corpus-based study on discourse anaphoric processes in Spanish. Chapters 2 and 3 were devoted to the study of the most common types of abstract objects that can be found in Spanish discourse and the neuter demonstrative anaphors that most frequently appear in discourse anaphora, respectively. Here, the emphasis will be put on the nature of the antecedent-neuter anaphor relationship that can be found very commonly in natural conversation. The data thus obtained will allow me to describe the most common pragmatic uses and speaker’s preferences regarding this type of long-distance discourse dependencies. In Spanish, there are a range of pronouns that appear to serve an anaphoric function in discourse, i.e., the third person pronoun lo (cf. it) and pronoun ello; that is, to anaphorically refer back to entities that have been previously mentioned in discourse. The latter being much less frequent than the former in modern Spanish. To be consistent with the content of this dissertation I’ll focus this corpus-based study on the three neuter demonstrative pronouns esto, eso and aquello.
Spanish neuter demonstrative pronouns—as well as their counterparts in other languages—show a clear anaphoric behaviour in discourse for they appear to simply act as pronominal substitutes of some discourse entities. The common use that I’ll be exploring in this chapter is that in which demonstrative pronouns lack an explicit pointing and, their referential domain seems to be restricted to the surrounding text. It is in this respect that neuter demonstratives differentiate from other demonstrative expressions and even from other uses of demonstrative pronouns. Let’s recall that in some particular situations a neuter demonstrative pronoun can also be accompanied by an explicit ostension when the object pointed at has no clear grammatical gender because of its unspecific nature, or simply because the speaker does not want to be clear about the particular gender of the object pointed at.

(1)  
   a. (A man pointing at an undefined object moving in the dark, while he asks:)

   ¿Qué es eso de ahí?
   ‘What’s that over there?.’

   b. ¿Qué es esa cosa que se está moviendo ahí?
   ‘What’s that thing moving over there?.’

   c. (A man asks his partner after hearing an unfamiliar sound in the house)

   ¿Qué ha sido eso?
   ‘What was that?.’

   d. (A mum that just discovered a puppy hidden in the house and asks her son for an explanation)
¿Qué es esto?, ¡te he dicho mil veces que no quiero perros en casa!

‘What’s this?, I told you a thousand times dogs aren’t allowed in this house!’

Thus, for example, (1a) shows a typical use of a neuter demonstrative pronoun along with a typical pointing act. Use of a neuter pronoun in this particular context is triggered by the undefined nature of the entity pointed at. Naturally, an alternative determiner use exists as shown in (1b) esa cosa (cf. that thing) where the noun cosa reflects the undefined nature of the entity pointed at. The occurrence of the neuter demonstrative in (1c) is similar to the previous ones but in this case there is no ostension accompanying the use of the pronoun. Finally, in (1c), the speaker seems to be using the neuter demonstrative pronoun intentionally although the entity referred to is known and familiar (a dog). Thus, un perro (cf. a dog) is a grammatically masculine noun in Spanish, but the speaker doesn’t use the demonstrative expression este perro, but rather doesn’t want to be explicit about the particular grammatical gender. But despite these specific uses of neuter demonstratives, in their most frequent use the context of utterance seems to have been entirely transported from the physical, real-world domain to the textual domain. Whereas the pointing act completes the meaning of most demonstrative expressions by making the object pointed at salient and/or disambiguating a potential multiplicity of referents in the utterance situation, the absence of it can only be given a pragmatic explanation in terms of familiarity of discourse referents and cognitive focus. We saw in chapter 3 how despite of their characteristic anaphoric behaviour neuter
demonstrative pronouns still retain some deictic properties which are common to all
demonstrative expressions. Like other demonstratives, a proper characterization of
Spanish neuter demonstrative pronouns *esto*, *eso* and *aquello* should necessarily include a
distance parameter relative to the deictic center –the speaker or origo- that may explain
the pragmatic difference among terms. Neuter demonstrative pronouns in discourse
anaphoric uses are accompanied by a pointing which is not over but rather
presuppositional in nature to help the addressee to find a referent within the set of
familiar discourse referents, which is activated in Gundel et al.’s (1993) terminology. In
summary, the dual anaphoric and deictic nature of neuter demonstrative pronouns
explains why the term *anadeixis* has been recently coined to explain what it seems to be
a hybrid, and most of the times, confusing linguistic behaviour.

Despite the existence of well-defined abstract entities such as propositional entities
syntactically realized as complementizer phrases, or events which semantic existence can
be confirmed by their co-occurring with typical predicates of events, the special nature
of the discourse objects “pointed at” via discourse anaphora makes their characterization
too dependent on the researcher’s intuition sometimes. Inevitably, any fine-grained
semantic study of abstract antecedents and their correlation with different types of
anaphors calls for a clear characterization of the types of objects we will surely
encounter. No matter whether these are propositions, states, events or any other higher
order semantic discourse entity. But unfortunately, the conceptual line between them is
sometimes blurry. Many times the difficulty is principally due to the physical textual
space itself. Thus, a proper antecedent can be located several sentences backwards, being disrupted or even requiring a hard inferential process by the part of the researcher to be found. On the other hand, the lack of a complete and ultimate ontology of abstract discourse entities complicates this issue still further for it is commonly the case that the researcher comes across some referential type that, as far as form is concerned, does not fit any of the known classes of abstract entities. All these circumstances together seem to conspire against an ultimate explanation for the phenomena described here. In the last years a considerable amount of corpus research has been done that shed some light into the intricate nature of discourse anaphora (Byron, 2002; Passonneau, 2004; Poesio and Modjeska, 2005; Gundel et al, 2005, Artstein and Poesio 2005a-b) \(^1\). Unfortunately, as of today no annotated corpora for abstract entities in Spanish exist that can be used in this type of research. Future investigations in the field of abstract anaphora would eventually provide a comprehensive and full inventory for this class of objects. Once this happens, computational linguists will undertake the task of implementing annotated corpora with an aim at better explaining abstract anaphora resolution mechanisms. For all this, the analysis sketched here is naturally far from being an exhaustive account of how discourse anaphora functions in Spanish. Yet the chapter does, I believe, succeed in giving a general picture of the pragmatics of this linguistic phenomenon.

\(^1\) I’d like to mention in particular some recent work by Artstein and Poesio (2006), where they carried out an experiment based on the TRAINS corpus (Gross et al. 1993) to assess the feasibility of identifying discourse anaphoric relations using a fairly unconstrained annotation format and a fairly large number of annotators. In this study, many of the potential antecedents to anaphors were abstract in that they didn’t have a well-delimited antecedent. In general, many annotators converged on roughly similar text regions as antecedents. These results seem to confirm that designing annotated corpora for abstract entities is a feasible task and that these type of corpora will eventually contribute to a more systematic study of discourse anaphora.
4.2 A Study of Demonstrative Pronouns in Spoken Discourse

The study presented here is based on the Corpus de Referencia del Español Actual (the CREA corpus) of the Real Academia Española de la Lengua, which can be accessed on-line at http://corpus.rae.es/creanet.html. In my opinion this is the most comprehensive corpus of modern Spanish that can be consulted today in terms of size and scope of variation although it also has a serious limitation for its absolute lack of morphosyntactic annotation. Notwithstanding this restriction, the CREA corpus has some advantages over other Spanish corpora from among which we may highlight a great variety of texts to choose from (journalistic, scientific, etc.) as well as the possibility for the researcher to vary queries from the written to the oral text type. For the purposes of this chapter, I have focused the investigation on spoken and written texts separately and I have geographically restricted my corpus queries to peninsular Spanish. Thus, this chapter section will present the findings on the discourse anaphoric behaviour of neuter demonstrative pronouns in spoken discourse.

The search procedure was kept as simple as possible. For those not familiar with the CREA corpus I will present a brief sketch of it here. By inputting the neuter demonstratives esto, eso and aquello in the search I was able to retrieve the whole paragraph(s) where the occurrence of the demonstrative was found. Only then I carried out the task of looking for the proper antecedent in the surrounding text. In order to be able to gather both small letter and sentence initial occurrences, the first letter of each demonstrative was substituted by a closing question mark (?) in the query. As expected,
the total number of demonstrative per type was still really high. Thus, the initial figures were as follows: 5,883 occurrences of demonstrative pronoun *esto*, 13,112 occurrences of demonstrative pronoun *eso*, and 533 occurrences of demonstrative *aquello*. The percentages are shown in Figure 4.1:

![Pie chart showing the initial number of occurrences for each demonstrative pronoun.](image)

**Figure 4.1**: Initial Number of Occurrences in Spoken Corpus (per demonstrative)

The high number thus initially obtained made a one-by-one analysis of cases unfeasible. Thus, the data had to be filtered out to get a final total result of 36 cases for each demonstrative pronoun in spoken discourse. I considered this to be a representative sample of occurrences from which to be able to get a series of generalizations regarding their discourse referential properties. The CREA corpus search interface filter allows us to maintaining the number of documents where the occurrences under scrutiny have been found. This constitutes a very convenient feature for it allowed us to keep the sample as
varied and unbiased as possible. The filtering steps that were taken to reduce the initial sample are shown in Tables (1-3).

<table>
<thead>
<tr>
<th>Query: ?sto</th>
<th>Initial Output:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.883 cases in 650 docs.</td>
</tr>
<tr>
<td>1st Filter</td>
<td>Ratio 1/10 on documents: 694 cases in 65 docs.</td>
</tr>
<tr>
<td>2nd Filter</td>
<td>Ratio 1/10 on cases: 70 cases in 38 docs.</td>
</tr>
<tr>
<td>3rd Filter</td>
<td>Ratio 1/10 on cases: 38 cases in 38 docs.</td>
</tr>
</tbody>
</table>

Table 4.1: Filtering Conditions and Results for Demonstrative Pronoun esto.

Table 4.1 shows an initial number of 5.883 cases of proximal demonstrative pronoun esto initially distributed in 650 different documents. As I mentioned above, the number was really high so I applied three consecutive filters to narrow down the query. These filtered the data at a ratio of 1/10 each, that is, they kept occurrences of the demonstrative as well as documents at a rate of 1 out every 10. The last two filters kept the number of documents unchanged, hence getting a final result of 38 cases and 38 documents or, in other words, a single occurrence of the demonstrative under scrutiny per document. Ideally, the more varied the number of documents where these occurrences are found the less biased the sample will be. Let us remind that the database search options I chose were España (as per geographical condition), Oral (as per type of discourse) and Todos (as regards text type). As shown in Table 4.2, the initial number of occurrences of demonstrative eso was significantly higher (13.112 occurrences in 713 documents) as compared to demonstratives esto and, especially, aquello. For that reason the filter had to be ran here a fourth time to get a final similar result of 36 occurrences in 36 documents.
Notice that the second filter shows a ratio of 1/2 to narrow down the output to a number equal or close to the one for demonstrative *esto*.

<table>
<thead>
<tr>
<th>Query: <em>eso</em></th>
<th>Initial Output:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Filter</td>
<td>Ratio 1/10 on documents: 1,228 cases in 72 docs.</td>
</tr>
<tr>
<td>2nd Filter</td>
<td>Ratio 1/2 on documents: 595 cases in 36 docs.</td>
</tr>
<tr>
<td>3rd Filter</td>
<td>Ratio 1/10 on cases: 71 cases in 36 docs.</td>
</tr>
<tr>
<td>4th Filter</td>
<td>Ratio 1/10 on cases: 36 cases in 36 docs.</td>
</tr>
</tbody>
</table>

**Table 4.1**: Filtering Conditions and Results for Demonstrative Pronoun *eso*.

Finally, Table 4.3 shows the filtering conditions and overall results for the distal demonstrative pronoun *aquello* in spoken discourse. When compared with the other two demonstratives, *aquello* shows a significantly lower rate of occurrence (only 533 occurrences in 232 documents), which only represents a frequency of a 3% out of the total number of cases found in the spoken corpus for all demonstrative pronouns together. Consequently, data only had to be filtered out only twice to get a final result of 40 occurrences in 39 documents. Now, in order to get the same number of cases for each demonstrative I picked up the final figures of demonstrative *eso* as a fixed reference and rounded up the numbers of *esto* and *aquello* to that figure by randomly eliminating 2(2) and 4(3) occurrences (and documents) of these demonstratives, respectively. That made a total number of 36 cases in 36 documents for each demonstrative.
Table 4.2: Filtering Conditions and Results for Demonstrative Pronoun *aquello*

Having thus obtained an equal set of occurrences per demonstrative the next step was to analyze them more carefully in order to find the antecedent and semantic referent for the anaphors. In order to do so, I retrieved the paragraph -or a larger piece of discourse- where each token was found and looked back (or forward) for the mentioned suitable antecedent. A more detailed description and analysis of the data will be presented in the next paragraphs along with some relevant transcriptions of examples. In terms of frequency and type of antecedent, an initial look at the data shows a heterogeneous referential usage by speakers. Thus, Spanish neuter demonstratives are used to refer to a very diverse ontology that ranges from the more concrete *visual deixis* to the more abstract *proposition anaphora* cases. The label *visual deixis* makes reference to the purely deictic uses of neuter demonstrative pronouns and, consequently, they do not belong in the phenomenon of *abstract discourse anaphora*. But given the fact that we are dealing with naturally occurring oral discourse that has been transcribed to be included in a corpus database, cases of *visual deixis* naturally show up. As we know, in visual deixis usage there is always a physical, non-textual object in the context of utterance that is pointed at by the speaker. Obviously, the pointing may then only be inferred when it is transported from a real world discourse situation to the written
domain. Nevertheless, they have been included in the study for after all, they constitute a particular use of neuter demonstrative pronouns.

