

UNEXPECTED (IN)DEFINITENESS: PLURAL GENERIC EXPRESSIONS IN
ROMANCE

by

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A Dissertation submitted to the
Graduate School-New Brunswick
Rutgers, The State University of New Jersey
in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Graduate Program in Linguistics

written under the direction of

Veneeta Dayal

and approved by

New Brunswick, New Jersey

January, 2005

ABSTRACT OF THE DISSERTATION

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Definite descriptions in Romance are well-known to be the preferred form taken by generic arguments in those languages. Less well-known is the fact that Romance definites also differ from English ones in that they are much more restricted in their availability as deictic DPs. In this dissertation, I propose an account for definite descriptions in Romance which captures both of these facts. I also explore the consequences of the restricted availability of bare plurals in these languages. I show that by appealing to the maximality presuppositions of the lexical definite determiner, and the ways that those presuppositions may be satisfied, we can account for the distribution of the definite in Romance, and for the limitations on this distribution. In particular, looking at languages such as the Romance ones allows us to make more fine-grained observations about both the nature of generic quantification in various types of sentences, and about the role that maximality plays in the interpretation of generic arguments

across languages. These observations cannot be made when we only consider a language such as English, where bare plurals occur in all generic contexts.

The discussion in this dissertation focuses on French, before moving on to a discussion of the consequences of the proposal for other Romance languages. The account developed gives a typology of generic determiners in French and Italian, and leads to greater understanding of the interactions between definite and other descriptions in generic and episodic contexts alike.

Acknowledgement

How novel it is to say that writing this dissertation has been a marvelous (in the archaic sense), tortured, revelatory process, as it wended its way home in fits and starts and sprints and quagmires, making startling turns all the while. How original to say that it could not have been accomplished without a web of support all around me. But novelty and originality have little worth in these circumstances, I find, and so, I hereby acknowledge all of those who have made this work what I lay before you today, as though I could ever acknowledge you., but I will try.

To Veneeta Dayal: For patience, perseverance, forbearance, support, comfort, wisdom, responsiveness. For asking smart questions and helping me to decipher the answers from my often rather garbled intuitions. Thanks also for believing in me when I am sure it was a pretty difficult job, and broadening my horizons, and for listening to and reading *all* the versions, and being tough when I needed toughness, and for always being honest, over long and short distances.

To Viviane Déprez: for perspective on what all this stuff might be useful *for*, and for enthusiasm and interest in what I was working on, and prompt and detailed responses to my many data questions. Also for energy and stamina during long and stimulating meetings. For asking important questions, and forcing me to give coherent answers. For helping me see a future for this work, after the dissertation.

To Matthew Stone: for stepping in at the last minute so graciously. For asking questions that opened up new directions in the ways I thought about definites, and for calling my analysis ‘nice’ when I couldn’t see it any more.

To Liliana Sanchez: for enthusing so gratifyingly in that phonecall from Peru, and in your comments afterwards. For asking questions that helped me to see where my project fits into a bigger picture. For being such an accessible external committee member, and for very interesting chats about grammar books for teachers.

To Joanna Stoehr: For all these years of looking after me, and answering questions, and chatting. If not for you at the beginning, knowing who I was and caring who I was, I would have been back on the plane to Sydney after the first week. For your wonderful stability and support and knowledge.

To Roger Schwarzschild: for insights on my dissertation proposal, and for agreeing to be on the committee, though distance meant that he was not on the final team. And for fun conversations about all manner of things.

Thanks also to my informants: Viviane Déprez, Sandrine Sanos for French, Ivano Caponigro, Vieri Samek-Lodovici and Monica Bilotta for Italian, and to Giuseppe Longobardi and Roberto Zamparelli for answering impertinent emails.

To all my friends from Linguistics (although some of you may no longer be here), in particular, Luba Butska, Daphna Heller, Graham Horwood, Slavica Kochovska, Alexandra Zepter, Scot Zola, my classmates Markus Hiller, Se-kyung Kim, Jinsoo Lee. André Nündel, Lian-Hee Wee, as well as the aforementioned Alex. I think we have done well.

Special mention to Daphna, Graham, Slavica and Alex for friendship that goes far beyond the dissertation: Daphna for perspective and escape to New York, Alex for comfort and so much more, Graham for support in so many forms, for so many years,

Slavica for listening so patiently to the ramblings in the final stages, for understanding, and for being such a good neighbour.

To Caroline Jones, a link to Sydney when she was first at UMass, and then when she was back, and I was here. Thanks for phonecalls and for understanding on many levels. To Louise Buchanan, from North Sydney Girls' all those years ago, and still now. I am grateful to you both.

To the Rutgers University Writing Program, and all its affiliated denizens, for my other life as a Writing Program instructor, which allowed me access to a whole other world, and a whole series of options. To Kurt Spellmeyer, for giving me the teaching assistantship that provided the financial support to finish out the last dissertation year, when all other support dried up most abruptly. To Carol Denise Bork and Michelle Brazier, directors, mentors and friends and much more. To Donna Cantor (for breakfast) and Carmen Vendelin (for beers, climbing and much else too). And to all my students, who have entertained me for the last three and a half years in their composition classes, and forced me to be a better teacher each time. And again, to the Writing Program for giving me a next step, a new beginning for this year, and for opening doors, intellectual and pedagogical, and social too.

To Amy Bain and Christine Skwiot, saviours from that first, hard year, and wonderful friends afterwards. To Amy and Graham, for so much everything. And to Christie Veitch, flatmate, colleague, dear friend, for support and listening and living with me through those last o-so-fun months. You deserve a medal.

To Toni Borowsky, who opened up the doors of formal linguistics at Sydney University, and who told me that graduate school in the U.S. would be good for me. You

were right, Toni (of course). Your sharp mind and generous support throughout all the years have been wonderful. And to the other members of the Linguistics Department at the University of Sydney, for giving me such an interesting and wide-ranging start (even if I wasn't ready to take full advantage of it).

To my mother, Glenda, my father John, my sister Alison; my grandma and grandpa, Merle and Edward Fisher; and my aunts and uncles and cousins, for all their love and support and encouragement and taking it for granted that I would do this. To Mum, for listening so patiently while I worked out so many ideas so many times. Though the venue changed, the ear was always there and talking sense into me when I needed to hear it, and then, just talking. Thanks, for ears and so much else. I hope you know. To Dad, who was always uncompromisingly supportive even though I know it was difficult to explain to his friends just *what* I was doing. To Alison, my sister, for always being there, for being a voice outside the academic and teaching fray, and for visiting so much. To grandma, for being so proud of me always. To Barbara and Alistair, for being so interested, and so ambitious for me, and for telling me that Melbourne was a boring option. And to all the others in Sydney who I think of all the time. And to Jeffrey Mason, thank you for waiting and holding my hand, for reminding me of the end in sight and of a life beyond graduate school. What shall we do now?

This dissertation is dedicated to my grandparents, who always believed in me, and set expectations that it was a joy to achieve. And to my mother, for everything.

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Introduction: Bare Plurals, Definiteness and Genericity

1.0 Definites and kind terms in English and French

In this dissertation I will explore the relationship between definiteness and genericity, taking a special interest in definites in French, a language in which bare arguments are extremely restricted.¹ While there has been a great deal of interest in generic sentences and kind-level nominals over the past few decades in linguistics, most of the research conducted has focused on the semantics of bare arguments on their generic and kind-level readings. Following Carlson's 1977 seminal dissertation, there has been much debate about how to analyse bare plurals, first in English, and extending into a great deal of cross-linguistic work. The central question that I seek to answer in this dissertation, however, concerns languages in which bare plurals are either not permitted at all, or have a conspicuously restricted distribution. The Romance languages are well known to have such restrictions on bare arguments. From amongst the Romance languages, French is the most syntactically restrictive, almost completely prohibiting bare nominals. Wherever a bare plural is available in English, a DP with an overt lexical head is required in French. Italian and Spanish are less restrictive, allowing bare plurals in lexically-governed positions (Contreras 1986, Casalegno 1987, Longobardi 1994), or when the NP is modified or in a topic or focus phrase. French, the most restrictive language as far as the availability of bare plurals goes, will be the primary focus of this dissertation. In the conclusion I will apply the theory developed for French to Italian, with its more liberal distribution of bare arguments.

¹ Bare NPs *are* permitted in verbal argument (non-predicative) position in French, but only when the NP is conjoined, as in (i).

i. *Filles et garçons jouent ensemble.*
 'girls and boys are-playing/play together.'

Whereas in English sentences plural generic expressions usually take the form of a bare plural, in most generic sentences in French, the form that the generic argument takes is that of a plural definite DP. This is the form that we see both with predicates which select for a kind-level noun phrase, and in generic sentences with object-level predicates.² We see the former type of sentence in (1), the latter in (2). The examples are from French, and we note the bare plurals in the English translations.

1. *Les dinosaurs ont disparu.*
def.pl dinosaurs have.3pl disappeared
'Dinosaurs are extinct.'
2. *Les cochons mangent des pommes pour le petit déjeuner.*
def.pl pigs eat.3pl indef.pl apples for def.sg.m little lunch
'Pigs eat apples for breakfast.'

The sentence in (1) contains a kind-level predicate (a predicate that can only hold of a species as a whole, not of its members), whereas that in (2) is a generic sentence (the predicate can apply to individuals and the aspect allows for a non-episodic interpretation). Therefore, the interpretation of the definite in these two sentences is subtly different: in (1) it names a species, in (2) it identifies individuals which are representative of this species. One of the central claims of this dissertation is that both of these readings have the same source. Following the proposal made by Carlson 1977 for the English bare plural, this dissertation builds upon the idea that the plural generic term is derived from the name of a plural kind. However, while in English it is the bare plural which names the kind, in Romance this is the job of the definite. It thus follows that, even when a bare plural is syntactically permitted in Romance, it will never denote a kind. This will come out as an important point particularly in chapter 5. English and Romance

² For a definition of the distinction between *kind-level* and *object-level* predicates, see below, or Krifka et al 1995.

must therefore also be fundamentally different in the form which their generic arguments take.

Unlike the French plural definite, the English plural definite may *not* usually receive a generic reading. The sentences in (3) below, (3a) only has an interpretation which refers to a particular group of pigs which is familiar in the context³. The definite in (3b), on the other hand, has a taxonomic reading – one which ranges over all types of pigs – but not a generic one.

3. a. ***The pigs** eat apples for breakfast.*
- b. ***The pigs** are becoming rarer in the wild, but more common on farms.*

In order to express the generic or (non-taxonomic) kind-level reading, English must use the bare plural, as we see in (4) and (5).

4. ***Dinosaurs** are extinct.*
5. ***Pigs** eat apples for breakfast.*

Based on this basic set of data, in this dissertation I seek to answer three core questions. The first question concerns the difference between the French and English definite such that generic definites are permitted in the former, but not the latter language. The answer, I propose, is due to the way in which these two definites refer. I propose that the English definite has extra structure which allows it to refer to entities in the extra-linguistic context where the French definite may not. One consequence of the English definite's greater referential range, I suggest, is that it must always refer to an entity in a particular situation, rather than being able to range across situations in its interpretation. That is, it always picks out a specific entity in the context of evaluation, unless overtly coerced by kind-level modification, except for some very special cases discussed in chap

³ *pace* the existence of a suitable referent for the definite on its specific reading (see chapter 2 for more details).

2. The French definite, by contrast, does not directly pick out anything: it is interpreted via a co-reference condition on the discourse referent it introduces. A discourse referent must already be available in the discourse context for the French definite to be licit. This view of the interpretation of definite descriptions draws on Heim 1982, Löbner 1985, and more recently, on Roberts 2003. Developing the answer to what causes the difference between the French and English definite is the work of chapter 2.

After having established the limitations on the readings of both the English and the French definite in chapter 2, the next question I will answer is how the French definite can receive a reading equivalent to the English bare plural, which we see is the case by comparing the examples in (1-2) and (4-5). The answer that I will suggest in chapter 3 draws on both of the core elements of the interpretation of the definite, which I will discuss in this introduction as well as in chapters 2 and 3. These core elements are the definite's presuppositions of *maximality* and *existence*. I claim that the definite may be interpreted generically because of its maximality: under generic quantification it can be used to identify the maximal individual *in each situation* which fits the descriptive content of the definite's nominal expression. The bare plural can achieve the same results through exhaustive quantification over minimal situations (Berman 1987, Heim 1990, von Stechow 1996). Under both analyses, generic quantification over situations and individuals in generic sentences is crucial in making the generic interpretation available. The existence presupposition is also vital in that it ensures that the definite refers to an entity which has a correspondent in the kind-domain, and so it is independent of any particular context of utterance (see Carlson 1977, Chierchia 1998, Krifka et al 1995 for a definition of a kind as a concept which is instantiated in many different worlds).

The third core task that I undertake in this dissertation is to give an account of the limitations on the aforementioned parallel between bare plural and definite plural in generic contexts. In chapter 4 we will see that the maximality of the definite in fact blocks a generic reading of the French definite in certain semantic environments. The English bare plural may occur in many generic environments where the definite is blocked because of its lack of maximality presuppositions. Maximality impedes the generic interpretation of the French definite due to both the meaning of certain verbal predicates, and to certain kinds of generic quantification.

Clearly, the answers to these questions build upon a great many assumptions about the nature of definiteness, and of generic quantification. In the next sections of this introduction I will lay out some of the background assumptions that underlie the answers to these questions. The first section concerns the nature of definite descriptions, and the second the relationship between the generic and kind-denoting expressions given above.

1.1 What is a definite?

The term *definite* is used to describe a range of nominal expressions, from pronouns to proper names, with definites which contain a full NP and either a definite or a demonstrative article falling somewhere in the middle. In this dissertation, I will not discuss pronouns at all, and proper names only when they are relevant to the discussion of kinds. Our focus here will be what we call definite descriptions, which are comprised of a determiner and its NP complement. In chapter 2 I will discuss the differences between two of these descriptions, the demonstrative (in English, *that/this/those/these* NP) and the definite (*the* NP). The discussion in this introductory section, however, will concern just definites (*the* NP), as it is these expressions which have received the majority of

theoretical attention in the semantic and philosophical literature, and thus which provide the background for all discussion of demonstratives.

While there is by no means any real consensus on what exactly a definite is, two ingredients to definiteness have been consistently argued about as being at the core of the meaning of definite expressions. These two ingredients are *familiarity* and *uniqueness* (or *maximality*). Most authors favour one over the other as the better way to account for the behaviour of these expressions. In this section, I will give a brief overview of the key points which inform most discussions of definite descriptions, whether or not their findings eventually support or contradict them. I stress that I will not attempt to give a comprehensive overview of all the literature concerning definite descriptions; to do so would be well beyond the scope of this dissertation. However, I will attempt to bring out some of the more important points of this ongoing discussion.

Early analyses of the definite focused on the *uniqueness* requirement on its use. In the analysis of singular definites suggested by Russell 1905, the definite entails the uniqueness of its referent, that is, that there is one and only one individual which fits the definite's descriptive content (i.e. the nominal complement to the definite article). Russell's semantics for the definite also asserted the referent's existence. Several subsequent theories of the definite have taken up either one or the other of these aspects of definiteness, usually arguing explicitly against the necessity of the other in giving a satisfactory account of definiteness. One of the most important developments of this theory comes from Strawson 1950, who suggested that both uniqueness and existence are presupposed, rather than asserted (see also Frege 1892). This change in perspective has been generally accepted in the definiteness literature. Link 1983 extended the uniqueness

account developed by Russell 1905 for singular definite descriptions to include plurals by extending the ontology to include not just atomic individuals but also sums or groups of such individuals. He proposed that both singular and plural definites identify the *maximal* individual in the set denoted by the definite's NP. The ongoing discussion concerns which, if either, of existence or maximality best accounts for the use and distribution of definite descriptions, and how to adequately formulate these two presuppositions. In the next paragraph I will mention a few of the key developments on the uniqueness side of things, before moving on to the approaches which focus on the existence requirement.

The idea of maximality presuppositions being central to the meaning of definite descriptions has been defended by many authors, notably by Löbner 1985, Kadmon 1987, 1990 and Heim 1990. This view has also been defended in the psycholinguistic literature, notably by Gundel, Hedberg & Zacharski 1993, who claim that the definite may be used only when "the addressee can [uniquely] identify the speaker's intended referent on the basis of the nominal alone" (p. 277). That is, just so long as there is enough information supplied in the nominal expression, the addressee need not have any previous knowledge of the existence of the reference. Other authors, however, have asserted that previous knowledge was essential for the correct interpretation of the definite.

In her 1982 dissertation Heim proposed that an appeal to uniqueness could not adequately explain the use and distribution of the definite. Instead, she proposed a theory in which the definite's referent must be *familiar*. Familiarity theories of definiteness date back at least to Christopherson 1939, but Heim's is a particularly influential implementation of this idea. In simple terms, the familiarity approach to definiteness

means that the referent of the definite description must be already present in the context of evaluation at the time of utterance. In terms specific to Heim (and subsequent authors who follow and develop on her original proposal), the discourse referent introduced by the definite must share the index of a discourse referent which has already been introduced into the discourse. The introduction of the antecedent discourse referent may take place, according to Heim, in one of two ways. It may either be introduced explicitly, by means of an indefinite (as in the anaphoric use of the definite shown in (6) below), or, through accommodation of an antecedent discourse referent, as proposed by Lewis 1979 (as in the case of deictic definites shown in (7) below). That is, the presupposition of the existence of the antecedent comes into being at the moment of utterance. In technical terms, a discourse referent is established in the discourse context which corresponds to the extra-linguistic entity to which the definite is used to refer, and the definite shares the index of this accommodated discourse referent. We see an example of the deictic definite in (7).

6. *A man_i and a woman_j walked in. **The man_i** sat down.*
7. [*Context: two tourists arrive in the main square of a small town, where there is a baobab tree growing in the centre. There is a monkey sitting in the baobab tree. One tourist says to the other (e.g. from Tasmowski-de Ryck 1990)*]
***The monkey** is looking at you.*

The familiarity approach to definite reference is also advocated by Prince 1981, 1992 from a more pragmatic standpoint. Prince draws parallels between the use of the definite, and the ‘givenness’ of the referent, i.e. whether the referent can be said to be ‘known’ to the hearer before utterance, or not. Despite support from this, and other quarters, the familiarity theory of definiteness seems to be insufficient, on its own, to account for the distribution of definite descriptions (see Barker 2003 for a brief overview

of arguments against ‘pure’ familiarity, and indeed, Heim 1990 for arguments *for* uniqueness.) As we will see in this dissertation, however, familiarity does play a role in the licensing of the definite, though, as shown by Roberts 2003, the terms of this familiarity are different to those originally envisioned by Heim 1982. We also note that maximality does, in fact, entail the existence of a non-empty set to begin with, as observed in Löbner 1985). This latter point will be pivotal to the analysis of the generic definites.

Therefore, the proposal for definite descriptions that I will adopt here combines both familiarity and uniqueness, in a manner that is similar, but crucially not identical to that proposed in Roberts 2003 and Farkas 2002 (for example), which, in turn are developments of the Russellian idea that definiteness involves both uniqueness and existence. I claim that the definite identifies the maximal entity which fits its descriptive content, and the maximality (and thence existence) of that entity must be entailed by context. I will go into detail in chapter 2 about how this context is structured, as it will be important in making distinctions between the use of the definite in French and English. The kind of familiarity which I adopt is closely related to what Roberts 2003 calls *weak familiarity*, whereby the existence of the entity which the definite identifies “need only be *entailed* by the (local) context of interpretation” (p. 288; parentheses Roberts’). This is in opposition to stronger versions of familiarity, which requires the definite’s referent to have been explicitly introduced into the discourse context, either by an indefinite, or via accommodation of the relevant discourse referent which corresponds to an immediately salient entity in the extra-linguistic context.

Under Roberts’⁴ proposal the domain of uniqueness is taken to be narrower than the world (as in Russell 1905), but more inclusive than comprising just those elements which have been explicitly introduced into the discourse context. These views of the domain of uniqueness prevent an adequate account of the distribution of the definite. Rather, definiteness is assessed with respect to the local context, which includes the set of discourse referents in the discourse context. She names this kind of uniqueness *informational uniqueness*, as it relates to information available in the common ground (for discussion of the common ground, see Stalnaker 2003). While I will not use the term here, this contextually-dependent uniqueness and existence are crucial for the analysis of both the English and French definite in chapter 2.

In conclusion, in this dissertation I will show how existence and maximality interact in licensing the definite – and that the two are interdependent. They combine to license the definite on both its well-known referential reading, and its less well-known non-referential readings. It is to these latter readings that I will now turn. We will now move on to the other major background story upon which the matter of this dissertation is built. The question of genericity, and the use of the definite in generic contexts in both English and French.

1.2 Genericity and the definite

We see from the contrast between (2) and (3) that the French and English plural definites are quite different. In particular, a reading is available for the French plural definite that is not available for the English one.⁵ This contrast in the use of the definite does not, however, hold in the singular domain. In both Romance and English, a singular definite

⁴ I refer most to Roberts’ proposal as its discussion of the implications of the combination of familiarity and uniqueness is more articulated than other comparable theories, such as Farkas 2002.

⁵ This is not quite true, as we will see in chapter 2, but I will restrict myself to this standard view for now.

description may be interpreted as a kind term, as in (4) and (5). The French sentences are given in (a), the English ones in (b).

8. a. ***Le dinosaur** a disparu.*
 def.sg.m dinosaur have.3sg disappeared.
 ‘The dinosaur is extinct.’
 b. ***The dinosaur** is extinct.*
9. a. ***Le cochon** est un animal intelligent.*
 def.sg.m pig is an animal intelligent
 ‘The pig is an intelligent animal.’
 b. ***The pig** is an intelligent animal.*

The reading that these definites receive is clearly a kind-level one. What is particularly surprising is the fact that where French and English diverge in the plural domain with respect to the availability of a non-specific reading for the definite, as we saw in (1-3) the two are identical in the singular domain. As well as being able to name a particular individual which is familiar to the speaker and satisfies the descriptive content of the definite description’s NP, singular definites may also refer to kinds. Following Krifka et al 1995, I take the definite descriptions in (4) and (5) to be names, which refer to a particular type of individual entity – a kind. As shown Dayal 2004a, as well as Krifka et al, singular kind terms such as those in (4) and (5) differ in a number of important respects to plural kind terms as in (1) above. While the issue of singular kinds is orthogonal to the task which I undertake in this dissertation – that is, to understanding *plural* generic expressions in Romance – I will spend some time here on outlining some key issues concerning singular kind terms that naturally arise in any discussion of generic and kind-denoting expressions.

The two issues that I will focus on here are as follows. The first is a syntactic issue: why may English have a bare plural and not a bare singular, and, thence, why may French have neither? The second question is a semantic one: what, if anything,

differentiates singular and plural kinds? We will see that the answers to these two questions are not unrelated. I will take up the syntactic issue first.

1.3 Bare plurals and bare singulars

Central to the question of how French, and the other Romance languages, express kind and generic readings is the fact of the restricted distribution of bare nominals in these languages. As mentioned above, French is the most restrictive of the Romance languages, permitting bare nominals, both singular and plural, in a very small set of syntactic environments. For our purposes here, it is safe to say that French does not permit bare arguments. We see this below. I show examples from the mass, plural and singular count noun domains respectively.

- | | | | |
|-----|----|--|---------------------|
| 10. | a. | <i>*Riz est repandu.</i>
rice be.3sg widespread | mass noun |
| | b. | <i>*Cochons sont intelligents.</i>
pigs be.3pl intelligent.pl | plural count noun |
| | c. | <i>*Cochon est intelligent.</i>
pig be.3sg intelligent | singular count noun |

This restriction on bare arguments holds also in object position, as we see in (11a, b), showing a singular and a plural object respectively.

- | | | |
|-----|----|--|
| 11. | a. | <i>*Hélène porte toujours jupe.</i>
Helen wear.3sg always skirt |
| | b. | <i>*Hélène porte toujours jupes.</i>
Helen wears always skirts |

Restrictions on bare arguments in Romance are not limited to French. Two other Romance languages, Italian and Spanish also do not permit bare singulars, in either object or subject position. They do, however, permit bare plural objects and, under certain syntactic conditions, bare plural subjects. In (12) I show Italian sentences equivalent to those in (10), and in (13a, b) show examples of the bare object cases. I also

show a bare plural subject in (14a) to demonstrate that unlike French, the Italian bare plural is licit in subject position when modified. The bare singular, on the other hand, is not licensed even when modified, as we see in (14b). In (13) we see that while the bare singular object is not permitted in Italian, as in French (and English), the bare plural is available in object position. I choose Italian because in several important respects (as we will see in chapter 5) it is quite close to French. I show the Italian cases in (12) and (13). The Italian data is taken or adapted from Chierchia 1998, Zamparelli 2000. These facts hold for Spanish as well (see Contreras 1986, Laca 1990 for Spanish data and discussion thereof).

12. a. **Riso è diffuso.*
 rice be.3sg.m widespread
- b. **Maiali sono intelligenti.*
 pigs be.3pl intelligent.pl
- c. **Maiali è intelligenti.*
 pig be.3sg.m intelligent.
13. a. **Elena porta sempre gonna.*
 Helen wear.3sg always skirt
- b. *Elena porta sempre gonne.*
 Helen wear.3sg always skirts
 ‘Helen always wears skirts.’
14. a. *Ragazze in minigonne sono rare (in queste paese).*
 girls in miniskirts be.3pl rare (in this town)
 ‘Girls in miniskirts are rare in this town.’
15. b. **Ragazza in minigonna è rare (in queste paese).*
 girl in miniskirts be.3pl rare (in this town)

While I will not go into the licensing conditions for bare plurals in Italian and Spanish, a brief discussion of the differences between French and the other Romance languages with respect to the availability of bare plurals is in order. Several researchers, beginning with Contreras 1986, Casalegno 1987 and famously developed in Longobardi 1994, have

posited the existence of a null determiner for bare plurals in Italian and Spanish. This null element must be syntactically licensed – either by being lexically-governed, by modification, or being in a focus phrase (for more discussion see Longobardi 1994). As the object position is inherently lexically-governed by the verb, the bare plural is available. The bare singular is blocked in all environments, as we see in (12c), (14b). I will discuss an appealing extant account of this restriction presently.

Another major question arises from postulating a null determiner for Italian and Spanish bare plurals: why does French not have this same null D? The answer that I will give follows a basic proposal by Delfitto & Schroten 1991, which is developed by Déprez (to appear). According to these authors, the source of the distinction between French and the other Romance languages is the fact that unlike Italian and Spanish, French does not have any reliable number marking on its NPs. In only a few cases is the singular NP distinguished from the plural by phonologically-realised number marking. That is, while there is a difference in pronunciation for such nouns as *général* ‘general’ and *généraux* ‘generals’, for most nouns, such as those we see above, there is no difference. Delfitto & Schroten and Déprez propose that in French, number marking is exclusively realized not via morphology on the noun itself, but on the determiner. According to Déprez number must be marked on every DP in languages such as the Romance and Germanic ones. Therefore for French a lexical determiner is necessary because number cannot be marked morphologically on the common noun. In Italian and Spanish, number is marked in two places: in the plural determiner, and on the common noun⁶.

Singulars, on the other hand, cannot be bare in any of the Romance (or Germanic) languages. Déprez 2004 also suggests an interesting answer to this question. Just as bare

⁶ I have omitted a lot of the details of Déprez’s proposal, but have, I believe, retained its spirit.

plurals are not permitted in French due to a lack of number-marking morphology on the noun, so too the bare singular is not permitted due to morphological reasons. That is, in the Romance and Germanic languages uninflected nouns are underspecified for number (i.e. no singular morpheme means no number marking), but in order for them to be interpreted number must be specified. As there is no morphological singular marking in these languages, it is necessary for a singular determiner to occur, in the form of the determiner. Déprez's proposal thus accounts for the lack of both bare singulars and bare plurals in French by appealing to the same idea: the necessity of marking number overtly on a nominal expression. The account for Italian and Spanish also appeals to conditions on the licensing of null determiners in order to predict the distribution of bare arguments.

In French, therefore, any nominal expression which occurs in a sentence must have a determiner. We see above that in sentences which express generalizations about non-specific individuals, the choice of this determiner is the definite. However, the readings which singular and plural definites receive in this kind of sentence do not differ only in terms of their number marking, but also in terms of the kind of individuals which they describe. It is to these differences which we will turn now.

1.4 Singular kinds and taxonomic readings

Singular definites in French, as in English, are well-known to be able to name kind-level, as well as object-level individuals. We see in (16) and (17) below that the same singular definite description may have two different readings, depending on the kind of verbal predicate it combines with. The sentences in (16) show the singular definite in both French and English on its object-level reading, where it refers to a particular individual which is salient in context. The sentences in (17) show the definite on its kind-level

reading, where it refers to an individual which is an abstract entity rather than a particular one.

16. a. *All Helen's pets are having lunch. **The pig** is eating apples.*
 b. *Tous les animaux d'Hélène prennent le déjeuner. **Le cochon** mange des pommes.*
 all def.pl animals of Helen take.3pl def.sg.m lunch. def.sg.m pig eat.2sg indef.pl apples
 'All Helen's animals are having lunch. The pig is eating apples.'
17. a. ***The wolf** has disappeared from Europe.*
 b. ***Le loup** a disparu de l'Europe.*
 def.sg.m wolf have.3sg disappear-PST from the Europe
 'The wolf has disappeared from Europe.'

The singular definite in (16) refers to a particular pig, from among those owned by Helen.

The singular definite in (17), by contrast, refers to a rather more abstract entity – a taxonomic one, according to Dayal 2004a, which can be contrasted with, for example, *the deer* and *the cow* (see also Kay 1970 and references in Dayal 2004a). The singular definite thus denotes a particular species of animal. The plural definite in French can have a reading which is directly related to those in (16) and (17), as we see in (18) and (19) below.

18. a. *All Helen's animals are having lunch. **The pigs** are eating apples.*
 b. *Tous les animaux d'Hélène prennent le déjeuner. **Les cochons** mange des pommes.*
 all def.pl animals of Helen take.3pl def.sg.m lunch. def.sg(m) pig eat.2sg indef.pl apples
 'All Helen's animals are having lunch. The pigs are eating apples.'
19. a. ***The wolves** have disappeared from Europe.*
 b. ***Les loups** ont disparu de l'Europe.*
 def.sg.m wolf have.3sg disappear-PST from the Europe
 'The wolves have disappeared from Europe.'

The definite in the second sentence in (18), as in (16), refers to a particular group of pigs belonging to Helen. As we will see in chapter 2, the definite here refers to a particular individual by means of a function introduced into the context by the explicit mention of Helen's animals. The pigs are clearly amongst those animals (we accommodate that there are pigs amongst the group of animals which belong to Helen).

The plural definite in (19), on the other hand, does not refer to any particular wolves, but again receives a taxonomic reading: it denotes a plurality of different subspecies of wolves. This reading comes out even more clearly when we add the quantifier *tous* ‘all’ to the subject DP, as in (20) below.

20. a. *All the wolves have disappeared from Europe.*
 b. *Tous les loups ont disparu de l’Europe.*
 all.pl def.pl wolves have.3pl disappear.PST from def.sg-Europe
 ‘All the wolves have disappeared from Europe.’

This reading results from a pluralization of the singular taxonomic entity that we see in (17). The singular definite in (17) treats the wolf as a taxonomic entity whose subspecies are not salient; the difference between the singular taxonomic and plural concerns which level of the taxonomy is made salient (see Dayal 2004a, Krifka et al 1995 for more discussion of this point). The plural taxonomic definite refers to all subspecies of wolves. I follow Dayal 2004a in assuming that the difference between a taxonomic entity and an object-level one is a lexical one; common nouns being inherently ambiguous. The generic reading of plural NPs (definites and bare nouns), on the other hand, is derived.

The relationship between the singular and plural taxonomic expressions in both English and French is transparent. Both the singular and plural taxonomic reading of the definite are available in French and English. I showed earlier, however, that the plural definite in French has another, extra sort of interpretation, equivalent to the English bare plural. While this reading is related to the singular kind-level definite, it does differ from it in a number of crucial respects. I turn to these differences now.

1.5 Differences between Singular and Plural kinds

Let us now examine the sentences in (21) and (22) below. The definite descriptions in these sentences both name kinds. The sentences are generalizations which describe a property of the species, rather than being generalizations over actual turtles. We see that the predicate cannot apply to an individual in (22). It is because of this that they are taken to name kinds, rather than to object-level entities.

21. a. *La tortue loggerhead est rare.*
 def.sg.f turtle loggerhead be.3sg rare
 'The loggerhead turtle is rare.'
 b. *Les tortues loggerhead sont rares.*
 def.pl turtles loggerhead be.3pl rare-pl.
 'Loggerhead turtles are rare.'
22. **Paul est rare.*
 P. be.3sg rare.

The basic assumption that I make about the definites in (21) is that they both name kinds, as suggested in Krifka et al 1995. The verbal predicate in these sentences applies to kind-level entities only. We see this from the ungrammaticality of (22), in which the subject is an individual. The predicate *be rare* only applies to kinds.

In (21), with the kind-level predicate, there is little intuitive difference between the singular and the plural definite. There is, however, a clear intuitive difference in the interpretation of the singular definite and the plural definite with an *object-level predicate*: that is, a predicate which applies to instantiations of a kind, rather than the kind itself. The predicate in (23) and (24) yields a generic reading, rather than a kind-level one.⁷ We can tell that this is the case because when we force a kind-level reading

⁷ A generic reading is a property of the sentence, where a kind-level reading is a property of a lexical item. Generic sentences give generalizations over instantiations of a kind, expressing regularities in different

with the use of the singular definite, the sentence is odd, both in English and French as we see in (24). This sentence can only be interpreted as a generalization about a specific girl who always wears a skirt, whereas (23) can be interpreted as a generalization about various unspecified individuals who are girls, as well as specific group of girls. This contrast shows the genericity of the sentence – if the predicate were kind-level the verb could not be predicated of a specific individual (see Krifka et al 1995 for more discussion).

23. *Les filles portent des jupes.*
 def.pl girls wear.3pl indef.pl skirts
 ‘Girls wear skirts.’
24. *??La fille porte une jupe.*
 def.pl.f girl wear.3sg indef.sg.f skirt
 ‘The girl wears a skirt.’

We can tell that also there is a difference between kind-level and generic readings by examining the availability of the singular *indefinite* with examples of the two different kinds of predicate. It is well-known that singular indefinites cannot name kinds⁸, but may only receive a generic interpretation (Krifka et al 1995). We see that, whereas the singular and plural definite are compatible both with kind-level predicates, and in generic sentences, the singular indefinite can only be interpreted with the latter. I show the paradigm with the kind-level predicate in (25), the generic paradigm in (26).

25. a. **Un dinosaur a disparu.* (* on kind-level reading, can only
 indef.sg.m dinosaur have.3pl disappeared. refer to a taxonomic entity).
 ‘*A dinosaur is extinct.’
- b. *Les dinosaurs ont disparu.*
 def.pl dinosaurs have.3pl disappeared.
 ‘Dinosaurs are extinct.’

situations. Kind-level predicates, on the other hand, such as *evolve*, *be extinct*, hold of a kind-level individual, either singular or plural.

⁸ *pace* Geurts 2001 ‘This morning, I invented a pumpkin-crusher.’

26. a. *Une tortue mange des aubergines.*
 indef.sg.f turtle eat.3sg indef.pl eggplants
 ‘A turtle eats eggplants.’
 b. *Les tortues mangent des aubergines.*
 indef.sg.f turtle eat.3sg indef.pl eggplants
 ‘Turtles eat eggplants.’

The contrast in availability of the singular indefinite in (25a) and (26a) shows the distinction between these two kinds of predicate: only the object-level predicate in the generic sentences in (26) allows the singular indefinite. This, in turn, indicates an important aspect of the plural definite in French, in that both a kind-level and generic reading is available for it. This is not the case for the English plural definite.

The French definite’s distribution overlaps that of both the singular definite and the singular indefinite, indicating that it must be analysed in a way that is independent of both of these items. Nonetheless, several analyses treat the Romance plural definite as semantically indefinite, or indistinguishable from the singular definite. I will give a brief overview of proposals that analyse the Romance plural definite as being semantically indefinite, before moving on to a more detailed discussion of accounts treating the plural definite as a kind term of the same sort as the singular definite. The conclusion that we will reach is that we must treat the plural definite kind term as something independent of both the singular generic indefinite, and the singular definite kind.

It has been argued that the Romance plural definite is semantically indefinite by authors such as Krifka et al 1995, Zamparelli 2000. These accounts neutralize the difference between the kind-level and generic readings of the plural definite, and treat the definite determiner as being semantically empty. Krifka et al 1995 and Zamparelli 2000 (whose analysis holds for Italian, though his observations can be plausibly extended to French) propose that while the subject of sentences such as (23) and (24) might be

morphologically definite, the definiteness (in terms of maximality and existence presuppositions) of the determiner does not contribute to the interpretation of the DP as a whole. For Krifka et al the definite determiner is a theme marker, which forces a certain syntactic mapping of the definite DP. Zamparelli does not indicate what semantic role the definite determiner plays.

Treating at least the generic plural definite, as in (23) and (26b) as semantically indefinite means that in order to account for its kind-level denotation in sentences such as (24) and (25b) the plural definite must be considered to be ambiguous between a kind-level term and an indefinite, the generic reading being derived from the indefinite one. Such an ambiguity has also been proposed for the English bare plural (Wilkinson 1991, Diesing 1991, Gerstner-Link & Krifka 1993). Proposing that a morphologically definite DP is semantically indefinite seems intuitively problematic, but even when we set this aside, there remains the question of why, since a determiner is required on Romance subjects for syntactic reasons, the plural *indefinite* determiner is not used, so as to reflect the semantics on the surface. Again, as we will see in chapter 4, a plural indefinite *is* used as the subject of some generic sentences – if a generic subject is inherently indefinite, why not use the overt plural indefinite in all cases? I provide an answer to this question in chapters 3 and 4; in Krifka et al's, and Zamparelli's proposals it remains unanswered.