The first set of data is provided in figure 4.2 below. Notice, for example, that proposition anaphora appears to be the preferred referential use of neuter demonstrative pronouns in Spanish with a frequency of a 26% (28 occurrences). But note that propositions, events (10%) and perhaps evoked deixis cases too (9%) could be all put together under the unique, comprehensive group of abstract entities. In that case, the so newly-formed group of abstract entity anaphora would eventually represent an approximate 45% out of the total number of occurrences that constitute the basis for this study. If I decided not to group propositions and events together –contravening the usual practice in the literature on higher-order entity anaphora- it was just for this paper to be as descriptive as possible regarding the semantic nature of the antecedent. Notice also the high frequency of occurrence of those cases labeled as ‘other uses’ as well as an, unfortunately, considerable percentage of undefined cases (9%). I must say I thought the amount of cases of visual deixis would be higher given that the study is based on oral discourse – very much of the data consisting of naturally occurring conversations from television and radio broadcasts- Thus, a 8% may be considered a low percentage of occurrence for the category labeled as visual deixis. Let’s keep in mind that demonstratio ad oculos naturally occurs when the object pointed at can be visually perceived by the participants in the conversation. An example for each of these referential types will be given in the following paragraphs.
As I mentioned a few lines above, the task of “isolating” the antecedent of a neuter demonstrative pronoun is very frequently confusing and dependent on the annotator’s judgment to a degree higher than desired. For this reason, the difficulty of finding the right antecedent to a pronoun makes any approach to abstract anaphora resolution a challenge as regards drawing any final or permanent conclusions. Thus, for example, I have found a relatively high number of cases in this corpus study where I simply could not find a suitable antecedent to the demonstrative or I could not well discern from among potential antecedents. Due to this obstacle, I decided to label this type of

Figure 4.2: Number of Ocurrances by Type of Referent in Spoken Discourse
problematic cases as referentially unspecified with respect to their textual antecedents. One of these cases is provided in (2):

(2) DOCTOR: Pues entonces lo más probable a lo mejor Que luego le vino ya que has estado algo al empujar el coche Si ha estado delicado, eso sí, eso ya sí. Pero que lo malo es que le han dicho que en cualquier momento se le puede repetir.

PATIENT: Sí, puede repetir, pero bueno, se puede no lo contrario no se puede decir, pero vamos, si tienes cuidado normalmente no no vuelve.

DOCTOR: Lo que pasa es que el ¿Esto fue antes o después?

PATIENT: Esto, después.

The brief discourse in (2) is a conversation between a doctor in medicine and a patient who got surgery very recently. At some point in the conversation the doctor interrogates the patient: “¿esto fue antes o después?” to what the patient replies: “esto, después”; but no clear antecedent to either occurrence of neuter pronoun esto could be found in the preceding discourse. I might have speculated about some feasible potential antecedents for pronoun esto but I simply preferred to collect this case of discourse anaphora into the group of unspecified items. The source of unspecificity can be of a varied nature. It may be due to ambiguity, that is, having two or more equally salient potential antecedents from which it is barely possible to choose the proper one without a great deal of hesitation. But more commonly, it is the lack of contextual clues and/or insufficient text that impedes us to find the proper antecedent. It is worth mentioning that the fragment of text that can be retrieved from the corpus is quite limited, hence
constraining the search. In the other pole of the scale, we find unambiguous, straightforward cases where the antecedent of the neuter demonstrative is a nominal phrase (NP). In these cases the discourse referential properties of the neuter demonstrative parallel those of the adnominal demonstratives of the type *este-NP/*ese-NP/*aquel*-NP, like in the following discourse (3):

(3) … todo esto podemos hacerlo antes de hacer fabricar ni un solo mueble. , repito, nosotros vamos a ver una fotografía de cómo quedaría nuestra cocina una vez terminada, y sobre esa fotografía empezamos a trabajar, a cambiar cosas. Hacemos otra segunda fotografía, otra tercera, las que sean precisas hasta dar con el di el diseño perfecto, que a ti te va a gustar, que va a quedar acorde con tus necesidades o gustos. O sea, que un consejo es que las personas que vayan ya para escoger o para mirar, para ver esos muebles de cocina, es que se lleven, por ejemplo, las medidas de su cocina. Es un sistema muy habitual, pasar por los establecimientos con unas medidas. Tampoco nada profesional, algo un poquillo, en fin, sencillo, pero que nos sirva para trabajar. Y sobre eso, repito, en unos pocos minutos vamos a tener pues esta fotografía de tu cocina una vez terminada, cómo quedaría una vez terminada.

Clearly, the referent of the underlined demonstrative neuter pronoun *eso* is the full-fledged NP *las medidas de su cocina* that can be found a few sentences backwards in the discourse. Notice however how the full NP is subsequently mentioned in the next two sentences ahead via a shorter NP *unas medidas* and the pronoun *algo* right before the
introduction of the demonstrative. Thus, the NP *las medidas de su cocina* can be said to be a discourse topic while its subsequent mentioning is just a way of coherently maintain the same topic as discourse develops. This is just a paradigmatic case of what is commonly referred to in the literature on anaphora as NP anaphora. The notions of endophora and exophora have been extensively used in the field of Pragmatics to provide an explanation for the special discourse properties of demonstratives and other grammatical elements. Put it briefly, the endophoric and exophoric phenomena constitute anaphoric processes whereby the antecedent is to be found within or beyond the text limits, respectively. The following discourse –a radio interview in which the interviewee, a football player, mentions some particulars about his current situation in his club- will help us illustrate this point.

(4) A: … a mi estilo, y mi estilo no es no es uno más que el que he llevado, ¿no?
Q: ¿Cuándo se irá del Rayo?
A: Yo terminaré deportivamente mi compromiso con ellos espero el domingo, que eso significará que mis compañeros hayan luchado para sacar un resultado favorable y que…
Q: ¿Y luego?
A: Y después el contrato termina el treinta de junio. Entonces yo he dejado zanjado el miércoles, en la rueda de prensa que hice, y por supuesto que esperaré acontecimientos. Por supuesto que estoy dolido. Sí. Y estoy enfadado por lo acontecido, que yo no he sido el causante de que haya sucedido esto, porque lo de la elección quedó aclaradísimo para todo el mundo, lo del tema
personal ha quedado también aclarado absolutamente y luego lo del tema gracioso o raro, lo del tema de los análisis, que que bueno los resultados parece que llegaron hoy, y entonces ahí estoy.

In my opinion, the proximal pronoun *esto* in the last paragraph is used by the speaker to refer to the particular situation he is going through in the football club he belongs to at that time. But, crucially, there is no specific syntactic construction that can serve as the antecedent, not even a particular piece of text beyond the sentential limits with well-defined boundaries that could be claimed to be a proper antecedent to the pronoun. This case and similar ones I decided to collect under the category of eventualities\(^2\). The crucial point here is that the referred eventuality or situation has to be somehow inferred\(^3\) from the clues that the interviewee progressively gives us as discourse unfolds. Thus, the situation can be said to have been deconstructed into smaller situational parts that form all together a proper antecedent situation to the pronoun. More precisely, it is the hearer/reader who puts all this pieces together into the shape of a situation. This, obviously, has to be understood from the discourse processor’s perspective. For the other role, the speaker’s, does not require any kind of special inferential effort, that is, the speaker simply “narrates” a situation he is completely aware of and initially conceives of as a single entity that can be talked about. If we stick to the

\(^2\) The convenience of the term eventuality (Vendler 1967) lies in that it conflates pure events, situations, accomplishments and achievements. Thus, whenever the term eventuality appears, it may be making reference to any of those event types.

\(^3\) Of course, not all eventualities require a hard inferential process to be properly located in the text. Most times, eventuality antecedents are conveyed via a unique verb phrase and, as such, are easily accessible. Other times, it is the demonstrative pronoun itself that gives us a hint for it is accompanied by a typical event predicate (i.e., to happen, to occur, etc.).
endophora-exophora dichotomy, this would very likely constitute a case of exophora. Nevertheless, I do not quite agree with this claim. In my view, cases like these crucially depend on the theoretical notion of discourse that we want to adopt. I am not claiming that the distinction endophora-exophora should be wiped out from the study on discourse anaphora. Rather, what I am claiming here is that there is no need to look for a proper antecedent outside the text in most cases. Thus, for example, a theory of discourse construction such as Discourse Representation Theory (Kamp and Reyle, 1993) postulates a cognitive notion of discourse whereby the participants in the conversation incrementally build a mental representation of discourse by adding discourse referents. Discourse referents constitute the basic pieces of any discourse, and they also constitute the basic elements in terms of reference for they can be subsequently referred to via anaphors. In our case at hand, the discourse in (4), the “situation” discourse referent has to be incrementally built up from the clues—other discourse referents whether eventive or not—already introduced in the discourse representation. At the point when the speaker uses the pronoun esto, the interpreter should have already built up a situation-like scenario. If we accept this idea, the term exophora could be restricted to only those cases of pure visual deixis in which a physical object is made salient via use of a demonstrative and an accompanying pointing gesture.

Another straightforward referential type is the one called **proposition anaphora**. There seems to be no need for an inferential effort by the interpreter in most cases of proposition anaphora. The antecedent is normally a proposition (the meaning of a
sentence) or any other larger piece of discourse. Objects of belief and other attitudinal objects belong in this category and they are commonly introduced in discourse via a complementizer phrase (CP) embedded under an attitudinal verb as in (5). Notice the embedded CP in A’s turn *que el perro tiene hambre*, and how the demonstrative pronoun *eso* is used by B to refer to that proposition\(^4\).

\[(5)\qquad A: \text{Creo que el perro tiene hambre.}\]

\[\text{believe-I that the dog has-he hunger}\]

“I think the dog is starving”.

B: *Eso no es posible. Ya ha comido.*

\[\text{That not is possible. Already has-he eaten}\]

“That’s impossible. He ate already”.

Overall, propositional anaphora is the most frequent referential type. In the following discourse, a radio interview (note that Q stands for Question and A for Answer) utterance of the neuter demonstrative pronoun *esto* by the interviewer in the last turn seems to be anaphorically referring to the immediate previous answer by the interviewee.

\[(6)\qquad Q: \text{¿Políticamente?}\]

A: *Sí, claro.*

---

\(^4\) It may be argued that the pronoun in (5) anaphorically refers to the whole sentence rather than the complementizer phrase. While it is the case that ambiguous examples are commonly found in discourse, this is not the case in (5) since, in my view, the second part of B’s response *ya ha comido* helps us disambiguate the purported underspecification.
Q: ¿Seguro?

A: Sí, por supuesto, vamos… Bueno … … me da mucho miedo cuando un señor, como don Alfonso Guerra, me da un relativo miedo, tiene “tan” superpoder como lo tenía Carrero, lo tenía López Rodó, lo tenía Fernando Abril, porque pueden y de hecho te destrozan muchas cosas personales como represalias. Pero pero bueno, fuera de eso a mí me gusta la profesión.

Q: Vale, pues con esto llegamos al final de la entrevista, nunca mejor dicho.

Probably even harder to categorize as the cases labeled as unspecified were those that I grouped under the category of **evoked deixis**. It was Bühler in his seminal work on deixis who first described this use of demonstratives and label it as **demonstratio ad phantasma** – it can be also found in the literature as evoked deixis or imagination-oriented deixis-. Bühler’s investigation was primarily based on adnominal uses of demonstratives but, apparently, neuter demonstrative pronouns also show this type of “deictic” usage but in the form of discourse anaphora. Evoked deixis is a type of deictic use that departs from the speaker’s actual world and moves to an alternative, imaginary world. Demonstratio ad oculos on the other hand is based on the criterion of perceptibility. Should we follow the distinction made by Bühler, all the examples presented here with the exception of visual deixis could be classified as demonstratio ad phantasma. Nevertheless, I believe Bühler’s notion of perception was restricted to the visual domain but today’s notion of perception is much broader. Human linguistic behaviour is a cognitive activity which relies very much on the visual domain, but also crucially in hearing. During a normal conversation, I can hear my interlocutor’s
utterances, I process them cognitively and, as a consequence, they thus become cognitive linguistic entities ready to be talked about and, naturally, bound to be anaphorically referred to in the evolving discourse interaction. These utterances have been perceived by the hearer unquestionably; only that they are not perceived visually. Only if we are willing to adopting a notion of discourse like this, we would not need to make use of the notion of imagination to explain the vast majority of cases of discourse anaphora presented in this paper. I have used the term evoked deixis here to classify a series of cases of neuter demonstrative use that in my view do deviate, in terms of reference, from the rest. Let us see why with an example from the corpus:

(7) A: … con con jugadores jóvenes, yo creo que que es muy es muy importante. Probablemente sea el ideal de hacer una plantilla, ¿no?, la compensación de de las dos características de los jugadores. En la Veredilla es un partido gris por lo que a sus contendientes parece ser. El mitad de la tabla, el Navalcarnero le ha costado trabajo. Gris el día y gris el partido Por eso. Fíjate No creo que vaya mucha gente hoy a la Veredilla, la verdad.

B: No sé, no conozco **aquello**.

In discourse (7), two radio presenters are broadcasting the preliminaries of a football match that is about to start in a few minutes. At some point in the conversation, one of the presenters mentions La Veredilla -Navalcarnero’s stadium- where the match is going to take place on a dark, cloudy day. Radio presenter A asks his partner on his feelings about the rain and the bad situation of the local team preventing people from
attending the sports event. Speaker B replies “No sé, no conozco aquello”. Speaker B may either be referring to the stadium La Veredilla or the town Navalcarnero, but in either case the speaker is anaphorically referring to a place he is not physically at. That is why he uses the distal demonstrative *aquello* instead of the proximal *esto*. Speaker B has to accommodate the place where the event is going to take place to be able to talk about it. He has to bring into his mind a representation of that particular place, which has been previously mentioned by speaker A. Once he becomes aware that that particular place belongs in a different context of utterance than his, he will then refer to it with a distal demonstrative. It may be argued that this is a typical case of NP anaphora since the NPs Navalcarnero and La Veredilla have been mentioned only a few sentences before in the discourse, thereby making anaphoric reference to either of these NPs straightforward. Here, nevertheless, I will instead defend the idea that (7) and other similar cases differ from the typical cases of NP anaphora in that the anaphor still retains a proximity condition [+ distal]. This particular proximity would arise with every use of the demonstrative pronoun to mark distance either spatially or temporally. This point will be extended in chapter 5. Thus, this and similar occurrences of the distal demonstrative pronoun *aquello* would constitute a hybrid use, somewhere in between NP anaphora and evoked deixis.

The next three tables show the breakdown of antecedent-type as well as the relative frequency of anaphoric reference made to every type of antecedent per demonstrative pronoun. The number and relative frequency of other non-anaphoric uses has also been included, namely, visual deixis and other uses. As you may notice, the category named
non-valid is not significant in terms of relative or absolute frequency. As we can see, the demonstrative pronoun *esto* is highly used in discourse for reference to abstract antecedents (16, 6% eventualities and ± 28% for propositions).

<table>
<thead>
<tr>
<th>Referential Type</th>
<th>Esto</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Deixis</td>
<td>8</td>
<td>22.2%</td>
</tr>
<tr>
<td>Evoked Deixis</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Eventualities</td>
<td>6</td>
<td>16.6%</td>
</tr>
<tr>
<td>Proposition</td>
<td>10</td>
<td>27.7%</td>
</tr>
<tr>
<td>NP Anaphora</td>
<td>2</td>
<td>5.5%</td>
</tr>
<tr>
<td>Unspecified</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>Other Uses</td>
<td>6</td>
<td>16.6%</td>
</tr>
<tr>
<td>Non-valid</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>36</td>
<td>= 100%</td>
</tr>
</tbody>
</table>

**Table 3.4:** Breakdown of Anaphoric Use of Demonstrative *esto*.

Notice in Table 4.5 the relative frequency of *eso* in cases of proposition anaphora (50%) but, surprisingly enough, zero cases of event anaphora in our sample data. This indicates the speaker’s clear preference for *eso* to anaphorically refer in discourse to objects that are not spatio-temporally anchored. This might be due to the fact that demonstrative *eso* shows a more “neutral” nature in terms of proximity when compared with *esto* or *aquello*. Based on this data, we might be initially tempted to conclude that the latter would still retain certain marked proximity conditions in their semantic content, while *eso* would be the preferred element of a ternary demonstrative system to be used when the proximity condition is not relevant for the purposes of the discourse. This has
been extensively argued in Gutiérrez-Rexach and Zulaica (2007). Nevertheless, as I’ll defend in the next chapter, both *esto* and *eso* are distance unspecified elements, being *aquello* the only demonstrative pronoun of the system that still retains a proximity condition. On the other hand, notice also the preference for demonstrative *esto* in cases of *visual deixis* (22,2%) as compared to the low frequency of both *eso* (2,7 %) and *aquello* (0%) in spoken discourse.

<table>
<thead>
<tr>
<th>Referential Type</th>
<th>Eso</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Deixis</td>
<td>1</td>
<td>2,7%</td>
</tr>
<tr>
<td>Evoked Deixis</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Eventualities</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Proposition</td>
<td>18</td>
<td>50%</td>
</tr>
<tr>
<td>NP Anaphora</td>
<td>6</td>
<td>16,6%</td>
</tr>
<tr>
<td>Unspecified</td>
<td>4</td>
<td>11%</td>
</tr>
<tr>
<td>Other Uses</td>
<td>6</td>
<td>16,6%</td>
</tr>
<tr>
<td>Non-valid</td>
<td>1</td>
<td>2,7%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>36</td>
<td>= 100%</td>
</tr>
</tbody>
</table>

**Table 4.5:** Breakdown of Anaphoric Use of Demonstrative *eso*.

Finally, table 4.6 presents the corpus data for demonstrative *aquello*. This demonstrative shows a really high frequency of occurrence in those cases labeled as **other uses** (33%). This is due to the fact that I included in this category all cataphoric and similar cases found in the sample. While it is true that cataphora or forward anaphoric reference is a subtype of anaphora, many dubious cases led me to collect them in the group of other uses. Most corpus transcribed occurrences of *aquello* in cataphoric use show a textual antecedent in typographic quotation marks “…”. I would accept any
potential critique for my not having classified the cases of cataphora within other better
defined referential groups such as propositions or NP anaphora. In my defense, I would
argue that further exploration into the nature of the antecedent in discourse cataphoric
processes still needs to be done. Until the phenomenon of cataphora is better understood
and we can provide a well-defined referential ontology for its abstract discourse
antecedents, it is more convenient to stay away from drawing any tempting but hasty
conclusions.

<table>
<thead>
<tr>
<th>Referential Type</th>
<th>Aquello</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Deixis</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Evoked Deixis</td>
<td>10</td>
<td>27.7%</td>
</tr>
<tr>
<td>Eventualities</td>
<td>5</td>
<td>13.8%</td>
</tr>
<tr>
<td>Proposition</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>NP Anaphora</td>
<td>7</td>
<td>19.4%</td>
</tr>
<tr>
<td>Unspecified</td>
<td>2</td>
<td>5.5%</td>
</tr>
<tr>
<td>Other Uses</td>
<td>12</td>
<td>33.3%</td>
</tr>
<tr>
<td>Non-valid</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>36</td>
<td>= 100%</td>
</tr>
</tbody>
</table>

Table 4.4: Breakdown of Anaphoric Use of Demonstrative *aquello*.

4.3. A Study of Demonstrative Pronouns in Written Discourse

This section focuses on the referential preferences of neuter demonstrative
pronouns *esto*, *eso* and *aquello* when used by speakers in written discourse. More
specifically the study presented in this section presents the findings that were obtained
under the category libros (cf. books) of the CREA corpus. Data from oral and written
sources have been thus separated for the sake of clarity. The corpus search is identical to
the one for spoken discourse but in this case, the total occurrences per demonstrative
pronoun have been reduced to a number of thirty. I still consider this to be a sufficient
sample from which to be able to get some interesting generalizations about the particular
written-discourse behavior of neuter demonstratives. The raw number of initial cases per
demonstrative resulted to be higher than in the spoken domain for every demonstrative.
But despite the higher number of occurrences the percentages of occurrence among
demonstratives are kept at very much the same level. Thus, for example, pronoun *eso* (38.535
occurrences) is by far the most frequently used demonstrative pronoun in written
discourse, followed by proximal *esto* (24.258 occurrences) and *aquello* occupying the last
position with only 5.800 occurrences. The percentages are shown in figure 4.3:

![Figure 4.3: Initial Number of Occurrences in Written Corpus (per demonstrative)](image)

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There is though a slight increase in the percentage of occurrence of demonstrative pronoun *aquello* in written discourse (8%) when compared to spoken discourse (3%). Due to the high number of initial occurrences of all demonstrative pronouns found in the written corpus, I had to filter down these numbers to a manageable size. Thus, I applied to consecutive filters on documents and occurrences to get a final result of thirty occurrences per demonstrative pronoun. The initial output and the filters applied are shown in the tables below, each corresponding to a demonstrative pronoun. Notice that, in the cases of *eso* and *aquello* (tables 4.8 and 4.9), the final number of occurrences retrieved from the corpus is thirty-three and thirty-five respectively. In order to be consistent and get an equal number for every demonstrative, I simply decided to get rid of the first three and five occurrences to thus obtain an equal number of thirty occurrences per demonstrative to be scrutinized.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Filter</td>
<td>Ratio 1/10 on documents:</td>
<td>2.406 cases in 89 docs.</td>
</tr>
<tr>
<td>2nd Filter</td>
<td>Ratio 1/10 on documents:</td>
<td>266 cases in 9 docs.</td>
</tr>
<tr>
<td>3rd Filter</td>
<td>Ratio 1/10 on cases:</td>
<td>30 cases en 9 docs.</td>
</tr>
</tbody>
</table>

**Table 4.7:** Filtering Conditions and Results for Demonstrative Pronoun *esto*.

Notice that the total cases of demonstrative *eso* is 38.535 but the filters were applied to a number of 31.029 as shown in table 4.8. The reason for having done so is the following. I couldn’t use the usual query with the symbol ‘?’ in this particular case for I
would obtain a high number of undesired words other than the pronoun *eso*, i.e., *uso*. For this reason, I had to carry out a search with initial capitalized *Eso* and one more for small lettered *eso*. Given that the corpus does not allow us to add the results of two different queries, I decided to apply the filters to the higher number (31,029 of small letter occurrences of demonstrative *eso*.)

<table>
<thead>
<tr>
<th>Query: eso</th>
<th>Initial Output:</th>
<th>31,029 cases in 770 docs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Filter</td>
<td>Ratio 1/10 on documents:</td>
<td>2,410 cases in 77 docs.</td>
</tr>
<tr>
<td>2nd Filter</td>
<td>Ratio 1/10 on documents:</td>
<td>287 cases in 8 docs.</td>
</tr>
<tr>
<td>3rd Filter</td>
<td>Ratio 1/9 on cases:</td>
<td>33 cases in 8 docs.</td>
</tr>
</tbody>
</table>

**Table 4.8:** Filtering conditions and results for demonstrative pronoun *eso*.

Finally, the filtering conditions for neuter demonstrative *aquello* are shown in table 4.9:

<table>
<thead>
<tr>
<th>Query: ?quello</th>
<th>Initial Output:</th>
<th>5,800 cases in 542 docs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Filter</td>
<td>Ratio 1/9 on documents:</td>
<td>628 cases in 61 docs.</td>
</tr>
<tr>
<td>2nd Filter</td>
<td>Ratio 1/9 on documents:</td>
<td>70 cases in 38 docs.</td>
</tr>
<tr>
<td>3rd Filter</td>
<td>Ratio 1/2 on cases:</td>
<td>35 cases in 24 docs.</td>
</tr>
</tbody>
</table>

**Table 4.9:** Filtering conditions and results for demonstrative pronoun *aquello*.

As with the data from the oral corpus, I have maintained the same referential classes for the written text corpus study. Here again, the class labeled other uses covers
those cases in which the demonstrative anaphor doesn’t have a referential use, but it also
includes the cases of cataphora, that is, those cases where the anaphor shows sort of a
presentational use in discourse. Thus, for example, in (8), the demonstrative pronoun
*aquello* seems to have a clear cataphoric/presentational use. Notice the series of NPs that
follow the occurrence of the pronoun in the paragraph.

(8) La limpieza del suelo y los muebles se realizará siempre con aspirador o una
bayeta húmeda, y el paciente no estará nunca presente mientras se realiza esta
operación. El dormitorio tendrá la mínima cantidad de enseres posible, por
tanto habrá que prescindir de todo *aquello* que pueda almacenar polvo:
cortinas, alfombras, moquetas, peluches, etc.

In my view, the demonstrative in (9) is non-referential or, at least, not referential in
the traditional way. There is clearly no antecedent for the pronoun in the sorrounding
text. The pronoun here seems to have the value of an indefinite that may be represented
as a variable whose restriction would be imposed by the continuation *que quiera decir*.
Thus, demonstrative *aquello* en this type of cases would have a meaning close to
*cualquier cosa* or *lo que sea* (cf. anything/whatever).

(9) El valor de una pintura – o lo que le haga tener algún sentido en este mundo-
se establece en principio con independencia de *aquello* que quiera decir o
incluso del mayor grado de claridad u oscuridad con que lo diga.
Demonstratives *esto* and *eso* also have cataphoric and non-referential uses. The following is an example of *eso* in a what I consider to be a clear presentational use.

(10) Esa noche tuve la sensación de ver de frente a la iglesia vasca, de tocarla, de sentir su frío tacto de *eso*, de roca seca, estéril, perversa y mezquina.