There are, of course, object-level generic sentences where the singular definite generic is acceptable, as in (27) and (28) below.

- 27. ***The dog*** wags its tail when it is happy.
- 28. ***The ostrich*** lays large eggs.

The crucial distinction drawn by Dayal 2004a is between well-established and accidental generalizations. The singular definite generic is only compatible with well-

plural kind-level individual, rather than a singular one. The effect can be seen in English as well, in the contrast between the bare plural and the singular definite in the glosses.

30. a. *Les philatélistes font collection **des timbres***⁹.
 def.pl philatelists make.3pl collection of-def.pl stamps
 ‘Philatelists collect stamps.’
 b. **Le philatéliste fait collection **du timbre***.
 def.sg.m philatelist make.3sg collection of-def.sg.m stamps
 ‘*The philatelist collects the stamp.’

In the sentences in (30) we see a clear distinction in the availability of the singular and plural kind-denoting definite. If the two denoted the same type of individual, they should be interchangeable. I therefore follow Dayal 2004a, and others before her (notably Jespersen 1928) who state that the singular definite kind denotes an atomic individual, whereas the plural definite kind denotes a plural individual, and the plural kind is *not* derived from the singular one.

We have seen two types of distinction between singular and plural definites in French. The first is that while the singular definite has a two-way ambiguity, the plural definite has a three-way one. That is, singular definites in French may refer both to singular individuals and singular taxonomic kinds. Plural definites may refer to plural objects, plural kinds, and plural taxonomic entities. We can see the plural taxonomic, and the plural object-level readings of the plural definite being directly derived from the corresponding singular definites. The question is where the plural (non-taxonomic) kind-denoting definite comes from. In the next section I will survey some extant answers to this question.

⁹ *des* and *du* in this context as contracted forms of the preposition ‘of’ and the definite determiner – *de* + *les* and *de* + *le* respectively.

1.6 Plural kinds¹⁰

We have two choices here: plural kinds are primitives, formed in the lexicon, or they are derived from some other entity. The former choice is along the lines of that offered by Vergnaud & Zubizarreta 1992, where the inherent denotation of any NP is kind-level, and plural marking is syntactic only. We have seen above that deriving a plurality from the kind-level singular individual yields a taxonomic reading, which is not the reading that we are interested in here: the plural definites in sentences like (23) and (26b) [*I have object level individuals as members, not taxonomic ones.* This provides yet another argument for treating plural kind terms as something that is not derived from the singular kind.

Vergnaud & Zubizarreta 1992 propose that both the singular and plural generic and kind-level definites are not, in fact, definite, but rather denote kinds by virtue of the lexical meaning of the NP as denoting a kind itself¹¹. Definiteness is a concept which are is only applicable to object-level denotations – that is, a definite may only name a particular, object-level entity. Any non-specific reading of either the singular or the plural definite is the result of a combination of the inherently kind-denoting NP with a semantically empty determiner. Therefore, singular and plural definites are the same. In the same vein, de Swart 1996 makes the proposal that number-marking on definites in generic sentences is semantically vacuous. One major drawback of this kind of proposal is that it cannot account for the intuitive difference in the reading of the definite in sentences like (23) and (24) above, where one refers to a kind, but the other to individuals that make up the kind. Furthermore, we will see in chapter 4, however, that French makes

¹⁰ For the formulation and expression of the ideas in this section, I owe great and particular thanks to Veneeta Dayal.

¹¹ Vergnaud & Zubizarreta 1992 claim semantic differences between the French and English definite singular generic, but this claim has been challenged by Dayal 2004a.

a morphological/lexical distinction in the form of the subject of modal and conditional sentences as to whether the sentence is a generalization about the kind as a whole, or individuals which instantiate the kind in different worlds. A proposal that collapses the distinction between the kind-level and generic reading and also the singular and plural definite cannot predict such distinctions.

I would like to suggest, following Chierchia 1998, Dayal 2004a (whose proposals are based on the original insights in Carlson 1977) that the plural kind reading of the French plural definite (like the English bare plural) is derived from the property denoted by the NP. They propose that the plural common noun denotes a property of plural individuals, and that kind formation applies to the property meaning to yield a kind term. The operation, dubbed *nom*/ \cap , can be described as follows.¹² Take a plural property, and take its extension in any given situation, or world. Take the sum of these extensions: this gives you the extension of the kind in all possible situations, and thus, the kind itself. With kind level predicates, the bare plural undergoes the shift from property to kind, with object-level predicates, the kind term undergoes a further operation, termed *pred*/ \cup , which returns the extension of the kind in the given situation. The object-level generic readings, then, crucially rely on these operations.

In order for the distinction between singular and plural kinds, established in section 1.5, to be maintained, *nom* and *pred* must be blocked from applying to singular NPs. But why should this be so? As argued by Chierchia and Dayal, the particular definition of *nom* when applied to a property of singular individuals would restrict the

¹² I will give a brief and informal account here. The reader is referred to chapter 3 for a detailed and formal discussion.

kind term to be uniquely instantiated in every world/situation, something that goes against the concept of a kind.

While Chierchia blocks *nom* from applying to singular terms, Dayal proposes that this blocking triggers a shift to the taxonomic domain. The resulting term picks out a unique taxonomic entity that is obligatorily marked definite in languages such as English as well as French. An important property of this kind term is that it is atomic, disallowing semantic access to the individuals we might intuitively associate with the kind. This is why accidental generalizations, which require binding of individual instantiations of the kind, are incompatible with singular kind terms.

The kind of proposal that I have outlined above is also compatible with the view of singular vs. plural DPs put forward in Déprez 2004. While claiming that NPs inherently denote kinds, Déprez argues that because of the obligatoriness of overt number marking on nominals in the Germanic and Romance languages (among others), this kind-level reading of the NP is now accessible for plurals because number marking itself introduces a type-shift to a property denotation. Therefore, a plural kind must be derived from this property at a syntactic level higher than DP. For French at least, under Déprez's proposal a kind formation operation encoded by the definite D is necessary in order to yield the correct interpretation of the definite with kind-level predicates and generic sentences.

Having discussed in some detail the relation between singular and plural kinds, I will now terminate all discussion of singular kind terms. In this dissertation, I am primarily looking at generic readings of nominals. Accordingly, we will see that access to the individuals which instantiate the kind is a crucial part of the analysis which I will

propose here. In particular, I will be looking at how maximality interacts with the plural individual which instantiates the kind in a given situation. As these individuals are not accessible with the singular kind, and thus maximality is trivially satisfied by naming a singular kind, I will not have anything further to say about singular kinds, and their relationship to the phenomena I will discuss here. In the next chapter I move on to an analysis of definite descriptions in general, and thence to the generic and kind-level definite in French, in the plural domain.

1.7 Structure of the dissertation

The structure of the dissertation is as follows. Chapter Two starts with the basic question of what are the key differences between the English and French definite descriptions. To answer this question I consider definite descriptions in episodic sentences in both these languages. We find that the French and English definite must be analysed in different ways to account for distinctions in their distribution. The two analyses have in common that the definite identifies the maximal individual whose existence is entailed by the discourse context, and of which the description given by the common noun holds. They differ as to how they select that referent. I show that the difference in the two definites in these languages stem from the fact that the English definite has a semantics which is much more like the demonstrative than that of the French definite, and which thus allows the definite to refer to entities in the extra-linguistic context. The denotation of the English definite, like that of the demonstrative, contains an element which allows the definite to trigger accommodation of its referent in the discourse context. For the French definite, on the other hand, the referents they can be anchored to must already be part of

the discourse context. I suggest that this extra element of the English definite's structure plays a role in blocking the English definite's use as a plural generic argument.

In the third chapter I consider in detail the generic definite in French, providing an analysis based on that in Dayal 2004a, and relating its semantics to those of the English bare plural. I show that definiteness and genericity are not incompatible; rather, the maximality of the definite produces the same effect as exhaustive quantification over minimal situations, as has been proposed for the English bare plural (Heim 1990, Krifka et al 1995, Veneeta Dayal p.c.). I show, however, that the fact that the French generic expression is a full, lexically-headed DP, limits its use as the generic argument in all positions: the definite only is used when a quasi-universal interpretation is appropriate. When an existential reading is the desired one, the bare partitive is used. This is unlike English, where the bare plural may receive both a quasi-universal and an existential reading.

Chapter Four moves on to sentences in French where, even though the subject is interpreted generically, the definite is not the preferred form of the generic argument. I propose in this chapter that we must consider conditional and modal sentences to be inherently different from the generic sentences investigated in chapter 3 with respect to the kind of quantification they involve. Whereas the basic generic sentences in chapter 3 involved unselective binding over both situation and individual variables by the generic operator, in conditionals and modal sentences the quantifier is selective: it binds only situation/world variables. This difference has consequences for the availability of the definite as a generic argument in these sentences. I propose that the maximality of the definite produces too-strong truth conditions for conditionals and possibility modals,

excluding possible situations or worlds from consideration which should intuitively be included in the situations with respect to which the truth conditions of the sentence are evaluated. The definite determiner is only licit in cases where the generalization is known to hold of all individuals which are described by the definite description. That is, in conditionals and modals, the plural definite can be taken to refer to the kind only, and so the verbal predicate must hold of the entire species, rather than some particular part of it (the ways in which this particular part can be defined are also a subject of discussion here). It is only in the necessity modal that the maximality of the definite does not produce too-strong truth conditions. In all three kinds of sentence, the bare partitive is available on a generic reading, a fact which is in marked contrast to its interpretation under generic quantification in the basic generic cases. Where the non-maximality of the bare partitive interfered with the availability of a generic reading in basic generic cases, it ensures that the correct interpretation can be obtained in selective binding contexts. Definites are only licit in conditionals and possibility modals when a kind-level interpretation is appropriate.

In the final chapter I conclude the discussion of generic arguments in Romance by applying the analysis developed in Chapters Two, Three and Four with respect to French, to another Romance language. In this last chapter I give a case study of Italian, which is a language that has bare plurals in addition to definite generics and bare partitives. This case study shows that the account developed in this dissertation can adequately account for the distribution of definite and indefinite descriptions in this language. We also see that adding a bare plural into the mix changes the landscape of generic arguments significantly – the role of the bare partitive as a generic argument is

significantly reduced, and the bare plural, when licensed by modification, is used in place of the bare partitive's, and sometimes even the definite's. I discuss places in which the paradigm of generic arguments used in French and Italian diverge, and suggest directions for future research.

Chapter 2: Definites, Demonstratives and Accommodation

2.0 Introduction

In this dissertation I explore differences in the use of the French and English definite in an effort to better understand why the French plural definite is the usual choice for a generic determiner in that language, whereas the plural definite in English may be used in this way only in an extremely restricted set of instances. The distinction in the generic domain is not, however, the only important difference between the use of the definite in the two languages. In this chapter I will examine one other major difference between the definite in French and English, one which also sheds some light on the distinction between the two languages' definites in the generic domain.

The key observation is this: while the English definite may be used *deictically* – that is, to identify an entity in the extra-linguistic context – the French definite may not. We see the contrast in (1) below (English in (1a), French in (1b), example from Tasmowski-de Ryck 1990).

1. *Context: [two friends touring the countryside enter a new village, and head to the town square, where they find a baobab tree. In the baobab is sitting a monkey. One friend says to the other:]*
 - a. **The monkey** is giving you a funny look!
 - b. **#Le singe** te regarde d'un drôle œil.
dem.sg.m monkey 2sg.REFL look-at.3sg of-indef.sg funny eye
'That monkey is giving you a funny look.'

In most other contexts, the use of the definite in the two languages is the same. I give an example of the anaphoric use of the definite in (2) below, as this use of the definite has received a great deal of attention in the literature.

2. a. *A man₁ and a woman₂ walked in. **The man₁** sat down.*
 b. *Un homme₁ et une femme₂ sont entrés. **L'homme₁** s'est assis.*
 indef.sg.m man CONJ indefinite.sg.f women be.3pl enter.PST.pl def.sg.m man REFL-
 be.3sg sit.down.PST
 'A man and a woman walked in. The man sat down.'

There are two goals of this chapter. Primarily, I aim to provide a semantics for the French and English definite descriptions which accounts for the differences in the distribution of these two items. The second goal is to provide a semantics which helps explain why the French definite is readily available as a generic determiner, but not the English definite.

The French and English definites both identify the entity which uniquely satisfies their descriptive content in the discourse context. The English definite's lexical representation, however, includes a mechanism which triggers accommodation of a discourse referent in the discourse which corresponds to an entity in the extra-linguistic context. This mechanism thus coerces a deictic reading of the definite. The French definite has no such mechanism, and thus can only refer to entities whose existence is entailed by the discourse context. This means that the English definite, but not the French, has a deictic reading. While this seems to be a small distinction, this structural difference is also the reason that English definite has no generic reading where the French definite does: the English definite can, and therefore, I suggest, must, always accommodate the uniqueness of the referent from the extra-linguistic context. Furthermore, I will show that the two languages have different ways of accessing the information available in the context as a whole, which leads to the aforementioned distinction. Therefore we must consider the discourse context and the extralinguistic context to have distinguished status in natural language.

The chapter will proceed as follows. I will start with the cases of the deictic definite in French and English, elaborating on the account of the differences between the definites in these two languages which I sketched above. In this section I will also discuss the demonstrative, so that the similarities and differences between the deictic definite and the demonstrative are clear. I will thence move on to the discussion of uses of the definite and demonstrative where a unique antecedent is entailed by the discourse context – that is, the anaphoric and bridging/functional cases (as discussed in Clark 1975, Kleiber 1990, 1992, Löbner 1985, Prince 1992 among many others). I will finally turn to uses of the French definite which, while appearing to be deictic, are in fact special cases of functional definites, and complete the analysis with a detailed discussion of the way natural language interacts with context. To conclude the chapter I will discuss extensions of my account into the domain of generic definites in English, before moving in chapter 3 to the discussion of the more widespread French generic plural definite.

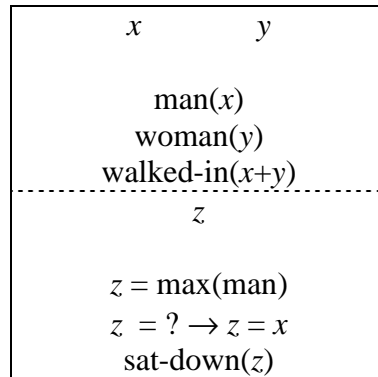
2.0.1 Some Background, and a Proposal for an Account for the Definite

For the French definite, I will propose a theory which draws on co-reference accounts of definites as in Heim 1982 and Kamp 1981. In this kind of account, the definite is interpreted by way of a condition requiring that the discourse referent introduced by the definite is co-indexed with a discourse referent which has been previously introduced (either directly or indirectly) into the discourse context. As we will see, I take the discourse context to necessarily include discourse referents which correspond to ‘semantically’ unique entities, such as *the sun*, *the bravest dog in Kansas*. These are entities which are part of the common ground of any two human speakers who belong to the same community, and the NP can be unambiguously used to pick out a unique

individual which corresponds to the description. In section 2.3 I will discuss the reasons for this assumption. Under Heim's proposal, the antecedent discourse referent must also fit the descriptive content of the definite's nominal element.

The expository framework which I will use in this chapter (and this dissertation) is that of DRT (in the version put forward in Kamp & Reyle 1993), which is a development of the proposal for the interpretation of definite descriptions in Heim 1982, Kamp 1981. I have also added a maximality requirement on the interpretation of the definite which, while not in line with Heim 1982, follows Kadmon 1990, Heim 1990 (among others, as mentioned in chapter 1), and is consistent with the proposal for the definite which I adopt in this dissertation. I do this for internal consistency; it does not detract, I believe, from my portrayal of the theory of Heim 1982, Kamp 1981. We see a basic implementation of this approach in (3).

3.



In the Discourse Representation Structure (DRS) in (3) above we see both indefinites and definites in action. The uppermost part of the box contains the representation of the first sentence in (2a) and (2b), that in the lower part of the box the second sentence in these examples. In the top half of the box, the indefinites each introduce a discourse referent, of which the relevant nominal property is predicated.

Furthermore, the verbal property *walked-in* is predicated of the sum of these two discourse referents.

The lower half of the box contains the representation of the definite. There are two major points to be noted about the interpretation of the definite in this DRS. Firstly, the definite introduces a discourse referent (z) and this discourse referent has two conditions on its interpretation. The first of these is the maximality condition $z = \max(\text{man})$, which says that the discourse referent which corresponds to the description *man* must be the unique one in the discourse context. The second condition is the coreference condition $z = ?$, which requires that the definite's discourse referent be co-referential with a discourse referent which already exists in the discourse context. There is also a third implicit condition on filling the $?$ slot of the co-reference condition. It is the condition that the two co-referential discourse referents should satisfy the same descriptive content – in the case in (3), for instance, both the definite's discourse referent, and the antecedent's discourse referent, should have the property *man*. The necessity for such a condition was first discussed in Heim 1982, who named it the Descriptive Content Condition. I have built it in to the first condition in the second part of the DRS. The Descriptive Content Condition is important for avoiding contradictory truth conditions. For example, in (3) this condition rules out a situation where the definite's discourse referent is coreferential with that associated with the indefinite *a woman* (i.e. $z = y$) but where z also corresponds to the maximal man ($z = \max(\text{man})$). In subsequent discussion, however, I will assume that the definite's antecedent discourse referent satisfies the descriptive content of the definite itself, unless explicitly noted.

We will see below that the Kamp/Heim approach forms the core of my proposal for the interpretation of the definite in French and English. However, the theory that I ultimately adopt for these definites differs crucially from Heim's in two ways. The first difference was the maximality condition which we saw above, which follows Kadmon 1987, 1990, Heim 1990, Barker 2003, Roberts 2003, to name a few proponents. The second difference is in the conception of accommodation. Heim 1982, following Lewis 1979, proposed that accommodation comes in automatically to bring in a discourse referent for the definite to be co-indexed with, if a plausible referent exists in the extra-linguistic context. This kind of accommodation was needed in order to account for the deictic use of the definite, i.e. where the definite is used to refer to an entity from the extra-linguistic context. However, as I will show, accommodation of this sort *cannot* be an automatic mechanism, as it is not available in French. According to Heim's proposal we expect the French definite to have a deictic reading just like the English one where this is not, in fact, the case. In order to account for this difference in the two languages I propose that accommodation is a mechanism that is triggered *lexically*. That is, the lexical representation of the definite in English contains an element which is lacking in the French definite, and it is this element which triggers accommodation of an appropriate antecedent discourse referent.

The proposal that I am making, therefore, is that while the Heim/Kamp co-reference model (augmented with maximality) of definite reference is adequate for the English definite, it cannot accurately capture the French definite's meaning and use. This approach predicts that French will have deictic definites, due to the fact that accommodation is independent of lexical representation of any kind. I will argue that the

English definite is structurally different to the French definite. The English definite, I propose, has two arguments. The first is provided by the definite description's NP. The second is filled by a property, *Intended-Referent* (name due to Wolter 2003), which is used to identify the definite's antecedent. If an appropriate discourse referent already exists in the discourse context, *Intended-Referent* picks out this discourse referent. If the definite is being used to refer to an entity in the extra-linguistic context, *Intended-Referent* triggers accommodation of a discourse referent which corresponds to that entity. The French definite, on the other hand, has only one argument, supplied by the NP. The lack of the second argument for French means that a discourse referent corresponding to an entity in the extra-linguistic context cannot be established.

There is one more detail to the structure of the definite which is important. I assume that the definite determiner is a maximality operator which has scope over the first argument, but not the second. In this way, the maximality requirements of the French and English definites remain the same, even though the way in which they refer does not. In cases other than the deictic ones, therefore, the French and English definite have the same meaning. The structures of the definite in English and French are given in (4a) and (4b) respectively.

4. a. $[\text{def}([\text{CN}]_{\text{arg1}})([\text{Intended-Referent}]_{\text{arg2}})$
 $\rightarrow \text{discourse-referent}(\text{dref}_{\text{CN}} = \max(\text{property}_{\text{CN}}); \text{dref}_{\text{IR}} = \text{dref}_{\text{CN}})^1$
- b. $[\text{def}([\text{CN}]_{\text{arg1}}) \rightarrow \text{dref}_{\text{CN}} = \max(\text{property}_{\text{CN}})$

The theory that I am suggesting here draws on the analysis of the definite proposed in Löbner 1985 in which he proposes that definite descriptions are used to identify a unique relationship between a description and a referent. This relationship is

¹ There will also be an identity requirement on the discourse referent associated with the common noun.

built in to the lexical meaning of semantically unique nominal expressions such as *the sun* and the superlative *the bravest dog in Kansas*. A unique relationship can also be identified in anaphoric uses of the definite, due to the explicit linguistic introduction of an antecedent which satisfies the same descriptive content of the definite. With the deictic use of the definite, according to Löbner, the relational meaning must be coerced. The proposal I am putting forward here extends Löbner's analysis by incorporating a mechanism for coercion into the semantics of the English definite, but not the French: the French definite's reference relies entirely on the lexical meaning of the common noun. The mechanism that English uses is the second argument, and the property *Intended-Referent* which fills it.

Why does the English definite have this second argument, but the French does not? The answer that I would like to suggest is derived from the definite's historical similarity to the demonstrative and differences in the relative grammaticalization of the definite in the two languages (Veneeta Dayal, Viviane Déprez, p.c.). Looking now at the demonstrative, it has been argued that the interpretation of this element relies not only of the property supplied by the common noun, but also on extra-linguistic material such as deictic (pointing) gestures, speaker intentions, as well as information which comes from the rest of the sentence in which the demonstrative is used (for such proposals, see Kaplan 1977, Clark, Schreuder & Buttrick 1983, Roberts 2002). This extra material combines with the common noun to allow the correct interpretation of the demonstrative by picking out the referent to which the speaker *intends* to refer, using linguistic and extra-linguistic cues. In a sense, for the demonstrative the common noun is secondary to the speaker's intention to identify a particular individual. As we will see below, the

English definite's lexical representation is much closer to that of the demonstrative than the French definite's is. This similarity has the consequence of ensuring that the English definite's interpretation is always anchored to a particular referent. The French definite, on the other hand, relies more on the descriptive content of the definite description, and the maximality requirement.

The second argument of the English definite also has the consequence of blocking a generic reading for the definite because a unique relation between an individual and the description can always be coerced. When no such relationship can be established, the use of the definite becomes infelicitous. Generic expressions, we know, do not refer to specific individuals but rather to a kind. As I will show in section 2.7, unless a kind-level noun is explicitly given in modification on the definite's head noun, and a unique relation between the kind and the common noun is available, the English definite is always anchored to the context of evaluation.

After this theoretical discussion, I will move on to make the proposal concrete by revisiting the deictic definites in English that I presented above. I compare the examples containing the definites to those with demonstratives to show the similarity of these two elements' interpretation in English (in contrast to French). I will give the formal proposal for the demonstrative's semantics in section 2.2.

2.1 Deictic definites

In English it is commonly accepted that definite descriptions may be used for deictic reference; i.e. to refer to an particular entity which can be perceived in the immediate context, as in (5) (example adapted from Tasmowski-de Ryck 1990, repeated from (1)).

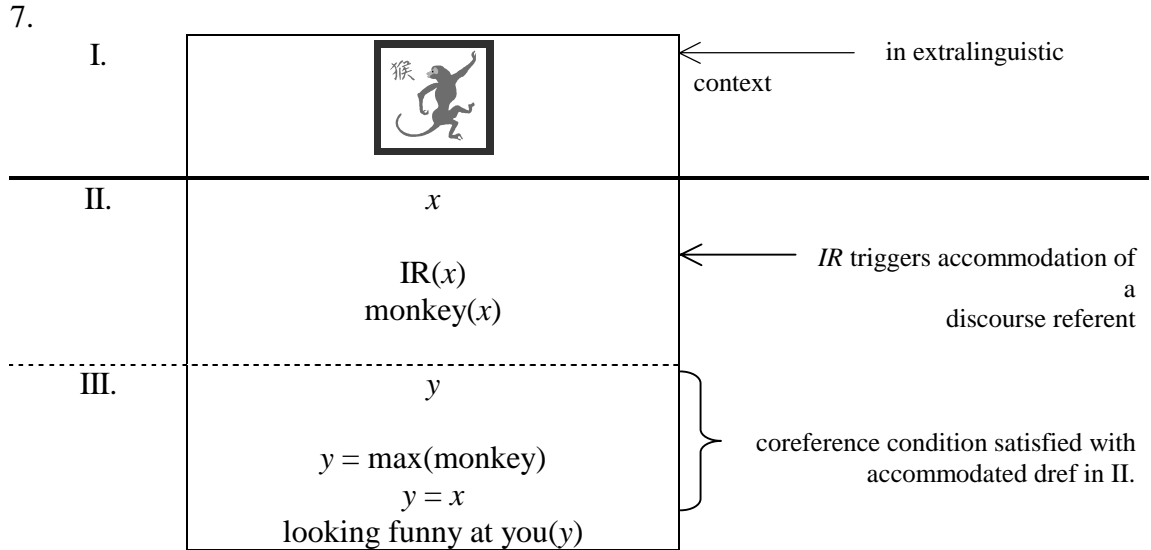
5. *[two friends touring the countryside enter a new village, and head to the town square, where they find a baobab tree. In the baobab is sitting a monkey. One friend says to the other:]*
The monkey is giving you a funny look!

However, in French the definite may not be used in this context: only a demonstrative can be used to refer to the monkey in the tree. We see the contrast in availability between definite and demonstrative in (6a) and (6b) respectively:

6. *[two friends touring the countryside enter a new village, and head to the town square, where they find a baobab tree. In the baobab is sitting a monkey. One friend says to the other:]*
- a. **#*Le singe*** *te regarde d'un drôle œil.*
 dem.sg.m monkey 2sg.REFL look-at.3sg of-indef.sg funny eye
 - b. ***Ce singe*** *te regarde d'un drôle œil.*
 dem.sg.m monkey 2sg.REFL look-at.3sg of-indef.sg funny eye
 'That monkey is giving you a funny look.'

The difference between English and French is striking: the definite in French may not be used for deictic reference due to their different structures. According to the present proposal, the definite in French and English receive substantially different interpretations. To show the difference, I will start with the interpretation of the English definite to show how the extra-linguistic entity is brought into the discourse as a potential antecedent for the definite. Specifically, the second argument of the definite triggers accommodation of a discourse referent which corresponds to the entity in the extra-linguistic context. I will then move on to the French definite and show that, under the analysis sketched in the introductory section (i.e. a Heim-style co-reference analysis with maximality built in, but, crucially, with no trigger for accommodation), the French definite cannot refer deictically.

Following the representation of the English definite given in (4a), we will now move to the interpretation of the sentence which include it. The representation of (6a), is given in the DRS in (7).

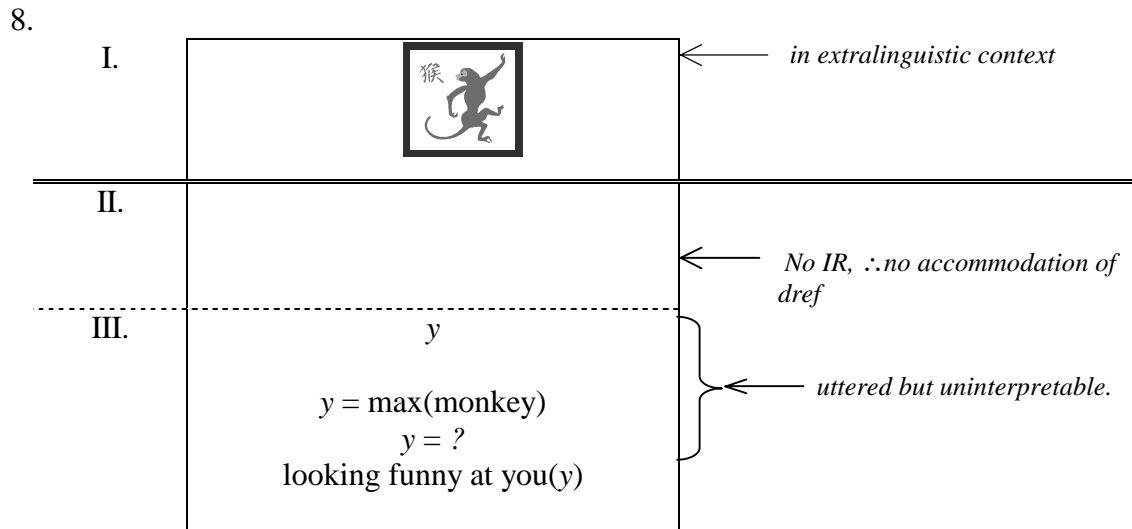


In (7) *Intended-Referent* triggers the accommodation of a discourse referent which corresponds to an entity in the extra-linguistic context to which the speaker intends to refer *via* the particular common noun in the definite description. Without the *Intended-Referent* property, the definite would be undefined. The discourse referent introduced by the definite would not be co-referent with any other discourse referent, and thus the definite would be uninterpretable. With *Intended-Referent*, on the other hand, the discourse referent is introduced into the DRS, and then we accommodate that the property given by the common noun *monkey* is predicated of this discourse referent. The *Intended-Referent* property links the monkey in part I, which is the only salient monkey in the extra-linguistic context, to a discourse referent in the discourse context in part II. In part III of the DRS in (7) we see that we see that the co-reference condition of the definite

is satisfied by the discourse referent x whose accommodation was triggered by *Intended-Referent* in II. Furthermore, the maximality condition means that the individual to which the definite refers must satisfy uniqueness for the description to be licit. Crucially, maximality is only assessed with respect to the common noun, and not to the individual which *Intended-Referent* picks out. This means that the *IR* must be the unique monkey in the context, rather than the unique intended referent. It is this point which is crucial in making the contrast between definites and demonstratives. For French, on the other hand, it is the presence vs. absence of the Intended-Referent property which makes the difference, as I will show in 2.2.1 below. We turn to these cases now.

2.1.1 French deictic definites?

As we saw in (6) above, the French definite does not have a deictic reading in the situation, even where there is a unique, salient referent. What does this infelicity show us? It provides strong evidence that the French definite does not have anything that triggers accommodation of a discourse referent which corresponds to the entity in the extra-linguistic context: if it did, it would be interpreted like the English definite in (6a). I propose, therefore, that the French definite must not have the *Intended-Referent* property as the English definite does. This means that there can be no link between the monkey in the extra-linguistic context and the definite. I show the situation in the DRS in (8) below.



The crucial point of difference between this and the representation of the English definite in (8) is in the second part of the DRS. In the second part here, there is no *Intended-Referent* property which links the interpretation of a discourse referent to the monkey in the context (shown by the pictures in the first part of the DRS). There is no formal way for us to link the definite in the third part of the DRS with the monkey in the first part, hence $y = ?$ is undefined, and the definite is infelicitous. This co-reference condition ensures that the definite does not introduce a new discourse referent into the discourse, but must rather be interpreted with respect to an already existing antecedent. When it is not satisfied, the definite is uninterpretable.

The conclusion so far is this: English has a second property which forces the accommodation, if possible, of a discourse referent with which the definite is co-referential, so allowing a deictic reading. The French definite has no such second property, and is thus infelicitous. It is only the demonstrative in French whose denotation includes *Intended-Referent*, and so, the demonstrative may be used in these contexts. Let us move to the discussion of the deictic demonstrative now.

2.2 Demonstratives

2.2.1 Adding the demonstrative

The proposal which I am putting forward for the English definite bears many similarities to accounts that have been suggested for the demonstrative. In this chapter I will offer an analysis for the demonstrative which shows the parallels between these two elements, and limitations on these parallels in both English and French.

In my account of the demonstrative I build upon the analyses proposed by Kaplan 1977, Roberts 2002, Wolter 2003. For the demonstrative, reference is direct, rather than being dependent on the descriptive content of the NP. I will therefore claim that the successful use of the demonstrative is accompanied by an extra-linguistic deictic gesture (following Roberts 2002, Kaplan 1977), which allows the hearer to interpret the demonstrative DP as referring to a particular individual. Further, as Clark, Schreuder & Buttrick 1983 show, without such a deictic gesture, the correct interpretation of the demonstrative is only a little better than random. Having extra-linguistic information, based on the speaker's intentions (and the overt communication of these intentions to the addressee in some way) is therefore crucial to the felicitous interpretation of the demonstrative. On the other hand, for the definite, in English and also French, the nominal expression is the primary source of information about the speaker's referent – speaker intention plays a secondary role to what individuals the common noun can identify.

I suggest that the demonstrative, like the deictic definite, has two arguments. Following Kaplan 1977, I suggest that without the second argument the demonstrative is an incomplete expression which incapable of referring to anything. I also follow Roberts

2002 in taking the demonstrative determiner to denote a maximality operator, just like the definite. The interpretation is as if the two properties were conjoined: the demonstrative determiner has scope over both. The structure is as in (9).

$$9. \quad [\text{dem}([\text{CN}]_{\text{arg1}})([\text{Intended-Referent}]_{\text{arg2}})] \rightarrow \text{max}(\text{CN} \ \& \ \text{IR})$$

This representation should be interpreted as follows. A demonstrative description (*this/that/these/those NP*) has two properties which must be filled in order for its use to be felicitous. One comes from the common noun and, as with the definite, is used to pick out a referent which can be identified with this description. The scope of the maximality encoded by the demonstrative determiner distinguishes the English definite and demonstrative, whereas it is the presence vs. absence of the second argument which distinguishes the French definite and demonstrative; in this latter case the difference in the scope of maximality is a corollary of the absence of the second argument for the definite.

The second argument, filled by *Intended-Referent*, picks out the referent of the demonstrative from the discourse context, ensuring that the demonstrative is interpreted according to the referent to which the speaker intends to refer. What is primary is speaker intention, rather than the common noun. The *Intended-Referent* property yields a referent for the demonstrative which is the unique *intended* referent, but not necessarily the only *possible* referent which fits the descriptive content of the demonstrative.

The English definite and demonstrative, therefore, have the same argument structure. The difference between the two is in the scope of the maximality operator. The definite in both English and French assesses maximality with respect only to the first

argument, whereas the demonstrative in both languages assesses it with respect to both arguments. The representation in (9), therefore, holds for the demonstrative in both English and French, and means that the demonstrative identifies the unique individual which both fits the description in the common noun, and is the individual to which the speaker intends to refer. This difference in the scope of maximality leads to striking distinctions in the usage of the demonstrative and the definite. We turn to the use of the demonstrative now.

2.2.2 Deictic demonstratives

The deictic use of the demonstrative is the primary use, though it may also be used for anaphoric purposes. Roberts 2002 shows that deictic demonstratives have two primary uses. One of these is to make non-salient entities in context salient (and thus the topic of the discourse), the other is to express a contrast between two separate entities which have satisfy the same descriptive content. I will discuss the first usage now, and move to the second in section 2.2.4 below.


10. *Bring me **that** book!*
11. *Apporte-moi **ce** livre!*
 bring.2sg.IMPER pro.1sg.acc dem.sg.m book
 ‘Bring me that book.’

A speaker can use the demonstrative as in (10) and (11) to bring the addressee’s attention to a particular book, whether or not it is salient in the context. Furthermore, the use of the demonstrative in this way does not commit the speaker to any knowledge of how many total books there are in the context. There may turn out to be just one, but in most contexts where a sentence such as in (10) and (11) is used to draw attention to a

particular book, the uniqueness of that book is not established, and is certainly not entailed by the context.

In the interpretation of the demonstrative in (10) and (11), the intended referent property picks up a physical entity in the non-linguistic context of utterance. The demonstrative is interpreted as in (12) below.

12.

 $IR(\text{book})$
x $IR(x)$ $book(x)$ $x = \max(book \ \& \ IR)$ $bring(you, me, x)$

The physical book which is the speaker's intended referent in the extra-linguistic context in (11) and (12) is represented with a picture in (12). The demonstrative picks the book out by way of its *Intended-Referent* property. The discourse referent of which all the conditions in the second part of the DRS hold must correspond to a singleton (the intended referent is by definition a singleton set² which satisfies the description *book* – hence the third line of conditions in (12). The demonstrative is therefore interpreted with respect to both the descriptive content and the intended referent – both contribute equally. This is marked contrast to the role that *IR* plays in the interpretation of the deictic definite, in which case the common noun does the bulk of the work.

² The referent may be either a singular or a plural entity.

2.2.3 (Non)-maximality and the demonstrative

The maximality presuppositions to which the interpretation of the definite is subject do *not* hold of the demonstrative. Therefore, while I have suggested that definites and demonstratives both make use of the *IR* property, the two work in substantially different ways due to the scope of the maximality operator, with respect to the second argument.

This takes us back to a point that I mentioned before, but did not elaborate upon. The demonstrative article is a maximality operator, and yet the demonstrative DP as a whole carries an implicature of non-maximality. The maximality of the article holds over the common noun and *Intended-Referent* properties. Maximality does play a role in the interpretation of the demonstrative in the larger context, however: the fact that the two arguments are conjoined allows for the possibility of non-maximality for the first argument. In both English and French, for headed DPs at least, existence is concomitant with maximality, and this is the reason for the use of a maximality operator with the demonstrative.³

The non-maximality of the demonstrative (in the wider context) also opens the way for the other of the main uses this kind of description. It is to this contrastive reading of the demonstrative that we move now.

³ In this discussion of the existence presuppositions of the demonstrative, I am excluding the colloquial ‘indefinite’ use of the demonstrative, as shown in (i).

i. *I met **this guy** on the train today. He was really talkative, so I didn’t get my reading done.*

An analysis of this use of the proximal demonstrative is beyond the scope of this dissertation. I also leave aside such uses of the demonstrative as in (ii) (example due to Jane Grimshaw, p.c.):

ii. *Have you seen David Beckham? **That body of his** is really great!*

In this example we see a use of the definite which seems to be maximal. There are two possible explanations for this apparent problem, which I will briefly mention, and then leave for further research. The first is that the demonstrative refers to a unique relationship between an individual and his body, and so maximality is not violated in the larger context. The second possibility is that the demonstrative is being used to draw a contrast which, as we see in the cases in (13) and (14) below, does not commit the speaker to maximality at all (this possibility was suggested by Jane Grimshaw, p.c.).