Tables 4.10-4.12 show the frequency of referential type per demonstrative in written discourse. As it may be expected, the frequency of cases of visual deixis is lower in the case of demonstrative *esto* as compared to the percentage shown in spoken discourse (22% vs. 10%). The other two demonstratives equally show a very low number of visual deixis uses. With respect to abstract anaphora, the data show that this is the most common referential type for every demonstrative pronoun. As I did with those pertaining to the spoken domain, we can add together the results of the classes proposition anaphora and eventuality anaphora to get a final result of 46.6%, 46.6%, and 33.3% for *esto*, *eso* and *aquello* respectively. The general overall frequencies in both domains are very similar. Thus, there doesn’t seem to be a notorious difference between the speaker’s use of neuter demonstrative anaphors in the spoken and written discourses.
Demonstrative *aquello* seems to be the less preferred anaphor for abstract anaphora use in both domains. Nevertheless, this demonstrative anaphor ranks the highest of all three when it comes to anaphorically refer back in discourse to event discourse referents. There is though one notorious difference in the frequency of occurrence of NP anaphora cases, being higher in written discourse as compared to spoken discourse.

**Table 4.10:** Breakdown of Anaphoric Use of Demonstrative *esto*.

<table>
<thead>
<tr>
<th>Referential Type</th>
<th><em>Esto</em></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Deixis</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Evoked Deixis</td>
<td>±</td>
<td>±</td>
</tr>
<tr>
<td>Eventualities</td>
<td>2</td>
<td>6.6%</td>
</tr>
<tr>
<td>Proposition</td>
<td>12</td>
<td>40%</td>
</tr>
<tr>
<td>NP Anaphora</td>
<td>7</td>
<td>23.3%</td>
</tr>
<tr>
<td>Unspecified</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Other Uses</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Non-valid</td>
<td>±</td>
<td>±</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>30</td>
<td>= 100%</td>
</tr>
</tbody>
</table>

**Table 4.11:** Breakdown of Anaphoric Use of Demonstrative *eso*.

<table>
<thead>
<tr>
<th>Referential Type</th>
<th><em>Eso</em></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Deixis</td>
<td>1</td>
<td>3.3%</td>
</tr>
<tr>
<td>Evoked Deixis</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Eventualities</td>
<td>1</td>
<td>3.3%</td>
</tr>
<tr>
<td>Proposition</td>
<td>13</td>
<td>43.3%</td>
</tr>
<tr>
<td>NP Anaphora</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>Unspecified</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Other Uses</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>Non-valid</td>
<td>±</td>
<td>±</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>30</td>
<td>= 100%</td>
</tr>
<tr>
<td>Referential Type</td>
<td>Aquello</td>
<td>Frequency</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>Visual Deixis</td>
<td>1</td>
<td>3.3%</td>
</tr>
<tr>
<td>Evoked Deixis</td>
<td>2</td>
<td>6.6%</td>
</tr>
<tr>
<td>Eventualities</td>
<td>7</td>
<td>23.3%</td>
</tr>
<tr>
<td>Proposition</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>NP Anaphora</td>
<td>5</td>
<td>16.6%</td>
</tr>
<tr>
<td>Unspecified</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>Other Uses</td>
<td>8</td>
<td>26.6%</td>
</tr>
<tr>
<td>Non-valid</td>
<td>1</td>
<td>3.3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>30</td>
<td>= 100%</td>
</tr>
</tbody>
</table>

Table 4.12: Breakdown of Anaphoric Use of Demonstrative *aquello*.

Figure 4.4: Number of Occurrences by Type of Referent in Written Discourse

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As shown in this chapter, Spanish speakers use demonstrative pronouns for different referential purposes in discourse. The corpus-based evidence presented here clearly indicates that abstract anaphora is the most frequent referential type within the general uses of neuter demonstrative pronouns in discourse. This fact clearly suggests the importance of the phenomenon of abstract anaphora in the area of discourse anaphora. In my opinion, it also makes clear that long-distance discourse dependencies based on neuter demonstrative pronouns constitute an important mechanism to maintain the cohesion and coherence of discourse. But although all three neuter demonstrative anaphors can be used to refer to almost any type of abstract object, there are some marked tendencies as regards the speaker’s preference for one anaphor over the other/s in some specific discourse anaphora processes. Thus, the fact that demonstrative *aquello* is the preferred element to refer to eventualities it might be an initial indication that *aquello* still retains a proximity condition. This idea is defended and elaborated on in chapter 5, which will be entirely devoted to the correlation that can be observed between demonstrative anaphors and natural language tense. Less keep in mind that overall demonstrative *aquello* is much less frequent in discourse as the other two demonstratives. In absolute terms, this fact makes *aquello*’s proportional figures actually higher than shown here. Demonstrative pronoun *eso* seems to be the preferred element for speakers in absolute terms and also the preferred element of the tripartite system for reference to propositional objects. Nevertheless, the differences between *eso* and *esto* regarding proposition anaphora are not so prominent.
As I already mentioned in the preceding sections, the information presented in this chapter is not intended to be an exhaustive study on the pragmatics or semantics of discourse anaphora but rather a preliminary screening on the ontology of natural language with regard to the so-called abstract objects. As a consequence of this, the taxonomy here presented will surely need to be corrected in the future to either include new discourse entities or, alternatively, to further constrain the ones postulated here. Thus, for instance, some occurrences of cataphora, collected under the category of other cases, constitute a good example of that. On the other hand, the category labeled as proposition anaphora may be further subdivided into pure propositions and facts for these are considered to be different regarding their semantic properties. Nevertheless, I believe that the data presented here will provide us with the necessary starting point to further explore the semantics of higher-order entities such as events or propositions, as well as the pragmatics of the tripartite system of Spanish neuter demonstrative pronouns.
To a certain degree, this chapter should be viewed as a natural continuation of chapter 3. There, I explored the semantics and pragmatics of neuter demonstrative pronouns and I provided a characterization of these elements as generalized quantifiers. We saw how the ‘reduction’ hypothesis that defends the reduction of the classical ternary demonstrative system of Spanish to a binary system based on the neutral character of the medial element (ese/eso) could be equally hold for demonstrative determiners and neuter demonstrative pronouns alike. In the particular case of neuter demonstrative pronouns, the hypothesis was initially sustained by evidence showing that demonstrative pronoun eso was the preferred element for reference to propositional objects in discourse as compared to demonstrative pronouns esto and aquello, which were preferred for other discourse deictic/anaphoric uses. This evidence was further supported by the attested behavior of demonstrative eso in short answers. As a result of that, demonstrative eso would show a particular presupposition that I labeled ‘unspecified(β, x)’ within the presuppositional set characterizing this demonstrative pronoun (the setting-up presuppositional DRS).
This particular presupposition is intended to reflect the fact that 
*eso*, but also determiner ese-NP, are used by speakers to refer to discourse entities when there is no need to mark any spatial or temporal distance magnitude regarding the location of the demonstrated referent. Unlike *eso*, demonstratives *esto* and *aquello* would be marked for distance, i.e., [± PROXIMITY] with *esto* being [+ proximal] and *aquello* [+ distal], or presuppositionally ‘proximal(β, x)’ and ‘distal(β, x)’, respectively.

But one problem for this account arises when we broaden the set of potential antecedents of neuter demonstrative pronouns or, more accurately, the set of abstract entities these antecedents may denote to include events, actions, facts and the like to account for the wide range of cases of abstract discourse anaphora. More particularly, events pose a serious problem for the view presented so far. A careful study of naturally occurring examples in Spanish corpora revealed a surprising correlation between certain verb tenses and neuter demonstrative anaphors that may call for a reformulation of the [± PROXIMITY] presupposition for neuter demonstrative pronouns. This reformulation will be presented in this chapter. In the essential, the reduction hypothesis will be maintained but the presuppositional account for demonstrative pronouns and demonstrative determiners will vary. Thus, demonstratives pronouns and demonstrative determiners will instantiate two separate demonstrative systems sharing one basic common feature, namely, they’ll be better viewed as binary systems in terms of the defining [± PROXIMITY] condition.
5.1 The Co-occurrence Pattern of Tense and Demonstration in Discourse

As is well known, demonstrative expressions and natural language tenses share a common deictic nature. One defining semantic feature of demonstratives is their having a \([\pm \text{PROXIMITY}]\) condition that is commonly used to properly characterize these elements. Tenses, on the other hand, can be described as having, among others, a \([\pm \text{TENSE}]\) morphosyntactic feature\(^1\). Both conditions can be notionally conceived as a \([\pm \text{DISTANCE}]\) condition, which should not surprise us to pragmatically arise when demonstratives and tenses co-occur in discourse. As a matter of fact, some authors have suggested a correlation between demonstrative determiners and tense based on the observed co-occurrence of those deictic terms in Spanish discourse. Based on a corpus study that will be presented in the following sections, this chapter shows evidence that supports an alternative behavior for Spanish neuter demonstrative pronouns regarding their combinatorial capabilities with tense in discourse. Based on the corpus results and the particular referential properties of neuter demonstratives, I will provide an alternative characterization for Spanish neuter demonstratives pronouns in which demonstratives \(esto\) and \(eso\) would be unspecified with respect to a \([\pm \text{PROXIMITY}]\) condition, whereas demonstrative \(aquello\) would still retain a marked \([+ \text{DISTAL}]\) feature in its semantic characterization.

\(^1\) There is a vast literature on the morphosyntactic and semantic feature values of verbs and other lexical elements. As a matter of illustration, consider Gazdar et al’s Generalized Phrase Structure Grammar (GPSG) (1985), and HPSG (Pollard and Sag, 1994) from a morphosyntactic approach; Kamp and Reyle’s (1993) mapping of morphosyntactic features in Discourse Representation Structures. See also Pustejovsky (1995) and Gerstl (1995) from a lexical computational semantic perspective.
Many researchers from different perspectives within the field of Linguistics have addressed the conceptual connection that can be drawn in terms of spatial and temporal perspective between linguistic expressions (Evans 2004; Lakoff and Johnson, 1980; Nuñez and Sweetser, 2006; Talmy 2000, inter alia). Thus, for example, typical deictic systems such as demonstratives and natural language tenses have long been recognized as showing some similarities in their linguistic behavior and, consequently, in their semantic representations. Equally, adverbials such as here and there constitute, like demonstratives this and that, a binary opposition in terms of a [± DISTANCE] feature. Certainly, demonstratives on the one hand and adverbials and tenses on the other have some semantic particularities that differentiate them from each other. But it is their belonging to the category of deictic terms, that is, their being contextually dependent what makes them appear as semantically similar. In Spanish, the picture does not differ greatly from that of other Romance languages that I am familiar with. As a matter of fact, it has been suggested that there appear to be certain distributional restrictions between demonstratives on the one side and adverbials and tenses on the other. Thus, they argue, these restrictions can be explained by posing a kind of presupposition matching between these elements when they are used within the sentence in discourse, for failure of such presupposition matching –a [± DISTANCE] presupposition conflict- would come up with undesired, unfelicitous results. The following examples, taken from Gutierrez-Rexach (2002), illustrate this point.

(1) a. Este libro de aquí.
   This book of here.
‘This book from here.’

b. aquel libro de allí.
that book of there
‘That book from there.’

c. *este libro de allí.
this book of there
‘this book from there.’

d. *aquel libro de aquí.
that book of here
‘That book of here.’

Notice how the pairs demonstrative/adverbial as shown in (1a)-(1b) are pragmatically felicitous given the fact that there is no clash between the adverbials aquí (cf. here) and allí (cf. there) and the demonstratives este (cf. this) and aquel (cf. that) within the same noun phrase. Nevertheless, the combinations este/allí and aquel/aquí yield unfelicitous results in (1c)-(1d). As I mentioned above, this fact might be explained for the semantic contrast that comes out of a presuppositional clash in the [+PROXIMAL] feature of the demonstrative and the [− PROXIMAL] feature of the adverbial in (1c); and the same explanation can be given for the mirror case in (1d). Thus, whenever both elements share the same [± PROXIMAL] feature the resulting noun phrase is felicitous. As we know from previous chapters, Spanish instantiates a three-term demonstrative system with este (cf. this) and aquel (cf. that) acting as the poles of the
spectrum, and a third term *ese* (cf. that) that has been traditionally characterized as a [−PROXIMAL] term with respect to both speaker and addressee. Similarly, Spanish instantiates a tripartite system of locative adverbials (aqui/ahi/allí), where the ‘medial’ locative adverbial *ahi* (cf. there)\(^2\) can be defined informally as “not here or not there, but somewhere in between”. Unlike the infelicitous examples (1c-d), locative adverbials [+PROXIMAL] *aqui* and [+ DISTAL] *allí* can co-occur with the unspecified demonstrative *ese*. This is shown in examples (2) and (3).

\[
\text{(2) Dame ese libro que esta aqui/allí/ahi.}
\]

give-me that book that is here/there/there.

‘Give me that book here/there/there.’

\[
\text{(3) Dame eso que esta aqui/allí/ahi.}
\]

give-me that that is here/there/there.

‘Give me that which is here/there/there.’

In recent research on Spanish demonstratives (Gutiérrez-Rexach & Zulaica 2006, 2007), we have shown that demonstrative determiner *ese* and its pronominal neuter counterpart *eso* are to be better characterized as ‘unspecified’ elements with respect to a proximity presupposition. On the one hand, *ese* is the most frequently used demonstrative

\(^2\) Both Spanish demonstrative *ese* and locative adverbial *ahi* do not have a correspondence in English, a language which instantiates a two-term demonstrative system. I will be writing *that* and *there*, respectively, as the most approximate glosses for these terms in English. This is due to the fact that both elements –*ese* and *ahi*– are better defined as [− PROXIMAL] to the speaker regarding their spatial characterization. Thus, demonstrative *este* and adverbial *aqui* would correspond to English demonstrative *this* and locative adverbial *here*, whereas the Spanish pairs *ese/aquel* and *ahi/allí* would roughly correspond to English *that* and *there*, with an increasing degree of distance with respect to the *origo* (the speaker).
in Spanish in absolute terms. It is used in discourse to deictically and anaphorically refer to any kind of entity without the constraints that can be observed for demonstratives *este* and *aquel* in terms of a [± PROXIMITY] condition. Thus, *ese* can be defined as the ‘neutral’ element in the ternary system of demonstratives. It can be considered the unmarked term of the system, whereas both *este* and *aquel* will be marked terms for the participants in the conversation when the features [+ PROXIMAL] or [+ DISTAL] need to be communicated for a proper understanding of discourse. With all this in mind, a proper semantic characterization of Spanish demonstrative *ese* would probably lack a proximity presupposition or, alternatively, could be represented as an [UNSPECIFIED] condition. In the last section of this chapter, I will provide a representation for neuter demonstrative pronouns as Discourse Representation Structures (DRSs) where demonstrative *eso* will retain the aforementioned condition.

But apparently, not only demonstratives and locative adverbials show particular combinatorial properties when they co-appear in the same utterance. Apparently, a similar semantic matching has to be obtained between demonstratives and certain tenses in Spanish as well. Consider the following examples (4a)-(4c) where certain tenses (present and preterite) co-occur with different demonstrative determiners in the same utterance.

(4a) ¿Qué resolviste de aquel problema que te *planteo/planteé?  
what resolved-you of that problem that to-you pose-I/posed-I

3 These examples appear in Silva and Gutiérrez-Rexach (1997).
‘what did you resolved about that problem that I pose/posed to you?.’

b. ¿Qué resolviste de este problema que te planteo/*planteé?

What resolved-you of this problem that to-you pose-I/posed-I

‘What did you resolve about this problem that I pose/posed to-you?.’

c. ¿Qué resolviste de ese problema que te planteo/planteé?

what resolved-you of DEM problem that to-you pose-I/posed-I

Notice how in (4a) the [− PROXIMAL] demonstrative determiner aquel somehow triggers the use of a past tense planteé (cf. posed-I), whereas the use of a present tense such as simple present planteo (cf. pose-I) in the same NP yields an unfelicitious result. In (4b) we find the opposite situation, that is, use of the [+ PROXIMAL] demonstrative este requires a subsequent use of a present tense within the same NP. Finally, in (4c), use of the distance neutral demonstrative ese allows for both tenses. It is important to emphasize the fact that this presuppositional matching between deictic elements occurs within the same NP in all the examples shown above. Although the tenses under consideration are structurally found within a complementizer phrase (CP) triggered by the complementizer que (cf. that), the highest syntactic projection is the determiner phrase (DP) headed by the demonstrative. At least initially, this might be an indication that the observable matching could be syntactically restricted to a syntagmatic domain. For, otherwise, the sentence-initial past tense resolviste (cf. resolved-you) should be banned in (4b). Now the question arises as to what might be a suitable explanation for the data in (4). Will it suffice to give an explanation based on a distance parameter –
temporal in this case- as the one given for the examples in (1)-(3)? The answer may be affirmative, for the intended matching between demonstrative and tense can be transported from a purely locative to a mixture of a locative and temporal domain. Thus, for example, the [+ PROXIMAL] characterization of demonstrative *este* in terms of spatial distance of the object pointed at in relation to both speaker and addressee can parallel the [+ PROXIMAL] feature of a present tense along a temporal dimension; and be clearly opposed to a [− PROXIMAL] characterization for past tenses generally. I am not saying here that the semantics of natural language tenses, some particular locative adverbials and demonstratives should be identical. Obviously, there are differences in the way the deictic component of these linguistic elements should be characterized. Thus, demonstratives typically require an ostension such as a pointing act (a finger pointing at the demonstratum, a head movement, etc), and neuter demonstrative pronouns require of their abstract referent to be activated (see chapter 3). Likewise, locative adverbials such as *aquí* or *allí* are also frequently accompanied by a pointing act allowing the speaker to be precise about a particular spatial configuration or to simply disambiguate a potentially ambiguous message. Tenses, as deictic elements, do not require such an ostension. But regarding their similarities all three elements get fully interpreted relative to another element in the spatial or temporal context. For demonstratives and locative adverbials the speaker and addressee of the utterance situation act as the pivotal elements from which the referent of the demonstrative will be spatially conceived. Tenses on the other hand will be interpreted relative to a rather abstract concept which is the utterance time. Notwithstanding their different notional nature, they all appear to share a common
semantic feature, which is the residual $[\pm \text{PROXIMITY}]$ condition that remains once we abstract away from their idiosyncratic differences. Let us consider another set of data to look for further evidence that may confirm our initial hypothesis that the observed correlation tense/demonstrative can be solely explained in terms of a $[\pm \text{PROXIMITY}]$ condition.

\begin{enumerate}
  \item a. ¿Qué resolviste de este problema que te estoy planteando/
        what resolved-you of this problem that to-you I-am posing/
        he planteado/*estaba planteando/*habia planteado?
        have posed/ was posing/ had posed?
  
  \item b. ¿Qué resolviste de aquel problema que te estoy planteando/
        what resolved-you of that problem that to-you I-am posing/
        *he planteado/ estaba planteando/ había planteado?
        have posed/ was posing/ had posed
  
  \item c. ¿Qué resolviste de ese problema que te estoy planteando
        what resolved-you of DEM problem that to-you I-am posing/
        he planteado/ estaba planteando/ había planteado?
        have posed/ was posing/ had posed?
\end{enumerate}

Initially, what examples (5a)-(5c) show is that there appear to be other intervening factors that might to be taken into account in order to provide an adequate explanation for the highly frequent co-occurrence of certain tenses and demonstrative expressions as shown in (4). Succinctly, sentence (5a) shows very much in the line of (4a) that the $[+\negation]$. 

\begin{math}
\text{224}
\end{math}
PROXIMAL] distinctive presupposition of demonstrative *este* allows for the use of varied present tenses (the periphrastic present continuous *estoy planteando* and the present perfect *he planteado*) while apparently banning its co-occurrence with typical past tenses (the periphrastic past continuous *estaba planteando* and the pluperfect *había planteado*). Contrarily, the [+ DISTAL] demonstrative determiner *aquél* in (5b) shows rather the opposite behavior. This demonstrative only allows for its combined use with past tenses, making the appearance of a present tense in the sentence infelicitous. Finally, the unspecified demonstrative determiner *ese* allows for both present and past tenses alike. The extra factor that we might need to take into account in considering examples (4) and (5) is verbal aspect (*Aktionsart*). Thus, the question arises as to what extent aspectual considerations might be having an effect in the observed co-occurrence of the particular combinations of demonstratives and tenses in discourse. In my view, the observed co-occurrence is independent of the particular aspect of the tenses under study for demonstratives show a consistent behavior across different aspectual categories: **perfective** and **non-perfective**. Notice, for example, that [+ PROXIMAL] *este* co-occurs with a non-perfective tense such as the present *planteo* in (4b) but also with a typical perfective tense such as the present perfect *he planteado* in (5a). Equally, [+ DISTAL] *aquello* co-occurs with the preterite (perfective aspect) *planteé* in (4a), but also with a non-perfective such as the progressive periphrastic *estaba planteando* in (5b). Additional evidence to support this idea will be shown in section 3 where the corpus data and results about neuter demonstrative pronouns will be presented. For that reason, I believe that the defining factor here is the temporal and spatial content, characterized in terms of a [±
PROXIMITY] condition that demonstratives and tenses have. Although different in nature (mainly spatial for demonstratives and temporal for tense), the purported [± PROXIMITY] condition that I am considering here for natural language tense is to be understood as a semantic presupposition [+ PROXIMAL] for present tenses and [+ DISTAL] for past tenses along the same lines as other presuppositional that has been presented in previous chapters of this dissertation. As we will see more in detail in the next section, this condition will be always evaluated relative to the utterance time $n$. The figure below represents this idea graphically.

![Figure 5.1: Schematic Spatio-temporal Proximity Condition](image)

In summary, the primary goal of this chapter is to contribute to the general understanding of the referential nature of Spanish neuter demonstrative pronouns by exploring into their discourse deictic and anaphoric uses and check whether some
correlation can be established between the use of [+ PROXIMAL] and [− PROXIMAL] demonstrative pronouns and specific grammatical tenses. Evidence from a corpus-based study will be considered to refute a complete semantic transfer in the spatial notional content of neuter demonstrative expressions to a temporal content in well-defined natural discourse situations. My study focuses on eventualities and how and when speakers make use of different demonstrative pronouns to refer back to these entities in discourse. Corpus data showed that distal pronoun aquello is commonly used by speakers to refer to past situations, hence allowing a matching in terms of distance along a spatial and temporal dimension. Nevertheless, demonstrative pronouns esto and eso show a heterogeneous behaviour with respect to event reference. Consequently, it is my hypothesis that while the semantic content of distal pronoun aquello still retains a defining ‘distance’ property, demonstrative pronouns esto and eso may have completely lost their ‘distance’ feature at least in some specific discourse deictic/anaphoric uses.

5.2. The Deictic and Anaphoric Nature of Tense and Demonstrative Systems

Recently (Talmy 2000), demonstrative expressions such as English ‘this’ and ‘that’ have been recognized as a subset of grammatical units belonging to the superclass of grammatical elements which specify the notional skeleton for the conceptual organization within the cognitive system of language. According to this view deictic expressions like ‘this’ and ‘that’ would semantically yield, like some prepositions, a well-defined schematic representation of space (or time).
Among the notions included in the specification of deictics ‘this/that’ we find the following:

(6) i. a ‘partition’ that divides a space into ‘regions/sides’.

   ii. the ‘locatedness’ of a ‘point’ (or object idealizable as a point) ‘within’ a region.

   iii. (a side that is the) ‘same as’ or ‘different from’.

   iv. a ‘currently indicated’ object and a ‘currently communicating’ entity.

Furthermore, these deictics appear to have the topological feature of being magnitude neutral, that is, their grammatical referents are abstracted away from any particularities of magnitude. This point was made on the basis of the evidence showed by sentence-pairs like (7).

(7) a. This speck is smaller than that speck.

b. This planet is smaller than that planet.

Sentences (7a) and (7b) show that the dyad ‘this-that’ can be used to represent elements which are separated millimeters or lightyears apart indistinctively. Thus, the difference in distance magnitude represented by (7a) and (7b) can be said to be a consequence of the lexical content of the items speck and planet, rather than a consequence of the grammatical content of the deictics. Equally, other grammatical elements such as tense morphemes appear to present the same topological feature with respect to time. The English past morpheme –ed can be said to be also magnitude neutral.
since it is felicitously used to refer to a point in the past irrespective of whether that point is located two days or two years ago. Hence with the sentence *John passed the test* the speaker can refer to a point in the past of the utterance time which is magnitude neutral with respect to time.

As I said above, the similarities between demonstrative expressions and tense are numerous. Like demonstratives, natural language tenses have both an indexical and anaphoric nature. The deictic side of natural language tenses forces these to be interpreted with reference to some parameter of the utterance context; commonly this parameter has been taken to be the utterance time (*n*). Thus, for instance, present tenses have the property that they commonly refer to the utterance time: the actual time of the present discourse situation. Take for instance the simple sentence in (8) in which, no matter who the utterer is, the described state of affairs coincides with the current discourse situation.

(8) **María está enferma.**

   Mary be-3sg.pres. ill

   ‘Mary is ill.’

This feature can be also observed even in those cases in which a particular tense is embedded within other tensed clause, as in (9).

(9) **Juan me ha dicho que María está enferma.**

   Juan me has said that Mary be-3sg.pres. ill

   ‘John told me that Mary is ill.’
An appropriate interpretation for (9) is that in which the state of affairs introduced by the speaker with the embedded sentence obtains at the time of utterance irrespective of the time of Juan’s report of that state of affairs or, in other words, utterance time and the situation time of the embedded clause overlap. This pervasive feature can also be observed with the Spanish simple future tense.

(10) Juan predijo (el año pasado) que el Athletic ganará la liga el año que viene.

‘John predicted that Athletic Club will win the championship next year.’

Sentence (10) conveys Juan’s past prediction of an event that lies in the future of the utterer of (10), that is, Juan’s prediction is not interpreted relative to Juan’s time of prediction but instead is interpreted relative to the utterer’s time. Examples like those show that a certain perspective must be established for a proper interpretation of natural language tenses. Following Reichenbach (1947) we may talk of a temporal perspective, which is commonly assumed to be the speaker’s perspective. The diagrams in Figures 5.2 and 5.3, corresponding to examples (9) and (10) respectively, illustrate how the temporal

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4 Although probably the most common construction in Spanish spoken discourse would be one in which use of a preterite in the main clause would trigger the use of a conditional tense in the complementizer phrase:

(i) Juan predijo (el año pasado) que el Athletic ganaría la liga (el año que viene)

‘Juan predicted (last year) that Athletic Club would win the championship (next year).’