2.2.4 The demonstrative and contrast

The indexing of the maximality of the demonstrative to the intended referent, rather than to the common noun property, is also what allows the demonstrative to be used to express contrast between two entities of the same type. This is what we see in (13) and (14) below.

13. ***That dog** is asleep, but **that dog** is awake.* (example due to Löbner 1987⁴)
 14. ***Ce chien** dort, mais **ce chien** ne dort pas.*
 dem.sg.m dog sleep.3sg, DISJ dem.sg.m dog NEG sleep.3sg NEG
 ‘That dog is asleep, but that dog isn’t.’

In these sentences each demonstrative refers to a separate dog, each of which bears a contrasting property which is given by the verb. The demonstrative only requires that its *Intended-Referent* property identifies a unique individual, rather than requiring that the individual which it identifies is the maximal entity with the relevant property in the context. The demonstrative can be used to refer contrastively to two different entities, without violating maximality. The referent of the definite, on the other hand, must be unique in the context as a whole, and so the definite cannot be used to refer contrastively to two different entities in the same context. We see this in the infelicity of the sentences in (15) and (16).

15. *#**The dog** is asleep, but **the dog** isn’t.* (Löbner 1987)
 16. *#**Le chien** dort, mais **le chien** ne dort pas.*
 def.sg.m dog sleep.3sg DISJ def.sg.m dog NEG sleep.3sg NEG

Here I will elaborate a little on what it is about the sentences in (15) and (16) which makes them bad. The issue is, of course, maximality. There are two definites in each of these sentences, and there are thus two possible interpretations of this sentence. The first available interpretation is that the two definites each pick out a different dog in

⁴ This example, and the one in (15), were brought to my attention by Veneeta Dayal, p.c..

context. This means, however, that there is no one single dog in the context, and so the use of the singular definite is infelicitous, because its descriptive content cannot identify the unique individual *dog* – there is no such individual. The non-maximality of the demonstrative, on the other hand, allows such a reading because the speaker can intend to refer to two separate dogs, each of which is unique (according to *Intended-Referent*).

The second possible reading – also infelicitous – is that there is only one dog in the context. In this interpretation maximality is satisfied, but the sentence is contradictory: two different, contradictory actions are predicated of the same individual at the same time. For the demonstrative, there can always be two referents, so the sentence is not contradictory. In addition to their presupposition of the existence of a maximal referent which identified by the descriptive content provided by the common noun, and the Intended Referent, I propose that demonstratives have a conventional implicature of non-maximality, which prevents them from picking out an *Intended-Referent* which uniquely satisfies the description (a similar proposal is made in Wolter 2003). I give a formulation of this implicature below.

17. **Non-maximality:**

The demonstrative may not be used when its referent is known to be the only entity which fits its descriptive content in the domain of reference.

So far we have seen the positive side of this implicature (for the demonstrative at least); only the demonstrative may be used when the non-uniqueness of the referent of the definite is entailed by the discourse context. We see that this is the cases in (15) and (16). In these sentences the definite is infelicitous because assuming the uniqueness of the referent of each definite leads to a contradictory interpretation. There is no contradiction inherent in the use of the demonstrative in this context. In a context where the uniqueness

is entailed by the discourse context, however, the demonstrative is marked, as in the sentence below⁵:

18. #*That sun* is made of hydrogen and helium.

In the sentence in (18), the demonstrative is used to refer to a semantically unique entity. The lexical meaning of the nominal entails the uniqueness of the referent, and so, following the non-maximality implicature, the use of the demonstrative is infelicitous. This infelicity occurs with semantically unique entities, but also in anaphoric and bridging contexts, where the uniqueness of the referent is entailed. I will discuss these cases in section 2.4. Now, having established the semantics for the demonstrative above, I will show how they apply specifically to the deictic demonstrative in French, so as to show why the demonstrative is felicitous on a deictic reading where the definite is not.

2.2.5 Deictic demonstratives in French

Given that for French speakers the sentences in which the intended reading of the definite is a deictic one are strikingly bad, the demonstrative is the only way to express that meaning. This is shown in (19) below.

19. *Ce singe te regarde d'un drôle œil.*
 dem.sg.m monkey REFL.3sg look-at.3sg of indef.sg.m humorous eye
 ‘That monkey is looking at you funny.’

We note that there is nothing about the context in (19) that unequivocally establishes the maximality of this monkey: there may well be other non-salient entities which fit the description *monkey* in the context (though admittedly in this context this is

⁵ If this sentence is felicitous, it is on the assumption that two suns are being compared. For inhabitants of this solar system who are not cosmologists, this reading is unlikely to be intended when the NP *sun* is used.

rather unlikely). Therefore, I propose that unlike the contrast between the definites in the two languages, the French deictic demonstrative receives an identical interpretation to the English one. That is, the demonstrative has a second property which allows the demonstrative to refer directly to the monkeys in context, so accommodating a discourse referent which corresponds to them in the discourse context. Furthermore, the fact that maximality of the monkeys is not established in the context means that the demonstrative's non-maximality implicature is not violated.

Both the French and English demonstrative pick out a unique intended referent in the extra-linguistic context. It is the linguistic property *Intended-Referent* which triggers accommodation of a discourse referent corresponding to that entity in the discourse context. Therefore, unlike the French definite, the French demonstrative may be used to refer to the monkey in the tree. However, unlike the English definite and demonstrative, these two items in French show little or no overlap in their distribution.

Having now examined some examples which show the difference in distribution of the French and English definites, and the similarity of the French and English demonstratives, we will now move to a set of examples where neither the French nor English definites may be used deictically. It is in these cases that we see the role that maximality plays in distinguishing the definite from the demonstrative most clearly.

2.2.6 The English deictic definite and maximality


I have argued for the fact that definites require maximality over the first argument while demonstratives require maximality over both arguments, in effect allowing for non-maximality. In this section we will look at a contrast between the two which can be

explained on this basis but also opens up some interesting questions with regard to how the two types of expression access information from the context. Consider the following:

20. [In a crowded restaurant, with a man talking loudly on his cellphone (e.g. from Wolter 2003)]
- a. #**The man** is really annoying!
 - b. #**L'homme** est vraiment ennuyeux!
def.sg.m man be.3sg truly boring

In both the sentences in (20), the definite is infelicitous. This infelicity comes in spite of the fact that there is a particular man who is distinguished in the context by his obnoxious behaviour. The judgments are clear: in a typical restaurant situation using the unmodified NP *man* will not pick out a unique referent, even if there is one man who is maximally salient. Given these judgments, I claim that the English sentence in (20a) has the following representation (the French sentence is not grammatical for the reasons discussed above).

21.

I.	<div style="text-align: center;">  ... $IR(\text{stick figure})$ </div>								
II.	<table> <tr> <td>w</td> <td>x</td> <td>y</td> <td>z</td> </tr> <tr> <td colspan="4" style="text-align: center;"> $IR(w)$ $man(w) \quad man(x) \quad man(y)$ $man(z)$ </td> </tr> </table>	w	x	y	z	$IR(w)$ $man(w) \quad man(x) \quad man(y)$ $man(z)$			
w	x	y	z						
$IR(w)$ $man(w) \quad man(x) \quad man(y)$ $man(z)$									
III.	<div style="text-align: center;"> u $u = \max(man)$ $u = ?$ $annoying(u)$ </div>								






The DRS in (21) shows how even the presence of the *Intended-Referent* property in the semantics of the definite cannot yield a deictic interpretation when the definite's referent is not unique. The question this raises, of course, is what triggers the

accommodation of the discourse referents for all the men in the context. It appears that when accommodation of one extra-linguistic entity occurs, every entity in the situation which fits the definite's descriptive content is accommodated. In the case of the definite this leads to a violation of maximality. Note that in the case of the demonstrative such accommodation would be harmless, maximality would still be satisfied, cued as it is to the *IR* property. We see the relevant examples, and their DRS, in (22) and (23).

We see the examples in (22) below, and DRS for either of these sentences in (23).

22. a. *That man is really annoying!*
 b. *Cet homme est vraiment ennuyeux!*
 dem.sg.m man be.3sg truly boring
 'That man is really annoying!'

23.

 1  2  3  4 ...  n $IR(\text{man}_4)$
x $x = \max(\text{man} \ \& \ IR)$ $\text{annoying}(x)$

The situation here is very straightforward. The demonstrative picks out one of the available men in the context – for concreteness, I have represented the speaker's intended referent as man number four. The *Intended-Referent* property is used to identify that particular individual, and the demonstrative is licit if the individual is the speaker's unique intended referent, and the common noun holds of it. The important point for the licensing of the definite is that the speaker has a unique intended referent who is a man, and not that the intended referent is the unique man, as was necessary for the definite. This means, of course, that there is no problem with non-maximality – the speaker is

uncommitted to the total number of men in the context and as there is more than one man in the larger context, the demonstrative is ideal.

While these data are clear, it has been pointed out to me that there are further issues to be explored here (Veneeta Dayal p.c.). Thus, as noted in Heim, there are contexts in which uniqueness of the definite appears to be violable. Consider the following examples:

24. *[A room with one table in the center, and one table to the side. The addressee is waiting to deposit a book]:*⁶
*?Put the book on **the table**.*

The sentence in (24) is marginally acceptable in a context where there are two tables, one of which is prominent and the other not. While it is not clear that (24) is completely felicitous in such a context, contrasting it with a sentence in which the definite description *the table* is used twice is sharply worse, as we see from (25) below.

25. **Put the book on **the table**, and the glass on **the table**.*

The crucial point is this. The use of the definite description in the context in (24), where more than one entity which satisfies its common noun, is marginal. However, using the same definite description twice in a sentence is impossible: once the definite has been used in a sentence to refer to one table, then it cannot be used to refer to another. The only way that a definite can be used twice is when the second is modified with the word *other*, as we see in (26).

26. *Put the book on **the table**, and the glass on **the other table**.*

The sentence in (26) seems to be licit only with some kind of context shift being done by the addressee, and only when it does not matter which item goes on which table.

⁶ Thanks to Nick Napoli and Nika Hedges for judgments of (24-26).

A bare demonstrative, on the other hand, is fully licit in a sentence such as (25), as we saw in (13) and (14) above.

The judgments for sentences such as in (24) thus differ from those which I reported for the sentences in (20); in the latter examples the use of the definite was sharply infelicitous. The contrast may stem from the differences in the number of possible referents in the context. In the table case there is a choice between only two possible referents, whereas in the *man* case a choice must be made between an unknown number of referents which the definite description might identify. This means that assumptions about the referent in the *table* case are more likely to be accurate than in the *man* case. Therefore, while speakers find (24) only marginal, it is more likely to elicit the response of ‘which one’, rather than eliciting a response that the utterance does not refer – the difference is between being vague and being uninterpretable. This contrast element comes in despite striking variations in salience between the entities in the context which fit the descriptive content of the definite. I will return to the role that contrast plays in the interpretation of the definite in section 2.5.2.

2.2.7 Recap

To sum up to this point: we have seen that English deictic definites have two arguments, one filled by the common noun, and one filled by the discourse referent corresponding to a referent in the extra-linguistic context. This referent must uniquely fit the description given by the common noun. The demonstrative in both English and French also have a second argument, which is filled by a property *Intended-Referent* which uses speaker intentions (among other things) to pick out a referent. Unlike for the demonstrative, the presence of this extra argument with the English definite does not affect the domain in

which maximality is assessed. Even in the case of the deictic definite, a unique relation must exist between the common noun and the individual selected by *IR*. On the other hand, we saw that the demonstrative may be used if its referent is non-unique; in fact, the demonstrative is best used in such circumstances. The French definite was ruled out in the contexts above because it has no *Intended-Referent* property, and so the interpretation of the definite cannot be linked to any extra-linguistic entity. In French only demonstratives have this *Intended-Referent* property: they are the same as English demonstratives.

We have seen a sharp distinction between the availability of the definite in English and French. The examples that we have seen have, however, only dealt with cases in which the referent of the definite is in the extra-linguistic context. When the definite is used to refer to an entity which has been introduced into the context linguistically, as in the anaphoric cases in (2), there is no difference in the availability of the French and English definites. Furthermore, the two languages are parallel when the definite is used to refer to a semantically unique entity such as *the sun*, or *the bravest dog in Kansas*, as mentioned in section 2.0.1.

The contrast between the deictic definite and the other uses of this item indicate that a more detailed discussion of the context is needed. I turn to this discussion now.

2.3 A Note on Context

Up until this point I have discussed the fact that the different structures of the French and the English definite make a difference to the way these items access information in the context, without making it clear what my assumptions about the structure of the context are. In this section I will elaborate upon these assumptions. The discussion in this section

draws on a number of texts, including Stalnaker 1978, 2002, Lewis 1979, Clark & Marshall 1981, Sperber & Wilson 1986, Prince 1981, 1992, Simons 2003. I mention some authors explicitly, but I wish to make it clear that the source of the ideas that I discuss is much larger than what I have been explicitly able to acknowledge here.

It is clear that the uniqueness and existence requirements of the definite hold in some context which is narrower than the whole world. For instance, in the discourse in (2) above, the anaphoric use of the definite picks out the unique man that has been explicitly introduced by the indefinite in the first sentence, rather than referring to the unique man in the world. To have uniqueness be satisfied on the level of the world dooms it to presupposition failure. Rather, uniqueness is satisfied with respect to the information that the interlocutors can be reasonably supposed (by each other) to share. We can thus say, painting a broad picture, that the presuppositions of definites are satisfied (or not) with respect to the *common ground*, as discussed by Stalnaker 1978, *et seq.* The common ground is something that is established between a pair or a group of interlocutors, and how much information they can reasonably expect each other to share. A pair of strangers will have a relatively empty common ground, whereas the common ground of people who know each other well will contain a great deal of information which is known, and is known to be known, by all parties. This information can be shared cultural knowledge, items that have been explicitly introduced in preceding discourse (if there has been any), or physically salient objects in the local environment (Clark & Marshall 1981). The existential presupposition of the definite can be thought to be satisfied if the definite's referent is entailed by the common ground. That is, the definite's referent is included in the shared mutual knowledge of the interlocutors, either due to their knowledge of the

community of which they are members, or due to information they have obtained perceptually. However, in the case of the definite, the entailment of existence is not enough to license the use of this expression. We need now to consider how the concept of maximality relates to the common ground.

The differences in the availability of the definite in French and English force us to assume that the ‘context’ in which language use takes place has internal structure. Dividing up the context of evaluation is not a new concept. Heim 1982, Kamp 1981 proposes that the anaphoric and deictic definite must be treated differently with respect to how their antecedent is introduced into the discourse context. The accommodation which I discussed in section 2.0 is a device which brings information from outside the discourse context, in. This mechanism is necessary to account for the availability of a deictic definite. The mere necessity of a mechanism such as accommodation suggests that the common ground has an internal structure, which is based on where information is retrieved from. However, I suggest that the binary division of the context implied by such authors as Heim 1982, and explicitly claimed by authors such as Prince 1981, 1992 is still not adequate to account for the difference between the French and English definite.

To look at this binary structure a little more, I will take up the view suggested by Prince 1992. She claims that the domain of contextually-entailed information is divided up into information which has or has not been explicitly introduced into the discourse (Discourse-Old/New), and information which may or may not be taken by the interlocutors to be mutually available at the time of utterance (Hearer-Old/New). However, under Prince’s division of the context we cannot distinguish entities in the extra-linguistic context from those which are known to be unique on the basis of the

‘culturally co-present knowledge’ (Clark & Marshall 1981) such as *the sun*, or which are semantically unique, such as superlatives like *the bravest dog in Kansas*. While at this point it seems that a system which makes this kind of distinction is adequate to account for the distribution of the English definite, these divisions cannot account for French.

The proposal that I would like to put forward is that, in order to accurately capture the distribution of the definite in French and other languages which do not allow a deictic use of the definite (Italian, Spanish to name two), the context must be divided into three informational spaces. In other words, there are three different sources of information available to a group of interlocutors. The structure of the context that I will adopt follows Clark & Marshall 1981, though I will sometimes supplement their proposals with others which have been put forward in the semantics literature. Clark & Marshall 1981 claim that interlocutors break up the context into these separate spaces in order to facilitate communication. Without these heuristics (as they view them) no mutual knowledge could be agreed upon, and conversation would be hopelessly redundant. The first informational space is that which corresponds most closely to the Stalnakerian view of *common ground* – knowledge that is assumed based on co-membership in a community. Community co-membership entails knowledge of certain things, and thus, entailment of certain entities in the context which have neither been linguistically introduced, and nor are perceptually salient. Clark & Marshall refer to such entities as being ‘culturally co-present’, and I will adopt this term here. Such culturally co-present information is the reason that the use of the definite with such nominal expressions as *sun* and *bravest dog in Kansas* are felicitous: they both denote a unique relation between an entity in the worlds, and the noun phrase used to describe it.

The second kind of information available is based that on linguistic evidence. The anaphoric use of the definite is assessed to be felicitous or not based on whether the referent in the *discourse context*, i.e. whether an indefinite explicitly introduces an appropriate antecedent into the discourse context. For further discussion of the ‘givenness’ of the antecedent of bridging and functional definites, and their relationship to explicitly mentioned entities in discourse, see Prince 1992, as well as Clark & Marshall 1981. As in the ‘culturally co-present cases’, the definite in both English and French can be used to identify a referent whose uniqueness is entailed by the discourse context, as in the anaphoric examples that we saw in (2) and (3) above, and to which we will return below.

The third partition of the common ground which Clark & Marshall suggest is that which contains entities which are *physically co-present*. In other words, these are the entities which exist in the immediate local environment and are perceptually salient to the interlocutors.⁷ This part of the context is the one which is relevant in the *monkey* examples above, and is the part of the context to which access via the definite differs in French and English. Whereas in English, all the perceptual evidence that points to the uniqueness of the monkey in the physical environment is enough to license the use of the definite, it is not enough for the French definite. As Löbner 1985 points out, there is nothing about the physical situation in the cases discussed above which entails the existence of a unique individual which fits the description ‘monkey’. The uniqueness of the monkey in the town square is accidental, and so the French definite’s requirement that

⁷ Of course, taking note of what someone has said is an act of perception. However, in my use of the term perceptual, I mean non-linguistic perception. The entities in this part of the context are physically salient in some way.

the maximality of its referent be entailed by the context is not satisfied. For English, *Intended-Referent* allows a discourse referent for the monkey to be accommodated in the discourse, and because the second argument of the definite adjusts the lexical meaning of the NP to refer to just that monkey (i.e. because just one *monkey* discourse referent is accommodated, the second argument can only be filled by that discourse referent), uniqueness is satisfied *within the discourse context*. The important point to recall from 2.2.6 is that when the referent in the extra-linguistic context does not satisfy uniqueness with respect to the definite's descriptive content, the use of the definite is not felicitous. This is spite of the fact that English has *IR* to trigger accommodation of a referent in the discourse context. The common noun must uniquely identify the referent, even when the speaker may have a particular individual in mind. Uniqueness therefore needs to be established linguistically, in the discourse context. (Although important, an exploration of what limits the discourse context is beyond the scope of this discussion.)

To make the proposal explicit: the French definite may, therefore, only be used when its referent's uniqueness is entailed in the discourse or the 'culturally co-present' context. The lack of a second argument for the French definite means that the uniqueness entailment must be semantic, in the sense of Russell 1905, and Löbner 1985: the uniqueness must be able to be ascertained from the descriptive content of the definite's nominal expression alone. In the cases of the English deictic definites, on the other hand, a discourse referent corresponding to the referent in the extra-linguistic context is brought in via the *Intended-Referent* argument. The deictic definite will be felicitous only if *Intended-Referent* picks out a referent which uniquely satisfies the descriptive content of

the definite description. The English definite's extra structure allows it to access parts of the context which are not accessible to the French definite.

So far we have looked in detail at deictic uses of definites and demonstratives, because these are the cases in which the differences between the French and English definite may be seen most clearly. Furthermore, we saw the difference between the definite and the demonstrative in terms of maximality: the maximality of the definite's referent must be entailed in context, whereas the demonstrative may *not* be used where such an entailment exists. I now turn to consider cases in which French and English do not differ, namely the anaphoric and bridging definites. The question that I will be concerned with is whether the structural difference I have claimed for them plays a role in these uses too. In particular, the question I will be interested in exploring is whether English still has a second argument even in these cases. Since anaphoric definites behave the same in both languages, it would certainly be possible to suggest that the second argument is missing in both languages. However, I will suggest that putting the second argument into English and thereby maintaining the structural difference between the English and French definite provides us with an explanation for the availability of the deictic definite in English and not French, however, maintaining the parallel in the interpretation of anaphoric and functional definites in these languages. I will therefore show, first of all, that the second argument of the English definite yields the same result as the standard coreference requirement for definites. I will then use the presence or absence of a argument to explain the (im)possibility of a generic/kind reading of definites.

2.4 Anaphoric definites and demonstratives

2.4.1 Anaphoric definites

Consider the English sentence in (27) below, and its French equivalent in (28). The judgments for these sentences are identical in the two languages.

27. *A man₁ and a woman₂ walked in. **The man₁** sat down.*
 28. *Un homme₁ et une femme₂ sont entrés. **L'homme₁** s'est assis.*
 indef.sg.m man CONJ indefinite.sg.f women be.3pl enter.PST.pl def.sg.m man
 REFL-be.3sg sit.down.PST
 'A man and a woman walked in. The man sat down.'

These two sentences show examples of the anaphoric definite, whereby the definite description picks up a referent that has previously been introduced into the discourse by another nominal expression – in this case an indefinite. In (27) and (28) the definite *the man* refers back to the man introduced in the first sentence by the indefinite *a man*.⁸ This co-reference is indicated by the indices on the nouns in these sentences. Importantly, this co-referential reading is the only salient interpretation for the definite – a reading where the definite introduces a new man into the discourse is not available.

The definite picks out the maximal entity which has the property denoted by the definite's common noun. Therefore, if there were two men in the first sentence in (1), the singular definite would not be available to pick up one of these discourse referents, the definite must refer to every entity which its descriptive content identifies. The domain of

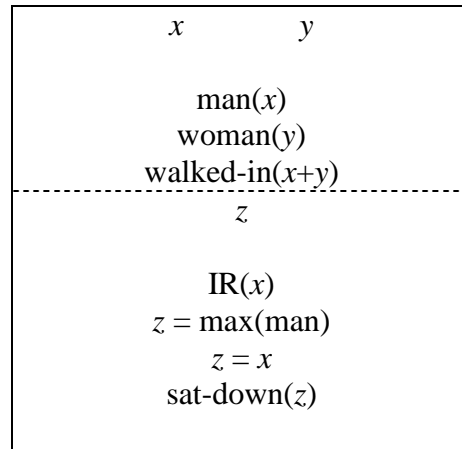
⁸ I give the conjoined subject in the subject of the first sentence in (27) and (28) because the sentence with the single indefinite has been judged as odd by a number of speakers, both English and French. Instead, a pronoun is preferred in this context. We see the contrast in (i) and (ii) below.

- i. *A man walked in. ?**The man** sat down.*
- ii. *A man walked in. **He** sat down.*

I suggest that this preference is due to a sense of redundancy in using the full definite description to pick out the discourse referent introduced by the indefinite *a man* in the first sentence. Gricean quantity maxims dictate using the minimal possible form for reference, and as we see in (ii), the pronoun *he* is equal to the task. The full definite, then, is unnecessary. For the purposes of this dissertation, however, I leave this issue aside.

reference for the anaphoric definite in (27) and (28) is therefore limited to the discourse referents which have been explicitly introduced into the discourse via the indefinites in the first sentence; the second argument of the definite is filled not by an entity in context, but by a discourse referent which has been introduced into the discourse by an indefinite. I give the representation of the English sentence in (29).

29.



Instead of triggering accommodation of a discourse referent which corresponds to an entity in the extra-linguistic context, *Intended-Referent* picks out a discourse referent from the discourse context in (29). It merely adds the condition $IR(x)$, because there are already discourse referents available in the discourse context for the definite to refer to⁹. The second argument of the definite is therefore redundant; it does the same job as the co-reference condition on the definite.

⁹ One question which immediately arises is why *IR* could not trigger accommodation of a discourse referent which corresponds to a man in the discourse context. I must leave a detailed answer to this question for future research, but I suggest that the answer lies in a theory of definite reference which draws on the relative salience of possible referents (such as Centering Theory, Grosz, Joshi and Weinstein, 1995). I would suggest that in ‘normal’ circumstances, a linguistic antecedent will be more salient in the discourse than an entity in the extra-linguistic context, as it has just been brought to the hearer’s attention by the speaker. To redirect the hearer’s attention to the extra-linguistic context, a demonstrative would perhaps be a more felicitous choice. I will not discuss this point further here.

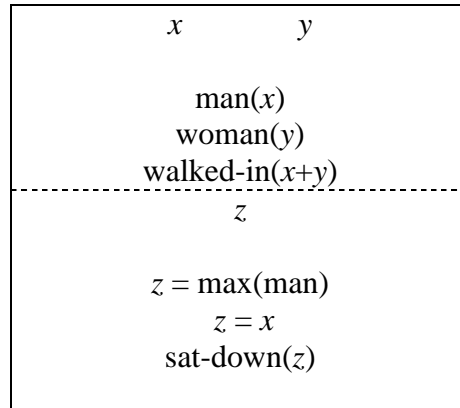
There is a question that must be answered, of course: how does the explicit introduction of an antecedent.¹⁰ discourse referent into the context by an indefinite guarantee unique reference? After all, according to Löbner the uniqueness of a discourse referent in the discourse is no less contingent than the uniqueness of a referent in the extra-linguistic context. I would like to suggest that the anaphoric case is crucially different to the deictic case because of the descriptive content of the antecedent NP, which introduces the discourse referent that *Intended-Referent* picks out. Therefore, choosing the discourse referent which the definite uniquely identifies is much more straightforward because the discourse referent is associated with descriptive content of its own: there is a unique relation between the description and the discourse referent introduced by the antecedent, and so the definite can refer to *that* relation. Therefore in the discourse context it is simple to ‘match’ the property denoted by the predicate that introduces the antecedent’s discourse referent, and the common noun in the definite. The interpretation of the English anaphoric definite is thus equivalent to that of the French one. We see the French case in (30) below.

¹⁰ In a discourse where there are two possible antecedents for the definite description, *IR* will not be able to save the use of the definite from infelicity due to a violation of maximality. Consider the following sentences:

- i. *A man came in. Then another man came in. Then a woman came in. #The man sat down next to her.*

The definite in the last sentence will be unacceptable because of maximality; because there are two discourse referents which fit the definite’s descriptive content, and *IR* could pick out either. We note that the same type of discourse with a pronoun in the final sentence instead of the definite would be acceptable because a pronoun does not have the condition *max(man)* (see Barker 2003 for a brief overview of arguments against maximality for pronouns).

30.



French, of course, does not have the second argument. However, the anaphoric definite is licit because of the maximality and coreference conditions in (30). In (30), as with English, the indefinites in the first sentence introduce discourse referents into the DRS. The reference of the French definite, is only established by way of the co-reference condition $z = x$, which is only satisfied if the discourse referent x uniquely satisfies the description *man*.

The French definite and the English definite receive the same interpretation in anaphoric cases because both are seeking a unique discourse referent which fits the descriptive content of the common noun, and no accommodation is needed to supply that discourse referent. Therefore, in anaphoric contexts the second argument does the same work as the co-reference condition: *Intended-Referent* is redundant, but harmless. This redundancy accounts for the parallel interpretation of the anaphoric definite in French and English. It relies on the lexical introduction of discourse referents, rather than the accommodation of them. The discourse context is therefore privileged over the extra-linguistic context because the second argument can automatically be filled by an *appropriate* discourse referent, whose existence in the context is independent of the

definite description itself. This is also the reason for according a privileged status to mutually-shared world knowledge, over knowledge that is obtained from the immediate local environments. In such a case the existence of a unique appropriate discourse referent is established independently of the definite description itself, which is the crucial factor in licensing the French definite.

The difference between the workings of the second argument in the anaphoric vs. the deictic context comes out even more clearly if we consider the case of the anaphoric demonstrative. Here we will see that the way in which the demonstrative refers is crucially different to the definite.

2.4.2 Anaphoric Demonstratives

Demonstratives can be anaphoric too. However, their anaphoric readings are derived in a different way to the anaphoric interpretation of the definite, and as such, the demonstrative must be used in a slightly different way. As with the anaphoric definite, the judgments for French and English are parallel. We see the anaphoric use of the demonstrative in (31) and (32) below.

31. *A man and a woman walked in. **That man** sat down.*
 32. *Un homme et une femme sont entrés. **Cet homme** s'est assis.*
indef.sg.m man and indef.sg.f woman be.3pl enter.PST.pl dem.sg.m man REFL be.3sg sit-down.PST
 'A man walked in. That man sat down.'

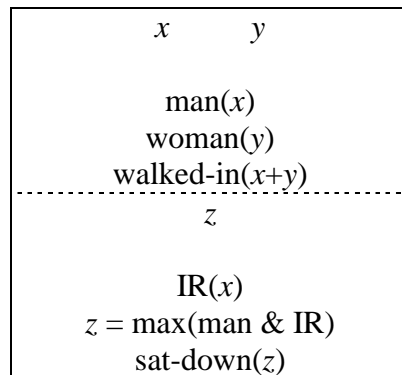
Developing a proposal in Roberts 2002, I suggest that the anaphoric demonstrative picks out a particular discourse referent from those available in the discourse context via having an extra property in its lexical representation.¹¹ The

¹¹ As suggested in the previous footnote, the proposal being developed here is a simplified version of Roberts 2002, with elements of Wolter 2003 incorporated also. The spirit of this analysis, is, however, the same as Roberts'.

demonstrative has two properties, one supplied by the common noun, and one supplied by the speaker's intentions: it is filled by the entity to which the speaker intends to refer. For a demonstrative on its canonical use – i.e. reference in the non-linguistic context – the *Intended-Referent* property picks out an entity in the world. However, when a demonstrative is used anaphorically, or to otherwise pick out a referent in a discourse, the *Intended-Referent* property in the second argument position picks out a discourse referent to which the speaker intends the demonstrative to refer, just as in the case of the definites in section 2.4.1. The suggestion that the anaphoric demonstrative has as its intended referent a discourse referent, rather than an 'actual' entity also comes from Roberts 2002.¹²

The representation of the demonstrative in both of the sentences (31) and (32) is as in (33).

33.



In (33), unlike in the case of the definite in (29), *Intended-Referent* does play a real role. It picks out from the discourse context the discourse referent to which the

¹² This proposal includes the claim that the demonstrative is directly referential. Roberts 2002 actually proposes that the demonstrative itself is *not* directly referential, but that every demonstrative is accompanied by a demonstration which is. For the purposes of this chapter, I treat this as being the same thing. The effect of using a demonstrative is direct reference, regardless of the particular details of how this comes about.

speaker wishes to refer. This property picks out the referent of the demonstrative from the discourse context, ensuring that the demonstrative is interpreted according to the referent to which the speaker intends to refer, rather than being just any referent which fits the descriptive content of the common noun. (While this is not really an issue in the anaphoric cases, it is a significant point for the deictic demonstrative. See Clark, Schreuder & Buttrick 1983 for further discussion.)

The uppermost part of the DRS in (33) is the same as in (29). The indefinites introduce discourse referents, of which the verb is predicated. In the lower part of the DRS, the demonstrative introduces its own discourse referent, and conditions on this discourse referent. The first of these conditions gives the value of the *Intended-Referent* property. Note that *IR* does not take as its argument the discourse referent introduced by the demonstrative itself. Rather, the intended referent is the discourse referent x , introduced by the indefinite *a man* in the first sentence.

The other condition on the interpretation of the demonstrative is that the discourse referent must be the maximal man who is the intended referent of the speaker. The maximality condition on the demonstrative's discourse referent ensures that z is interpreted with respect to this discourse referent x . Just as long as the discourse referent introduced by the demonstrative, and the discourse referent which is the intended referent satisfy the same description (i.e. in this case they are both men) the anaphoric use of the demonstrative is felicitous. The *Intended-Referent* property yields a referent for the demonstrative which is the unique *intended* referent, but not necessarily the only *possible* referent which fits the descriptive content of the demonstrative. The work that maximality does makes the crucial difference between the definite and demonstrative in

English; in all other respects they are the same. We see the contrast between the two in (34).

34. a. *A man and a woman walked in. **That man** sat down.*¹³
 b. *A man and a woman walked in. **The man** sat down.*

The anaphoric definite is distinguished from the demonstrative in two ways.

First, the referent of the definite must be maximal in context, whereas the referent of the demonstrative must ‘merely’ be the unique intended referent of the speaker. Secondly, there is an implicit contrast in the use of the demonstrative which is absent with the definite, which draws upon not just the discourse context but the context as a whole. The interpretation of the definite, on the other hand, draws only on discourse context. In (34a) the non-maximality implicature that we saw above is still in action, forcing an interpretation of the demonstrative which is intuitively different to that of the definite. This is the only way that the demonstrative in this context can be interpreted as satisfying the non-maximality implicature given in (17) above. The referent of the definite, on the other hand, must be. This is another way in which we see that the discourse context is privileged as a source of referents which satisfy uniqueness for the definite, but not for the demonstrative.

In this section we have seen that having a two argument structure for the English definite vs. a single argument for the French definite is harmless in the anaphoric cases, while allowing a distinction to be made between these two languages in the deictic cases. We now turn to functional readings of the definite to see whether the harmlessness of the second argument in the anaphoric cases prevails.

¹³ Some speakers judge the discourse in (34a) to be slightly odd – it is not as natural as the discourses in (2). An account for this oddness will be suggested in the next section.

2.4.3 Bridging and functional definites

Bridging interpretations of definites were first discussed in Clark 1975, and have received extensive attention in the literature (for a survey, see Abbott 2000, Roberts 2003). For our purposes, bridging definites are interesting for two reasons. The first reason is that they show that the definite may be interpreted somewhat indirectly. The definite may be used to refer to entities whose existence may be inferred from the mention of some other entity, rather than identifying a discourse referent which had been explicitly introduced into the discourse via an indefinite (for example). The second reason why they are of interest here is that the use of a definite versus a demonstrative in a bridging context yields sharp contrasts in licensing of these two kinds of description. Bridging readings of definite descriptions in English and French are licensed by a function from an NP that has been introduced into context, rather than by a directly asserted indefinite. That is, the explicit mention of one entity also makes salient other, associated entities that can then be referred to with a definite. The bridging definites are cases which appear to involve accommodation. We would expect, if this were the case, that the French definite would be unavailable in these cases. I will show, however, that bridging definites are indeed available in French. I propose, once again, that these examples do not involve accommodation which is dependent on a second argument, but instead, the bridging reading is obtained by regular coreference to a function from an NP in the discourse context. The sentences in (35) and (36) below show cases of the bridging interpretation of the definite, in English and French respectively.

35. *Helen's car is dangerous. **The steering wheel** is twisted.*
 36. *La voiture d'Hélène est dangereuse. **Le volant** est tordu.*
 def.sg.f car of-Helen be.3sg dangerous.f. def.sg.m steering-wheel be.3sg twisted.
 'Helen's car is dangerous. The steering wheel is twisted.'

In these sentences the definite refers to a part of Helen's car, the steering wheel.

In these sentences the overt mention of *Helen's car* is enough to license reference to the steering wheel: our world knowledge says that cars have steering wheels, and we can call upon this knowledge to find a suitable antecedent for the definite. Another way of looking at this point is to say that the noun *steering-wheel* is an inherently relational one, in that steering-wheels always belong to cars, and so in order to identify a particular steering wheel, it is necessary to identify the car it belongs to. (Of course, generic reference is also possible – the point is that a particular car will always have a particular steering wheel, and vice versa). The car, therefore, restricts the potential domain of reference of *the steering wheel*, and allows the definite description to be interpreted unambiguously because there is necessarily a unique relation between the description and its referent.

Furthermore, maximality is satisfied because cars typically have only one steering wheel, and the set of possible steering wheels is limited to those in Helen's car. The discourse referent introduced by the definite is therefore co-referential not with an individual variable as we saw in the DRS's in (29) and (30) above, but rather with a functionally-related entity. We see this in the DRS in (37) below for English, and in (38) for French¹⁴. The bridging definites in both languages differ in the same way that the anaphoric definites differ. The English definite's second argument must be filled by an appropriate discourse referent (37), which discourse referent also satisfies the coreference

¹⁴ I have represented two possible functions which are salient in the context due to the mention of a car; it is possible to imagine several more.

condition, whereas the French definite is only subject to the co-reference condition as in (38).

37. English

x	f_1	f_2	...
Helen's(x) car(x) dangerous(x) $f_1(x) = \max(\text{steering-wheel})$ $f_2(x) = \max(\text{wheels})$			

y			
$IR(f_1(x))$ $y = \max(\text{steering-wheel})$ $y = (f_1(x))$ twisted(y)			

38. French

x	f_1	f_2	...
Helen's(x) car(x) dangerous(x) $f_1(x) = \max(\text{steering-wheel})$ $f_2(x) = \max(\text{wheels})$			

y			
$y = \max(\text{steering-wheel})$ $y = f_1(x)$ twisted(y)			

Once again, *IR* is redundant in the English case shown in (37). The work of this property is duplicated by the coreference condition. *Intended-Referent* does not trigger accommodation of this discourse referent $f_1(x)$; it is introduced lexically via the mention of Helen's car. This means that the set of possible antecedent discourse referents for the definite is limited to those functions made salient by the utterance of Helen's car. The function relevant for the interpretation of the definite is the one from the car to the maximal entity which satisfies the description *steering-wheel* in the discourse context. The definite description in the second sentence – *the steering wheel* – is therefore interpreted with respect to the functionally-related entity $f_1(x)$. The close link between structure and accommodation that I have proposed here is not threatened by the presence of these functional readings in French because of the lexical triggering of the relevant discourse referents which occurs in the bridging cases.