But the use of a future tense in the embedded clause as in (10) is also pragmatically felicitous in Spanish.
perspective point (TPpt) corresponds with the actual time of the speaker’s utterance ($n$) in those examples.

Figure 5.2: A Two-dimensional Representation of (9)

Figure 5.3: A Two-dimensional Representation of (10)
The previous illustrations call for a short digression on notational convention. Throughout this chapter I will adopt a Neo-Davidsonian account of events whereby all tensed sentences denote some kind of eventuality. The notion of eventuality is comprehensive in that it covers both events and states. Given that the distinction between these two types of eventualities is not relevant for the purposes of this chapter I will make use of the same label for both. Furthermore, I will assume that every tensed sentence introduces an eventuality discourse referent $e$ in a Discourse Representation Theory or DRS (Kamp and Reyle 1993). Since the described eventualities lie before, at or after the utterance time, the feature $^5$ TENSE will have three possible values past, present and future. The value of TENSE for a given sentence S is determined by the tense of the verb of S. Thus:

\[(11)\] Main verb is a **Past tense** $\Rightarrow$ TENSE = past

```
  " " " " **Present tense** $\Rightarrow$ TENSE = pres.
  " " " " **Future tense** $\Rightarrow$ TENSE = fut.
```

Now, in Figure 1 the eventuality discourse referent $e$ denotes Juan’s report and $e'$ denotes the situation of María’s being ill. This situation is interpreted relative to the speaker’s utterance time $(n)$. In this particular case, both utterance time $(n)$ and the time of the situation described by the clause *que María está enferma* naturally overlap. The diagram in Figure 2 shows graphically that the future eventuality denoted by $e'$ is again

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$^5$ A second feature STAT -with two values +STAT for states and –STAT for events- can be found quite commonly in the literature on natural language tense. Since I will be ignoring this distinction I won’t make use of this feature deliberately here.
interpreted relative to the speaker’s utterance time, that is, it can be anchored at some (un)defined time \( t'' \) at the future of \( n \). Naturally, Juan’s report and prediction (e) in both Figures 5.1 and 5.2 are also interpreted relative to \( n \) but, crucially, these events are not in an embedded position within the sentence.

But the temporal perspective point as stated here doesn’t have to be necessarily restricted to the utterance time, that is, to the ‘now’ of the utterance situation, as our previous examples have put forth. Sometimes, though, the temporal perspective point is to be shifted so that we can provide a proper interpretation for a discourse fragment. This is the case of eventualities conveyed with the Spanish *plusquamperfecto* tense (cf. pluperfect). The following example illustrates this point:

(12) Ana llegó a casa a las 10.  
Ana arrive-3sg.perf.past to house at the 10.  
Pro se había marchado de la oficina a las 8.  
(she) rfxv have-3sg.past left of the office at the 8.  
‘Ana arrived home at 10. She had left the office at 8.’

Taken in isolation, the first sentence of (12) is interpreted relative to the utterance time. The described eventuality is anchored at a time prior to the utterance time \( n \). But in order to get a proper interpretation for the whole discourse the second sentence must be interpreted relative to a reference point other than the *now* of the utterance situation. The perspectival analysis of the *pluperfect* requires that the described eventuality be evaluated
relative to the time of the happening of the eventuality described by the first sentence in example (12). The diagram in Figure 5.4, corresponding to (12), illustrates how in a two-dimensional theory of time the function of the Spanish plusquamperfecto is to locate the described eventuality in the past of some point which is itself in the past of the utterance time \((n)\). In order to do so, the temporal perspective must be shifted from \(n\) to \(t\) in Figure 5.4.

\[
\begin{align*}
  \text{TENSE: } & \text{past} \\
  \text{TPpt: } & = t
\end{align*}
\]

**Figure 5.4**: A Two-dimensional Representation of (12)

A clear parallelism can be traced between the notion of temporal perspective we have discussed so far and some recent treatments for demonstrative expressions. Higginbotham (2003), following previous work by Kaplan (1995), makes a distinction between the meaning of an expression and its rules of use. For demonstrative expressions, the rules of use demand a specific ‘setting up’ context. More specifically, for a sentence containing a demonstrative to be felicitous the set-up context requires that a
To illustrate this, let us consider the following examples.

(13) a. Este perro es peligroso.

   This dog be-3sg.pres. dangerous

   ‘This dog is dangerous.’

b. Pepe cree que este perro es peligroso.

   Pepe believe-3sg.pres. that this dog be-3sg.pres. dangerous.”

   ‘Pepe believes that this dog is dangerous.’

In these examples the demonstrative expression *este perro* (‘this dog’) occurs in an unembedded environment in (13a) but in an embedded position as the subject of the complementizer phrase in (13b). The adequate perspective to interpret the demonstrative in a root environment like (13a) must be the speaker’s perspective. The demonstration associated to the demonstrative -a pointing gesture commonly⁶- is left for the addressee of the utterance to interpret/resolve. This associated demonstration will determine the reference of the demonstrative. Interestingly, the embedded demonstrative in (13b) preserves the perspective it had in a root environment. And this is so even though the expression *este perro* is embedded in the complement of the intensional attitudinal verb *preguntarse* (‘to wonder’). Thus, the perspective that determines the reference of the

⁶ Recall that an explicit ostension associated to the use of a demonstrative is, of course, not obligatory. There are cases when there is a unique object in the utterance situation, which is salient for both speaker and addressee. In cases like that, an act of pointing would be redundant. In chapter 3, I propose that even anaphoric uses of demonstrative pronouns still retain a demonstration which is presuppositional in nature. This presupposed demonstration, which is triggered by the use of the anaphoric demonstrative expression has the role of directing the addressee to look for a referent for the anaphor within the set of familiar discourse referents and, in particular, the referent which has the cognitive status **activated**.
demonstrative is still that of the speaker of the utterance. This explains the fact that *este perro* can act as the antecedent of a silent pronoun *pro* which is evaluated from the speaker’s perspective in (14a), and also that (14b) can only be grammatical when the distal demonstrative *aquel* is used.

(14)  

a. Pepe se pregunta si este perro es peligroso

Pepe rfxv ask-3sg.pres if this dog be-3sg.pres. dangerous

pero yo sé que *pro* no lo es.

but I know-1sg.pres. that pro not it be-3sg.pres.

‘Pepe wonders whether this dog is dangerous but I know it is not.’

b. Pepe se pregunta si este perro es peligroso

Pepe rfxv ask-3sg.pres if this dog be-3sg.pres. dangerous

pero *el* realmente peligroso es *este/aquel* perro

but *the really* dangerous be-3sg.pres *this/that* dog

‘Pepe wonders whether this dog is dangerous, but the really dangerous one is *this/that one.’

An interpretation for (14b) in which the perspective associated with the demonstrative expression in the first clause were that of Pepe’s is clearly not possible for, should this be the case, a second occurrence of the proximal pronoun *este* in the second clause would be felicitous but, in this case, associating the second occurrence with the perspective of the speaker (and the ensuing demonstration). In conclusion, the only natural option is that in which both demonstratives are set up from the speaker’s
perspective so that the second one contrasts with the first one. All this leads us to conclude that both natural language tense and demonstrative expressions present a similar pattern of behaviour. On the one hand, they are context-dependent elements that require a certain perspective for their proper use and interpretation: the speaker’s perspective. In the case of natural language tenses the speaker’s perspective is represented by the speaker’s utterance time \( (n) \). In the case of demonstrative expressions, the speaker’s perspective will be crucial in that it will determine whether the referent of the demonstrative is located closer or further from the speaker.

A second but equally important pervasive feature of natural language tense interpretation lies in its anaphoric character. That the interpretation of tenses involves some kind of anaphora at an intra and inter-sentential level is a well-established notion in the semantics of tense. To illustrate this, let us consider a couple of examples.

(15) María dijo que se encontraba mal.

María say-3sg.perf.past that reflv find-3sg.impf.past bad

‘María said that she was feeling sick.’

(16) Ayer Ana se compró un coche nuevo.

yesterday Ana reflx buy-3sg.perf.past a car new.

Pro pagó por él 20,000 €.

Pro pay-3sg.perf.past for it 20,000 €

‘Yesterday, Ana bought a new car. She paid 20,000 € for it.’
The most natural interpretation for (15) is that in which the situation denoted by the complement clause refers or talks about the same time as the time of the eventuality denoted by the embedding clause. Similarly, the second sentence in (16) denotes an event that lies in the temporal vicinity or simply coincides with the event denoted by the first sentence. It is in this sense that both the embedded clause in (15) and the second sentence of (16) anaphorically point to the time that the previous tense introduced. A Discourse Representation Structure (DRS) for (16) is given in Figure 5.5 below.

<table>
<thead>
<tr>
<th>n e t x y u e’ t’ z</th>
</tr>
</thead>
<tbody>
<tr>
<td>ayer(t)</td>
</tr>
<tr>
<td>e ⊆ t</td>
</tr>
<tr>
<td>t &lt; n</td>
</tr>
<tr>
<td>Ana(x)</td>
</tr>
<tr>
<td>coche(y)</td>
</tr>
<tr>
<td>e: x compra y</td>
</tr>
<tr>
<td>Rpt:= e</td>
</tr>
<tr>
<td>e’ ⊆ t’</td>
</tr>
<tr>
<td>t’ &lt; n</td>
</tr>
<tr>
<td>e &lt; e’</td>
</tr>
<tr>
<td>20,000€(z)</td>
</tr>
<tr>
<td>u = x</td>
</tr>
<tr>
<td>e’: u paga z</td>
</tr>
</tbody>
</table>

**Figure 5.5:** A DRS for (16)

The discourse referents \( t \) and \( t’ \) are reference points of the corresponding eventualities \( e \) and \( e’ \). The adverbial *ayer* is also anchored at a particular time, which is the same time as for event \( e \). A condition of the sort \( e \subseteq t \) means that the described eventuality is entirely included in the time that \( t \) represents. Conditions of the form \( t < n \)
and $t' < n$ mean that both $t$ and $t'$ are temporally prior to utterance time $n$. Finally, the condition $u = x$ is standard notation in Discourse Representation Theory meaning that $u$ and $x$ refer to the same entity in the model. In this particular case, the empty pronoun of the second sentence Pro stands for Ana in the first sentence. Figure 5.6 provides with an alternative two-dimensional representation for (16):

![Diagram](image)

**Figure 5.6: A Two-dimensional Representation of (16)**

It is important to distinguish the notion of reference point $\text{Rpt}$ and temporal perspective point $\text{TPpt}$ and keep them separated at all times. The difference among these terms can be illustrated by means of the following example representing a short narrative progression.

(18) Juan llegó a la oficina a las 10. Se había levantado a las 7; había tomado una ducha, se había vestido y tomado un café. Se había marchado de casa a las 8.

‘John got to his office at 10. He had got up at 7; he had taken a shower, he had got dressed and had coffee. He had left his house at 8.’
The eventuality described by Juan’s arrival to his office is anchored at some past time before \( n \). Given what we said for this particular tense in (3) and (4a) above, all the plusquamperfecto clauses in (18) have Juan’s arrival as their \( TP_{pt} \). As a matter of fact, that is the only time that is available between the described event and \( n \) in the context prior to interpreting the subsequent discourse. Now, all these clauses form a narrative progression and, consequently, each clause provides a reference time for the clause following it. This reference point is \( R_{pt} \) and it will change from one clause to the next as the narrative moves along. A graphic illustration is provided in Figure 5.7:

![Figure 5.7: A Two-dimensional Representation of (18)](image)

In the previous section we have presented enough evidence to be able to seriously consider a likely convergence in the behavior of demonstratives and natural language tenses in certain discourse uses. Their similarities are striking and numerous. Not only they share common deictic and anaphoric properties, but they also coincide in being partially definable by a common [± PROXIMITY] condition in their semantic
characterization. With all this in mind, it should not be surprising that demonstratives and
tense would require some special pragmatic requirements to appear together in the same
utterance. We have seen that in examples (3), (4) and (5) above. But so far we have been
only considering adnominal demonstratives and we have said nothing about the particular
behavior of demonstrative neuter pronouns [esto, eso, aquello] combined with different
tenses in discourse. To this issue the next three sections will be devoted.

5.3 Reference to Events in Discourse: A Corpus Study

For the purposes of this chapter, the following corpus study was carried out with an
aim at either confirming or otherwise refuting the hypothesis that neuter demonstrative
pronouns do actually show a different interactional pattern with tense as compared to the
one showed by adnominal demonstratives. Given the idiosyncratic referential properties
of neuter demonstratives –they are commonly used by speakers to anaphorically refer to a
variety of higher order discourse entities such as eventualities, or propositions-, I chose to
restrict the corpus study to only one referential type: eventualities. Furthermore, this
would eventually help me reduce the number of occurrences found in the corpus
dramatically; thereby making the data more manageable without affecting objectivity. I
consider this latter point quite advantageous for the initial raw number of neuter
demonstratives found in the corpus was really high: ESTO (46.000 occurrences), ESO
(70.000), AQUELLO (8.000) Notice that, whereas adnominal demonstratives of type
este-NP are more commonly used to refer to physical objects that are salient –or are made
salient via a pointing finger- in the utterance situation, neuter demonstratives are almost
exclusively used to refer to entities, which are not concrete strictu sensu\textsuperscript{7}. Due to their pronominal nature and their anaphoric/deictic uses, the referent of this elements has to be found somewhere in the preceding discourse (much less commonly in the foregoing discourse for the cataphoric uses), and they oppose to adnominal demonstratives by not being accompanied by any pointing act whatsoever.