The case of the demonstrative is different. While we can successfully apply the semantic analysis for anaphoric demonstratives here, and thus construct a well-formed DRS, the resulting sentence is judged to be infelicitous. Unlike the bridging and anaphoric definites, the judgments between bridging and anaphoric demonstratives are not parallel.

2.4.4 Demonstratives

When the bridging definite is replaced by a demonstrative, the discourse is infelicitous as we see for both languages in (39) and (40). The use of the demonstrative in these cases is strikingly bad.

39. *Helen's car is dangerous. #That steering wheel is twisted.*¹⁵
 40. *La voiture d'Hélène est dangereuse. #Ce volant est tordu.*
 def.sg.f car of-Helen be.3sg dangerous.f. dem.sg.m steering-wheel be.3sg twisted.

Semantically, the interpretation of the demonstrative in these sentences is the same for the demonstrative in (31) and (32) which, if not completely natural, was not sharply infelicitous. I give the representation in (38) below to show that, except with the replacement of discourse referents which give functions rather than individuals, the DRS for (39) and (40) is identical to that for the anaphoric demonstrative in (33) above, with the difference that *IR* picks out a function. What is at stake here is thus not the semantics of the demonstrative, but rather the non-maximality implicature.

41.

¹⁵ Recall also the example given in footnote 1, e.g. (ii), concerning the functional use of the demonstrative.

x	f_1	f_2	...
Helen's(x)			
car(x)			
dangerous(x)			
$f_1(x) = \max(\text{steering-wheel}(x))$			
$f_2(x) = \max(\text{wheels}(x))$			

y			
$\text{IR}(f_1(x))$			
$y = \max(\text{steering-wheel} \ \& \ \text{IR})$			
twisted(y)			

Just as in (33), the *IR* property in (41) picks out a discourse referent from the uppermost part of the box. The discourse referent introduced by the demonstrative is then subject to the condition that it must be the unique discourse referent which is a steering wheel, and is the speaker's intended referent. There is nothing in this particular situation which should rule the demonstrative out – there is a unique steering-wheel which is available as the speaker's unique referent, and the function is appropriate as contents for second argument. As I mentioned before, however, the demonstrative is strikingly bad in this context. This is a case, I propose, where the non-maximality implicature comes into play. While the entity in question is the *speaker's* unique *Intended-Referent*, the use of the demonstrative is restricted to those contexts where that referent is *not* known to be the unique referent which fits the descriptive content of the demonstrative. In this case, however, it is known that Helen's car has only one steering wheel, and thus the use of the demonstrative is blocked. The uniqueness of the discourse referent is entailed by the lexical meaning of the NP *steering-wheel*, which we can think of as being an inherently relational noun.

Why, then, is the anaphoric definite not also blocked by non-maximality? The crucial difference between the bridging demonstrative and the anaphoric demonstrative is that in the anaphoric case there was no commitment to the uniqueness of the antecedent discourse referent. It was possible to accommodate a situation where the man picked out by the definite was not the only man in context. The anaphoric demonstrative fares better than the bridging demonstrative on non-maximality because a context can be imagined where there is more than one man about, although only one has been explicitly mentioned.¹⁶ Such imaginings are not possible with the bridging context, where the set of available discourse referents is circumscribed by the mention of one particular car, and the knowledge that cars have only one steering wheel each.

2.4.5 Anaphoric definites and demonstratives: a review

Whereas definites are available in both English and French on an anaphoric or a bridging reading, only the English definite may receive a deictic interpretation. We attribute this variation between the languages to a difference in the structure of the definite descriptions in the two languages. The English definite is somewhat like a demonstrative, in that it has a second argument in addition to the common noun. The French definite, on the other hand, has one argument which corresponds to the lexical meaning of the common noun. This difference results in different uses for the definite in the two languages. Both the French and English demonstratives, on the other hand, have two arguments; the difference between the demonstrative and the English definite lies in the

¹⁶ The construction of such a context, where there is more than one man in the larger context, is what most speakers claim to have to do in order to interpret the anaphoric demonstrative felicitously. The important point to be noted here is that constructing a context which makes the anaphoric demonstrative felicitous is not possible in the bridging cases.

scope of maximality. The referent of the definite must be maximal in context, regardless of whether it is the speaker's unique intended referent or not. The referent of the demonstrative, on the other hand, need only be the speaker's unique intended referent. Accompanying the demonstrative is also an implicature of *non-maximality*, which requires that the definite's referent is not the unique entity satisfying the descriptive content of the NP.

The picture that I have painted so far makes it seem like there is a blanket prohibition on using the definite to refer to entities in the extra-linguistic context in French. This is not quite true. The definite may be used deictically in French if it can be considered to have a functional reading that is, the uniqueness of the definite's referent is entailed by the context. These are the cases that I will discuss next.

2.5 Functional 'deictic' definites

In the contexts above, where the deictic definite was not available in French, it was not possible to infer the uniqueness of the definite's intended referent from the context. There is nothing about paintings that entails the existence of a unique pair of apples in them, and there is nothing about small villages and baobabs that entails the existence of a unique monkey. However, the definite may be used to pick out a referent when the context of utterance entails the uniqueness of that referent. In cases where the referent of the definite is functionally entailed by the common ground, the French definite may receive an apparently deictic reading. We see such an example in (42).

42. [At a football (soccer) match: (example from Tasmowski-de Ryck 1990)]:
L'arbitre a donné le coup d'envoi.
 def.sg referee have.3sg give.PST def.sg(m) kick of sending


‘The referee just signaled kick-off.’

Perhaps surprisingly, the definite is available in the above sentences, despite the fact that no referee has explicitly been introduced into the discourse. However, I will show that cases such as in (42) above should be viewed as parallel to the bridging cases discussed above. Their functional nature means that they are unproblematic for the account developed here, despite first appearances.

The definite is licensed in this context, I propose, because the football match entails the existence of a unique referee. The context of the football game makes salient in the discourse a series of functions, from the football match itself, to its component parts. The fact that it is a soccer match therefore entails the uniqueness of the referee, so the common noun refers unambiguously (there is a unique relation between the description and referent, which is entailed by the context). Therefore, no second argument is needed to coerce an unique interpretation of the NP. The interpretation draws upon world knowledge, and the knowledge that at a football match, the existence of a unique referee is entailed. Other entities are also uniquely entailed, such as the plays, the ball, the goals, etc. Therefore, in the case in (42) the football game serves the same function as the DP *Helen’s car* in (35) and (36) – it makes salient in the discourse context a number of functions to entities which are integral components of the car, or the football match.

The representation of the interpretation of the sentence in (42) is given in (43). I will not discuss the English cases yet.

43.

I.	 (football match)
II.	x f_1 f_2 ... $\left[\begin{array}{c} x = \text{soccer match} \end{array} \right]$ $f_1(x) = \max(\text{referee})$ $f_2(x) = \max(\text{players})$ <hr style="border-top: 1px dashed black;"/> y $y = \max(\text{referee})$ $y = f_1(x)$ gave-the-signal-for-kick-off(y)

In the first part of the structure in (43) we see a representation of the soccer game in the extra-linguistic context. The football match serves to delimit the context in which the reference of the definite is determined, even though it is not introduced linguistically into the discourse. In Part II of the DRS, I have indicated two functions (out of the many possible ones) that are introduced into the discourse by the fact that the context is a soccer match. For ease of representation I have equated the football match with a discourse referent, x , but I could equally represent the presence of the domain of the functions with the picture – there is not really any discourse referent representing the football match itself. The definite identifies the function: the unique relation between a football match and its referent.

The same sort of analysis accounts for one use of the English definite in this context, despite the fact that the second argument of the English definite allows a deictic reading in contexts where the uniqueness of the referent is not entailed. The account we have given of these functional cases has an interesting consequence. Though French and English appear to have the same readings, there is a subtle and easily overlooked

difference between the two. In English, the presence of the second argument obscures the fact that the context of the soccer match entails the existence of a unique referee independently of it being any particular referee. In the context given in (43) above the discourse works out the same whether the speaker is referring to the particular individual who happens to be the referee at that particular match, or whether the speaker is describing the role, rather than the person filling the role. English and French differ in the referential possibilities based on these two options. The definite in French can only be used in the context above because the football match entails the existence of a unique referee. Although the reading is apparently one which refers to the particular individual who just blew the whistle to start the game, in fact the only time at which the definite in French can receive an apparently deictic reading is when the common ground entails the uniqueness of a referent which fits the descriptive content of the definite's common noun, regardless of the particular individual. In a sense, the fact that there is a particular individual filling this role is irrelevant: the description will always pick out the right individual because of its uniqueness in context. This reading is available in English, as well as well as one where the speaker wishes to refer to the particular individual. The distinction is that discussed in Donnellan 1966, the attributive versus referential use of the definite. In English, both are available; in French only the attributive reading is.

What we see in the case in (43) above is that the interpretation of the definite depends entirely on the lexical meaning of the noun. This means that the second argument of the English definite and the co-reference condition on the French definite are in a sense trivial – the meaning of the common noun does not need to be coerced to refer unambiguously in this context. The difference between French and English is that in

English the second argument is either filled by a discourse referent which corresponds to *some* individual which fits the descriptive content given by the common noun, or to a particular individual, in which case *Intended-Referent* plays a role. Which it is depends on speaker intention. There is, however, only one way to refer to a particular individual in French, and that is with the demonstrative.

2.5.1 Functional deictic demonstratives

In the context in (43) above, we see that the football match is serving the same function as the car in the bridging cases – it makes certain other entities salient. As with the bridging definites, the function from the football game to the referee picks out the maximal referee in context, and that from the football game to the players picks out the maximal set of players. The maximality of the possible referents is built into the context due to the fact that they are salient in context by virtue of functions from the context itself, the football game. This built-in maximality predicts that the demonstrative will not be licit whereas the definite is. This is true, as we see from the infelicity of the sentences in (44) below. We also note that the demonstrative is marked both in French and English.

44. [At a football (soccer) match (example from Tasmowski-de Ryck 1990)]:
- a. **#That referee** just signaled kick-off.
 - b. **#Cet arbitre** a donné le coup d'envoi.
def.sg referee have.3sg give.PST def.sg.m kick of sending

We note that the use of the demonstrative is infelicitous in both English and French, indicating that this is more than just a straightforward case of picking out an individual from the extra-linguistic context. In English, as well as in French, the fact that the context entails the uniqueness of the referee causes a violation of the non-maximality implicature of the demonstrative. In the monkey and apple cases, by contrast, there was

no entailment of uniqueness, and so the demonstrative and the definite were interchangeable (in English only, of course). The only time where the demonstrative is licit in sentences such as in (44) is when there are two referees (as there are in, for example, cricket or basketball), and a contrast is being drawn between the two. In this case, the definite cannot be used in either language, just as in the sentences in (20a,b) above. In a context where the uniqueness of the referent is entailed, such as a football match, the demonstrative is not available. These examples show clearly the difference between this, and other ‘deictic’ uses of the definite in English and French.

The broader conclusion that we draw from this is that the French definite is licit on an apparently deictic reading when the uniqueness of its referent is entailed by the context. All cases of the French definite are therefore functional in some form or another. We cannot say this about the English definite – it can coerce an unambiguous interpretation of the common noun by triggering the accommodation of a unique discourse referent in context, as well as being able to pick out discourse referents that are explicitly introduced into the context by means other than the definite itself.

The functional reading for the French definite is not the only interpretation that apparently deictic definites may receive. In the next section I will show two more kinds of examples which confirm the claim made here: apparently deictic definites are licit in French when the uniqueness of their referent is entailed by some element in the larger context. However, in no case is accommodation possible when the French definite’s referent is not unique. The referent must always be introduced explicitly, either via a function from a specialized context, or via a linguistic construction. We have seen the former case in this section. We will see the latter in section 2.5.2 below.

2.5.2 Other unexpected uses of the deictic definite in French (and English)

Considering the preceding discussion, we only expect French definites to have apparently deictic readings when that reading is a functional one. This does not seem to be quite the case, however, when we look at these following examples, both types of which can be uttered out of the blue. In this section I will show that focused and modified definites involved lexically-triggered operations such that French does not have to resort to standard accommodation in these cases. This means, of course, that the definite is licit on an apparently deictic reading. The first example, (45), shows an unmodified definite which is focused (by intonation and by the existence of a salient contrast set to which the referent can be considered to belong). The second set of examples, (46) and (47), contains definites with modified head NPs, in both English and French.

Focused definites

45. [Context: *Speaker comments on a bowl of various fruits on a table (Kleiber 1990)*]:
[Les pommes]_F sont magnifiques!
 def-pl apples be-3pl magnificent
 ‘[The apples]_F are magnificent.’

The felicity of (45) is unexpected. In the related example in (6a), in the context where the monkey was the only salient entity of its sort, the deictic use of the definite was not licit. Here, however, the referent of the definite is part of a group of entities of the same sort, and here, the definite *may* be used deictically. The same situation occurs when the definite is modified, as below.

Definites with modified common nouns

46. [Context as in 20; *obnoxious man in restaurant talking loudly on cellphone*]:
 a. ***The man with a cellphone*** is really annoying me.
 b. ***L’homme avec un radiotéléphone*** m’ennuie beaucoup.
 def.sg men with indef.sg.m cellphone pro.REFL.1sg annoy.3sg a lot

‘The man with a cellphone is really annoying.’

The sentences in (46) are remarkable because, whereas the unmodified definite *the man* could not be used deictically in this context (as in (20)), with the presence of modification the definite is licit in both languages. What is just as remarkable is that the modification can contain a definite, as in (47) below. Modification can, in fact, license the presence of two deictic definites in this sentence.

47. a. *The man with the cellphone is really annoying.*
 b. *L’homme avec le radiotéléphone m’ennuie beaucoup.*
 def.sg men with def.sg.m cellphone pro.REFL.1sg annoy.3sg a lot
 ‘The man with the cellphone is really annoying.’

To provide an explanation of the availability of the deictic definite in both these situations, I will first consider the focus case, given in (45).

2.5.2.1 Deictic definites and focus semantics

In his seminal works on the semantics of focus, Rooth 1985, 1992 proposes that focus marking introduces into the context a set of alternatives, each of which could potentially replace the uttered element if the context were slightly different. To show how this works, consider the sentence in (48).

48. Kate went to the movies with [Nick]_F.

In (48), the name *Nick* is focus-marked – it is made so by being made prosodically prominent. Marking this constituent in this way, according to Rooth, introduces into the semantics a set of possible alternatives to the uttered element. In this case, the alternative set introduced by focusing the name Nick contains Nick, and the names of other possible people who Kate might have gone to the movies with, say Tom, Prue and Mary. The focus meaning of the name *Nick* in this context is the set {Nick, Tom, Prue, Mary}. Its

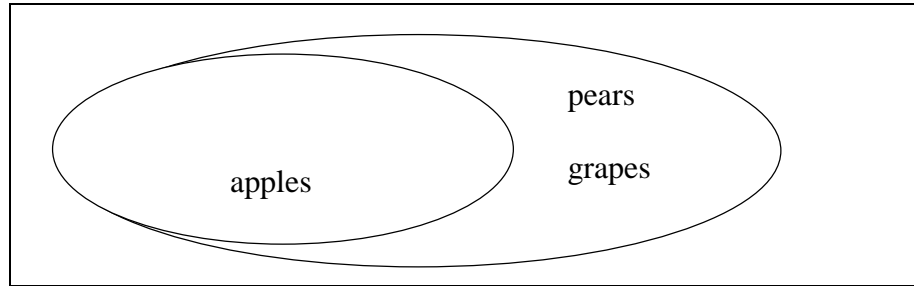
ordinary meaning is, of course, just the individual *Nick*. The other crucial element of focus semantics is that focus carries a presupposition of existence, so the elements in the focus set are also presupposed (Kadmon 2000, Jackendoff 1977). We also assume that the alternative set is exhaustive, containing all the possible alternatives available in the relevant domain. This, in turn, means that whatever element is stated to have the relevant property will be the only element to have that property.

There are two important things to note about the set of alternatives introduced into the semantics by focus. Firstly, (an obvious point, but important nonetheless) the alternative set does not just contain the name uttered – it is a superset of that denoted by the uttered element. Secondly, the possible alternatives to the uttered element are entities of the same type – they must be sensible replacements. An alternative set will not contain heterogeneous elements – the alternative set introduced by focus on a proper name, for instance, will not contain the common noun *dogs*, the verb *run*, the adjective *prosperous*, etc. The alternatives that the focused element makes salient must be maximally similar to the element itself (Rooth 1985). They must be of the same sort, but crucially be not the same, so that maximality can be established via contrast.

I propose that something similar to this is happening in the sentence in (45) above. I claim that the existence of a set of alternatives to the apples licenses the apparently deictic use of the definite. The existence of this superset to the intended referent (in the non-technical sense) entails the existence of the referent itself. The way the definite is licensed is therefore similar to the functional deictic definite in section 2.4 above, in that the existence of the definite's referent is presupposed by some 'larger' entity. In this case, the larger entity is introduced into the linguistic context by the focus

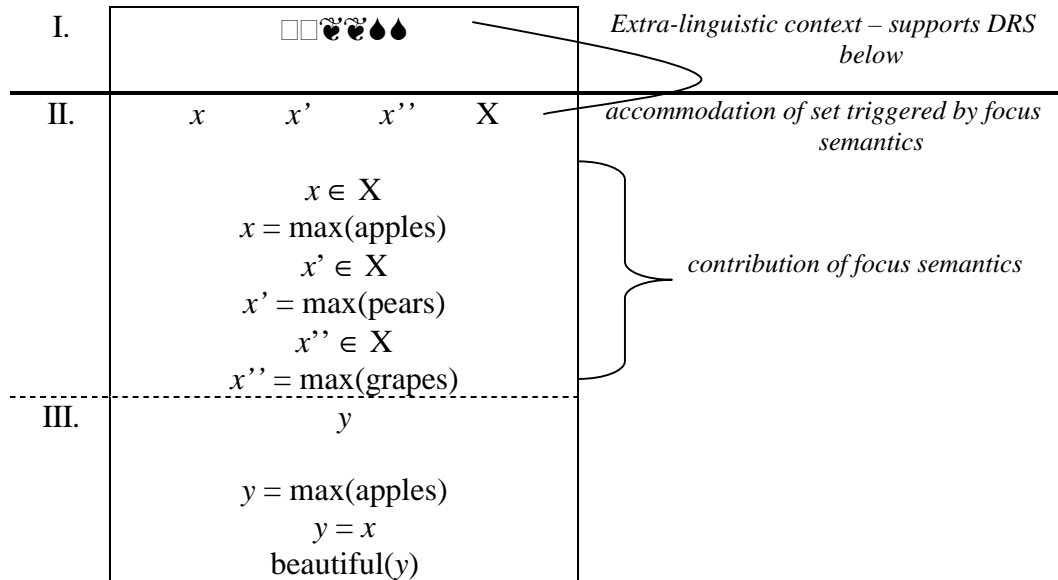
on the word *pommes*, and is comprised of all the fruit found in the bowl. This set of alternatives is represented in (49) below.

49.



In order for the focus to be interpreted, the entity picked out by the uttered NP must be contrasted with a salient set of alternatives. Without the alternative set, the focus interpretation is not possible, as we saw in the non-focused *monkey* case in (6). The sentence in (44), on the other hand, supports the focus interpretation which we see in (50) below.

50.



We see in part I of the DRS in (50) a collection of fruits – entities in the extra-linguistic context. In part II, we see that the focus intonation introduces the set X, which

is the alternative set of the focused element *apples*. The values for the elements of this set are supplied by the fruit which is salient in the context, as we see in the series of conditions in II. The focus semantics entails the existence of not only the apples, but also of other types of fruit, corresponding to the salient fruit in the extra-linguistic context. Part III is the standard definite, as seen throughout the preceding discussion. The definite is felicitous because the existence of its antecedent discourse referent is entailed by the focus semantics in (50).

2.5.2.2 Demonstratives and focus

This proposal also contains an element not in Rooth: that the entities in the alternative set whose existence is triggered by the focused definite are maximal. That is, the common noun denotes the maximal entity which has its property in the context. The uniqueness of the definite's referent is thus entailed linguistically in the context. This view gains support when we consider the case of the demonstrative in the same context. The use of the demonstrative in the focus case is not blocked as it is in the football match case above. We see this in (51).

51. a. *[Those apples]_F are magnificent!*
 b. *Ces pommes sont magnifiques!*
 dem.pl apples be.3pl magnificent
 'Those_F apples are magnificent.'

However, while the demonstrative is licit here, its interpretation in English does not overlap with the definite's as it does in the first deictic cases that we considered (of course, there was no overlap in French). Rather, the use of the demonstrative forces accommodation of another, 'non-magnificent' group of apples in the context. The determiner on the NP seems thus to contribute to the construction of the contrast set,

leading to a different interpretation for definite and demonstrative. Importantly, this difference in the composition of the contrast set means that non-maximality is not violated as it is in the football match example, because the maximality of the demonstrative's referent is not entailed, whereas that of the definite is. This distinction comes about entirely because of the construction of the contrast set.

To review: the existence of a variety of fruits in the bowl in the context in (51) satisfies a focus semantic interpretation of the definite description in the subject. The definite *les pommes* is interpreted as referring to an element in an alternative set, introduced into the discourse by *les pommes* being focused-marked. The elements of this alternative set are supplied, from the context of utterance, by the various fruits contained in the bowl with the apples. When the definite is focus-marked, it unambiguously identifies only those apples in its alternative set. Once again, the focus semantics limits the possible domain of reference, so the definite can be interpreted as referring uniquely without a referent being accommodated.

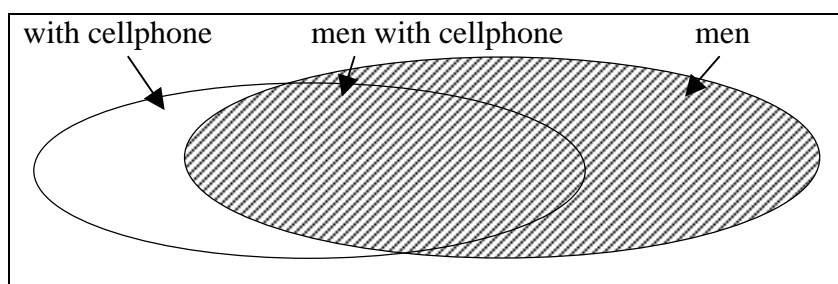
The apparatus is now in place to consider the cases where modification licenses the definite. The first crucial point to make is that the modification cannot just be providing enough information to enable the definite to be used to identify a unique referent in context. In the French sentence in (6), the head NP of the definite *le singe* 'the monkey' had enough descriptive content to uniquely identify the monkey in the context, and yet the definite still was not licit. Something else must be happening here.

2.5.3 'Deictic' definites and modification

I propose that the modification licenses the definite because it introduces into the context a superset, similar to the alternative set that we saw in the focus case above. However,

instead of containing contrasting elements of the same sort (for instance, different kinds of fruit, as above), modification breaks the set denoted by the head NP of the definite into two subsets which are each other's complement. The subsets are defined by the modification – one is the set of individuals which have both the property denoted by the head NP and that denoted by the modification, the other is the set of those individuals in the set denoted by the NP which do *not* have the modification property. That is:

52.



The sets introduced into the discourse by modification are in the shaded part of (52). I propose that, as with the focused definite, the introduction of the superset-subset relation shown above introduces a presupposition that the members of the set exist in context, and that each member is the maximal individual which satisfies the description. Because the referent of the definite is *part* of this presupposed set, the existence of the definite's referent is also presupposed. Modification introduces into a discourse a structure as in (53) below.

53.

x	x'	X
$x \in X$		
$x' \in X$		
$x = \max(P \wedge Q)$		
$x' = \max(P \wedge \neg Q)$		

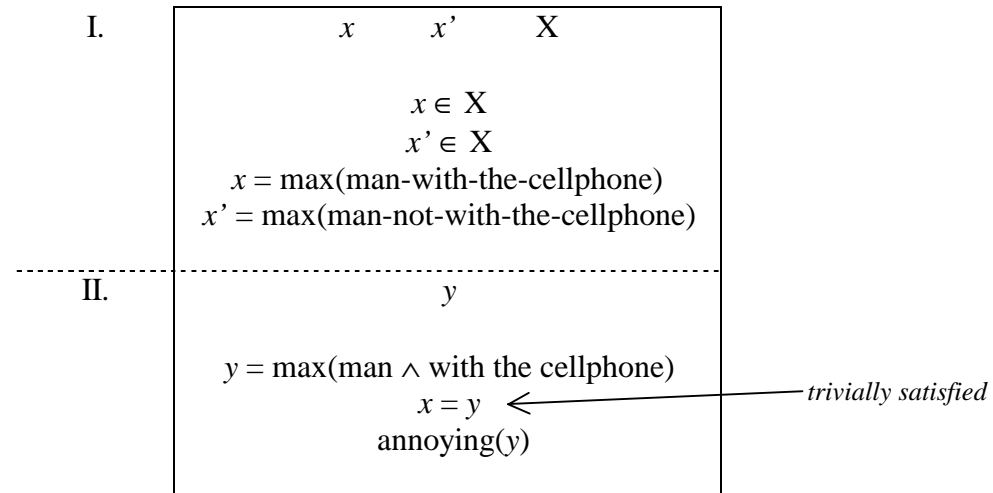
The important points to note about (53) are as follows. Firstly, the set X is introduced into the DRS the modification, which presupposes the existence of a contrast set, as in (52). That it is a contrast set, with two distinct members, is given in the second and third conditions. The fourth condition states that the discourse referent x (recall that discourse referents may correspond singular or plural individuals) must uniquely satisfy both the NP property (P) and the modification property (Q). Like the functional/bridging definites, modification has its own maximality built in.¹⁷ I will return to a discussion of this built-in maximality shortly. The fifth, and final, condition states that the property P , but not the property Q , must hold of the discourse referent x' . This DRS gives the complete picture of the contribution modification makes to the interpretation of any modified NP.

How does maximality come about? The modification introduces a unique relation into the context between the property denoted by the head noun, and that denoted by the modification (the entire constituent, rather than just the DP). The presupposition of a superset introduced by the modification thus to narrow down the set of possible referents for the modified definite, and to allow the definite description to refer unambiguously to a relation within a particular context. The uniqueness of the relationship in the discourse context licenses the use of the definite.

¹⁷ Many thanks to Veneeta Dayal for her patience and help in working this out.

Applying this to the sentence in (48), we obtain the following DRS.

54.



The material in I in the DRS above corresponds to the DRS given in (51). In I, the relative clause introduces two subsets of the set denoted by the common noun. While the first must denote a singleton, the second need not. One is the intersection of the head NP and the modification, and the other is the complement set of the conjunction of head NP and modification. Each of the two subsets correspond to the two discourse referents, x and x' respectively.

The correspondence between the focus case and the modification case is clear. In both cases the maximality of the referent is entailed in the discourse context independently of the definite. The two differ in the source of the uniqueness entailment, but not in the fact that the definite in French is licensed by the entailment in context of the definite's referent. This means, of course, that accommodation is not needed for the French definite to be licit.

The final point to consider in this section is whether the analyses given in (50) and (54) are appropriate just to French, or if they applies to English as well. The

Intended-Referent property which accompanies the definite could, in principle, be used to pick out the right referent in both these cases (it should be able to pick out the man with a cellphone, assuming that the descriptive content of the definite gives a hint as to speaker intentions, and what salient characteristics these are picking up on). At this stage, then, I have no definitive answer to this question. However, I propose that is nothing stopping the interpretation of the deictic definite being arrived at in the ways given in (50) and (54) above. There is no need for *IR* in either case, because the second argument can be filled by the unique discourse referent entailed in the discourse context. The two argument structure of the English definite results in the same interpretation as the one argument definite in French because the second argument is filled from the discourse context, and in both cases the common noun denotation can identify a unique referent. The choice may lie, like it does in the football match case, in whether the particular individual matters, i.e. the choice between attributive and referential readings.

2.6 Conclusion

I have made two main points in this chapter. First of all, the French and the English definite differ crucially in the way that they refer. Whereas a basic DRT-style analysis (minus accommodation) as in Heim 1982, Kamp & Reyle 1993, Farkas 2002 is an adequate starting point for an account of the use of the definite in French, I have shown that the English definite requires rather a different analysis. The proposal which I have put forward here is that the English definite is somewhat like a demonstrative in that it has a second argument which can access individuals in the extra-linguistic context, as well as picking out discourse referents introduced linguistically in the preceding discourse context. The definite is only felicitous, however, if the individual picked out by

this second argument uniquely satisfies the descriptive content of the common noun. The demonstrative's referent, on the other hand, is necessarily not unique in the context – the demonstrative bears an implicature of non-maximality, which says that the demonstrative cannot be used to refer to an entity whose existence is uniquely entailed by the context.

In this chapter I have also proposed that what we call the context of utterance or evaluation must be assumed to have internal structure. The need for this internal structure is evident when we consider that the French definite may only receive an apparent deictic use when some linguistic construction, or the definite's common noun itself, entails the maximality of the definite. Furthermore, the extra-linguistic context never entails the uniqueness of the entities in it. The uniqueness of a referent is only entailed by a discourse context, or by knowledge which comes about through community co-membership (Clark & Marshall 1981, Prince 1992). While proposals for dividing up the context into discrete parts are controversial, I follow Löbner 1985, Prince 1981, 1992, Clark & Marshall 1981 in suggesting that such divisions are necessary to understand how language in general, and referential expressions in particular, are interpreted.

The two-argument proposal for the definite also has consequences beyond the referential domain. Firstly, I suggest that the lack of a second argument means that the French definite may be used to refer to *any* entity which uniquely satisfies the definite's descriptive content. As I will show in detail in the next chapter, this means that the French definite may have a generic reading because interpreting a noun phrase generically means taking it to refer to all instantiations of a kind in a particular situation. Just as long as the definite is taken to refer to the maximal individual which instantiates a kind, both the definite's maximality and existence presuppositions are satisfied.

The case of the French functional deictic definite shows that unexpected readings of the definite can be forced if special circumstances are met. In the next section I show a case of special circumstances whereby the English definite *is* licit on a generic reading. I claim that, once again, this specialized reading is licensed by modification. The next section shows how this can be so.

2.6.1 Weak definites¹⁸

The unmodified English definite may only refer generically when the second argument slot is explicitly filled by a kind-level entity. I show that is a modified definite NP with a kind-level genitive phrase may receive a generic reading. This result is surprising, and in this concluding sections I will provide a brief discussions of the issues involved, in preparation for the work of chapter 3.

55. *The pigs eat apples.*

We see in (55) above a generic sentence with a definite subject. Rather than receiving a generic reading, however, the definite subject can only be interpreted as referring to a particular set of pigs which are salient in context, or whose existence is entailed by the speaker's world knowledge. Crucially, the definite cannot have a generic interpretation – this job falls to the bare plural in English as in (56).

56. *Pigs seem intelligent.*

However, there is a certain kind of definite description which shows significantly different behaviour to the English definites that we have seen above. These have been

¹⁸ Thanks to Chris Barker for initial discussion of these examples. The work in this section owes a great debt to his 2003 paper *Relational Weak Definites*, in making me aware of this kind of example, and its implications for definiteness.

called *weak definites* (Poesio 1994, further discussed in Barker 2003) because they are seen to have weaker maximality and existence presuppositions than do most other definites. The head noun of a weak definite is modified by a genitive phrase – a phrase of the form *of DP*. Furthermore, the head noun of the weak definite must be a relational noun, i.e. a noun which lexically selects for a complement. This means, I propose, that weak definites may only involve NPs which are in a functional relation with each other (e.g. bridging, part-whole relationships).¹⁹

The interesting thing about this kind of weak definites for this dissertation is that certain of them may receive generic readings. Even when these weak definites with the genitive complement are uttered out-of-the-blue, they do not pick out a specific referent in context, but rather can be generically interpreted – referring to no particular individual, but generalizing across individuals. We see some examples in (57)-(59) below.

- 57. ***The noses of children** are always dirty.*
- 58. ***The friends of bankers** drink red wine.*
- 59. ***The leaves of ginkgo trees** are fan-shaped.*

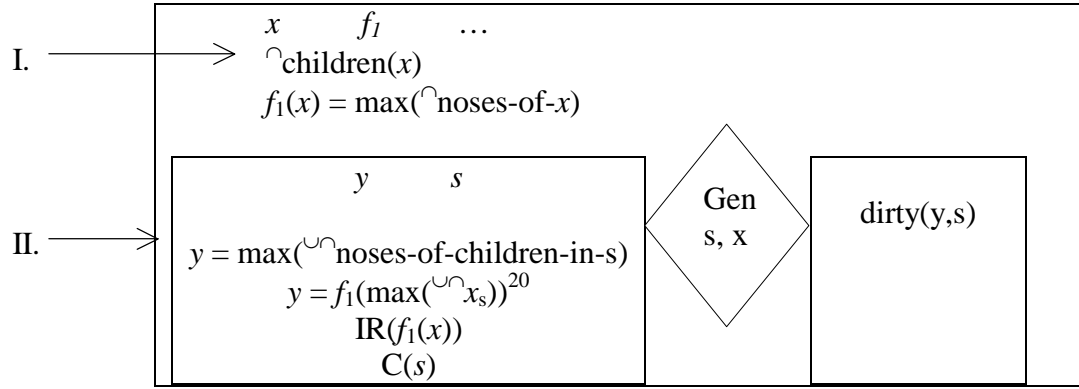
In these sentences we note that the form that the complement of the relational head NP takes is a bare plural, which has been argued to denote a kind (Carlson 1977, Chierchia 1998, among many others). This pair of factors – relational head, kind-naming complement, leads to a specialized interpretation for these definites. Specifically, the kind term in the complement (coupled with the generic aspect of the sentence) means that the definite refers not in the object-level, but in the kind-level domain. The relational head noun means that the interpretation of the definite as a whole is bound to the *sort* of the

¹⁹ Thanks to Viviane Déprez for discussion of this point. We note also that such relationships can be established in discourse, rather than being inherent to the NPs themselves, as we see in (i).

i. *Mary's car is a lovely blue. **The colour of cars** usually doesn't impress me, but this was nice.*

complement – for instance, an object-level nose cannot belong to the kind child, so the NP noses is interpreted at the kind-level too. We see this in the DRS in (60).

60.



First, the basic structure. The generic aspect of the sentence introduces the tripartite structure, in part II above. The material indicated by the label I is projected as a result of the presence of the bare plural *children*, which, according to Chierchia 1998, presupposes the existence of a corresponding kind. The equation $x = \cap \text{children}$ in I gives this presupposed kind, which I assume projects a discourse referent in the main DRS.

This next is the crucial part. As we saw for the bridging anaphora cases above, the introduction of a particular entity into the DRS can bring with it functions to its component parts. Using the definite in a generic sense is only licit when the modification is itself kind-level. The definite identifies a unique relation – and with a kind-level complement, the relationship may also be between kind-level entities. This means that the definite can be interpreted generically. The definite picks out the function from children to noses in this case. I note that it is not that the noses of children are particularly salient, just that the part-whole relationship between head and complement means that that function between these entities is entailed in context. The definite as a whole can

²⁰ This is equivalent to $\cap x_s$: I include *max* and the down-operator (\cap) for perspicuity only.

therefore be interpreted based on the sort of the complement; to be clear, the explicit mention of *children* in the sentence in (57) is interpreted as a kind, and the kind presupposes a function from children to their noses, i.e. $f_1(x)$ ²¹. This means, of course, that the *Intended-Referent* property is redundant. Therefore the definite can pick out a discourse referent entailed by the context of evaluation as its antecedent, and thus, since that discourse referent happens to correspond to a kind-level entity, then the interpretation of the definite is kind-level too. The definite in this context does not pick out a specific entity because the available antecedents are non-specific themselves. Given this kind of example, and the licensing of generic definites even in English (under special circumstances) it is a short step to the generic definite in French. This is will be the focus of the next chapter.

²¹ The situation will differ slightly with such relational nouns as *friends* – a friend is not an inherent part of a banker, but it can be reasonably assumed, given our world knowledge, that typical bankers (being people) have friends. I maintain, therefore, that the bare plural in (58), *bankers*, gives rise to a function from bankers to their friends, and it is this function which licenses the use of the definite.

Chapter 3: From maximality to genericity: French definite descriptions in generic sentences

3.0 Introduction

In this chapter I will give an account of the generic plural definite in French, discussing its relationship with the bare plural in English. In making this comparison I will show that while the definite may seem inherently incompatible with generic quantification from the perspective of English, there are actually several elements to the semantics of the definite which make it a natural choice for the generic determiner in languages where a bare plural is not available. The claim that I will make is that it is the maximality of the definite description which makes it the form taken by most generic arguments in French.

In the preceding chapter, I argued that one of the chief defining characteristics of definiteness is uniqueness or maximality (depending on whether the definite's NP is singular or plural).¹ The major claim in this chapter is that the definite always identifies the maximal individual which has the property described by its NP, in the discourse context. I will argue that a generic definite identifies a referent which is the maximal entity which instantiates a kind, its interpretation ranging across situations. I also propose in this chapter that the generic definite carries a presupposition of existence, just like the definites discussed in the preceding chapter. However, the existential presupposition of the generic definite is satisfied not through co-reference (as we saw for the non-generic definites in chapter 2), but rather by identity to the kind in extension.

In the beginning of this chapter I will show that we can, and must consider the generic definite to be a fully-fledged lexical definite, just like those which receive the

¹ In the cases given in this dissertation, maximality looks more like an entailment than a presupposition. However, following standard practice, I will refer to maximality as a presupposition (see Roberts 2003 for a discussion of taking such a step).

canonical definite reading. My proposal follows the analysis of the Romance definite put forward by Dayal 2004a, which treats the French definite as a kind denoting term identical to the English bare plural except for an existential presupposition contributed by the lexical determiner. Firstly, I compare the French generic definite with the English generic bare plural, claiming that while generic sentences containing these two items are truth-conditionally equivalent, they arrive at the final result by different, though related, routes. While the two are kind-denoting terms, their interpretations do not always match up, due to the presuppositions which accompany the lexical determiner but which are absent for the bare plural.

Secondly, I will show that while it has been proposed that generic definites may not be mapped into the nuclear scope; this is not, in fact, the case. I show that definites may be interpreted in all positions in a generic structure, but in the nuclear scope the maximality presuppositions of the definite only yield the desired interpretation with certain verbal predicates. In other cases, these presuppositions yield a semantically deviant reading. Finally, I will put forward an approach to account for cases in which the plural indefinite occurs in the nuclear scope, which appeals to the non-maximality of this determiner, showing why it is preferred as the object NP of most generic sentences.

3.1 Interpreting the generic definite

The plural definite description in French can both refer to a kind and receive a generic interpretation when in syntactic subject position². The readings are, of course, in addition to the normal readings which we saw in chapter 2. I show the reading where the definite refers to a kind in (1), and the definite on its generic reading in (2-4). We also note that

² I use the term subject, and later object position, to describe a syntactic position. This nomenclature should not be taken to apply to the semantic interpretation of these elements.

the definite occurs in the object position of (3), but not of (4). In (4) the object takes the form of a plural indefinite, which I will call the bare partitive following standard practice.³ I will return to this contrast in sections 3.2 and 3.3.

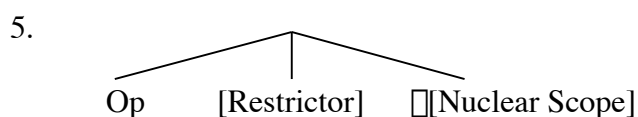
1. a. ***Les colibris sont rares.***
def.pl hummingbirds be.3pl rare
'Hummingbirds are rare.'
- b. rare(hummingbirds)
2. a. ***Les cochons sont intelligents.***
def.pl pigs be.3pl intelligent-pl
'Pigs are intelligent.'
- b. Gen x [pigs(x)] □ [intelligent(x)]
3. a. ***Les chats détestent les chiens.***
def.pl hate3pl def.pl dogs
'Cats hate dogs.'
- b. Gen x y [cats(x) & dogs (y)] □ [hate(x,y)]
4. a. ***Les cochons mangent des pommes.***
def.pl pigs eat.3pl indef.pl apples
'Pigs eat apples.'
- b. Gen x [pigs(x)] □ y [apples(y) & eat(x,y)]

The representations in the (b) sentences above show the relevant interpretations that these sentences receive. In (1) the kind-level predicate 'be rare' takes the kind named by the definite as its direct argument. I will not have much more to say about kind-naming definites in this chapter; suffice to say that a nominal that refers to a kind in Romance will always take the form of the definite. This is an expected consequence of the account that I propose (I refer the reader to Krifka et al 1995, Chierchia 1998, Dayal 2004a for further discussion of kind-naming definites in Romance). The interpretations of the generic sentences given in (2)-(4) show the mapping of the nominal elements of the sentences into the tripartite structure projected by the generic quantifier. These representations do not reflect the contribution of any determiner, nor quantification over

³ I use this nomenclature to distinguish this plural indefinite from other indefinite DPs such as *certain(e)(s) NP(s)*, 'certain NP_{pl}', *plusieur(e)(s) NP(s)* 'several NP_{pl}'.

situations at this point, in order to keep the exposition simple. We see that all definite DPs in (2-4) are interpreted as being bound by the generic operator, whereas the bare partitive is interpreted under existential closure in the nuclear scope.

I follow the standard assumption (see Krifka et al 1995 for details) that a generic operator is introduced either covertly by the aspect of the verb, or overtly by adverbs of quantification. These operators project a tripartite structure as in (5) below (for concreteness, I follow the schema proposed by Partee 1991).



I will adopt a theory of generic quantification where the generic operator is an unselective binder, following Wilkinson 1991, Diesing 1992, Gerstner-Link & Krifka 1993, Kratzer 1995. A generic operator therefore quantifies over individuals and situations; a generic sentence is therefore a description of individuals and the relevant situations which involve them. The operator binds variables in its scope; unbound variables in the nuclear scope are captured by existential closure. Therefore, a nominal expression receives a generic (quasi-universal) interpretation if it is mapped into the restrictor of the generic operator. In the nuclear scope, it receives an existential interpretation.

In English, the form that plural generic argument takes is that of the bare plural, which can occur in both subject and object position, and can be interpreted in either the restrictor or nuclear scope. We see the multiple interpretations of the bare plural in the glosses and interpretations for (3) and (4). It has traditionally been suggested that in French different lexical determiners have affinities for different parts of the tripartite

structure. The differences in the form taken by the object NPs in (3) and (4) has been attributed to these affinities: the object of (3) takes the form of the definite because, according to several authors (Laca 1990, Krifka et al 1995) it must be interpreted in the restrictor of the tripartite structure. The object of (4), on the other hand, is interpreted in the nuclear scope and therefore does not take the form of a definite, but rather of a bare partitive. I will show in section 3 of this chapter that there is more at stake with respect to the interaction between lexical determiners and mapping into the tripartite structure than this brief discussion suggests.

At this point, the question naturally which now arises is how a definite description may receive a generic interpretation, when all the definites that we have seen so far are dependent on an particular entity which exists in the discourse context for their interpretation. In the next section I will begin to answer this question by sketching an analysis for generic NPs which centers on the proposals of Carlson 1977, Chierchia 1998, and which I follow Dayal 2004a in extending to account for the French generic definite.

3.1.1 A Neo-Carlsonian approach to generic NPs

In his dissertation, Carlson 1977 proposed that English bare plurals name kinds across the board. All non-kind readings of bare plurals are thus derived from these kind-level readings. This hypothesis is implemented in Chierchia 1998 a series of type-shifts on bare nominals which derive the readings of bare NPs that occur with object-level predicates. The first core type-shift which Chierchia proposes for English takes a noun phrase from its original type $\langle e, t \rangle$ denotation and shifts it to an $\langle e \rangle$ denotation, so that it is of an appropriate type to combine with the verbal predicate. This type-shift is a kind-formation

operation, which Chierchia dubs *nom* (for nominalization). He uses the symbol λ to signify this type-shift, which is defined below.

6. For any property P and world/situation s.
 $\lambda P = \lambda s \lambda P_s$, if $\lambda s \lambda P_s$ is in K, undefined otherwise.

The definition in (6) says that a kind λP may be manufactured from a property P ‘by taking the largest member of its extension (at any given world)’ (Chierchia 1998: 351). The result is an individual which names a kind. The kind-formation operation is only defined for plurals, and it is only well formed if the property is conceptually compatible with the notion of a kind. I will return to this second fact later.

This type-shift is the first step in combining a bare NP with a verb: it shifts a property denotation to that of a kind-level individual. This would be all that is required to derive the correct interpretation of a sentence in such as in (7a) (the English equivalent to (1)). The representation is given in (7b). The derivation is complete at this stage – the two lexical predicates can felicitously combine at this point.

7. a. *Hummingbirds are rare.*
 b. $\text{rare}(\lambda \text{hummingbirds})$

For a predicate like ‘be rare’, this is perfect – types and sorts match up. However, for most predicates, a kind is not of an appropriate sort to be their argument – most verbs select objects, rather than kinds. A kind, for instance, cannot eat – eating is a property of object-level individuals, of instantiations of kinds, rather than of kinds themselves. Therefore the sort of the argument must be adjusted. In Chierchia’s system, a sort-adjusting operation *Derived Kind Predication* (DKP) automatically comes in with bare plurals to repair the mismatch between a predicate which seeks an object level argument

and a kind-denoting NP. DKP is as in (8a) (\sqsupset (*pred*), one of DKP's core components, is defined in (8b)).

8. a. If P applies to objects and k denotes a kind, then,
 $P(k) = \sqsupset x [\sqsupset k(x) \sqsupset P(x)]$
 b. Pred (\sqsupset): Let d be a kind. Then for any world/situation s,
 $\sqsupset d = \sqsupset x [x \leq d_s]$ if d_s is defined, false otherwise.

DKP yields the instantiations of the kind in the given situation in which the nominal predicate holds. An example of the application of DKP is in (9) below. It is important to note that DKP can be overridden in appropriate contexts, so the existential associated with DKP is disclosed by the presence of the generic operator. That is, the variable associated with the common noun is bound by the generic operator when in its scope, rather than by the existential introduced by the sort-adjustment operation.

According to Chierchia's system, then, the derivation of the English equivalent to the sentence in (2) looks like this (sentence repeated in (9a)):

9. a. ***Pigs are intelligent.***
 b. $[\text{intelligent}_{et}(\text{pigs}_{et})] \sqsupset [\text{intelligent}_{et}(\sqsupset \text{pigs}_e)]$ *application of nom \sqsupset sort mismatch*
 c. Gen s x $[\sqsupset \text{pigs}(x,s) \ \& \ C(s)][\text{intelligent}(x,s)]$ *application of DKP*

The NP [pigs] gives a property, which is not an argumental type: it cannot combine with the verbal predicate as an argument. The type-shift *nom* \sqsupset comes in to repair this mismatch, yielding the kind derived from the property, as in (9b). However, the verbal predicate is object-level, rather than kind-level, and so there is a sortal mismatch between it and its argument. DKP comes in to repair this mismatch, yielding the instantiations of the kind which correspond to the descriptive content of the NP, in each contextually-relevant situation, as in (9c). The reading that is obtained is that the

contextually-relevant instantiations of pigs in any given world have the property of being intelligent.

The preceding discussion has set up a system for deriving kind-denoting NPs from properties, via a series of covert type-shifts. I now move to an extension of this proposal for bare NPs to one in which the type shifts are encoded by the definite description itself.

3.1.2 A proposal for the generic definite

Following the account in Dayal 2004a, which builds on Chierchia 1998, I propose that the generic definite in French is a lexicalization of the type-shifter *nom*. This means that it is a maximality operator which takes the largest entity which instantiates the kind which corresponds to the property denoted by the definite's head NP, in any given situation. Furthermore, like the non-generic definites in chapter 2, the generic definite has an existential presupposition which accompanies the lexical determiner and which, as we will see, is crucially absent with the bare plural.

The semantics for the Romance generic definite proposed by Dayal is in (10a) below. The proposal I make here is compatible with this analysis. I treat the Romance definite generic as introducing a condition like (10b) where the variable associated with the definite is identified with the maximal individual which instantiates the kind in each given situation.

10. a. $\Box P_s = \Box P \Box s \Box x [P_s(x)]$ Dayal 2004a
 b. $\Box P_s = x = \max(\Box \Box P\text{-in-}s)$

Dayal suggests that, being a lexical determiner, the generic definite has (at least) weak existential presuppositions. Developing on this proposal, in my account a generic

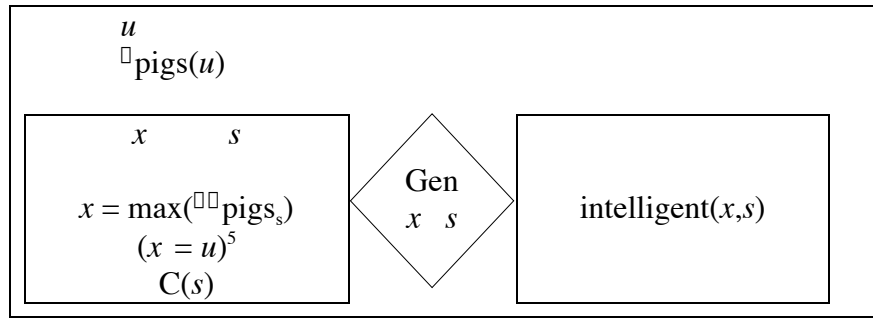
definite, like an ordinary definite, needs to be identified with a discourse referent. I suggest that a generic definite differs from an ordinary definite in allowing its existence requirement to be met by identity to a kind term in extension. While this is not identity via co-reference such as we saw for the definite in chapter 2, the existential presupposition is nonetheless satisfied in this way. My proposal therefore differs slightly from Dayal's, in that she encodes the kind-formation operator in the definite itself, whereas I claim that the definite encodes the identity and maximality conditions, which are dependent upon a presupposed kind. Following the claim in Chierchia 1998, I suggest that the kind term is part of the shared knowledge of a community of speakers; that natural properties have corresponding kinds, and vice versa. While not all properties have corresponding kinds (notably, those properties which are inherently singular are excluded from having a corresponding kind), for our purposes here I claim that the kind is accessible to most generic NPs.

To make this discussion more concrete I show my implementation of this proposal in the DRS⁴ in (12) below. The generic sentence from (2) above is repeated in (11).

11. *Les cochons sont intelligents.*
 def.pl pigs be.3pl intelligent-pl
 'Pigs are intelligent.'

⁴ The embedded DRS in (12) corresponds to the tripartite structure in (5). The diamond in the middle contains the generic operator, the leftmost box is the restrictor, and the right hand box the nuclear scope.

12.



The material which corresponds to the sentence in (11) is located in the subordinated Discourse Representation Structure (DRS) in (12). The main DRS, which represents the information in the common ground (Kamp & Reyle 1993), contains the name of the kind (following Carlson 1977). I represent the kind via the standard DRT approach to names.

Turning to generic quantification, the definite is interpreted in the subordinate DRS where its identity condition is interpreted with respect to the kind term in the main DRS. The kind term is therefore presupposed by the property *pigs*. It is derived from the sum of the individuals which bear the property *pig* in all possible worlds (Chierchia 1998). Furthermore, this kind term does not need to be accommodated in the main DRS, but, as mentioned earlier, is part of the common ground, in the same way that the referents for semantically-unique definites like *the sun* were in chapter 2. We note also that these definite plural kinds are not limited to well-established kinds; the kind term may correspond to any property which is not inherently singular (Chierchia 1998), and which is not instantiated only in a single situation.

⁵ Once again, this is identity via extension, rather than by strict co-reference. This identity is therefore technically encoded in the maximality condition, and so the co-reference condition will not be included in future representations of the generic definite. It is here for expository reasons only.

The difference between the representation of the kind in the main DRS, and the representation of the definite in the embedded DRS is the absence of the subscripted situation variable on the former, and its presence on the latter. The definite in the embedded DRS denotes the entity which instantiates the kind in each given, contextually-relevant situation: it gives the extension of the kind in a particular situation. We further note that the identity by extension is entailed by the maximality condition in (12) above: maximality is only defined if the definite denotes the instantiation of the kind given in the main DRS. The inherent link between the presupposed kind and the individuals which instantiate it in each given situation satisfies the definite's existential presupposition. Crucially, the definite in the embedded DRS does not denote a kind, but the extension of the kind in some situation – it denotes an object-level entity. The definite does not directly denote the kind because, as we saw in chapter 1, the generic definite denotes a generalization over a plurality of object-level entities, whereas the kind-denoting definite names a singular, kind-level entity. Although subtle, this distinction has consequences for the sorts of predicates that these two different types of expression can combine with, and thus on the sorts of interpretation these two different definites receive. We see that the French generic definite is thus a ‘real’ definite, its existential presuppositions satisfied in a different way to the functional/anaphoric definites we saw in chapter 2, but with the same maximality requirement.

Chierchia’s proposal for kind-formation clearly has a number of features which resonate with definiteness. The proposal in Dayal 2004a, which I follow here, shows that the coincidence of these is not accidental: *nom* is one of the meanings of the definite determiner in Romance. The other meaning is, of course, that which we saw in chapter 2

in which the reference of the definite is interpreted with respect to a contextually-salient individual, rather than ranging across situations. This meaning is a lexicalization of the type-shift *iota*. We can see the relationship between these two type-shifts below. As we see, the only difference between the two is that while the situation variable in *nom* is bound, that in *iota* is free, leaving it to be bound by sentence-level existential closure (Bittner 1994).

13. a. *nom*: $\exists s [\exists x [P_s(x)]]$
 b. *iota*: $\exists x [P_s(x)]$

Dayal further proposes that languages vary in which type-shifters they lexicalize (i.e. realize via lexical determiners), and which are covert. English lexicalises *iota* but not *nom*, the Romance languages lexicalise both via an ambiguity in the definite determiner. Dayal claims that both *iota* and *nom* will always be manifested in the form of the same lexical determiner.

So far we have looked at the relationship between the generic and non-generic definite. The proposal for the generic definite which I put forward here builds on account for the bare plural in English, so I will now turn to a more detailed discussion of the relationship between generic definite and generic bare plural.

The discussion up to this point in the chapter leads to two questions which are particularly relevant to the current project: why is it that English does not lexicalise *nom*, but rather uses a bare plural as its generic plural argument? Furthermore, how can a definite description and a bare plural receive the same interpretation in *any* context? We move to answering these questions now.

3.1.3 To be bare, or not be bare?

We know that English uses the bare plural for its generic argument, but the question remains why the plural definite should not be used in this language as the generic determiner instead. That is, why should English not lexicalize *nom* as French does? There are two possible answers for the question of why English does not lexicalise *nom*, either of which adequately deals with the difference between French and English. I will outline these approaches now.

The first of these possibilities is suggested by Dayal 2004a. She proposes that languages vary as to whether they lexicalise either *iota* or *nom*, but if they lexicalise *nom* they must also realize *iota* overtly, as *iota* is the canonical form of the definite determiner. There is therefore cross-linguistic variation as to whether languages lexicalise *nom* or not. Since the bare plural is available in all syntactic positions, English opts not to lexicalise the non-canonical meaning of the determiner, but instead opts to covertly type-shift the bare nominal, as a less-marked choice. This view gains additional support from a proposal made by Chierchia 1998 that type-shifts should occur at the lowest syntactic level. Clearly, if we can consider the bare plural in English to be an NP, a type-shift at this level is more economical than one which occurs at the DP level⁶. We therefore account for the absence of the generic definite in English.

The other possible answer to this question stems from the proposal made in chapter 2 of this dissertation. There I claimed that the English definite differed crucially from the French one in that it has a second argument, filled by the property *Intended-Referent*, which allowed the definite to refer to an entity salient in the extra-linguistic

⁶ I remain neutral on whether bare plurals are in fact DPs with null determiners (Longobardi 1994) or truly bare NPs (Baker 2003). Chierchia's line of reasoning holds for either position, as the type-shifters in question are not themselves determiners, but merely are lexicalized *as* determiners.

context. The French definite had neither a second argument nor, consequently, the *Intended-Referent* property as part of its meaning, which meant that it could not have a deictic reading. The *Intended-Referent* argument came in to save the English definite from uninterpretability when uttered out of the blue. However, *Intended-Referent* also has the consequence that any definite which does not have a referent in the discourse context will either be interpreted deictically, or it will be uninterpretable if the *IR* does not identify a referent which satisfies uniqueness. A generic reading of the English definite is therefore never possible, because *Intended-Referent* always comes in to yield a *iota* interpretation. The proposal that French does not have the *Intended-Referent* argument, on the other hand, leads to the possibility of switching to *nom* from the *iota* denotation of the definite in appropriate contexts in order to gain a felicitous reading for the definite.

Both of these accounts are adequate to predict the lack of a generic definite in French. To choose between them, we will need to look at another Romance language, to see whether the argument which appeals to *Intended-Referent* generalizes to other languages with obligatory overt determiners in subject position. I will come back to this question in chapter 5.

The corollary to the question of why English does not lexicalise *nom* is that of why French does not simply use the bare plural as its generic argument. The answer is that Romance languages are syntactically prevented from having bare nominal subjects. Longobardi 1994 proposes that the Romance languages may only have bare arguments in lexically-governed positions, and the subject position of a generic sentence is not lexically-governed. Therefore, as Longobardi shows in French and the other Romance

languages, all syntactic subjects must be DPs with a lexically realized determiner.⁷ This requirement extends to object position in French, though not in Italian, Spanish and Romanian. One explanation of the difference between French and the other Romance languages, originally offered by Delfitto & Schroten 1991, is that French lacks null determiners, whereas the others have them. Romance languages must therefore use some overt determiner with kind level NPs, and NPs derived from a kind. The discussion above makes it clear why the chosen determiner should be a definite. The question which now arises, of course, is how the definite and the bare plural can receive the same interpretation in generic contexts, when they are so different elsewhere.

3.1.4 Maximal individuals and minimal situations

The equivalence of the interpretation of the generic definite and the generic bare plural depends on the link between the definite as a maximality operator and exhaustive quantification over situations which is introduced by the generic operator, as suggested by Berman 1987, Heim 1990. I have argued, following Dayal 2004a, that generic quantification in French takes the maximal individual which instantiates the kind given by the common noun, in each situation, and quantifies over these maximal individuals and the situations which are defined with respect to them. For English, the interpretation of the bare plural is different but, crucially, ends up being truth-conditionally equivalent. Developing proposals in Heim 1990, von Stechow 1996⁸, I take quantification in generic sentences to involve quantification over minimal situations. These situations are built around each individual denoted by the subject. With a bare plural, these individuals are

⁷ There are exceptions to this – I refer the reader to Longobardi 1994, Chierchia 1998 for a more detailed discussion of these facts.

⁸ Thanks to Veneeta Dayal for much discussion of this point, and for pointing out that Heim's proposal was appropriate for bare plurals also.

atomic: there is one situation built for every atomic entity which satisfies the descriptive content of the NP. Therefore, while there is no maximality imposed via the determiner, quantification over all situations yields this effect because it yields a minimal situation for each single individual which, when summed together, give the largest plural individual denoted by the bare nominal which instantiates the kind. The plural definite stops this kind of quantification over minimal situations for French, but because the determiner gives maximal individuals around which larger situations can be built, the two are equivalent.

The point to be taken from the above discussion is that generic quantification can produce the effect of maximality, even for generic arguments which are neutral in terms of maximality, such as the bare plural. Whether maximality is obtained via a presupposition on the definite determiner, or exhaustive quantification over minimal situations, the effect is the same. Therefore, the definite is a possible generic argument when the bare plural is not available, because generic sentences containing definite generic arguments receive an equivalent interpretation to those with bare plurals.

This concludes the proposal that I am making for the generic definite in French. Before moving on to address the question of generic definites in syntactic object position, I provide a brief discussion of a different type of proposal. In my account, I treated the generic definite as a fully-fledged lexical determiner which receives an equivalent reading to the bare plural by virtue of a link between the definite's maximality requirement, and exhaustive quantification over situations which has been proposed for generic sentences with the bare plural in English. The alternative, which we will now consider, is one which makes no contrast between the bare plural and the generic definite.

Under this view the definite determiner makes no semantic contribution, and so the interpretation of the bare plural and the definite in parallel. We will consider this type of analysis now.

3.1.5 Another proposal for the generic definite

This alternative type of approach to the Romance plural definite has been independently proposed by Vergnaud & Zubizarreta 1992, and Krikfa et al 1995. Both of these analyses constitute attempts to analyse the generic definite analogously with the English bare plural. That is, both these analyses treat the generic definite as an expletive element, which contributes nothing to the denotation of the generic DP as a whole. Vergnaud & Zubizarreta 1992 claim that NPs inherently denote types (kinds in our parlance), and treat the French definite determiner as being ambiguous between an *iota* reading which gives an object-level denotation, and a semantically null one, which lets the type-denotation of the NP percolate up to the DP level. For their part, Krifka et al 1995 claim that the Romance generic definite is in fact a semantically *indefinite* element, with the definite determiner functioning as a theme marker which requires the definite DP to be mapped into the restrictor of the generic sentence. They take this step to account for the observed affinity of the definite for the restrictor, as discussed in section 3.1.

An analysis which treats the definite as semantically *indefinite* allows the French generic definite to be dealt with in the same way as the English bare plural. In fact, it is in line with a particular account for the bare plural, developed by Wilkinson 1991, Diesing 1992, Gerstner-Link & Krifka 1993 (and extended elsewhere). This account has as its central premise that the English bare plural is ambiguous between naming a kind, and denoting a predicate which introduces a variable. In generic sentences bare plurals denote

predicates. An example of the interpretation of English bare plurals under this approach is given in (14) and (15). What is important to note is that the interpretation of the bare plural depends entirely on its mapping in the tripartite structure projected by the definite. A bare plural mapped into the restrictor receives a generic reading, one mapped into the nuclear scope receive an existential reading.

14. a. *Pigs are intelligent.*
 b. $\text{Gen } x \text{ s}[\text{pigs}(x,s)] \Box [\text{intelligent}(x,s)]$
15. a. *Pigs are grunting in the garden.*
 b. $\Box x,s[\text{pigs}(x,s) \ \& \ \text{grunting}(x,s) \ \& \ \text{in-the-garden}(x,s)]$

Under the proposals in Vergnaud & Zubizarreta 1992 and Krifka et al 1995, the French generic sentence with the definite subject would receive the same representation as the English sentence with the bare plural in (14)⁹. Leaving aside for the moment the issue of the desirability of treating a lexical item as expletive, the two kinds of proposal for the generic definite in French that I have discussed are equivalent in dealing with the case of the generic definite in syntactic subject position.

So far, we have considered two kinds of proposal for the definite in subject position. The first kind, which I adopt in this dissertation, is one whereby the French definite denotes the intensionalised maximality operator *nom*, following Dayal 2004a. The generic definite gives the maximal individual which instantiates the kind corresponding to the common noun, in any given situation. This means that, while the definite receives an interpretation which is equivalent to that of the bare plural in generic sentences, it arrives at this interpretation in a different way. The crucial difference between this proposal, and the second kind which treats the definite determiner as

⁹ If it occurred in the episodic sentence in (15), the French definite could only receive an *iota* reading (due to existential closure of the *s* variable).

i. $\Box x,s [x = \text{max}(\text{pigs-in-}s) \ \& \ \text{grunting}(x,s) \ \& \ \text{in-the-garden}(x,s)]$

semantically null arises not when the definite descriptions is interpreted in the restrictor of the generic operator, but rather, when it is mapped into the nuclear scope. We will see in the next section that when the definite is mapped into the nuclear scope, the two kinds of theory make very different predictions, and the approach which treats the generic definite as a full lexical definite fares far better than the expletive account.

3.2 The object position of generic sentences

Krifka et al 1995 discuss the fact that there are three possible readings for the bare plural object of a generic sentence in English. Marking focus on different elements of the sentence yields variations in the mapping of the verb and object into the restrictor or the nuclear scope. These authors show three available interpretations of the sentence *John drinks beer*. I show these in (16a-c) below. I give the different intonation patterns which produce the separate readings in the (i) sentences, and the interpretation which the intonation produces in (ii).

16. a. i. John drinks BEER.
 ii. Gen $x\ y\ s[x = \text{John} \ \& \ x \text{ drinks something in } s] \Box y[\text{beer}(y,s) \ \& \ \text{drink}(x,y,s)]$
 b. i. John DRINKS beer.
 ii. Gen $x\ y\ s[x = \text{John} \ \& \ \text{beer}(y) \ \& \ C(s)][\text{drink}(x,y,s)]$
 c. i. John [DRINKS BEER].
 ii. Gen $x\ y\ s[x = \text{John} \ \& \ C(s)] \Box y[\text{beer}(y) \ \& \ \text{drink}(x,y,s)]$

The sentence in (16a) is interpreted as follows: for all situations where John drinks something, what he drinks is usually beer. That in (16b) receives the interpretation whereby whenever John finds himself in a situation where there is beer, he will drink it, and that in (16c) receives the interpretation of what John does habitually is drink beer. We thus see that the bare plural object may potentially have three readings – its final interpretation depends on where the focus structure of the sentence causes it to be

mapped. Furthermore, certain verbs favour one of these interpretations over another, based on their lexical semantics rather than intonation. The cases I will consider in this section contain examples of such verbs.¹⁰

In French, on the other hand, arguments in object position take one of two forms, depending on the kind of interpretation that is desired. If a reading like (16b) is the desired one, then the definite is used. If either (16a) or (16c) is desired, on the other hand, the generic object must take the form of an indefinite. In this and subsequent sections, I will show that while what is crucial for the interpretation of English bare plural is whether it is mapped into restrictor or nuclear scope, for French generic arguments the morphological form of the DP fixes the interpretation in ways that overrides the normal effects of mapping. Definites always have quasi-universal interpretations when they are generic; plural indefinites must have existential interpretations whether mapped into the nuclear scope or not (de Swart 1996).

For instance, for the English bare plural to receive the reading in (16b), it must be mapped into the restrictor: mapping into the nuclear scope cannot produce this reading. Locating the French definite into the nuclear scope, on the other hand, *can* produce it. The core proposal that I will make in this section is that, contrary to previous analyses, it is not the mapping of the generic definite which determines its interpretation, but rather the maximality of the definite itself. Laca 1990, and following her, Krifka et al 1995, claim that the generic definite may not occur in the syntactic object position unless the semantics of the verb require that the object NP is interpreted in the restrictor. Vergnaud

¹⁰ The cases that I consider are assumed to be in their unmarked intonation. Focus can force different readings of these verbs, but to discuss these here would take us too far afield.

& Zubizarreta 1992¹¹, on the other hand, predict that the definite should be licit whether mapped into the restrictor or the nuclear scope, because the definite determiner itself is semantically null, and therefore its denotation is the same in either portion of the tripartite structure. My proposal, in contrast to both of these, predicts that generic definites may be mapped into restrictor and nuclear scope alike, but the mapping of the definite has profound consequences for the interpretation of the entire sentence. What is at stake, I claim, is not the semantics of the definite itself, but rather whether the verbal predicate will support a reading of the object such as that which we see in (16b), where the object receives a quasi-universal interpretation. The proposal that I make here therefore presents a more nuanced approach to teasing these three readings apart in French, and to predicting which of them will employ a definite, and which an indefinite.

3.2.1 The French generic definite in object position

Unlike the bare plural in English, in the object position of generic sentences the definite can only receive a specialized interpretation. For most verbs, mapping the definite into the nuclear scope yields an interpretation which is contrary to intuitions about what the sentence should mean. To see this, let us consider the sentence in (17).

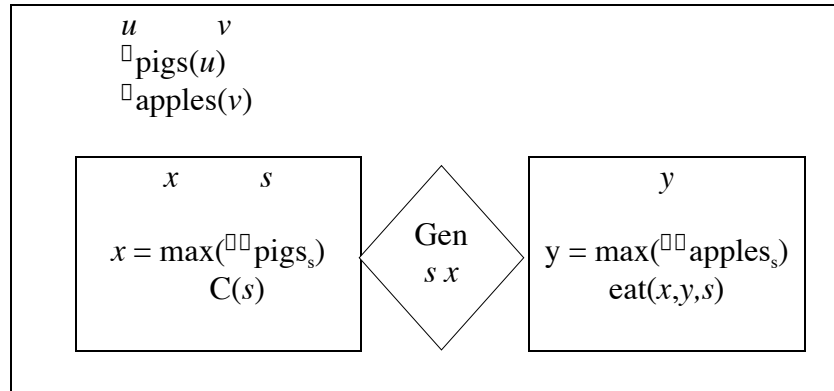
17. #*Les cochons mangent les pommes.*
 def.pl pigs eat.3pl def.pl apples

The sentence in (17) is infelicitous. This infelicity derives, I propose from the definite form of the object combining with the predicate ‘eat’. Sentences containing predicates such as *eat* are sentences which make generalizations only about their subjects, and not about both subjects and objects. This restriction on the mapping of the object DP

¹¹ Vergnaud & Zubizarreta 1992 do not consider these issues, but the above is consistent with the predictions of their theory.

results in the DRS in (18). The important thing to note here is that the definite in the nuclear scope may only receive an interpretation whereby the sentence is a generalization about both apples and pigs, which is contrary to the intuitively preferred interpretation of the verbal predicate. The interpretation is as in the DRS in (18).

18.



In the DRS in (18), the definite in the right-hand embedded DRS is interpreted identically to the definite *les cochons*, which occurs in the leftmost embedded DRS (the restrictor). The structure is well-formed, but the maximality of the definite object requires that the verbal predicate be interpreted with respect to the maximal individual which instantiates the kind *apples* (in the main DRS) in each given situation. This mapping of the definite results in an interpretation whereby the pigs eat the apples that they happen to find, rather than there being some apples in each context which they happen to eat (whenever there are apples, pigs eat them). This latter is the desired interpretation. We see the representation of this interpretation in (19a). The representation in (19b) is equivalent to that in the DRS in (18) above; the maximality of the definite *les pommes* forces an interpretation as if this definite were mapped into the restrictor.

19. a. $\Box x[\text{pigs}(x)]\Box y[\text{apples}(y) \ \& \ \text{eat}(x,y)]$
 b. $\Box x,y[\text{pigs}(x) \ \& \ \text{apples}(y)][\text{eat}(x,y)]$

In order for the sentence in (17) to be interpreted as making a generalization about the eating habits of pigs, an interpretation is required where the object is interpreted existentially in the nuclear scope, as in (19a) below (I have left out determiners, type-shifters and situations for simplicity's sake). The reading given in (19a) is the felicitous interpretation for the arguments of *eat*: the subject is mapped into the restrictor, the object into the nuclear scope. I propose that when the object is a definite, however, the effect of the definite's maximality is that the only available reading is if both subject and object were mapped into the restrictor, as shown in (19b). The reading that we see in (19b) is equivalent to the one in the DRS in (18). The definite therefore forces a quasi-universal interpretation of the object, regardless of its mapping.

The reading represented in (19b) does not match intuitions about how a sentence with a verb such as 'eat' should be interpreted. It says that In order to obtain the intuitively 'correct' interpretation, one where the generalization is about the habits of pigs as in (19a), the object must take the form of the plural indefinite, as seen in (4) (repeated in (20)).

20. *Les cochons mangent **des pommes**.*
 def.pl pigs eat.3pl indef.pl apples
 'Pigs eat apples.'

The problem with mapping a definite into the nuclear scope is, I propose, interpretational, rather than syntactic. What, then, licenses the use of the bare partitive in the nuclear scope of a predicate like *eat*? The answer, I propose, comes from a difference in the maximality requirements of the two DPs. Just as I suggested that it was the maximality of the definite which led to an intuitively incorrect interpretation in (17), I suggest that it is precisely the non-maximality of the bare partitive which makes it the

preferred choice in the object position of (20). It means that the sentence is not interpreted with respect to the maximal *apples*-individual in each situation, and thus, no quasi-universal reading is obtained.

The reading which a definite receives in the nuclear scope of a predicate like *eat* gives implausible truth conditions, rather than the definite being blocked from occurring in the nuclear scope at all. This is shown to be the case when we consider those generic sentences in French, like in (3) above, where having a definite in object position *is* felicitous. In these sentences the definite does receive a reading which is in tune with intuitions about what the sentence means. Laca 1990 discussed such sentences for Spanish, but her observations hold for the other Romance languages.

3.2.2 Generic object constructions

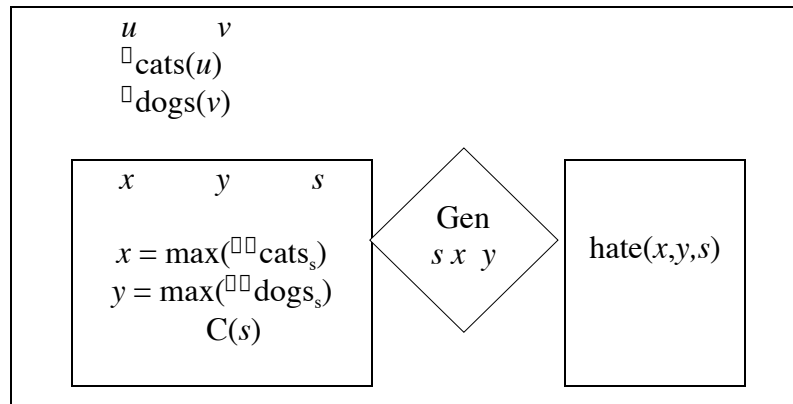
Laca 1990 showed that for certain classes of verbs – principally, the verbs of emotion such as *love*, *hate*, *like* etc. – the object as well as the subject is interpreted generically. This means that the object as well as the subject is mapped into the restrictor of the generic operator. This line of argumentation was taken up in Dayal 2004a, who proposed that the generic definite could not be interpreted in the nuclear scope because of the existential presuppositions which accompany a lexical definite. That is, Dayal claimed that the generic definite could not occur in the nuclear scope because the nuclear scope can only include novel information, whereas the existential presuppositions make the definite non-novel. I offer an alternative to these proposals, placing the burden on the maximality of the definite rather than on its existential presuppositions, and thence allowing the definite to be licensed or blocked in the restrictor or nuclear scope on the basis of the interpretation demanded by maximality.

An example of a sentence with a generically-interpreted object is given in (21a), the interpretation in (21b).

21. a. *Les chats détestent les chiens.*
 def.pl cats hate-3pl def.pl dogs
 ‘Cats hate dogs.’
 b. $\lambda x, y [\text{cats}(x) \ \& \ \text{dogs}(y)] [\text{hate}(x, y)]$

The DRS equivalent to (21b) is given in (22), but uses the representation of the definite which I have argued for in this dissertation. The representation follows Laca 1990, Dayal 2004a in that both of the nominal expressions are mapped into the leftmost box of the embedded duplex condition contributed by the generic quantifier.

22.



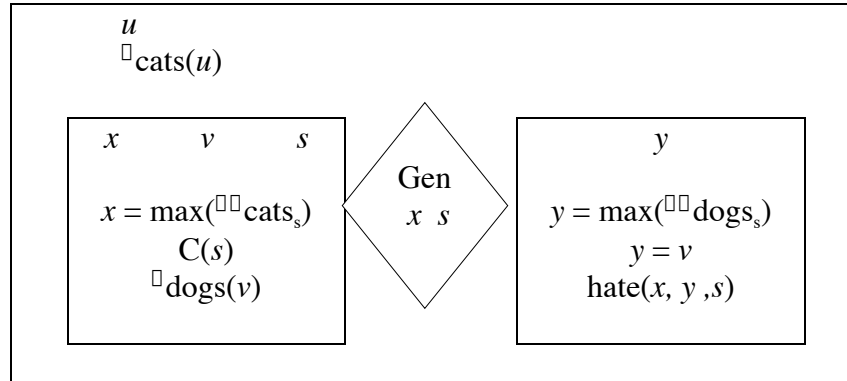
Both the definites in (22) are mapped into the restrictor of the generic quantifier, and they are interpreted identically. They both give the maximal individual which instantiates the kind in each given situation. The correct truth conditions are obtained, but at the expense of the correlation between surface syntax and mapping into the tripartite structure.