I have used one of the corpora of the Real Academia Española (RAE) called the CREA corpus: Corpus de Referencia del Español Actual. The oral and written corpus can be accessed online at http://corpus.rae.es/creanet.html. For the purposes of this particular search I have chosen five different verbs:

(22) **VERBS:** \textit{ocurrir} (cf. to occur), \textit{suceder} (cf. to happen), \textit{pasar} (cf. to happen), \textit{terminarse} (cf. to finish/to come to an end), \textit{acabarse} (to finish/to come to an end).

These verbs are typical \textbf{event containers} (Vendler 1967), that is, they can almost exclusively be predicates of events. Use of those event containers will ensure that the referent of the neuter demonstrative pronoun will be an event, thereby discarding other possible referents for the pronoun. The verbs were combined with the three neuter demonstratives and were inflected accordingly. I chose seven different tenses for the demonstratives to combine with:

\textsuperscript{7} It may be argued that the referent to a neuter demonstrative pronoun may also be considered a concrete entity, that is, the piece or fragment of text that the pronoun seems to be referring to in discourse. Nevertheless, the notion of discourse I adopt here is one that adheres to model-theoretic semantics of natural languages. In consequence, evolving discourse is viewed as the psychological representation that both speaker and addressee have formed of it at a certain point in time. Discourse entities, as the pivotal elements that build up discourse, would be assigned an individual in the model via an embedding function and, eventually, a ‘real-world’ entity via an anchoring function. Higher order entities such as propositions, facts and the like, would not be able to be assigned a three-dimensional, ‘real-world’ object but rather some sort of mental object in the minds of the interlocutors.
TENSES: *presente indicativo* (present indicative), *presente continuo* (present continuous), *presente perfecto indicativo* (present perfect), *imperfecto indicativo* (imperfect indicative), *pasado continuo* (past continuous), *pretérito indicativo* (preterite), *pluscuamperfecto de indicativo* (pluperfect), *presente de subjuntivo* (present subjunctive), and *imperfecto de subjuntivo* (imperfect subjunctive).

Spanish is a language that marks tense morphologically. Notwithstanding, I have included two periphrastic tenses that are not commonly included within the regular conjugations in Spanish grammars. These are the two continuous tenses *present* and *past continuous*. I divided the group of tenses presented above into three main subgroups.

PRESENT: *presente indicativo* (present indicative), *presente continuo* (present continuous), *presente perfecto* (present perfect).

PAST: *imperfecto indicativo* (imperfect), *pasado continuo* (past continuous), *pretérito indicativo* (preterite), and *pluscuamperfecto indicativo* (pluperfect).

SUBJUNCTIVE: *presente subjuntivo* (present subjunctive), and *imperfecto de subjuntivo* (imperfect subjunctive).

The first two groups PRESENT and PAST have been categorized according to a temporal-deixis dimension. Thus, the events conveyed by tenses included in the main group are those that can be characterized as totally or partially overlapping the utterance time $n$. The events denoted by present simple and present continuous tenses overlap the utterance time $n$, whereas the present perfect as a predicate of events—while technically a past tense—is conceived as proximal to the utterance time. In Spanish, the present perfect
tense has been extensively characterized according to a 24-hour rule whereby any eventive argument denoted by it must lie within the 24-hour time span immediately preceding the utterance time. Although prior to the utterance time, this 24-hour period would still be conceived by the speaker as a non-purely past tense, but rather as a present tense. As a matter of fact, the present perfect tense can only accompanied by temporal adverbials and adverbial phrases that denote an interval that is part of today. This would indicate their special temporal status. The following example illustrates this point.

(20) Juan ha venido hoy /*ayer */ a visitarme.

Juan has come today/* yesterday */ to to-visit-to-me.

‘Juan came and visited me today.’

Brugger (2001) describes the difference between the Spanish present perfect and the past tense as the former having current relevance. Thus, the present perfect would express a relation with respect to ‘now’, i.e., the time of utterance that is not expressed by the past tense. Thus, for example, (22) would convey that the event’s immediate effects are still in progress at the time of utterance, that is, the subject is still here now. The corresponding past tense sentence (21) would not convey this idea.

(21) Juan llegó ayer.

‘Juan arrived yesterday.’

(22) Juan ha llegado hoy.

‘He has arrived two days ago.’
Brugger’s ideas can be more generally framed within Dowty’s (1979), and Alarcos (1970) for Spanish on the theory of the extended present. For these authors, what differentiates the simple perfect (21) and the compound perfect (22) lies in that the latter situates eventualities within an interval or temporal framework that includes the present. Along these lines, Moreno-Cabrera provides a DR-theoretical representation for these sentences. The conditions in the DRSs indicate the difference between tenses. In particular, notice how the condition \( e < n \) in the DRS for (22) indicates that there is an event \( e \) which is prior to the utterance time \( n \), and the temporal frame \( T \) comprises both the event and the utterance time; whereas in the DRS for (21) the temporal frame is prior to the utterance time.

(22) Juan ha llegado hoy

\[
\begin{array}{c|c}
 n & e \times x \\
\hline
 n & \subset T \\
 e & < n \\
 e & \subset T \\
 hoy & (T) \\
 Juan & (x) \\
 e: & x \text{ llega}
\end{array}
\]

(21) Juan llegó ayer

\[
\begin{array}{c|c}
 n & e \times x \\
\hline
 T & < n \\
 e & < n \\
 e & \subset T \\
 ayer & (T) \\
 Juan & (x) \\
 e: & x \text{ llega}
\end{array}
\]

**Figure 5.8**: DRSs for Sentences (21)-(22)
On the other hand, the group called PAST is quite heterogeneous since it includes simple (Spanish aspectually-divergent imperfect and preterite), compound (pluperfect) and a periphrastic tensed construction (past continuous). All tenses included in this category share a common feature, i.e., the events they are predicates of all lie at some time prior to the utterance time in a two-dimensional representation of time. Finally, those tenses grouped under the label SUBJUNCTIVE belong to this particular mood. Subjunctive tenses are not characterized along a temporal dimension. They are temporally void tenses in some respect and the events denoted by them belong in the realm of the hypothetical, non-factual sphere. In consequence, they cannot be clearly located in the past of or overlapping the utterance time. My having included these tenses in the corpus study can be explained for two reasons. On the one hand, Spanish grammar terminology still makes a distinction between a present subjunctive and an imperfect subjunctive, hence implying some temporal distinction between them, other than an aspectual one. On the other hand, I wanted to have in this study some additional tenses that might serve a contrastive function.

With respect to the combinations DEM + TENSE, five verbs and nine tenses made a total of 45 tensed verbs, which should be multiplied by three (our neuter demonstratives) to get a total number of 135 corpus searches. Given that the system makes a distinction between capital and small letters, I used the symbol ‘?’ in every query to retrieve both cases. The CREA corpus gives us the option to limit one’s query geographically within the Spanish-speaking world. This study is limited to European
peninsular Spanish spoken and written in Spain. Finally, all text types were selected in the search (scientific, journalistic, etc.). The next three pictures illustrate a typical corpus query. Figure 5.9 shows the search parameters. Notice how the query “?sto sucedió” (cf. this happened), as well the option “España” selected in the search window. Figure 5.10 shows the results the database returns once a single query is carried out. The corpus allows us to retrieve the paragraph where the particular occurrence of the combination DEMONSTRATIVE+TENSE was found. This is particularly important when dealing with neuter demonstrative pronouns for it helps us to search for the pronoun’s referent, which is usually found within the immediate surrounding text. A sample retrieved fragment of text highlighting the outcome of the query is shown in Figure 5.11.

Figure 5.9: Search Window and Sample Query

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Figure 5.10: Search Window Showing Results of Query
In the following paragraphs, the results from the corpus study are presented and analyzed. The principal data will be presented in the two tables below. Thus, the first group of data shown in Table 5.1 contains the number of occurrences of each demonstrative co-occurring with every tense found in the corpus, but it is limited to event containers *pasar* (cf. happen), *ocurrir* (cf. occur), and *suceder* (cf. happen). The figures in Table 5.1 show interesting results regarding the combinatorial capabilities of [+ DISTAL] demonstrative *aquello*. Notice the null (0 %) number of occurrences of *aquello* with pure present tenses (*present* and *present continuous*) and the semi-present tense (*present perfect*) in discourse uses. Notice also how [+ DISTAL] demonstrative *aquello*...
appears not to co-occur with the so-called present subjunctive. Interestingly, aquello is only used in discourse with past tenses as the table clearly shows. The preterite seems to be the tense preferred by language users to combine with neuter demonstrative aquello (65% out of the overall occurrences of aquello found in the corpus search).

<table>
<thead>
<tr>
<th></th>
<th>PRESENT</th>
<th>PAST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
<td>Present Continuous</td>
</tr>
<tr>
<td>Esto</td>
<td>470</td>
<td>5</td>
</tr>
<tr>
<td>Eso</td>
<td>170</td>
<td>8</td>
</tr>
<tr>
<td>Aquello</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Table 5.1**: Table showing the number of combinations DEM+TENSE (I)

But the [+ PROXIMAL] demonstrative pronoun esto also showed an interesting behavior when compared with its adnominal counterpart. Whereas the distance-unmarked pronoun eso behaves pretty much as expected, pronoun esto contravenes the clear co-occurrence pattern shown in examples (4) and (5) above. There, [+ PROXIMAL] demonstrative determiner este was argued to exclusively co-occur with present tenses. Let me remind that that distinct behavior implied a sort of necessary presuppositional matching in the semantic and/or pragmatic features of both demonstrative determiner and...
tense whereby their [± PROXIMITY] condition was somehow made identical for a proper combined discourse use of these elements. Whereas this idea might still be right, neuter demonstrative pronoun *esto* behaves unexpectedly when used discourse anaphorically to refer to events. Neuter *esto* co-occurs with past as well as with present tenses. With the exception of the past continuous, 269 occurrences of pronoun *esto* co-occurring with past tenses were found in our corpus search. Table 5.2 presents some additional data comprising event containers *terminarse* (cf. finish/terminate) and *acabarse* (cf. end/come to an end). The figures there almost replicate those in Table 1, but the overall number of occurrences of each demonstrative is comparatively much lower.

<table>
<thead>
<tr>
<th></th>
<th>PRESENT</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
<td>Present Continuous</td>
<td>Present Perfect</td>
<td>Imperfect</td>
<td>Past</td>
<td>Past Continuous</td>
<td>Preterite</td>
<td>Pluperfect</td>
</tr>
<tr>
<td>Esto</td>
<td>20</td>
<td>5</td>
<td>19</td>
<td>1</td>
<td>0</td>
<td>19</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Eso</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Aquello</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>9</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

**Table 5.2:** Table showing the number of combinations DEM+TENSE (II)

As table 5.2 indicates, [+] DISTAL demonstrative *aquello* shows an almost identical pattern as the one shown in table 5.1. Zero (0 %) occurrences of *aquello* with a
pure present tense confirm the first set of data. Nevertheless, an occurrence of *aquello* with a *present perfect* was found. This fact might be explained for the special temporal hybrid status of the present perfect tense. Given that the present perfect can be characterized as a very recent or even proximal past tense as conceived by native speakers, it could be ambiguous or even unspecified with respect to a [± PROXIMITY] temporal condition. This would allow speakers to use it in combination with a typical [+ PROXIMAL] demonstrative, as well as with the [+ DISTAL] *aquello*. Use of the present perfect with the unspecified demonstrative *eso* would result, naturally, in a felicitous use.

A couple of additional comments need to be made regarding overall figures as found in this corpus study. Out of the total (1.426) occurrences found in the corpus of the combination DEM+TENSE, neuter demonstrative pronoun *esto* was the preferred element in absolute numbers and irrespective of the tense used. Notice the higher proportion of *esto* (966 occurrences) as compared to *eso* (411) and *aquello* (49). This is shown in Figure 5.12 below, which includes the percentages of occurrence per type. Irrespective of the hypothesis defended in this chapter, this figures clearly indicate a rather extreme low frequency of use of [+ DISTAL] neuter demonstrative pronoun *aquello* for reference to events in discourse as compared to *eso* and, especially, to [+ PROXIMAL] *esto*. This fact is further supported by data presented in Chapter 4, where general figures were presented on the frequency of use of neuter demonstratives.

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8 As I already pointed out, by ‘proximal’ here I mean to indicate proximity to the utterance time; the now of the utterance situation along a temporal dimension where, for example, an event $e$ that occurred two days ago can be conceived as further away from the utterance time than one other event $e'$ that occurred two hours ago.
irrespective of referential preferences. This might be a clear indication that there is a process underway whereby the original tripartite demonstrative system of Spanish is changing into a basic bipartite system. These numbers are also in line with the ideas presented repeatedly in this dissertation about a hypothesized reduction of the Spanish demonstrative system based on their observed discourse behavior and semantic content.