Dayal's proposal differs from Laca's, however, by virtue of the following consequence¹². In Dayal's proposal, the definite may, in fact, occur in the nuclear scope if

¹² This consequence was pointed out to me by Veneeta Dayal (p.c.).

the existential presuppositions of the definite are satisfied by a discourse referent which can serve as an antecedent being present in the nuclear scope. This would result in a representation for (21) as follows:

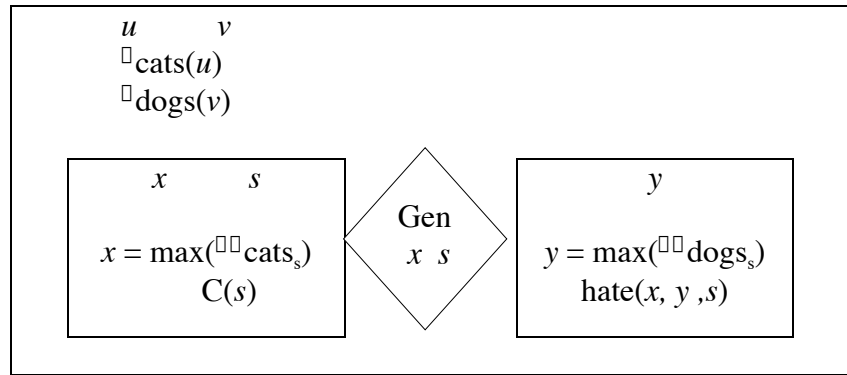
23.



In the DRS in (23), the definite is mapped into the nuclear scope, but its interpretation is dependent on a discourse referent in the leftmost part of the embedded DRS. The morphological integrity of the definite is compromised in order to preserve the syntactic integrity of the sentence, which is violated in (22) above. The necessity of this double mapping for the definite is, of course, due to the existential presupposition of the definite; without the discourse referent in the restrictor the definite in the nuclear scope would necessarily be interpreted as asserting existence.

My own proposal is an extension of Dayal's analysis. I claim that the existential presupposition of the definite is satisfied not by a discourse referent in the restrictor, but rather by the kind in the main DRS. This means, of course, that the interpretation of the object definite parallel to that of the subject definite, and so the choice of whether the definite is mapped into the restrictor or the nuclear scope has no bearing on the interpretation of the sentence. We see this mapping in (24) below.

24.



The truth conditions of the DRS's in (22), (23) and (24) are equivalent: is there a reason for choosing one over the other? The reason, I propose, is to preserve the integrity of both the syntactic and morphological integrity of the sentence. In (22) the syntactic integrity of the sentence, and in (23) morphological integrity of the definite itself is compromised, in order to achieve the intuitively correct interpretation of the definite object. Under my proposal, on the other hand, both syntactic and morphological integrity are preserved, the existential presuppositions of the definite are satisfied via the kind in the main DRS, and the maximality of the overt definite determiner ensures a quasi-universal interpretation for both subject and object.

One more question arises from this discussion: why is the bare partitive not licit in the object of (20)? The answer once again hinges on maximality. We saw above that with certain verbal predicates such as *eat*, the maximality of the definite produced an implausible interpretation of the sentence as a whole, because the definite determiner forced a quasi-universal reading instead of allowing an existential interpretation. In such cases, a bare partitive was required in the object position, as we see in (25).

25. #*Les chats détestent des chiens.* (# on relevant reading)
 def.pl cats hate.3pl indef.pl dogs

In (25), the only interpretation which the object bare partitive can receive as a partitive one: it means that cats hate *some*, but not all dogs. The question which arises in considering this example is why the bare partitive no more allows a generic interpretation of the object than the definite allows an existential one with *eat* (as in (20)). The answer, I propose, stems from the content of the lexical determiner in both cases.

This interpretation, I propose, is a result of a non-maximality implicature associated with the bare partitive, which I also suggested was responsible for the preference for the bare partitive in the construction in (20). We see the converse of the situation in (20) here: with a predicate such as *hate*, which requires a quasi-universal reading for both subject and object. The bare partitive, because of its lack of maximality presupposition, would yield an interpretation whereby the object receives an existential reading. Just as in the *eat* case, the sentence would be fully interpretable, but would run foul of the requirements of the verbal predicate. The (non)-maximality of the determiner therefore plays a crucial part in determining the form of the object NP with different verbal predicates.

A language with bare plurals like English, on the other hand, displays no such variability in mapping. This variability is not available because the bare plural gains its generic interpretation only from operator binding, rather than from the effects of any determiner. This means that a generic bare plural must always occur in the restrictor; mapping into the nuclear scope always yields an existential reading. The bare plural differs from both the definite and the bare partitive, and it is the (non)-maximality of these elements which is the basis of these differences.

Before moving on to a further discussion of the bare partitive in generic sentences, there is one more case of definites in the object position of generic sentences which I must discuss. The kind of sentence which I will discuss are examples of the inalienable possession construction in French. However, the interpretation of these definites is not generic in the same way that the definite in (21) above was. Rather, these definites are interpreted as being functionally related to the generically-quantified subject definite. The inalienable possession definites provide further evidence that what is at issue in the definite object cases is not a syntactic prohibition, but rather the maximality of the definite leading to a specialized interpretation in the nuclear scope. Only when this specialized interpretation is licit is the definite object felicitous on anything other than a quasi-universal reading (which, as we saw, is only available with certain verbal predicates).

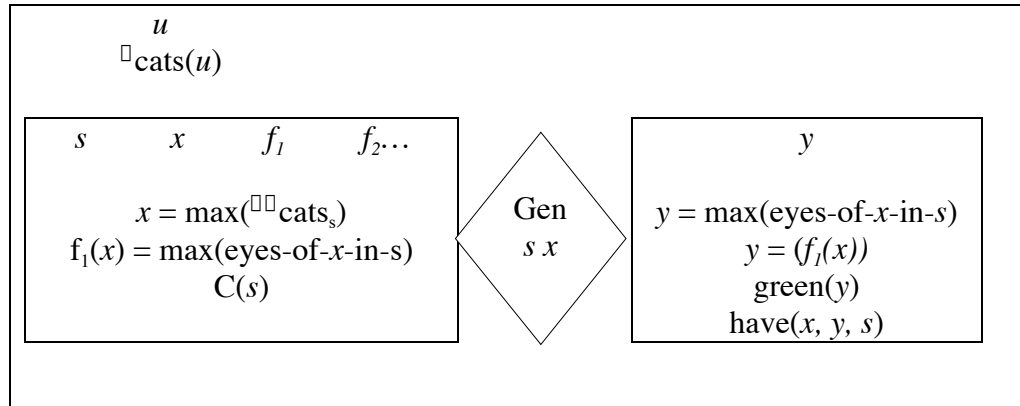
3.2.3 Inalienable possession constructions

The object definites in these sentences differ from those in generic object constructions because, while they occur in object position of a generic sentence, they are neither interpreted quasi-universally, nor existentially. This comes as a surprise, given the previous discussion. These are instead functional definites such as we encountered in the previous chapter, but here they are indexed to a generically-quantified antecedent. They do not themselves receive a generic interpretation. An example of the inalienable possession reading of the definite in object position of the generic sentence is shown in (26).

26. *Les chats ont souvent les yeux verts.* (de Swart 1990)
 def.pl cats have-3pl often def.pl eyes green-pl
 ‘Cats often have green eyes.’

In the inalienable possession construction shown in (26), the definite object receives a functional interpretation, similar to those bridging definites that we saw in chapter 2. The only difference is that in these sentences, the subject of the sentence is the NP which introduces into the discourse context the function to which the object definite is anaphoric¹³. Furthermore, in (26) the subject is a generically-quantified definite, and so it does not pick out any particular cat. Rather, the sentence gives a generalization over cats in many contexts. The interpretation of the object definite *les yeux* is functionally linked to the subject, yielding one set of eyes per cat. We see the DRS in (27).

27.



We see in (27) that the definite in the object of the sentence in (26) is not a generic definite in the sense that the definite in the subject is. Just as in the bridging cases in chapter 2, the antecedent definite, in the restrictor in (27), introduces into the DRS its own discourse referent and also a series of functions from the cats to their body parts. Therefore, whereas the subject definite is interpreted with respect to the presupposed

¹³ There is nothing about the referential properties of English definite which says that the subject of a sentence cannot be the antecedent for a definite object on an inalienable possession reading. However, the usual way to express an inalienable possession relation in English is to use the overt possessive. Compare the sentences in (i) and (ii): (i) is fully interpretable, but (ii) is clearly a more natural choice.

- i. *Helen's car lost **the wheels** one-by-one.*
- ii. *Helen's car lost **its wheels** one-by-one.*

While this difference in English and French is relevant, I will leave an exploration of it to future research.

kind, the object is interpreted with respect to the functionally-related entities introduced into the DRS by the subject definite. It is important to note that the function does not yield instantiations of a kind. The eyes denoted by $f(x_i)$ in (27) do not presuppose a corresponding kind, in that it does not mean that for all cats x and all green eyes y , x has y . Rather, the function introduces the maximal eye-entity which belongs to each contextually-relevant cat. The definite object picks up this maximal entity as its referent.

The inalienable possession cases round out the set possible generically-related interpretations available for the definite in object position that I have investigated in this section. While the inalienable possession cases are not themselves generic, their interpretation is related to a generically-quantified element in the sentence. I suggest that mapping the inalienable possession definite into the restrictor, as its morphological form might suggest it should be, could also force a reading of the object definite which is anaphoric to a kind, rather than to the function introduced by the subject DP. I must point out, however, that none of the other proposals that I have discussed would require a non-generic definite, as the inalienable possessive is, to be mapped into the restrictor: non-generic definites are a different entity to generic ones in all the theories that I have outlined above. What I aimed to show in the discussion in this section is that the inalienable possession construction makes clear the dividing line between generic and non-generic definites by focusing on a context where the object has a non-specific interpretation which is, at the same time, not a quasi-universal one either.

Having now offered an account for definites which *can* occur in syntactic object position, I return to the cases where the definite is not licit here. I will now discuss in

detail the case of the bare partitive in the nuclear scope, and the role that non-maximality plays in the interpretation of these nominal expressions.

3.3 The role of non-maximality: the bare partitive in the nuclear scope

As we saw in section 3.2 above, the maximality of the definite description blocks a felicitous interpretation of the definite in the nuclear scope of certain verbal predicates.

Consider the example in (28), repeated from (19).

28. *#Les cochons mangent les pommes.*
def.pl pigs eat.3pl def.pl apples

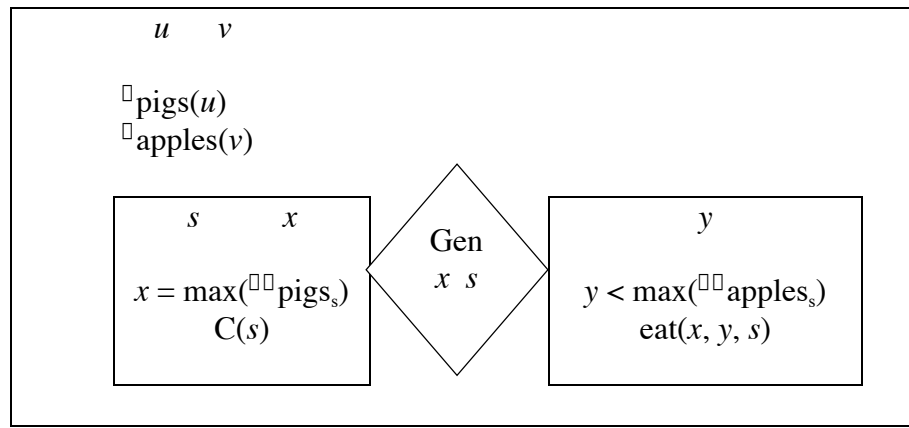
It is clear from this example that in object position, the French definite is **not** interpreted parallel to the English bare plural. If this were the case, we would expect an identical distribution between the English bare plural and the French definite in all syntactic positions, which is patently not the case.

As I suggested before, the reason that the definite is not good in (28) is because of the meaning of the predicate ‘eat’. Verbs such as ‘eat’ (which represents the most common kind of interpretation for a transitive verb (Krifka et al 1995) produce subject-asymmetrical readings (term coined by Kadmon 1987 for use with conditionals). That is, generalizations about eating generally describe the behaviour of the subject with respect to a particular object, rather than the behaviour of all typical instantiations of subject and object alike. I proposed above that having a definite in object position forces a symmetrical reading – the only possible reading for (28) is like that of the *cats hate dogs* example that we saw in (21). The definite object of (28) can be mapped into the nuclear scope, but the reading that the maximality of the definite forces is equivalent to that which is obtained when it is mapped into the restrictor. This unnatural interpretation of the object is avoided by having a bare partitive in object position. The maximality of the

definite was what caused the problem. The bare partitive avoids this problem because, I suggest, it explicitly encodes *non*-maximality in its denotation. We see this in the representation in the DRS in (30) (note in particular the right-hand embedded box). I repeat the sentence in (29).

29. *Les cochons mangent **des** pommes.*
 def.pl pigs eat.3pl indef.pl apples
 ‘Pigs eat apples.’

30.



This representation fits with intuitions about what (29) means. In the left hand box of the embedded DRS we see the definite taking the maximal instantiation of the kind in each context. In the right hand box we see the bare partitive, which takes some subpart of the maximal apple-individual in each situation. The interpretation obtained via the bare partitive is felicitous because the bare partitive introduces existential quantification over parts of the instantiation set of the kind (in the main DRS) in each situation. Rather than taking all the individuals which have the property denoted by its NP, the bare partitive may take plural individuals which are not maximal, but which are relevant to the predicate.

The interpretation that the two arguments of the sentence represented in (30) is as follows. The subject definite gives the maximal entity which corresponds to the kind in

each given situation, as we have seen before. The object is mapped into the nuclear scope, and there it is interpreted existentially – the sentence says that for each maximal pig there are some apples which it eats. We see, furthermore, that the interpretation of the bare partitive is closely related to that of the definite, but while the definite takes the maximal instantiation of the kind in each contextually-relevant situation, the bare partitive takes a part of this maximal individual. Just like the overt indefinite *some* in English (in contrast to the bare plural), the bare partitive identify a non-maximal individual in a generic sentence.¹⁴

The interpretation of the bare partitive in this context seems equivalent to that of the bare plural in English. Why, then, should the bare partitive's denotation be any different to that of the bare plural? The answer, I propose, is due to the presence of the overt determiner. Just as we saw above that the overt definite determiner introduces maximality presuppositions which differentiate the interpretation of the generic definite from the generic bare plural, I claim that the overt determiner in the bare partitive construction explicitly introduces an implicature of non-maximality into the interpretation of this element.. While we do not see the effects of this implicature in the sentence in (29), we do see its effects in example (25). I repeat the latter example here.

31. #*Les chats détestent **des chiens*** (# on relevant reading)
 def.pl cats hate.3pl indef.pl dogs

The bare partitive in the object of (31) does not receive an existential interpretation as the object of (29) does. As discussed above, that the semantics of verbal predicates such as *hate* require a quasi-universal interpretation of both subject and object NPs. The consequence of this requirement for the bare partitive here, I suggest, is that it

¹⁴ A detailed discussion of these points follows in chapter 4.

cannot be interpreted in the nuclear scope of the tripartite structure of the generic operator, and so must be mapped into the restrictor. This mapping results in a fully partitive interpretation for *des chiens*: a translation of (31) would therefore be ‘*cats hate some dogs*’. I give the representation in (32) below, leaving out the kind terms which would occur in the main DRS for perspicuity).

32. Gen $x\ y\ s[x = \max(\text{cats-in-}s) \ \& \ y < \max(\text{dogs-in-}s) \ \& \ C(s)][\text{hate}(x,y,s)]$

In the partitive interpretation of the object of (31) lies the crucial difference between the bare partitive and the bare plural; as mentioned in section 3.2, the interpretation of the bare plural depends entirely on operator binding. If the bare partitive were equivalent to the bare plural, we would thus expect the former to receive the same interpretation as the definite. What we see instead is an interpretation which contrasts with the definite’s exactly in terms of maximality: where the definite identifies the maximal individual which instantiates the kind, the bare partitive necessarily takes some subpart of that individual.

Proposing this interpretation for the bare partitive receives support from two sources. Firstly, the partitive interpretation of the object indefinite ensures that a sentence of this form cannot run into problems with maximality in the nuclear scope, as the definite does. Secondly, as mentioned before, as an overt indefinite, the bare partitive must have a non-maximality implicature, meaning that giving it a semantics which encodes a part-of function is a non-controversial step. Chierchia 1997 has proposed this part-of analysis for the Italian bare partitive. The bare partitive can thus pick out some apples in each context, without being required to pick out all of them. The generalization is therefore only about pigs, and not apples too.

We therefore see that for a ‘regular’ generic reading, maximality is acceptable in the restrictor, but not in the nuclear scope. Using the bare partitive is the method that French employs to avoid maximality, since a bare plural, which has neither maximality nor non-maximality, is not available. I give the representation of both the definite and the bare partitive in (33), to facilitate comparison between the two.

33. a. $x = \max(\lambda y [\text{apples}_s]y]$ *definite (lexicalized nom)*
 b. $x < \max(\lambda y [\text{apples}_s]y]$ *bare partitive*

The representation for the bare partitive given in (33b) resembles the definite (33a) very closely. We note firstly that while the definite denotes the maximal individual which instantiates the kind, the bare partitive includes the partitive operator ‘<’. This step has some historical justification – the bare partitive is derived from full partitive constructions in French (see de Swart 1996 for further discussion).

The second thing to notice is that the bare partitive as in (33b) includes the representation of the definite. This raises the question of whether definiteness is a component of the semantics of the bare partitive. While I do not propose to give a full answer to this question, it bears mentioning because the semantics which I am proposing for the bare partitive, as we see, builds very much upon the interpretation of the definite, and, specifically, builds in non-maximality onto the denotation of the definite. My proposal follows Chierchia 1997 in having the bare partitive denote a proper part of the individual denoted by the definite. I follow Veneeta Dayal, (p.c. and class notes¹⁵) in having the definite inside the partitive be kind-denoting. The bare partitive’s semantics are related to those of the generic definite because they both denote operations on the

¹⁵ from Harvard University Seminar in Semantics, Spring 2003.

instantiation of a kind in any given situation. The point to be taken from this discussion is that the bare partitive may occur in the nuclear scope where the definite is blocked because it does not encode maximality. We see that by appealing to maximality we can account not only for the distribution of the definite, but also, by appealing to *non*-maximality, account for the occurrence of the bare partitive in the nuclear scope. A close look at maximality therefore allows us to see the complete picture of generic arguments in French.

3.3.1 The other approaches revisited

At this point it is worth briefly revisiting the approaches to the generic French definite which treated it as an expletive. To recap, the account suggested by Vergnaud & Zubizarreta 1992 held that the generic definite was expletive, thus letting the type (for our purposes, kind-level) denotation of the NP percolate up to DP level. Krifka et al's proposal was that the definite determiner was a theme marker which, while it contributed nothing to the denotation of the definite DP as a whole, required the definite to be mapped into the restrictor of the nuclear scope. As pointed out in Dayal 2004a, Vergnaud & Zubizarreta's proposal predicts that the definite should be able to occur in both restrictor and nuclear scope; its determiner should not stand in the way of either mapping. This, as we have seen, is not the case.

On the other hand, as Dayal also notes, the account in Krifka et al does obtain a mapping for the definite that yields the correct interpretation. However, it does so by stipulation: the proposal does not suggest what it means for the definite determiner to be a theme-marker, and what the broader consequences of this claim might be. The account proposed here, on the other hand, gives principled reasons why the definite should always

receive an interpretation as if it were mapped into the restrictor, and predicts where the bare partitive should be necessary in object position. It is for these reasons that an expletive approach to the French definite is undesirable.

3.4 Conclusion

In this chapter I have shown that the interpretation of the French definite in episodic and generic contexts is inherently parallel: the definite *D* is a maximality operator which has existential presuppositions. The difference between episodic and generic definites lies in the manner in which the existential presupposition is satisfied: the two have the same maximality presupposition. In generic contexts, rather than referring to a specific individual as its antecedent, the existence presupposition of the generic definite is satisfied by the identity relationship between the entity denoted by the definite in each given situation, and the kind which it instantiates.

I have shown that we must consider the definite to be a non-accidental choice for the generic determiner, as its maximality presuppositions and admission of exceptions are reflected in the properties of generic quantification. Therefore, not only is there no need to propose an analysis whereby the semantic effect of the definite determiner is nullified. The maximality of the definite can, in fact, be used to predict where the parallelism between the definite in French and the bare plural in English ends. Therefore, the proposal that I have developed here, which follows Dayal 2004a (and resembles in spirit the proposal in de Swart 1996) is to be preferred over analyses which treat the definite determiner as semantically empty, such as Laca 1990, Vergnaud & Zubizarreta 1992, Krifka et al 1995. This latter sort of analysis cannot predict the fact that the definite cannot occur in the nuclear scope of a generic operator on a neutral generic reading, as

the English bare plural can. I have shown evidence for why the parallel between definite and bare plural only holds when the two may be interpreted quasi-universally, and have suggested why it is the bare partitive which occurs when an existential reading is needed. In the next chapter we will see that in different kinds of generic sentences it is not the definite, but rather the bare partitive which is the determiner. This is surprising, given the close relationship between genericity and maximality that we have seen in this chapter.

Chapter 4: Unexpected Indefinites in Conditional and Modal Sentences

4.0 Introduction

In basic generic sentences in French such as those discussed in chapter 3, generic arguments take the form of a definite description. However, in two particular types of generic sentences – conditionals and modals – the generic reading of the definite is restricted. In these sentences it is the bare partitive which is used to obtain is also available on a generic reading. In this chapter I will put forward an analysis that accounts for this unexpected use of the bare partitive. In this analysis I draw upon a difference in the mode of generic quantification that occurs in conditionals and modals to that used in ‘basic’ generic sentences such those that we saw in chapter 3. I will also draw upon the existential and maximality presuppositions of definite descriptions to explain why they are dispreferred in modal and conditional sentences. Showing how the choice between definite and bare partitive is made in these sentences allows us to examine in more detail the effects of maximality and non-maximality, and the interaction of this element with selective generic quantification.

4.1 Generic bare partitives

Bare partitives are not available on a generic reading in basic generic sentences, as we see in (1) below.

1. a. *Des cochons sont intelligents.*
 indef.pl pigs be.3pl intelligent.pl
 ‘Some pigs are intelligent.’
- b. *Les cochons sont intelligents.*
 indef.pl pigs be.3pl intelligent.pl
 ‘Some pigs are intelligent.’

The only interpretation available for the bare partitive in (1a) is a partitive one: the sentence expresses a generalization only over some pigs. Only the definite can be

interpreted generically in this kind of sentence, as we see in (1b). By contrast, in conditional and modal sentences the bare partitive may receive a generic reading; in fact, only the bare partitive can receive a generic reading in conditionals and possibility modals¹. In this kind of sentence a definite may be interpreted as being contextually-anchored, or as naming the maximal individual which instantiates the kind in a given situation. That is, the definite has the same denotation as it did in the basic generic sentences in chapter 3, but this denotation leads to different truth conditions in the sentences under discussion here. In (2) and (3) below we see that the generic bare partitive in the subject position of the antecedent clause in a conditional sentence². The sentences in (4-6) show the generic bare partitive as the subject of possibility modal sentences³.

Conditionals

2. *Si/Quand des Italiens vont à Paris, ils vont visiter le Louvre.* (Spector 2001)
if/when indef.pl Italians go.3pl to Paris, PRO.3pl go.3pl visit.INF def.sg.m Louvre
'If/When Italians go to Paris, they go and visit the Louvre.'
3. *Si/Quand des gens sont venus l'année dernière, je les ai rencontrés.* (Spector 2001)
if/when indef.pl people be.3pl come.PST.pl def.sg year last.f PRO.1sg CL.3pl have.1sg met
'Whenever people came last year, I met them.'

Possibility modals

4. *Des grévistes ténaces peuvent ruiner une entreprise.* (Storto 2001)
indef.pl strikers persistent.pl can.3pl ruin.INF indef.sg business
'Persistent strikers can ruin a business.'

¹ As will become clear later, the distinction between a generic reading and a reading in which the nominal is interpreted as naming a kind is crucial in these sentences, whereas in basic generic sentences the two are difficult to distinguish.

² For these sentences, the *if*-conditional (*si*) is felicitous but dispreferred; the more natural sounding sentence in both cases is the *when*-conditional (Viviane Déprez p.c.). Furthermore, with certain predicates in the antecedent the use of *si* is not acceptable. I will, however, leave further discussion of the nature of this difference for future research.

³ The necessity of the presence of modification varies from speaker to speaker – and probably between types of modality. I will also leave the role that modification plays for discussion in chapter 5. See also Dayal 2004b for an account of licensing by modification.

5. *De chevaux en bonne santé peuvent tirer un charrette de trois tonnes.*
indef.pl horses in good health can.3pl pull.INF a carriage of three tonnes
‘Horses in good health can pull a 3-tonne carriage.’ (V. Déprez p.c.)
6. *Des gendarmes peuvent confisquer une voiture.* (Roy 2001)
indef.pl police officers can-3pl confiscate-INF indef-sg(f) car
‘Policemen can confiscate a car.’

The definite may not receive a generic interpretation in conditionals and possibility modals. Instead, it can be interpreted as either referring to a kind, or to a particular entity. I will return to a discussion of the kind reading in section 4.3.2; for now we will focus on the absence of the generic reading. In (7) and (8) we see a conditional and a possibility modal (respectively) which contain a definite subject. The definite in both is only interpretable if there is a particular individual accessible in context, or if the definite can be interpreted as referring to the kind.

7. *Quand les Italiens vont à Paris, ils vont visiter le Louvre.* (Spector 2001)
when def.pl Italians go.3pl to Paris, PRO.3pl go.3pl visit.INF def.sg.m Louvre
‘When **the** Italians go to Paris, they go and visit the Louvre.’
8. *Les grévistes ténaces peuvent ruiner une entreprise⁴.*
def.pl strikers persistent-pl can.3pl ruin.INF indef.sg business
‘**The** persistent strikers can ruin a business.’

Unlike in the conditional and the possibility modal, in necessity modals, both the bare partitive and the definite may occur on a generic reading, the choice between the two varying between speakers, based on the acceptability of the maximality of the definite in the context. We see the alternation in (9) and (10): the forms using the bare partitive are given in (9a, 10a), those using the definite in (9b, 10b).

Necessity modals

9. a. *Des diplomats doivent se montrer discrètes.* (Roy 2001)
indef.pl diplomats must.3pl REFL.3sg/pl show.INF discreet.pl
‘Diplomats must behave discreetly.’

⁴ Original source unknown; example provided in Storto 2001.

- b. *Les diplomats doivent se montrer discrètes.*
 def.pl diplomats must.3pl REFL.3sg/pl show.INF discreet.pl
 ‘Diplomats must behave discreetly.’
10. a. *Des agents de police de haut niveau ne doivent pas se comporter ainsi*⁵.
 indef.pl agents of police of high level NEG must.3pl NEG REFL behave.INF thus
 ‘High-level police officers should not behave like that.’
- b. *Les agents de police de haut niveau ne doivent pas se comporter ainsi*.⁶
 def.pl agents of police of high level NEG must.3pl NEG REFL behave.INF thus
 ‘High-level police officers should not behave like that.’

In these sentences both the definite and the bare partitive receive interpretations concerning non-specific individuals, but, as we will see, they are used in different ways. In both the conditional and the modal sentences, we see the bare partitive being interpreted in unexpected ways, either taking on the role usually reserved for the definite (as in chapter 3), or otherwise receiving a parallel interpretation to the definite. In the next section I will explore in more detail the reasons why these readings of the bare partitive are unexpected.

4.1.1 Why is this unexpected?

The availability of the bare partitive in these sentences is unexpected for two reasons.

Firstly, in basic generic sentences such as those we saw in chapter 3, generically-quantified arguments took the form of the plural definite, as in (11a). The interpretation for such a sentence is given in (11b).

11. a. *Les cochons sont intelligents.*
 def.pl pigs be.3pl intelligent.pl
 ‘Pigs are intelligent.’
- b. Gen s $x[x = \max(\square \text{pigs}_s) \ \& \ C(s)][\text{intelligent}(x,s)]$

In chapter 3 I proposed that the definite is a natural choice for a generic determiner due to the compatibility between maximality and kind-formation, as proposed

⁵ adapted from de Swart 1996. I have made the modality overt with the auxiliary *devoir*, and added modification to improve the felicity of the sentence according to my informants.

⁶ de Swart 1996, confirmed by Viviane Déprez, (p.c.).

by Dayal 2004a. In view of this compatibility, it is surprising that the generic definite is unavailable in the contexts names above. But things get more surprising still when we consider the interpretation that the bare partitive usually receives in basic generic sentences.

In basic generic sentences, bare partitives may only receive partitive readings. That is, a generic sentence containing a bare partitive makes a generalization about some subpart of the entity denoted by the subject NP; not about the entity as a whole. The generic sentence with the bare partitive subject in (12), for instance, is interpreted as meaning that only some species of pigs are intelligent, others are not. I give a representation of this reading using the denotation of the bare partitive arrived at in chapter 3.

12. a. *Des cochons sont intelligents.*
 indef.pl pigs be.3pl intelligent.pl
 ‘Some pigs are intelligent.’
 b. $\text{Gen } s \ x[x \leq \max(\text{pigs}_s) \ \& \ C(s)][\text{intelligent}(x,s)]^7$

The reason for the partitive interpretation is clear. The generic quantifier binds the individual variable, which gives a subpart of the maximal individual which instantiates the kind in each situation. This yields a reading where only some of the hummingbirds in each situation fly backwards; a true generic interpretation is therefore impossible because the partitivity is at odds with the universal-like reading associated with generic quantification.

However, in episodic contexts the partitivity of the bare partitive does not result in the same kind of reading as we see in (12). In episodic sentences the bare partitive in

⁷ Note the change of partitive operator from $<$ in chapter 3, to \sqsubseteq here. This change is a reflection of the more detailed analysis of the semantics of the bare partitive given in this chapter, in which I attribute the partitivity of this determiner to an implicature, rather than determiner’s lexical semantics. More discussion follows in the body of the text, see section 4.6.2.

French is interpreted as an existential quantifier (de Swart 1996). We see this in (13) below.

13. a. *Des cochons mangent des pommes sous la fenêtre.*
 indef.pl pigs eat.3pl indef.pl apples under the.sg.f window
 ‘(Some) hummingbirds are flying backwards under my window.’
 b. $\Box x, s [x \leq \max(\Box \text{hummingbirds-in-} s) \ \& \ \text{fly-backwards}(x, s) \ \& \ \text{under-window}(x, s)]^8$

In the example above the bare partitive is interpreted like the English overt plural indefinite *some*⁹: it is an existential quantifier that carries an implicature of partitivity (or non-maximality, in the terms of Horn 1972). From the perspective provided by the examples in (12) and (13), it seems that it would be difficult for the bare partitive to receive a truly generic interpretation such as we get with the definite in (11). However, I propose that the availability of the generic reading of the bare partitive in conditionals and modals is directly related to the availability of the weak indefinite reading for the bare partitive that we see in (13). It is this reading, I suggest, that we get in the sentences in (2-10) above.

Before going into the analysis, one question immediately arises. If the bare partitive can have an existential quantifier reading, why is it not available as a generic subject like the English bare plural? The answer, I claim is due to the fact that, like the English plural indefinite *some*, the bare partitive carries an implicature of partitivity: it may not be interpreted as taking the entire set denoted by its NP in each situation, which

⁸ $x \leq \max(\Box P_s)$ is equivalent to $\Box x [P(x)]$ when no maximal entity is available as an antecedent, either in a single situation, or in any given situation. The former equivalent to an existential quantifier because we assume that without an explicitly defined maximal individual, the individual denoted by the bare partitive is a subpart of the maximal one.

⁹ In this context I am referring to the unstressed *some* [sm], as opposed to stressed *some*, which is interpreted as a quantifier as in *every teacher likes some student*.

is how the generic bare plural is interpreted in English.¹⁰ The set denoted by the property given by the NP must have at least two members. Of these two members, the verbal predicate must hold of one, and not the other. This implicature is what rules out the bare partitive in the basic generic sentence in (12).

So what is different about the sentences in (12) and (13), and those in (2)-(10) such that a generic reading for the bare partitive is available in the latter sentences but not the former? First, we note that in both the generic sentences in (12) and (13) above, the generic quantifier was an *unselective binder* – it quantified over both situation and individual variables. This generic binding was responsible for the partitive reading of the bare partitive in (11), for instance: it gave a subpart of the maximal individual in each situation. However, in both conditionals and modals, quantification is *selective*: the operator binds only world-time variables. This assumption that generics involve quantification over situations and individuals while modals and conditionals involve quantification over situations or worlds is in keeping with the studies of modal and conditional sentences in Kratzer 1977, 1981, 1991, Chierchia 1995, Heim 1990, Stalnaker 1968. This is therefore the distinction I will adopt in explaining the data under discussion.

Selective binding make such a difference because, I propose, when the definite's individual variable is not bound by the generic operator, a generic reading is not possible. This means that generic quantification over individual is not available here. The selective binding property of the quantifier is what links conditionals and modals and, I propose, licenses the use of the bare partitive in them.

¹⁰ Particular thanks to Veneeta Dayal for discussion of this point.

My basic claim in the chapter is as follows: bare partitives receive generic readings only when quantification is selective, i.e. the individual variable associated with the bare partitive is not directly quantified-over by a generic operator. Rather, the indirect reading can come about because the bare partitive in the conditional and the modal denotes an existential quantifier. This existential can thus yield a different set of entities in each contextually-relevant situation bound by the generic quantification. The bare partitive introduces into the relevant DRS one of the conditions given in (14). I assume both readings are available though the latter is what is relevant for the readings under discussion.

14. a. $x \leq \mathbb{P}$
 b. $x \leq \max(\mathbb{P}\text{-in-}s)$

A generic reading of the bare partitive is indirectly obtained by the existentially-quantified nominal being interpreted as having a different extension in each given situation or world. The difference between this representation of the bare partitive, and that which we saw in (12) is important: *nom* in French, as we saw in chapter 3, must always encode maximality. However, maximality is precisely what is undesirable in these sentences.

In the notation in (14) I differ from the one I used in chapter 2, in that I use the operator \leq rather than $<$. The reason for this is as follows: in episodic sentences the partitive effect is usually not detectable. Partitivity, I propose, is an implicature, rather than being built entirely into the lexical determiner itself. The two forms in (14) vary thus only in the inclusion of the situation variable and the kind term in (14b); they both denote

existential quantifiers. In the conditional and modal contexts, I will show, it is only via an indefinite which that the effect of a generic interpretation can be achieved.

The definite, on the other hand, is interpreted anaphorically, not via extension of a kind, but by co-reference with a presupposed entity, either object- or kind-level. Thus the observation which informs the analysis of definites presented in this chapter is the following: *the only environment in which the definite can receive a generic interpretation is in a context where there is generic quantification over situations and individuals*. The definite may only occur in a conditional or a possibility modal where reference to the kind, rather than to individuals which instantiate the kind, is intended. We will see more of these cases in 4.2.3. Selective binding and the maximality of the definite combine to produce a reading for the definite which is bound to the context of utterance. While this contextually-anchored reading can name either a specific individual or a kind, the definite *cannot* give a different plural individual in each situation. In the necessity modal, on the other hand, the definite *may* receive a generic reading because its maximality is not fatal for the correct interpretation of these sentences.

So far I have briefly laid out my claims for the interpretation of the bare partitive and the definite in conditional and modal sentences. Before moving on to the details of the analysis, I will lay out the basic semantics of conditionals and modals to inform the discussion to follow.

4.1.2 An introduction to conditionals and modals

Modals and conditionals, as I proposed above, should be thought of as having the same sort of quantificational structure. I classify modals and conditionals together for two basic reasons. Firstly, they both give relations between sets of situations, or worlds. They

therefore have two parts, one of which gives the set of worlds where the conditions in the other part must hold. These two parts are both overtly expressed in the case of the conditional, but only the latter is overt in the modal. Secondly, they do not involve direct quantification over individuals, which sets them apart from basic generic sentences.

While conditionals and modals are both instances of selective quantification, they do differ slightly. Conditionals describe relations between sets of situations (Heim 1990, von Fintel 1996), modals give relationships between sets of possible worlds (Kratzer 1977, 1981, 1991). The semantics that I will use for both kinds of sentence in this chapter is a fairly standard, though simplified, version of current proposals (Kamp & Reyle 1993, von Fintel 1994, Chierchia 1995, Stone 1999). The analyses I adopt give the basic structures that help explain the behaviour of the DPs in question. I will not, however, enter into a discussion about the finer points of conditionals and modality; to do so would take us away from the main focus of this chapter.

As is well-known, the conditional's two parts consist of one subordinate clause, one main clause, which can occur in either order. I will refer to the subordinate clause as the antecedent, and the main clause as the consequent. In the conditional sentences under discussion here, the relevant DPs are interpreted in the antecedent. The antecedent defines a set of situations with respect to which the proposition in the main clause is claimed to hold. It is only in this environment where the generalizations which I make here hold.

Modal sentences also have multiple parts which contribute to their interpretation. I will call the two parts of the modal sentences which are relevant to the analysis in this chapter the *modal base* and the *nuclear scope* (Kratzer 1977, 1981, 1991). The modal

base gives the set of worlds with respect to which the truth or falsity of the modal sentence is evaluated, the nuclear scope gives an ordered set of worlds which satisfy the proposition in the modal sentence to varying degrees.¹¹ The modal base essentially corresponds to the antecedent of the conditional, the nuclear scope to the consequent. We will see how this correspondence plays out in the subsequent sections.

One important contrast between the conditional and the modal is the locus of the interpretation of the DPs in question here. In modal sentences, the subject of the modal (and hence the DPs that are our focus here) is interpreted in the nuclear scope. I have already stated that the relevant DPs in the conditional are interpreted in the antecedent of the conditional – based on the surface structure of the sentences in (3), (4) and (8) this is the only possible choice. The difference in the locus of interpretation of the expressions in question is important for accounting for the difference between the availability of the definite in conditionals and modals. Because of these different loci of interpretation for the nominal expressions in which we are interested, these elements do different work in these two kinds of sentences. In both, however, their interpretation crucially differs from that which they receive in basic generic sentences.

The above discussion constitutes the foundations of the analysis of the definite and bare partitive in selective binding contexts that I put forward here. I will now move on to give the specific analysis of these elements in conditional and modal sentences. I will start with the conditional.

¹¹ This order is decided by a third component, the ordering source. The ordering source is irrelevant for our purposes here, so I leave it aside from all further discussion.

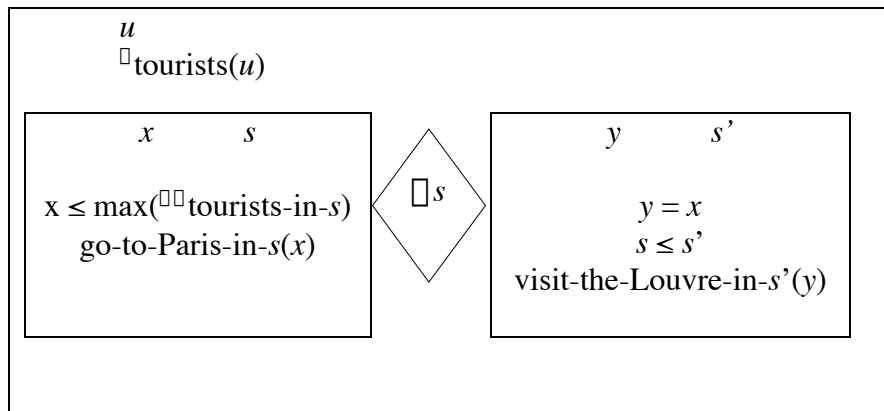
4.2 Conditionals

4.2.1 The semantics of conditionals

Let us consider the conditional sentence containing the bare partitive in (2). I will start with this case because it gives the canonical reading of a conditional – one which makes a generalization about situations that do not pertain to any particular individual. I give a slightly adapted version of (2) in (15), and provide a representation of it in (16).

15. *Quand des touristes vont à Paris, ils vont visiter le Louvre.*
 ‘When tourists go to Paris, they go to visit the Louvre.’

16.



The antecedent of the conditional is represented on the left-hand side of the embedded DRS in (16), the consequent on the right-hand side. We note that the situation variable in the antecedent is universally-quantified, meaning that the restrictor of the universal quantifier (= antecedent of the conditional) is interpreted as giving all situations in which the conditions in the restrictor hold. For the sentence in (15), these situations are defined as the minimal situations each of which contain some individual of which both conditions hold.

This analysis of the antecedent of the conditional follows the discussion in Heim 1990 (who builds on Berman 1987). In that article, Heim proposed that conditionals must quantify over minimal situations. Minimal situations are defined as being the smallest

situation (one that has no proper subparts) that can be built around an individual of whom the conditions given in the antecedent are true. The important point about minimal situations for us here is that any situation in which there is a tourist who is part of the instantiation set of the kind and who goes to Paris is included in the interpretation of the conditional. For the definite, on the other hand, only those situations in which all the tourists which instantiate the kind go to Paris will be included. The antecedent of the conditional in (16) therefore gives the set of minimal situations where in each a different (singular or plural) individual which is a tourist goes to Paris, and the truth of the consequent is evaluated with respect to all these situations.

The conditional is true if, for each minimal situation s given by the antecedent, there is a minimal situation s' which extends s , and where the proposition in the consequent is true. Although in the structure in (16) the situations in the consequent are existentially-quantified, this amounts to a universal interpretation because of this quantification over minimal situations: each situation given in the antecedent extends to a unique minimal situation in the consequent, thus capturing all tourists who go to Paris. The interpretation of the pronoun *ils* 'they' in the consequent of (14) is dependent on the discourse referent introduced by the bare partitive in the antecedent. The pronoun receives a pseudo-generic¹² interpretation because in each situation s' in the consequent, it is interpreted with respect to a different situation s , and thus a different entity, in the antecedent. This analysis mirrors that for singular indefinites in English given in Heim 1990.

¹² I call this interpretation of the nominal expression a pseudo-generic one (term coined by de Swart 1996) because it comes about not by generic quantification over individuals, but rather by the indirect means of indexing the interpretation of the nominal to generically-quantified situations. For the purposes of this chapter a generically-quantified NP is one whose individual variable is bound by a generic operator.

We note that the interpretation of the bare partitive in the antecedent is that of a simple existential quantifier over plural individuals. The existential quantifier is essential in deriving a pseudo-generic interpretation of the subject of the conditional's antecedent when quantification is over situations only: only an existential quantifier can have a different extension in each situation. As we see in the next section, the existential presuppositions of the definite block such a reading. The inherently anaphoric nature of the definite means that its interpretation must always be bound to some entity in the main DRS. Without quantification over individuals, a generic interpretation is not available: the definite can only be interpreted via co-reference with its antecedent, rather than the instantiation relation holding between kind and definite in regular generic contexts.

4.2.2 The definite in the antecedent of the conditional

The claim in this section is that there are two factors contributing to the lack of generic readings for definites in the antecedent of the conditional. The first of these is the selective quantification over situations, the second is the anaphoric nature of the definite. The two of these conspire to block a generic reading.

In the basic generic sentences that we saw in chapter 3, the definite received a generic reading by instantiating a kind accessed from the common ground, and in each situation giving a different individual which instantiates the kind. I propose that the availability of this different-individual-per-situation reading is dependent on generic quantification over individuals as well as situations: it means that individuals and situations could co-vary. Without this co-variation, the existential presupposition of the definite can only be satisfied by co-reference: identity via extension is no longer available.

Blocking identity via extension means that while the definite has two readings available in conditional sentences, neither of them is generic. The definite is either interpreted as naming the maximal individual which instantiates the kind in each situation where the predicate in the antecedent holds, or as naming a specific, object-level individual, which reading is most appropriate. The conditional sentence will then be interpreted as a generalization about the behaviour of a kind, or of a specific plural object-level individual, in the various situations described by the antecedent of the conditional.

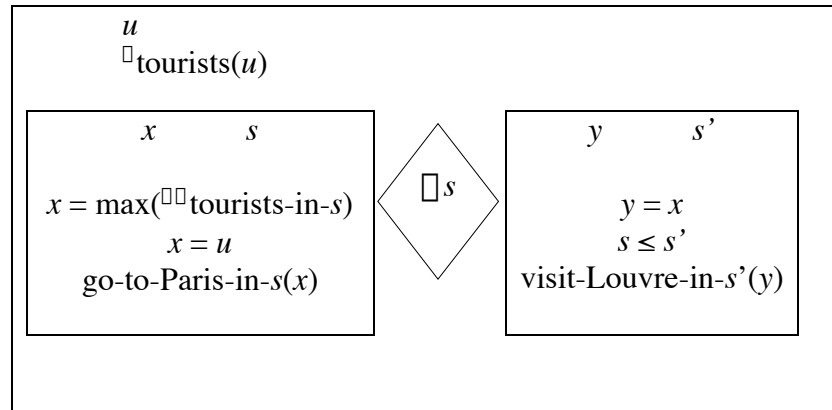
17. *Quand les chats naissent, ils sont aveugles.*
when def.pl cats^k be-born.3pl, PRO.3pl.m be.3pl blind.
‘When the cats are born, they are blind.’¹³
18. *Quand les touristes vont à Paris, ils vont visiter le Louvre.* (Spector 2001)
when def.pl tourists go-3pl to Paris, PRO-3pl go-3pl visit-INF def.sg.m Louvre
‘When **the** tourists go to Paris, they go and visit the Louvre.’

The generic interpretation of the definite is only available when the predicate in the antecedent of the conditional is judged to be true of the maximal individual which instantiates the kind in each situation. This is the reading that is most salient for the sentence in (17); cats are born blind. The maximality of the definite description can be thus considered to be satisfied because the verbal predicate in both the antecedent and the consequent holds of the kind. However, for (18) the preferred interpretation is one which refers to a particular plurality of tourists. The sentence is judged to be infelicitous on the reading where the definite takes the maximal instantiation of the kind in each situation. The intuitively correct interpretation of the verbal predicate ‘go to Paris’ holds only of some tourists, and the consequent only applies to the tourists who go to Paris. That is, the

¹³ The gloss which includes the bare plural is closer to the interpretation that this sentence receives. As discussed in chapter 1, the plural definite can name a plural kind just as the English bare plural can (as shown by Carlson 1977).

most natural interpretation of the sentence is that of all tourists, only the ones that go to Paris visit the Louvre. The interpretation that the definite forces in this context is, however, one where the consequent applies only to those situations in which the maximal tourist-individual goes to Paris, excluding all those in which not all tourists go. The representation of (18) is thus as in (19).

19.

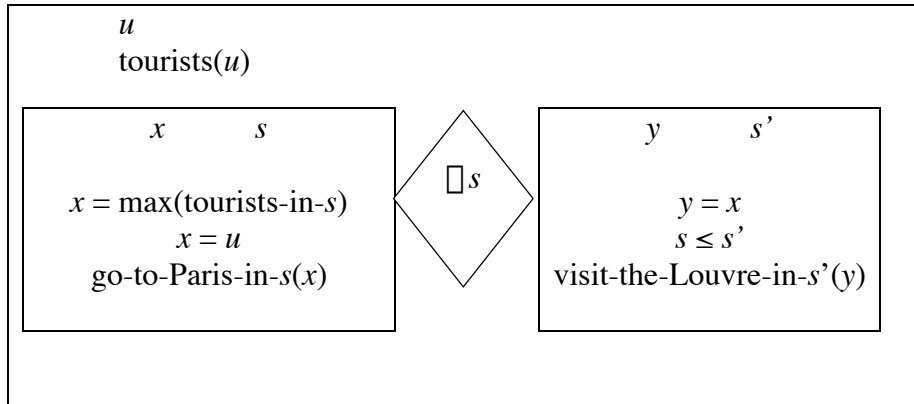


We see that the definite is interpreted with respect to the kind in the main DRS, and thus denotes the maximal individual which instantiates the kind in each situation. There is no problem with the interpretative structure itself. Rather, it is an issue of capturing intuitions. The problem is that the consequent will only be interpreted with respect to the situations in which all the instantiations of the kind *tourist* go to Paris; it will not look at those situations in which a sub-maximal tourist individual goes to Paris. This means that the definite will only be interpreted generically when the verbal predicate in the antecedent holds of the maximal individual in each situation. This is the kind of interpretation that is natural in (17): the predicate in the consequent holds of all instantiations of the kind. The structure for (17) will be the same as in (19), but this

structure will produce an interpretation which matches intuitions because of the different verbal predicates in antecedent and consequent.

The most natural reading for the definite in the conditional in (18), on the other hand, is one where it refers to a particular object-level individual – a plurality of tourists which is salient in the discourse context.¹⁴ When the definite can be as interpreted as referring specific group of tourists who go to the Louvre whenever they go to Paris, the sentence in (18) is licit. We see this reading, with the contextually-anchored definite, in (20).

20.



In this structure the discourse referent x introduced by the definite in the embedded DRS is co-referential to the object-level tourist-individual in the main DRS. Therefore, minimal Paris-going situations are built around this particular plurality of tourists. The sentence is true if all situations where these tourists go to Paris extend to a situation where the Paris-going tourists go to the Louvre. Because its antecedent does not have a generic reading, the pronoun in the consequent cannot be interpreted generically either, unlike the case that we saw in (16).

¹⁴ As we saw in chapter 2, this individual must be entailed by the discourse context.

In this section we have seen that only the bare partitive can produce a true generic reading for the subject of the conditional's antecedent, because only with a bare partitive subject can the antecedent of the conditional build situations around any individual which instantiates the kind, not just the maximal individual which instantiates the kind in each situation. In the antecedent of the conditional, the interpretation of the definite is necessarily via co-reference with an entity in the main DRS, because of lack of quantification over individuals.

In modal sentences, both the definite and the bare partitive are interpreted not in the modal equivalent of the antecedent (the modal base) but rather in the nuclear scope, the modal equivalent of the conditional's consequent. This difference in the locus of interpretation has important consequences for the interpretation of the definite and bare partitive in modal sentences. Having considered the interpretation of the bare partitive and the definite in conditional sentences, we will now move to the modal context.

4.3 Modals

In this account I follow the basic semantics of the modal as discussed in Kratzer 1977, 1981, 1991, a, Stone 1999. As mentioned before, I will not be concerned here with the finer points of the interpretation of modal sentences: for our purposes, the basic insights sketched above in 4.1.2 suffice as background for the task at hand.

Following the analyses mentioned above, I assume that modals quantify selectively over possible worlds, giving a relation between two sets of worlds. These two sets are each represented in one of the two parts of the modal structure. The modal base corresponds to antecedent of the conditional in that it gives a set of worlds with respect to which the truth of the proposition in the nuclear scope must be evaluated. The nuclear

scope, corresponding to the consequent, gives the set of worlds which satisfy this proposition. The modal base of the possibility modal and the necessity modal is identical: it gives all worlds where a collection of relevant conditions hold. These conditions are defined with respect to what the interlocutors consider to be the background assumptions necessary for the proposition expressed by the modal sentence to be true (see Kratzer 1991 for further discussion). The modal base may also limit the set of possible worlds to those which contain the relevant sorts of individuals. This will become particularly important for the interpretation of the definite in these sentences.

There is, however, a fundamental difference between the possibility and necessity modal with respect to quantification over worlds in the nuclear scope. The conditions in the nuclear scope correspond to the verbal predicate of the modal sentence. These must hold of the individuals denoted by the subject nominal. In the possibility modal, the worlds in the nuclear scope are existentially quantified. This means that for this kind of modal to be true, for each world in the modal base there must be at least one accessible world in the nuclear scope where the relevant conditions hold. In a necessity modal, on the other hand, quantification over worlds in the nuclear scope is universal: for every world in the modal base it must be the case that every accessible world is such that the conditions in the nuclear scope hold in it. This difference in quantification over worlds in the nuclear scope is the foundation for the difference in availability of a generic-(like) reading for the definite in the possibility vs. necessity modal.

In both possibility and necessity contexts the bare partitive can be interpreted generically. Its generic interpretation comes about because the extension of the existential quantifier is indexed to each generically-quantified world, yielding a separate set in each.

The interpretation of the bare partitive does not depend on individuals in the modal base. On the other hand, the definite is interpreted like the pronoun in the consequent of conditional such as in the right hand box of the DRS in (16). I suggest that the definite's maximality produces an interpretation which jars with the intuitively correct meaning of the sentence. This infelicity, I suggest, is due to the existential quantification over worlds in the nuclear scope of the possibility modal. In the necessity modal, with its universal quantification, avoids this infelicity. We will see how this can be the case in section 4.3.2. For now, we will start with an examination of the possibility modal, then move to the necessity modal afterwards.

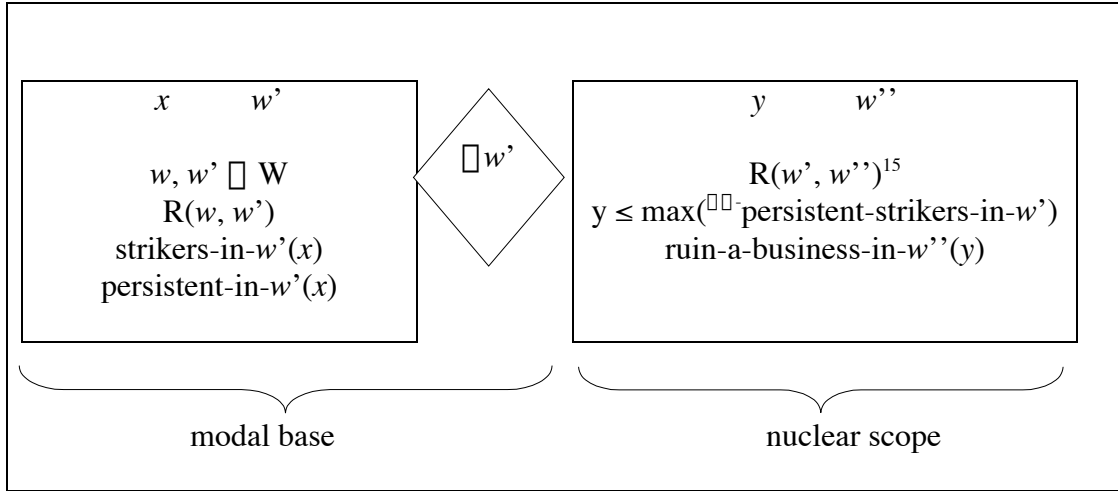
4.3.1 The possibility modal

As observed in (4-6) above, the bare partitive receives a generic reading in the possibility modal. The bare partitive is interpreted as an existential quantifier whose extension differs from world to world. The interpretation of the bare partitive is not linked to any entity in the modal base: it introduces a new set in each world denoted by the nuclear scope.

The interpretation of the possibility modal is as follows. The modal base gives a set of worlds with respect to which the truth of the modal sentence is assessed in the left hand side of the DRS in (22) below. For the possibility modal to be true, for each world given by the modal base there must be one accessible world where the conditions in the nuclear scope hold. To repeat, one world in the nuclear scope is enough. The worlds in the modal base are thus universally quantified and those in the nuclear scope are existentially-quantified, as we see in the DRS in (22). The possibility modal from (4) above is repeated in (21).

21. *Des grévistes ténaces peuvent ruiner une entreprise.*
 indef.pl strikers persistent-pl can-3pl ruin-INF indef.sg.f business
 ‘Persistent strikers can ruin a business.’

22.



In the DRS in (22), the bare partitive occurs in nuclear scope on the right hand side of the embedded DRS (in contrast with its location in the conditionals above). We note that for the bare partitive, the explicit material introducing the predicates *strikers* and *persistent* in the modal base is not necessary, though it is non-pernicious. It simply indicates that we are looking at worlds in the modal base which are relevant for the persistent strikers introduced into the nuclear scope by the bare partitive.¹⁶ The modal base gives all the worlds in which the assumptions relevant for felicitous interpretation of the modal sentence hold; hence the universal quantifier. The nuclear scope says that for each of these worlds in the modal base there is (at least) one accessible world where the conditions in the nuclear scope hold. The modal sentence in (22) therefore says that for all worlds in the modal base, there is at least one accessible world where persistent strikers ruin a business. The bare partitive gives one set of persistent strikers per each

¹⁵ The relation R is the accessibility relation: w'' is accessible from w' , and vice versa.

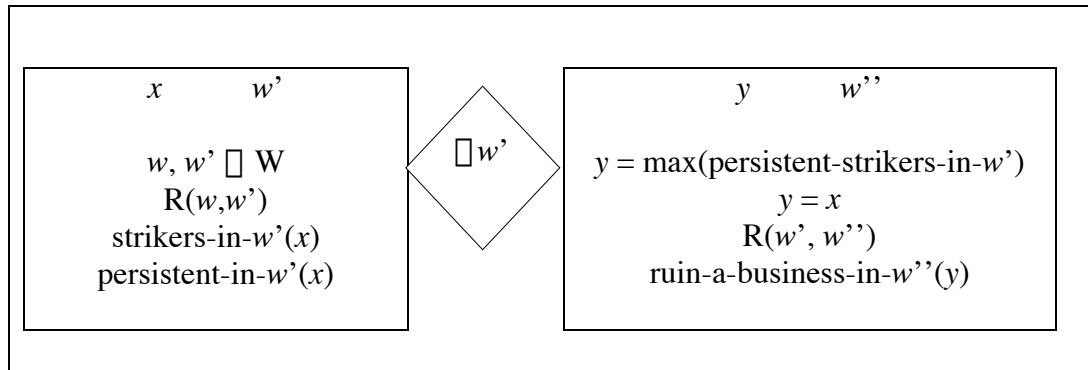
¹⁶ I treat the modified NP in *des grévistes ténaces* as a complex NP, rather than giving independent status to the modification. I return to the issue of modification more generally in chapter 5.

world which is accessible from a world in the modal base. Just as long as those strikers ruin a business in some world, the possibility modal will be true.

In contrast to the bare partitive, the interpretation of the definite *does* rely on reference to elements of the modal base. I propose that definite descriptions in the nuclear scope of a modal are interpreted as being anaphoric to the modal base, and so their generic interpretation depends on there being an individual which corresponds to the individual they describe in every possible world. We see in (24) below the interpretation that the definite receives in the possibility modal. (I repeat the relevant sentence in (23)).

23. *#Les grévistes ténaces peuvent ruiner une entreprise.* (# on generic definite reading)
def.pl strikers persistent.pl can.3pl ruin-INF indef.sg.f business

24.



The definite in the nuclear scope of the modal sentence represented in (24) is anaphoric to the modal base: we must assume that the set of possible worlds given by the modal base is narrowed down to include only worlds that include strikers. The definite thus takes the maximal set of persistent strikers in each world in the modal base, and makes sure that each of these has a counterpart in the nuclear scope where the same persistent strikers ruin a business. As with the conditional, the DRS is interpretable, but it yields a reading which jars with intuitions. I will discuss this problem in detail in 4.3.1.1 below.

This reading of the definite is like that of the object definite in the inalienable possession construction that we saw in chapter 3. If the definite is interpreted generically, it is not because it instantiates a kind, but because it is anaphoric to a generically-quantified element (or, in this case, an element that receives a quasi-universal interpretation). I assume that the modal sentence itself introduces into the modal base a condition that says that the worlds in question are worlds which include individuals such as those denoted by the subject nominal. The worlds given in the modal base of (22) and (24), for instance, are assumed to be striker-worlds. This looks like the kind of linguistically-triggered accommodation that we saw in chapter 2: the modal sentence projects a modal base, and puts in it the kind of individuals which are relevant to the interpretation of the sentence. The fact that the modal base worlds are necessarily striker-worlds makes no difference to the interpretation of the bare partitive, but it is very important to the interpretation of the definite.

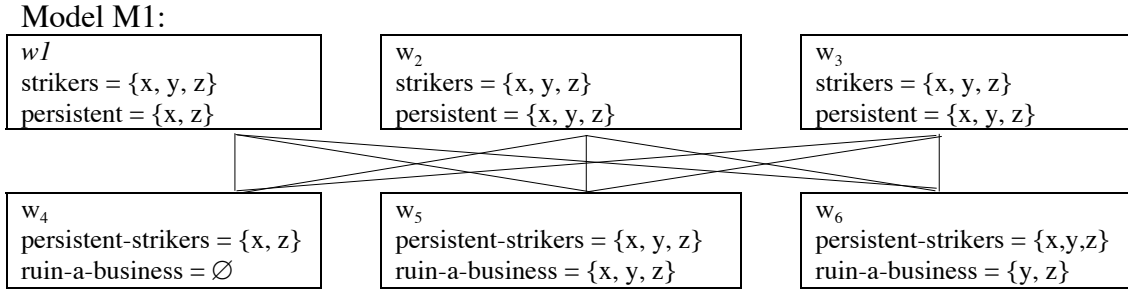
4.3.1.1 The problem with the definite and the possibility modal

As we see in the account above, the definite should be felicitous on a generic reading in a possibility modal given its truth conditions. That is, it can be interpreted generically on a quasi-anaphoric reading, given that we accept (not uncontroversially) that we can treat the definite as being anaphoric to a covert element. The problem that I described concerning the availability of the generic definite arises, I suggest, not because the definite cannot be interpreted as being dependent on a generic element, but rather because the interpretation it does receive does not match intuitions about situations in which a possibility modal should be considered true. That is, the maximality of the definite excludes situations that should be included in evaluating the truth of the sentence. The

element of the definite's denotation which is responsible for this mismatch is its maximality. The maximality presupposition of the definite means that only the worlds with exactly the same set of persistent strikers in modal base and nuclear scope are accessible to each other. Even in an accessible world in which some strikers ruin a business, if that striker-individual is not the same as the maximal striker-individual in the modal base, that world cannot make the possibility modal with the definite true. However, this is intuitively not the case: according to our intuitions, any world accessible from the worlds in the modal base where some strikers ruin a business can make the sentence true.

Furthermore, the only way that we can guarantee that the maximal set of persistent strikers in *every* world in the modal base is the set of strikers that ruins a business in the nuclear scope is to make the worlds in modal base and nuclear scope identical. This, however, makes the interpretation of the possibility modal the same as the necessity modal, and therefore obtains the wrong truth conditions (and possibly also violates at least one Gricean quantity maxim: gives as much information as you know).

The situation becomes clearer if we consider a model in which we can compare the interpretation of the bare partitive and the definite. As a reminder, a possibility modal is true if, for all worlds in the modal base, there is at least one world where the sentence in the nuclear scope holds. In the model M1 below, the sentence with the bare partitive is interpreted as true, that with the definite is false. I will give the model first, and explain the results afterwards.



The top row of boxes represents the worlds in the modal base, the bottom row those in the nuclear scope. The lines represent accessibility relations between these worlds. We saw above that the interpretation of the bare partitive itself is *not* dependent on the individuals in the modal base: it is enough that for each world in the modal base there is some accessible world in which some persistent strikers ruin a business. Therefore, while in w_4 it is not the case that any strikers ruined a business, since w_5 and w_6 are both accessible from each world in the modal base, for each of w_1, w_2, w_3 there is some world in which persistent strikers ruin a business. Therefore the possibility modal is true.

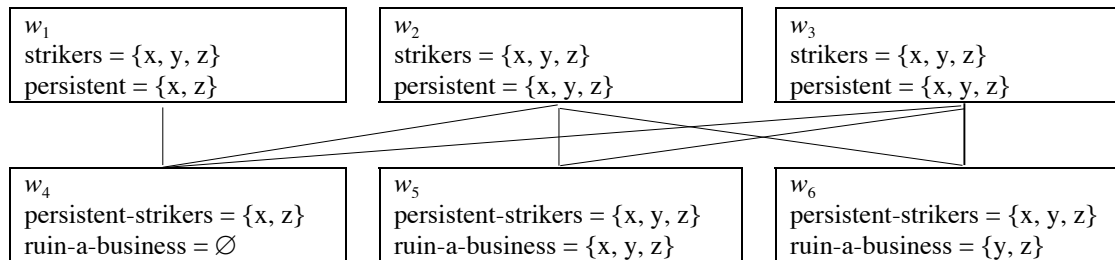
This reading is obtained straightforwardly with the bare partitive. However, the situation is different for the definite. As I suggested above, the material in the modal base is *not* irrelevant for the interpretation of the definite. Only those worlds in the nuclear scope where the extension of the definite is the same as the set of individuals given in the modal base can give the definite in the possibility modal the right interpretation. Let us start from w_1 to see how the situation with the definite plays out in the model.

In w_1 the extension of the conjoined property *persistent* \cap *strikers* is the set $\{x, z\}$. Therefore, the definite in the nuclear scope must denote the plural individual $x+z$. We see that this is the case only in w_4 : this is therefore the only world which is relevant for the

interpretation of the definite in w_4 . In w_4 , however, the predicate *ruins-a-business* does not hold of any persistent strikers, so in this world the proposition is false. Unlike for the bare partitive, the maximality of the definite means that neither w_5 nor w_6 can count as the one world needed to satisfy the truth conditions of the possibility modal: the set of persistent strikers in the nuclear scope does not have the same extension as that in the modal base for either, as is required by the definite. The maximality of the definite therefore means that the whole sentence turns out false in M1, where intuitively it should be true. The maximality of the definite means that it is not the case that all worlds in the modal base have some counterpart where the maximal set of individuals denoted by the definite description ruins a business. Furthermore, the fact that the definite must be interpreted anaphorically with respect the modal base means that the set of appropriate worlds in the nuclear scope which even *count* in assessing the truth of the sentence is severely restricted. The bare partitive, on the other hand, can be interpreted with respect to any world which contains a set of persistent strikers. Therefore, only the bare partitive yields the right interpretation in M1, such that its interpretation matches intuitions.

For completeness, I include a model M2 below where both the bare partitive and the definite are false, based on the semantics above.

Model M2:



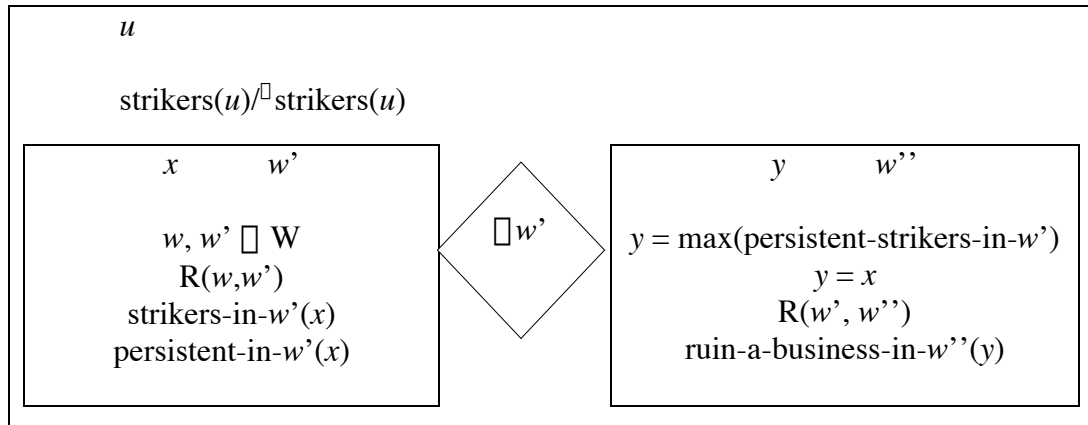
The reason that both the bare partitive and the definite are false in M2 is because the only world accessible from w_1 is w_4 , in which *ruin-a-business* denotes the empty set: no persistent strikers have engaged in business-ruining in w_4 . The modal sentence is therefore false in M2 because it is not true that for all worlds in the modal base there is some world in the nuclear scope where the sentence is true. That is, it is not the case that some persistent strikers ruined a business in w_4 , and as no other worlds are accessible from w_1 , this world makes the entire sentence false.

4.3.2 Non-generic definites in modal sentences

The discussion above has shown why the definite may not receive a pseudo-generic interpretation in the possibility modal. Definite descriptions are, however, interpretable in modal sentences, if they are anaphoric to something outside the modal structure. That is, just as the definites in the conditionals above were interpreted as being co-referent with an entity in the main DRS, the definite may also be interpreted in this way in a modal sentence, either possibility or necessity. The structure for such an interpretation of the definite in a possibility modal would be as in (26) (the sentence is glossed on its relevant reading in (25)).

25. *Les grévistes ténaces peuvent ruiner une entreprise.* (# on generic definite reading)
 def.pl strikers persistent.pl can.3pl ruin-INF indef.sg.f business
 ‘The tenacious strikers can ruin a business.’

26.



A possibility modal such as the sentence in (25) can either be interpreted as referring to a plural kind-, or to a plural object-level entity. The kinds reading does not seem to be available for the sentence in (25), but this sentence *is* easily interpreted as referring to some contextually-salient group of persistent strikers, perhaps contrasting them to irresolute ones. We will now move to a set of sentences where the definite is licit in a possibility modal, precisely on the reading where the definite names a kind.

4.3.2.1 Kind-naming definites in modal contexts

Just as in a conditional, the plural definite may occur in a possibility modal if its maximality presuppositions do not conflict with the intuitively correct interpretation of the sentence. As with the conditional, this is only the case if the definite refers to a particular individual in the discourse context, or if the definite refers to a kind. That is, for the definite to be available the verbal predicate must necessarily be taken to hold of a species as a whole. We see this in the examples below (examples due to Viviane Déprez, p.c.)

27. *Les chats peuvent avoir les yeux jaunes.*
 def.pl cats can.3pl have.INF def.pl eyes yellow.pl
 ‘Cats can have yellow eyes.’

28. *Les colibris peuvent aller en arrière en volant.*
 def.pl hummingbirds can.3pl go.INF in rear in flying
 ‘Hummingbirds can fly backwards.’
29. *Les pingouins peuvent rester sous l’eau pendant plusieurs minutes.*
 def.pl penguins can.3pl stay.INF under def.sg-water during several minutes
 ‘Penguins can stay under water for several minutes.’

The intuition about these sentences is clear: there is no salient contrast set to the set of individuals denoted by the nominal. Instead, the verbal predicate necessarily holds of the kind. We also note that unlike in the ‘persistent strikers’ example, there is no modification on any of the nominals in (27)-(29), which adds support to the intuition that contrast is not a salient feature of the interpretation of the nominal here. In these sentences the modal is interpreted as referring to the propensities and abilities of the species with respect to performing a certain kind of action, rather than the abilities of random individuals denoted by the nominal. I therefore propose that the definite is licit in possibility modals when the verbal predicate holds of the kind itself, rather than of individuals which instantiate the kind, as was the case in the modal sentences above (I made a similar suggestion for the definite in conditional sentences such as (17)). For instance, in (29) each individual which instantiates the kind *penguin* must have the capacity for staying underwater for considerable time in order for the sentence to be judged true: the possibility modal holds of the species, in the sense of describing something it naturally has the ability to do. With the strikers, on the other hand, only the persistent strikers need have the capacity of ruining a business for the sentence to be true. Again, a lack of a salient contrast set permits the use of the definite. There is no implied complement set to that denoted by the nominal expression, and so maximality does not interfere with the desired interpretation.

We also note that in sentences like (27)-(29), if the bare partitive replaced the definite, the subject could not be interpreted generically, but only on the fully partitive reading that we saw it receive in basic generic sentences (Viviane Déprez p.c.). I attribute this to the kind-selecting nature of the predicate, which, I argue, licensed the use of the definite in the first place. the universal-like nature of the predicate is at odds with the partitivity of the bare partitive.

This concludes the discussion of possibility modals, and the interpretation of their subject DPs. We will now move to the necessity modals where, contrary to expectations, both the bare partitive and the definite can receive a pseudo-generic interpretation.

4.3.3 The necessity modal

The basic claim that I will make about the interpretation of necessity modals is that they are only true if the worlds denoted by the modal base and the nuclear scope are identical with respect to the individuals included in the worlds over which they quantify (see Stone 1999 for more on this idea). This identity between worlds is arrived at by universal quantification over the worlds in the nuclear scope. Briefly, the definite is licit on a pseudo-generic reading in the necessity modal because in order for it to be true, all the worlds denoted by the nuclear scope must contain the same individuals as the relevant world in the modal base. As the worlds in the nuclear scope can all potentially be accessible from each of the worlds in the modal base, all worlds must be identical, at least in terms of the individuals they contain, in any model.

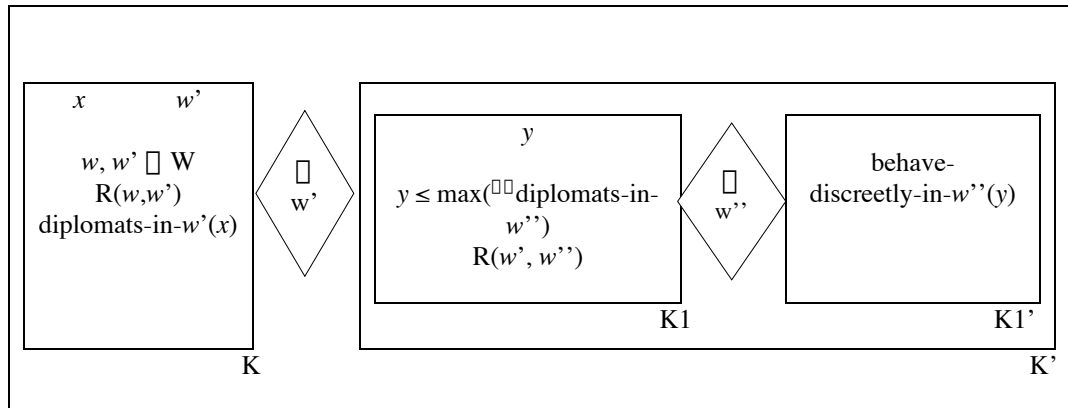
I would further like to suggest that the universal quantification over worlds in the nuclear scope means that the interpretation of the bare partitive and the definite are equivalent in necessity modals: whenever the definite is true, the bare partitive is true

also. The choice between the two elements is thus a pragmatic, not a semantic one. To see that this is the case, let us consider a series of models. Universal quantification in the nuclear scope allows us to treat the necessity modal as a pair of conditionals, one embedded in the consequent of the other. Conceiving of the necessity modal in this way causes a different interpretation of the bare partitive than that which we saw earlier, which makes the interpretation of this element equivalent to that of the definite in these sentences. (I show how this plays out in the appendix.)

The sentence from (8a) is repeated in (30). I give the DRS in (31).

30. *Des diplomats doivent se montrer discrets.*
 ‘Diplomats must behave discreetly.’

31.



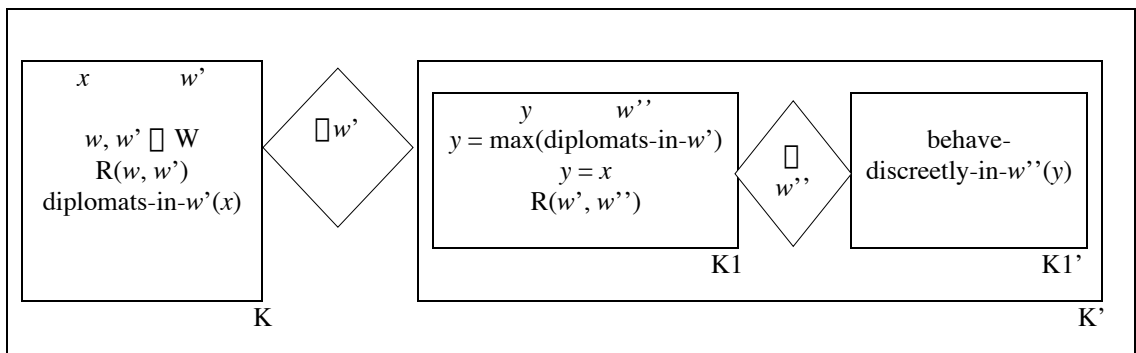
The interpretation of the necessity modal is as follows. As in the possibility modals, the modal base introduces a set of worlds which gives the speaker's assumed knowledge about what conditions need to hold for the modal to be felicitously interpreted. The nuclear scope, on the other hand, is a more complex structure for the necessity modal than it is for possibility: it contains universal quantification over worlds, as we see in the box K' on the right hand side of the DRS in (31). In the possibility modal universal quantification over worlds only held for the modal base.