![Bar chart showing frequency of use per demonstrative](image)

**Figure 5.12**: Overall frequency of use per demonstrative

### 5.4 A Proposal for a Reduction of the Tripartite System of Spanish Demonstrative Pronouns

The data analyzed in this empirical study contradicts the suggested complete convergence in the semantic characterization of Spanish neuter demonstrative expressions and tense in terms of a [± PROXIMITY] condition in natural discourse. The observed co-occurrence of adnominal demonstratives *este, ese* and *aquel* and tense does not parallel that of neuter demonstrative pronouns. The latter show a different interaction pattern with other deictic elements in discourse. In my view, this would indicate a clear
divergence in the Spanish demonstrative system regarding the \([\pm \text{PROXIMITY}]\) condition between adnominal demonstratives and demonstrative pronouns. As the data presented here seem to confirm, demonstrative neuter pronouns *esto* and *eso* co-occur with any type of event container and, more importantly, irrespective of the type of tense used. On the other hand, demonstrative neuter pronoun *aquello* shows a strong preference to co-occur with past tenses (those which are \([+ \text{DISTAL}]\) relative to the utterance time \(n\) in a temporal dimension), perhaps reflecting that *aquello* still maintains a rigid \([+ \text{DISTAL}]\) presupposition in its semantics that explains its special discourse anaphoric/deictic use. Regarding their referential properties, *aquello* may be used by speakers to only refer to entities (eventualities) which are conceived as past or distal in time; hence the absence of present tenses co-occurring with the demonstrative. Thus, the following condition holds with respect to demonstrative *aquello*:

- \([+ \text{DISTAL}]\) does NOT match \([+ \text{PROXIMAL}]\)

On the other hand, neuter demonstrative pronouns *esto* and *eso* would be used by speakers to refer in discourse to any kind of eventive object irrespective of a \([\pm \text{DISTANCE}]\) semantic feature. For this reason I believe that both *esto* and *eso* have lost any kind of proximity content in certain well-defined discourse uses like the ones shown in this study. As a consequence, they would be pragmatically [UNSPECIFIED] elements subject to the following two conditions:

- [UNSPECIFIED] matches \([+ \text{PROXIMAL}]\)
In chapter 3, we proposed that demonstrative determiner *ese* be better characterized as an unmarked element with respect to a [± PROXIMITY] condition based on the observed discourse behavior of this demonstrative expression. This particular semantic feature was thus reflected in the setting-up presuppositional DRS that we provided for *ese* there. The two other demonstrative determiners *este* and *aquel*, on the other hand, would be used by speakers when expressing subjective distance is relevant for the purposes of the conversation. Their setting-up presuppositional DRSs were shown to include a [+ PROXIMAL] and [+ DISTAL] presuppositional conditions, respectively. All that led us to propose a reduction hypothesis whereby the tripartite system of Spanish demonstrative determiners (*este/ese/aquel-NP*) could be reduced to a bipartite system defined in terms of opposing-distance conveying terms. Based on the presuppositional characterization for Spanish demonstrative determiners as developed in this dissertation, the hypothesized reduction of the distance marking system would be as in Figure 5.13:
As also shown in Chapter 3, I initially proposed a similar characterization for Spanish neuter demonstrative pronouns based mainly on the discourse anaphoric behavior of these expressions when referring to a specific type of abstract referents, i.e., propositional objects. There we saw that pronoun *eso* is, by far, the preferred option to refer back in discourse to these type of entities and we presented evidence from natural conversation to supports this fact. Given that propositions are considered to be semantic entities that apparently lack spatio-temporal boundaries, I was there initially tempted to extend the distance-marking related reduction of determiners to neuter demonstrative pronouns as well. Recall that the setting-up presupposition DRS for neuter *eso* was unspecified with respect to a [± PROXIMITY] condition. If exactly the same reduction
as the one proposed in Figure 5.8 could be replicated for neuter demonstrative pronouns we had gained in explanatory elegance. But a careful observation of the anaphoric preferences of neuter demonstratives as evidenced in this and previous chapters forces us to propose an alternative reduction for the tripartite system *esto/eso/aquello*. Neuter demonstratives *esto* and *eso*, although showing some particular tendency regarding their referential preferences, are very much used to anaphorically refer to any kind of event irrespective of the tense considered. These conclusions lead me to attempt a reformulation of the presuppositional characterization of neuter demonstrative pronouns along the following lines, where $\beta$ stands for an eventive referent and the condition distal $(\beta, x)$ means that the agent $(x)$ of the utterance is distal (spatially or temporally) to $\beta$

This is shown in Figure 5.14:

![Figure 5.14: Revised Presupposition DRSs for Neuter Demonstrative Pronouns](image)

**Figure 5.14**: Revised Presupposition DRSs for Neuter Demonstrative Pronouns
These new presupposition DRSs for neuter demonstrative pronouns show that *aquello* is actually the only element of the system that still retains a [± PROXIMITY] presupposition distal (β, x), whereas *esto* and *eso* are unspecified with respect to proximity. In view of the data, the reduction hypothesis is still valid but it is to be characterized differently. The tripartite system of neuter demonstrative pronouns seems to have reduced into a binary system with a marked opposition between *esto* and *eso* acting as one single element in terms of proximity marking as opposed to *aquello* which is used to subjectively mark [+ distance]. This is actually the only innovation with respect to the presuppositional material offered for neuter demonstratives in Chapter 3; the other setting-up presuppositions for all three neuter expressions remaining in place.

**NEUTER DEMONSTRATIVE PRONOUNS**

![Diagram showing the reduction of the tripartite demonstrative system.](image)

*Figure 5.15: A Reduction of the Tripartite Demonstrative System (II)*
CHAPTER 6

CONCLUSIONS AND FUTURE PROSPECTS

6.1 Conclusions

The main objective of this doctoral dissertation has been to shed some light into the fascinating but at the same time fairly complex nature of Spanish demonstrative pronouns. In my opinion the primary goal has been accomplished, but unfortunately the task is still far from being completed. The reason is clear to me. When it comes to characterizing any linguistic phenomenon that transcends the limits of the sentence and expands into a larger notion of discourse, many factors have to be taken into account to be able to provide a full-fledged analysis of the problem in question. Lack of time, space and strength has prevented me from trying a more comprehensive study. Despite the misgivings though, I hope the ideas as developed here may contribute in the future to further developments in the still not utterly well understood areas of abstract discourse anaphora and demonstrative deixis. Regarding these particular phenomena in Spanish as covered in this dissertation, I have initially tried to give a general idea of the most frequent types of discourse anaphora patterns that can be found in Spanish discourse, putting a special emphasis on abstract discourse anaphora.
Naturally, a brief review of the most influential research on this topic was necessary in order to frame the phenomenon in the current state of affairs. Those points made up the introductory chapter one.

As the dissertation principally focuses on the discourse properties and behavior of demonstrative pronouns, an adequate exploration into the semantics and morphosyntax of the most common antecedents in abstract anaphora needed to be carried out. To this issue chapter two was entirely devoted. Thus, I presented there what is surely a non-exhaustive inventory of the most common abstract entities in Spanish discourse: verbs denoting eventualities in the davidsonian form of an event argument; propositions as the objects denoted by complementizer phrases, but also other not so common but equally important structures, namely, nominalized constructions and small clauses as abstract object denoting structures. A substantial part of chapter two was also devoted to position abstract discourse entities in an adequate discourse semantic theoretical framework. This was accomplished by resorting to Discourse Representation Theory and, more specifically, to an extended version of it called Segmented Discourse Representation Theory.

Chapter three has been entirely devoted to study the semantic and pragmatics properties of Spanish neuter demonstrative anaphors with an aim at getting a better understanding of these expressions. There, I suggest that demonstrative anaphors be treated as monadic generalized quantifiers. In my view, another important contribution of this chapter is that contrary to the traditional view of demonstrative anaphors as static, uninteresting expressions with poor descriptive content they rather show a rich semantic
content that can be modeled presuppositionally. Under this general presuppositional approach, which is also applied to demonstrative determiners, Spanish neuter demonstrative pronouns would trigger a bunch of presuppositions such as the familiar status and cognitive status ‘activated’ of their abstract discourse referents. Furthermore, I also suggest that demonstrative anaphors still retain a deictic component that is presuppositional in nature. Thus, when speaker $s$ utters demonstrative anaphor $x$, the inherent deictic component of the demonstrative would play the role of signaling the addressee to look for a discourse referent which is abstract, familiar and cognitively activated in the immediate discourse environment.

Chapter four describes a general corpus-based study on the referential properties of Spanish demonstrative pronouns. One of the primary goals of this research was to check whether the category of the so-called abstract objects was relevant enough in terms of frequency of occurrence in Spanish discourse to deserve any attention or, by contrary, the emphasis should be put on any other referents. Many interesting conclusions can be drawn from the results. First, demonstrative pronouns are highly-used linguistic devices which play an essential role in maintaining discourse cohesion. They are not residual or marginal elements at all and their importance has long been surprisingly neglected. As a matter of fact, it is precisely abstract objects (facts, propositions, events, etc.) the most common type of referent for demonstrative anaphors. Eventualities and propositional objects altogether represent a $\pm$ 50% of all referential types of demonstrative pronoun anaphora cases. This also clearly indicates the relevance and special attention that abstract discourse anaphora should be given in upcoming discourse studies. These
findings and the lack of corpus-based research on abstract entities or general demonstrative pronoun discourse reference makes it the principal contribution of this chapter to the Spanish linguistics studies.

Finally, chapter five inquires into the correlation between demonstrative anaphors and tense in Spanish discourse. Based on evidence from a written and spoken corpus study on reference to events via demonstrative anaphors, I conclude that demonstrative pronoun aquello still maintains a [+ distance] proximity feature, while the other two anaphors esto and eso are distance undefined/unspecified elements. The proximity feature of aquello is also presuppositional. Thus, for example, use of aquello would trigger the presupposition that whichever discourse entity speaker s may be referring to by uttering the anaphor it may be conceived of as distant from both speaker and addressee in space and/or time. This observations allowed me to argue in favor of a reduction of the Spanish tripartite demonstrative pronoun system into a basic binary opposition with aquello occupying one of the poles and eso and esto, as one single element, occupying the other pole of the opposition.

6.2 Future Prospects

As I mentioned above, a complete explanation for the phenomenon of abstract discourse anaphora is still far from being completed. There are other anaphors that, while not strictly demonstrative expressions, still seem to play a substantially important role in anaphorically referring to abstract entities in discourse. Take for instance the case of third person ‘neuter’ pronouns lo (cf. it) and ello (cf. it); or even zero pronouns. Other well attested discourse anaphora structures that I mentioned rather superficially in this
dissertation such as *sluicing, verb phrase ellipsis* or *gapping* should also be well taken into account for they also appear to be able to refer to abstract entities somehow. On the other hand, the semantic inventory of discourse abstract entities is not necessarily closed nor their corresponding heterogeneous set of antecedent structures.

With respect to the use of corpora and corpus-studies, those who have done some research in abstract discourse anaphora know how difficult it may be in many cases to locate the suitable antecedent for a demonstrative anaphor. Annotated corpora for abstract entities would be invaluable tools for testing the referential behavior of discourse anaphors and of great help to researchers. But in order to achieve that goal, a necessary step will be that of devising small annotated corpora that can be put to test with non-biased speakers. As of today, only a few controlled studies have been carried out in this respect, but they cast promising results. This, along with further research in abstract object ontologies would contribute to an eventual computational implementation of abstract discourse anaphora linguistic mechanisms.

With respect to the specific proposals presented in this dissertation, I feel many more things could have been added and some of those ideas could have been further elaborated. Thus, for example, as pronouns demonstrative anaphors have binding properties. In this dissertation, I have focused on those cases where the bound element is an abstract object that has been previously mentioned in discourse. But I have also proposed here that demonstrative anaphors trigger a bunch of presuppositions. A dynamic
theory of discourse representation and discourse anaphora should be able to account for the double side of demonstrative anaphors. Aware of the problem that binding and presupposition-triggering expressions like definites pose, Chierchia (1995) argues in favor of two autonomous but interacting components to discourse semantics. One component involves checking whether the input context meets the presuppositional requirement of a sentence. This aspect would be inherently backward-looking. In Chierchia’s words (1995): it looks at the context as it is, prior to the processing of the sentence. The second component amounts to the introduction or substraction of discourse referents. This second aspect would be forward-looking. It sets up ‘hooks’ onto which new pieces of incoming information can be hung. Based on these intuitions he formulates a two-layered dynamics. This approach might well used to describe the discourse behavior of demonstrative anaphors.

An alternative approach that might well fit Chierchia’s proposal of a two-layered semantics would consist of modeling the content of demonstrative anaphors as feature matrices. The presuppositional content of these anaphors as presented in this dissertation should be viewed, under this approach, as a bundle of (presuppositional) semantic features that would establish the necessary conditions under which abstract object antecedents could be bound. This binding condition would be almost entirely semantic, leaving but little room to morphosyntactic considerations. In this respect, Spanish demonstrative pronouns might be conceived of as anaphoric presupposition triggers (Kripke, 1990) that would project beyond the limits of the sentence and into bigger spans of discourse.
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