The bare partitive's interpretation is not based on the entities in the modal base: it defines the relevant diplomats for the interpretation of the modal sentence on its own. However, unlike in the possibility modal, there is an implicit link between the individuals in the modal base and those denoted by the bare partitive in each world given in the nuclear scope, as the predicate in the nuclear scope must hold of all relevant individuals. This means that the diplomats in the modal base and the nuclear scope must be identical for both definite and bare partitive to be true.¹⁷

Before moving on to showing this is true with respect to a model, I will give the DRS for a necessity modal, so that the interpretation of the two kinds of determiner can be compared. Just as in the possibility case, the definite is interpreted anaphorically, with respect to individuals in the modal base. The representation of the necessity modal with the definite, given in (33), is identical to that of the necessity modal containing the bare partitive in (31), except for the maximality and coreferentiality on the variable y in K1.

32. *Les diplomats doivent se montrer discrets.*
'Diplomats must behave discreetly.'

33.

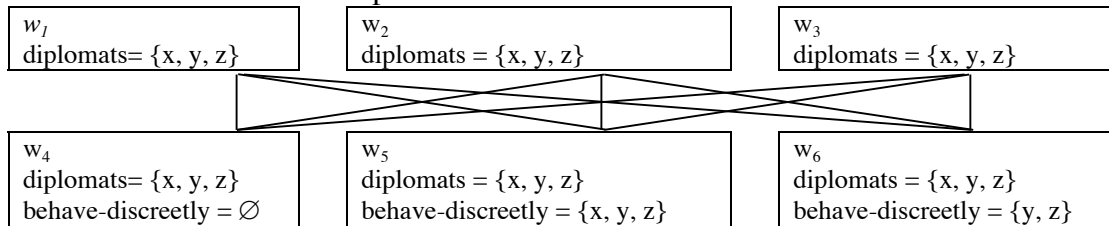


¹⁷ The identity is due to the fact that the DRS in (30) is equivalent to a structure where the box K , and the box $K1$ can actually be conjoined, due to the equivalence between the logical forms $(p \sqsubseteq (q \sqsubseteq r))$ and $((p + q) \sqsubseteq r)$ (Partee, ter Meulen and Wall 1991). The bare partitive is therefore interpreted with respect to the union of the set of diplomats in the modal base and those in the nuclear scope, and so it therefore must give the maximal set of diplomats.

The structure in (33) says that for the sentence in (32) to be true, for all worlds w' in the modal base, all accessible worlds w'' must be such that the diplomats in w'' (which are identical to those in w') behave discreetly in w'' . In other words, all diplomat worlds must be behaving-discreetly worlds. I propose that the result that we get here is the same as for the bare partitive. We see that this is the case in the series of models, M3-M5, below.

In M3 below, sentences containing either the bare partitive or the definite are interpreted as false. To see that this is the case, let us consider w_2 , and the worlds accessible from it. One of the accessible worlds in the nuclear scope is w_4 , where the predicate *behave-discreetly* does not hold of any individuals. Because of the universal quantification over worlds in the modal base, the existence of this world in the model makes the necessity modal false whether the subject is a bare partitive or a definite: it means that the requirement that for all worlds in the modal base all worlds in the nuclear scope are such that diplomats are discreet, is not met. This is a different result for the one that obtained for the possibility modal, where one world could not falsify the bare partitive sentence, though it could the definite.

M3: both definite and bare partitive are false



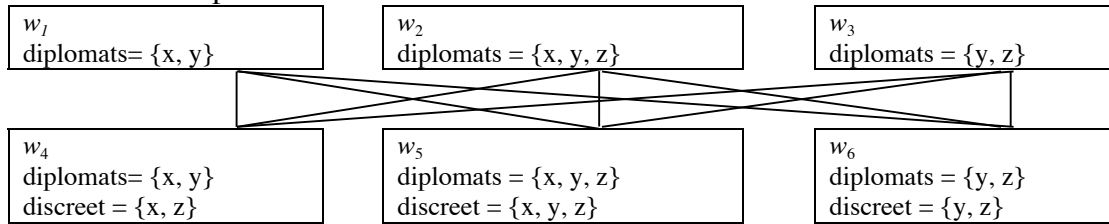
So far, so good: the bare partitive and the definite receive the same interpretation.

We will now move to a model where the necessity modal with both the definite and the bare partitive render turns out true. We note that in this case, the bare partitive in the

nuclear scope denotes a set which is the equivalent of the maximal set of diplomats in the modal base. This, of course, means that the denotation of the bare partitive is equivalent to that of the definite. The identity between worlds in the modal base and nuclear scope is not a coincidence, but a result of the double universal structure of the necessity modal.

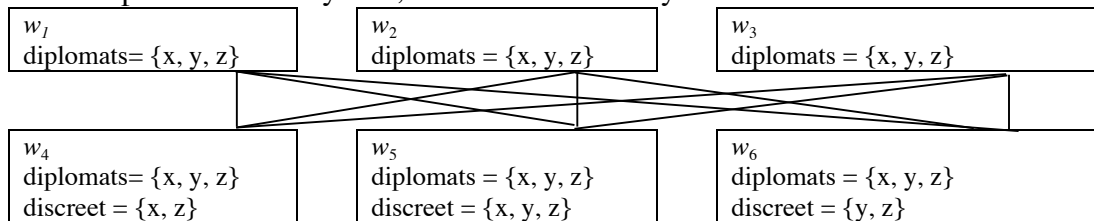
Therefore, both come out true in the model M4, as we see below.

M4: both bare partitive and definite are true



The third case is the most complex. In model M5 below, we note that the set of diplomats in each world in the nuclear scope is not the maximal set of diplomats in each world in the modal base. This means that the interpretation of the bare partitive and the definite cannot be equivalent. We also note that necessity modal containing the bare partitive is true because for each world in the modal base, some diplomats behave discreetly. This third model shows that the bare partitive and the definite still yield the same truth conditions in the necessity modal, even when their extensions are not the same in each world.

M5: bare partitive is really true, definite is vacuously true



Recall that the structure in the nuclear scope is a quantificational one: it encodes universal quantification over the worlds accessible from those in the modal base. For necessity modal with the definite to be true, it must be the case in each accessible world in the nuclear scope the maximal diplomat-entity is discreet. However, in M5 it is only in w_5 that this is the case. Why is this not fatal? It is not fatal because the nuclear scope contains a tripartite structure, any such world where the restrictor of the universal quantifier does not contain the maximal diplomat in the relevant world in the modal base will make the predicate in the restrictor false or undefined. This means, according to the logic of conditionals (as our canonical tripartite structure) that the antecedent receives a value of false, and so the entire implication will be true. That is, we get a result of $0 \sqcup 1 = 1$. This means that once again, the necessity modal containing the bare partitive and the definite both have the same truth value. The two are therefore both options as the determiner for the necessity modal.

We expect, however, if the subject of the necessity modal is modified, there will be a real difference between the interpretation that the bare partitive and the definite receive. It is well-known that modification can be interpreted in two ways. The first of these interpretations is the *restrictive* one, which, in our terms, yields the contrast set reading. This means that the verbal predicate is taken to hold of a subset of the set denoted by the common noun (the subset is given by intersection with modification), but not of its complement. The other interpretation is the *non-restrictive* one, where no contrast set is made salient – the modification adds information about the set denoted by the NP rather than intersecting with it, and so returns the same set as given by the common noun. I propose that, when a restrictive reading of the modified NP is the

desired one for the subject of the necessity modal, the bare partitive must be used. When a basic generalization about a certain group is the desired interpretation of the sentence, the definite is used. We see the contrast in the pair of sentences below, adapted from de Swart 1996.¹⁸

34. a. *Des agents de police de haut niveau doivent se montrer discrets.*
 indef.pl officers of police of high level must.3pl REFL show.INF discreet.
 ‘High-level police officers must behave discreetly.’
 b. *Les agents de police de haut niveau doivent se montrer discrets.*
 def.pl officers of police of high level must.3pl REFL show.INF discreet.
 ‘High-level police officers must behave discreetly.’

According to de Swart 1996, The interpretation available for (34a) is that while high-level police officers are required to be absolutely discreet at all times, lower-level police officers are treated more leniently. The sentence would perhaps be uttered as an admonition to the relevant (high-level) individuals. This is the restrictive reading. The definite, on the other hand, is interpreted more as a statement of fact about this kind of individual. The bare partitive goes with restrictive modification, the definite with non restrictive. With modification on the NPs, the contrast that we saw in the possibility modal and conditional comes out once again but, because of the extra universal quantification in the nuclear scope of the necessity modal, the licensing of bare partitive and definite play out in ways that are subtly, but importantly, different.

In the sections above I have proposed an analysis which accounts both for the unexpected use of the bare partitive on a generic reading, and for lack of such a reading for the definite on such a reading. I have furthermore offered a suggestion as to why, in necessity modals, only both the bare partitive and the necessity modal are available. A speaker’s choice to use one over the other is due to pragmatic, or stylistic reasons, rather

¹⁸ For expository reasons, I have added modification and made de Swart’s covert modal overt, as well as removing negation.

because of a difference in truth conditions. The core difference between conditionals and modals and basic generic sentences, and the one which I propose is central to the availability of the bare partitive on pseudo-generic reading, is the fact that conditionals and modals are selective binding quantificational structures. Such a proposal has been made for generic bare partitives in French has also been made by Dobrovie-Sorin 2004. I move to a discussion of her proposal now.

4.4 Other analyses

4.4.1 Dobrovie-Sorin 2004

The proposal that I make here is based on an observation also made by Dobrovie-Sorin 2004: bare partitives receive a generic reading only in selective binding contexts. In addition to this, Dobrovie-Sorin also observes that in basic generic contexts, the bare partitive cannot receive a generic interpretation, but only a ‘groups’ one (that is, one that can make a generalization about a relationship that holds between members of a group), because the individual variable is bound, and so must give a different plural individual in each situation. According to Dobrovie-Sorin, the partitive reading of the bare partitive in basic generic contexts can only be avoided if the verbal predicate is inherently relational, i.e. it describes a relation which must hold between subparts of the set denoted by the bare partitive subject.¹⁹ In selective binding contexts such as modals (she does not consider conditionals), on the other hand, she proposes that the bare partitive is interpreted as an existential quantifier whose extension is indexed to each generically-quantified world (in Dobrovie-Sorin’s terms, each event).

¹⁹ In her examples Dobrovie-Sorin conflates both bare partitives and DPs which have a cardinal determiner (i.e. *deux hommes* ‘two men’), giving the same analysis for both kinds of DP. In a footnote (footnote 10), however, she notes that the ‘groups’ reading is much more felicitous for the cardinal determiners than for the bare partitive. I will therefore not discuss in any detail her group-reading analysis for the bare partitive, but will concentrate on her account of the bare partitive on its generic reading.

The core of Dobrovie-Sorin's proposal lies in the claim that this indirectly-quantified reading is available for the bare partitive because the bare partitive is number-neutral. This means that even if in some possible world the bare partitive denotes a singleton set, the generic interpretation will still hold because the truth of the sentence is evaluated across several situations, not just the one. Such a number-neutral reading for the bare partitive is blocked in regular generic contexts, and this, according to Dobrovie-Sorin, is what makes the bare partitive unavailable in these contexts on a generic reading: direct quantification over individuals requires *atomic* individuals. She does not, however, provide an explanation of why definites should give such atomic individuals when directly bound, but not when in indirect-binding contexts. That is, her proposal does not predict the lack of a generic definite in modal and conditional sentences.

Dobrovie-Sorin's analysis makes a number of important observations, upon which I build in my account. I extend her basic observation into an analysis which not only explains the availability of the (pseudo-generic) reading of the bare partitive in selective binding contexts, but also offers an account for why the definite is blocked on a generic reading. It is difficult to see how an appeal to number-neutrality alone can explain this contrast in availability.

Dobrovie-Sorin is not the first to suggest number-neutrality as the chief factor which licenses lexically-headed plural DPs in generic contexts (as opposed to bare plurals). Dobrovie-Sorin herself refers to an analysis developed by de Swart 1996 for French generic sentences, which appeals to number-neutrality as a crucial ingredient of the licensing of generically-interpreted DP in French. While this latter account is a

proposal for the semantics of the generic *definite*, de Swart makes some points which are relevant to the discussion in this chapter. I will give a brief overview of these points now.

4.4.2 De Swart 1996

De Swart proposes that basic generic sentences must be analyzed as quantification over events, and indirect generic quantification over the maximal individuals denoted by the definite comes about by having one event per individual. She develops her explanation of the generic definite in French by focusing first on the behaviour of the singular definite, specifically, such definites as *le roi* ‘the king’. We note that the definite DP ‘the king’ does not necessarily name an individual, but specifies a role: the same role can be held by various people at various times. This point is important, and problematic for de Swart’s central thesis: there are good reasons to think that role NPs such as ‘the king’ are very different to regular definite descriptions such as ‘the cat’ or ‘the tree’.

De Swart’s analysis crucially relies on ‘once-only’ predicates for her discussion. These are predicates for which there is generally one event per individual – predicates such as *die*, *have blue eyes* etc. However, the analysis does not obviously extend to cases where we must consider there to be more than one event per individual, such as with the predicate *eat*, or *fall over*. The possibility of having more than one event per individual seems to compromise the central tenet of this proposal: that quantification over events directly brings about a one-to-one event-individual correspondence, which leads to a pseudo-generic interpretation.

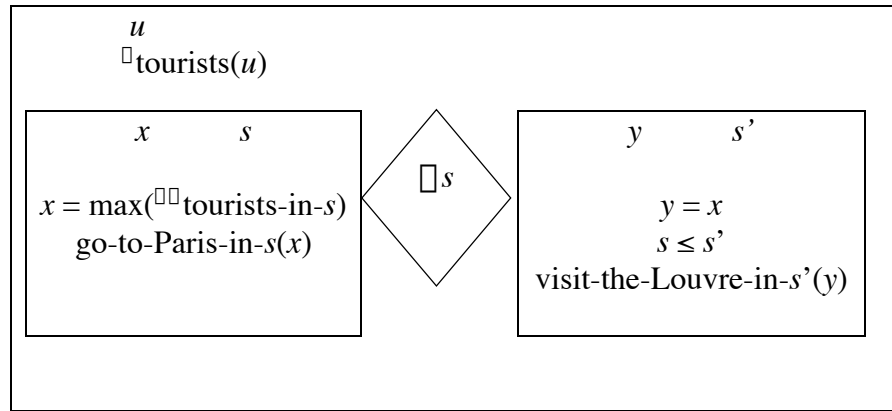
And finally, de Swart’s analysis relies on the fact that the maximality of the definite is rendered harmless by the fact of having just one event per individual – so any individual in the event is effectively the maximal one and therefore the definite can have

its normal, object-level interpretation. Furthermore, she claims that in order for the plural generic definite to receive this kind of reading, it must be considered to be number-neutral, so again, there can be one atomic individual per event. We have seen above that this leads to trouble when considering cases where the definite *cannot* be the generic determiner. Furthermore, under de Swart's proposal of uniformly selective quantification over events for generic sentences, we cannot predict the difference between the basic generic sentences, which take definite DPs as their generic arguments, and the conditionals and modals, which (usually) employ the bare partitive. Therefore, while I follow de Swart's insight that some generic sentences involve quantification over situations, and that the generic interpretation of nominal expressions in such contexts comes about by indexing individuals denoted by an NP to some situation, I consider her proposal's predictions to be too strong to be able to obtain the right results.

4.4.2.1 Another argument against de Swart 1996?

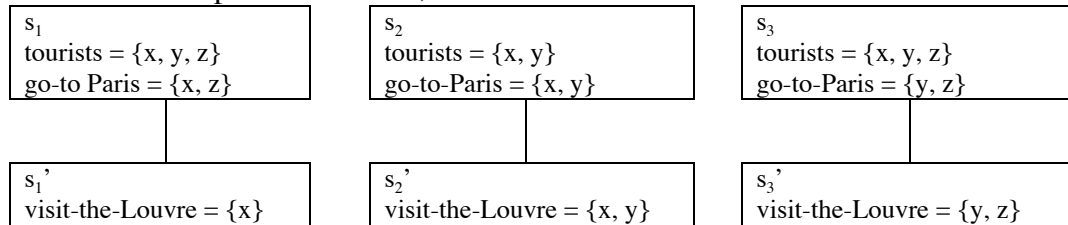
As a matter of fact, even if we assume that de Swart's proposal is correct, and we can get a generic reading of the definite by interpreting it as taking the maximal instantiation of the corresponding kind in each situation, the definite it still does not obtain the desired results. The DRS (35) represents this interpretation of the definite in the conditional sentence (25).

35.



The above DRS is interpretable: it says that in each situation the definite denotes the maximal instantiation of the kind *tourist*. This reading is equivalent to that which we obtain via binding individuals with the generic operator. For the conditional to be true, each situation s in the antecedent must extend to a situation s' in which the maximal individual who goes to Paris in s visits the Louvre. Let us now evaluate the conditional above in a model in which we judge the DRS in (35) to yield a false interpretation (once again, the lines show accessibility relations).

Model M6: bare partitive is false, definite is true.



What we see in M6 is that only one of the three situations in the top row (the situations denoted by the antecedent) extends to a situation in the bottom row (the consequent) where the maximal individual visits the Louvre. The problem here is that the pronoun in the consequent of the conditional looks only to those situations in the antecedent where maximal tourist-individual goes to Paris. It therefore does not consider

situations where *some* tourists go to Paris, as the bare partitive allows us to do. In M6, this means that the definite does not consider situations s_1 and s_3 at all. It only considers s_2 , where the sentence is true. The conditional with the definite in the antecedent yields a ‘true’ interpretation in a model where the sentence is intuitively false (a reading yielded by the bare partitive, which can look at all three antecedent situations in M6).

So let us try the solution proposed by de Swart 1996 and Dobrovie-Sorin 2004 – let us treat the definite as number-neutral. This means that there will be a situation built around every atomic individual, and therefore all the tourists who go to Paris will be maximal in their situation, just as suggested by Heim 1990 for the singular indefinite. Thus in each of s_1 , s_2 and s_3 in M6 there are two minimal situations, one for each of the Paris-going tourists. The definite can consider all these situations, as the maximal tourist goes to Paris in each. Let us first look at s_1 , and the situation s_1' denoted by the consequent. While the maximality of the definite is satisfied in all situations in the antecedent, in s_1' it is not the case that for every situation containing a maximal Paris-going tourist denoted by the antecedent, that tourist goes to the Louvre. Rather, this will hold in only one of the three situations, that where x visits the Louvre. The sentence is therefore judged to be false. This is the result we want: it matches our intuitions about how the sentence should be interpreted.

However, there is a problem. The definite *cannot* receive this reading in a conditional sentence: it can only be interpreted as being anaphoric to an individual in the discourse context, or to denote a kind. We therefore have evidence that we cannot treat the definite as number-neutral, because doing so makes it licit where it should not be so. I therefore propose that the plurality of the definite, coupled with its maximality, blocks

any interpretation by way of minimal situations built around each atomic individual which comprises the plurality denoted by the definite description. The non-maximality of the bare partitive, on the other hand, allows access to sub-maximal individuals, which may be atomic.

The above discussion has made a number of points clear. Firstly, while it may be possible to treat the bare partitive as number-neutral, it is not possible to treat the plural definite as such. This blocks a generic reading of this element in selective binding contexts, leading to the choice of the bare partitive as the generic argument of choice in conditionals and possibility modals, and in necessity modals (depending on the speaker). These contexts all have in common the fact that they involve quantification over world-time variables only, rather than both world-time and individual variables.

To conclude this chapter, I would like to provide one more kind of evidence in support of the thesis that it is the contrast between selective and unselective generic quantification which is responsible for the (un)availability of the plural definite as a generic argument. I will provide evidence from generic sentences with overt adverbs of quantification.

4.5 More on selective vs. unselective binding

4.5.1 Adverbs of quantification

French provides evidence that we must not only divide sentences which express generalizations into basic generic and conditional/modal on the basis of selective vs. unselective binding, but such a distinction must be made for at least some adverbs of quantification as well. Some speakers of French attest a difference between the form of the determiner that they use in a generic sentence with the adverbs *toujours* ‘always’ and

souvent ‘often’, as compared to generic sentences with the covert generic operator, or an operator such as *en général* ‘generally’ and *habituellement* ‘usually’ (see also Delfitto 1993). In the latter cases they choose the definite, the bare partitive in the former. I suggest that this choice comes about due to a distinction in the binding properties of these adverbs of quantification. The former are selective, the latter unselective.²⁰ The affinity of the generic bare partitive for selective binding contexts receives strong support from the following examples, which are two sentences whose surface form is identical except for the form of the determiner on the subject. The two sentences, however, have quite distinct interpretations, as we see in the glosses in (36) and (37).

36. *Les pianistes talentueux exécutent souvent des morceaux difficiles.*
 ‘Talented pianists play difficult pieces often (i.e. many times).’
 37. *Des pianistes talentueux exécutent souvent des morceaux difficiles.*
 ‘Talented pianists play often play difficult pieces.’

What we see in (36) and (37), I suggest, is a result of a contrast in adverbial scope. Whereas in English, different operator scope is signaled by overt movement in the surface syntax, as we see in the glosses, in French, a change of scope is signaled by a change in the choice of determiner.²¹ In (36) the adverb *souvent* has narrow scope over the VP, in (37) it has wide scope, over the whole sentence.²²

The interpretation of the sentence in (36) is one where, when a talented pianist is playing, s/he plays difficult pieces many times. The interpretation of (37), by contrast is one where when a talented pianist plays something, what she plays is often a difficult piece. I provide representations of these readings in (38a) and (38b), respectively.

²⁰ While it has been claimed for all adverbs of quantification that they are either one or the other, to my knowledge, no claim has been made that splits adverbs of quantification into two classes in this manner.

²¹ We do not see these effects with universal and universal-like quantifiers like *always*. A discussion of this interesting contrast must, alas, be left for future research.

²² Many thanks to Sandrine Sanos and especially to Viviane Déprez for discussion of these examples.

38. a. Gen s, x [tal-psts(x, s) & C(s)] $\Box y$ [diff-pcs(y, s) & **often s**[play(x, y, s)]]
 b. **Often s**[$\Box x$, [tal-psts(x, s) & play-something(x, s)] $\Box y$ [diff-pcs(y, s) & play(x, y, s)]]

What we see in (38a) is that the adverb has narrow scope over the VP *play difficult pieces*. The subject, being outside the scope of this operator, is quantified by the regular covert generic operator. Unsurprisingly, it takes the form of a definite description. In the case in (38b), on the other hand, *souvent* ‘often’ has scope over the entire sentence. The sentence thus describes all situations where talented pianists play something. I suggest that because the whole sentence is interpreted as quantification over situations, the determiner on the subject must be the same as that in the conditional, i.e. the bare partitive. While I will not go any further into the analysis of these sentences here, I propose that we can only explain the contrast in the choice of determiners here by appealing to different scope of the adverb *often*, and thus, by claiming that the quantification over the subject varies between unselective and selective. The same contrast that holds between conditionals/modals and ‘basic’ generic sentences holds between different kinds of adverbs of quantification as well.

4.6 Conclusion

I have made three basic claims in this chapter by which I explain the choice of a bare partitive over a definite as the form of the subject in certain generic sentences. I proposed that conditional and modal sentences constitute cases of selective quantification over world-time variables only, whereas the generic operator in basic generic sentences binds both world-time and individual variables. I claimed that the combination of the maximality and existential presuppositions of the definite description, which force it to be interpreted with reference to some previously established antecedent, gives the wrong

truth conditions in conditional and possibility modal sentences. It is only in the necessity modal, where maximality is compatible with the interpretation of the modal as a whole, that the definite does not yield too-strong truth conditions. The bare partitive, on the other hand, is an existential quantifier and thus is not interpreted with respect to any antecedent. This means that it can yield a different extension in each situation, and so receive an indirect generic interpretation. The extra material in the antecedent of the conditional and the nuclear scope of the modal was crucial in aiding a generic interpretation of the bare partitive. The definite could only occur in these sentences when its maximality did not interfere with the truth conditions. This translates into the definite yielding a kind-naming reading: the verb is predicated of the kind, so no individuals in a contrast set are accessible. Importantly, this is desired reading in basic generic sentences. The bare partitive is not licit on a generic reading in those contexts because its partitivity requires a contrast set, which is at odds with the universal nature of the generic quantification. We see, then, that the extra material in the conditionals and modals is crucial in obtaining a generic interpretation of the bare partitive, in which the partitivity does not conflict with genericity.

It is clear why the definite in conditionals and possibility modals does not receive a generic reading. However, as suggested in 4.2.2 and 4.3.2 above, definites may occur in this kind of sentence on a non-specific reading when the verbal predicate is interpreted as necessarily holding of the kind. That is, when the conditional or possibility modal must be interpreted as predicating a particular property of a kind, the definite may, and must be used.

As a final note I would like to point the importance of these French sentences for their contribution to our understanding of generic quantification in general. The contrast in the choice of determiner in basic generic sentences vs. those discussed here allows us to draw a clear line between two types of generic (or pseudo-generic) operators in terms of whether they bind just situation, or both situation and individual variables. Due to the use of the bare plural and the singular indefinite in all of these contexts, the English data does not allow us to observe this distinction.

Conclusion: Extending towards Italian – cross-linguistic applications and implications¹

5.0 Main themes: Romance vs. English definites

This dissertation explores the meaning and use of French definite descriptions in both generic and episodic contexts. I have shown that French definite descriptions have two related meanings, both of which are interpreted as identifying a maximal individual in the discourse context. This semantics for the definite builds upon insights from, for example, Russell 1905 and Heim 1982 and Löbner 1985, as well as more recent discussions such as in Abbott 2000, Barker 2003, Roberts 2003. The key difference between the two readings is their intensionality: the definite can name an individual in just a single situation, or it can name a kind whose instantiations vary from situation to situation. In positing this ambiguity for the French definite I follow the proposal in Dayal 2004a.

In this dissertation I have shown that, in French both plural definite and indefinite descriptions have intensional counterparts. Both definite and indefinite descriptions may contain a situation variable which can be bound by an appropriate generic operator. However, I have demonstrated that the need for a lexical determiner in all syntactic positions in French brings with it restrictions on the distribution of both definites and indefinites, because of the presuppositions and implicatures associated with lexical determiners, which are absent with bare nominals. As noted in Dayal 2004a, such presuppositions and implicatures are not likely to be present with nominals that undergo covert type-shifts. On the other hand, by appealing to the lexical semantics of these determiners we can accurately predict the distribution of generic descriptions in French.

¹ A special thanks to my informants Monica Bilotta, Ivano Caponigro, Viviane Déprez and Vieri Samek-Lodovici – and special thanks to Ivano and Viviane for answering all the last minute emails! Italian examples are from (at least) one of Monica, Ivano or Vieri, except where indicated. Apologies to Sarah McLachlan for the title.

The test now is to see whether these predictions hold cross-linguistically. In this concluding chapter, I will give a summary of the key issues addressed in this dissertation, and revisit some of them with an eye to extending the account beyond French into the domain of other Romance languages. To do this I will be looking at Italian, a Romance language which bears close resemblance to French. But before moving on to Italian, I will outline the major claims I have made in the in the preceding chapters of this dissertation.

The first major issue I discussed involved a comparison between English and French definite descriptions in episodic contexts. I showed that the French and English definites must be considered to refer in different ways. That is, while the French definite refers by means of co-reference, as in Heim 1982 (an account developed for the English definite), the English definite refers more directly, by means of a second argument. I proposed that the meaning of the English definite is much closer to the demonstrative than the meaning of French definite is. In French, accommodation of a referent for the definite in context had to be triggered by some linguistic construction. The English definite, on the other hand, could trigger accommodation of a discourse referent which corresponded to an entity from the extra-linguistic context, by means of an extra property, *Intended-Referent*. The English definite could, by means of this second property, have a true deictic interpretation, whereas apparent deictic readings for the French definite only ever arise when the definite can be interpreted functionally.

In chapter 3 I moved to generic sentences, where the French definite may receive a generic reading. I proposed that in each contextually-relevant situation the French definite identifies the maximal individual that instantiates the kind corresponding to the

definite's descriptive content. In the availability of this generic interpretation the French definite was seen to differ crucially from the English one, which may not be interpreted generically (except in the very specialized cases mentioned in chapter 2; see also Dayal 2004a, 2004b for related discussion). Whereas the English bare plural could occur in all syntactic positions, and could be interpreted either as a quasi-universal or an existential. In generic sentences, the French generic definite was limited to the former interpretation. I showed why this was the case: the maximality of the definite prevents it from being interpreted existentially, and yields a quasi-universal reading even in the nuclear scope. In the cases where an existential interpretation was required by the generic predicate, the bare partitive occurred. I also suggested that the two-argument structure of the English definite makes this element unavailable on a generic reading, as its second argument must be filled by a (discourse) referent from the context of evaluation. The one exception to this was when the second argument was explicitly filled by a kind term, and the NP in the first argument position was a relational one. These were the weak definite cases that I briefly presented at the end of the chapter.

The fourth chapter contained a discussion of contexts in which the definite was blocked from receiving a generic reading. Instead, in these contexts – conditional and modal sentences – the bare partitive was available on a generic reading equivalent to that which the definite received in the basic generic contexts discussed in chapter 3. The reading that the bare partitive receives in conditionals and modals is starkly different to that which it receives in basic generic sentences, where it may only have a fully partitive reading. I claimed that while the maximality of the definite was crucial in obtaining a generic reading in the basic generic sentences discussed in chapter 3, it is what blocks a

true generic reading for the definite in conditionals and modals. The reason for the difference between these, and the basic generic sentences in chapter 3, was that conditionals and modals constitute cases of selective quantification: the generic operator in these sentences quantifies only over situations, and not over situations and individuals, as in the basic generic cases. The lack of quantification over individuals meant that the bare partitive, on its existential reading, was necessary to gain a felicitous interpretation of these sentences, as the maximality of the definite could not be mitigated by quantification over the individual variable. The definite was only available when the conditional or modal expressed a generalization about the whole species denoted by the NP, rather than some plurality which happened to instantiate the kind in the relevant set of worlds/situations. When the definite was available in these cases, its interpretation was somewhat different to that which we saw in chapter 3.

In the dissertation we therefore saw the gamut of the use of the French definite. In this concluding chapter, I will reprise in detail the discussion of a couple of the issues mentioned above, with a view to exploring the cross-linguistic implications of the analysis of French definites, and generic arguments given here. As a case study, I will focus on Italian. Italian is a language which is closely related to French, but which differs in several important respects. Of particular interest to us here is the availability of a bare plural in certain contexts in Italian, where it is unavailable in any context in French. As we saw throughout the above discussion, the fact that French was syntactically blocked from having bare nominals in any syntactic position had important repercussions for the form of generic arguments in that language and the choices between these forms. In this chapter we will see whether Italian's bare plural allows us to align it more closely with

extant accounts for English, or whether the account for French developed here can be extended satisfactorily.

This chapter will proceed as follows. The discussion will be largely descriptive in an effort to give a comprehensive picture of the use of the definite in Italian, and the limitations on this use. I will start from the same place as I did in French, examining the question of whether Italian has a deictic definite or not. The answer is not – French and Italian are parallel with respect to not allowing true deictic readings with the definite, but instead needing such a reading to be independently triggered. I then show that the parallel between the French and Italian definites extends to generic sentences. The usual form that generically-quantified arguments take in both languages is that of the definite. However, the similarity between French and Italian starts to break down when we look at nominals which receive an existential interpretation in the object position of a generic sentence. Whereas French uses the bare partitive, the bare plural is preferred in Italian. Furthermore, when modification is added into the picture, differences arise in other generically-quantified positions. We will explore the consequences of the availability of a third element in the paradigm of potential generic (non-quantificational) expressions in Italian.

As the final port of call, I will outline two remaining open questions. I will first give a comparison of the distribution of the bare partitive and bare plural in Italian and French, exploring the role of modification in licensing generic readings of these two elements. Finally, I demonstrate the differences in the availability of the definite in conditionals and modal sentences in Italian, where the bare partitive is preferred in French. In this section I suggest routes investigation of these differences might take.

5.1 The deictic definite in French and Italian

The first point of difference between English and French definites that I discussed in chapter Two is the availability of a deictic reading for the definite in English, but not in French. I 2 showed that apparently deictic definites in French are only available when triggered linguistically – they are actually a special case of functional readings, whereby some entity in the discourse context entails the existence of the definite's referent. In order to show that Italian is parallel to French in this respect, I take the case of the licensing of an ostensible deictic reading for the definite via focus.

The sentences below with the definite are only felicitous when a focus interpretation is possible. That is, the context needs to entail some kind of contrast between the referent of the definite and something else, otherwise the use of the definite is infelicitous: the demonstrative must be used instead. In the sentences in (1) and (2), without a focus interpretation available, the definite cannot be used to refer to the object in question. The demonstrative must be used instead, as in (3) and (4).

1. In a still-life painting, a pair of apples alone in the foreground. I give the French examples on the left hand side, the Italian on the right.

a. <i>#Les pommes sont magnifiques!</i> def.pl apples be.3pl magnificent 'The apples are magnificent.'	b. <i>#Le mele sono magnifiche!</i> def.pl.f apples be.3pl magnificent 'The apples are magnificent.'
--	--
2. Paintings alone in a room that the speaker has never been in before.

a. <i>#Les peintures sont merveilleux!</i> def.pl prints be.3pl spectacular 'The pictures are spectacular!'	b. <i>#Le stampe sono spettacolare!</i> def.pl.f prints be.3pl spectacular 'The pictures are spectacular!'
---	--

The demonstrative, on the other hand, may pick out a referent from the extra-linguistic context – it does not need to be entailed by some other linguistic construction:

3.

a. <i>Ces pommes sont magnifiques!</i> dem.pl apples be.3pl magnificent 'Those apples are magnificent.'	b. <i>Quelle mele sono magnifiche!</i> dem.pl.f apples be.3pl magnificent 'Those apples are magnificent.'
---	---

4. a. *Ces peintures sont merveilleux!*
 dem.pl prints be.3pl spectacular
 ‘Those pictures are spectacular!’
 b. *Quelle stampe sono spettacolare!*
 dem.pl.f prints be.3pl spectacular
 Those pictures are spectacular!

As we saw for French, changing the context to one where the “intended referent” is part of a group, and can be contrasted with some other element, makes the use of the definite felicitous (just so long as the maximality of the definite is satisfied). I proposed that contexts such as in (5) and (6) license the definite because the focus semantics triggered by the discourse context introduce an existential presupposition which licenses the definite.

5. [Context: Apples in a bowl of fruit: (Tasmowski-de Ryck 1990)]
 a. *[Les pommes]_F sont magnifiques!*
 def.pl apples be.3pl magnificent
 ‘The apples are magnificent.’
 b. *[Le mele]_F sono magnifiche!*
 def.pl.f apples be.3pl magnificent
 The apples are magnificent.’
 6. [Context: two paintings and a statue in the room]
 a. *[Les peintures]_f sont merveilleux!*
 def.pl prints be.3pl spectacular
 ‘The pictures are spectacular!’
 b. *[Le stampe]_F sono spettacolare!*
 def.pl.f prints be.3pl spectacular
 The pictures are spectacular!

I take these data to show that the Italian definite, like the French one, has no *Intended-Referent* argument. They may not identify a referent which is not entailed by some other linguistic entity, such as focus semantics. To further support this point, I provide another pair of examples in which the definite is not licit at all: in the inner NP of a full partitive construction. The fact that the English definite is fully acceptable in this position without any focus intonation, as in (7c), provides further support for the claim that the English definite *does* have the second argument. We see the French version in (7a), the Italian in (7b).

7.
 - a. #*Je voudrais un verre du vin.*
 pro.1sg would-like indef.sg.m glass of-def.sg.m wine
 - b. #*Voglio un bicchiere del vino.*
 would-like-1sg indef.sg.m glass of-def.sg.m wine
 - c. *I'd like a glass of the wine.*

While the above discussion does not answer the question of whether the generic definite in English is blocked by the availability of *Intended-Referent*, it does suggest that the lack of this *IR* property unifies the definite in French and Italian. I have suggested that the lack of this property may license the generic use of the definite in these languages.

While this particular question has not been completely answered, the Italian data is further support for the position I have articulated in this dissertation. For now, however, we move to generic contexts to investigate the limitations of the generic definite in these languages. In doing so, we will examine a point of divergence between the two languages, which concerns the form which generic arguments take in each.

We know that in French, generically quantified arguments take the form of the definite, existentially quantified ones that of the bare partitive. Due to more relaxed syntactic restrictions on bare arguments, however, in certain syntactic environments in Italian a third element enters into play: the bare plural. In the next section I will consider the generic paradigm discussed in chapters 3 and 4 of this dissertation, and show how adding a third element changes the picture in Italian. The comparison starts in subject position, where the results in both languages are identical due to the syntactic restriction on bare subjects in both languages. We then move to object position, where we see the divergence of the two.

5.2 Generic arguments in Italian and French

5.2.1 Subject DPs in generic sentences

As mentioned above, in both French and Italian, the form that a generically-quantified NP takes is that of the definite. I proposed in chapter 3, that the definite denotes the kind. Quantification over situation-individual pairs yields a generic reading for the definite. This analysis predicts the correct distribution for the generic definite in both French and Italian. The core observation is this: where the definite occurs in French it also occurs in Italian in basic generic sentences.² We see the parallel between French and Italian in (8).

- | | | |
|----|---|--|
| 8. | a. <i>Les cochons sont intelligents.</i>
def.pl pigs be.3pl intelligent
'Pigs are intelligent.' | b. <i>I maiali sono intelligenti.</i>
def.pl.m pigs be.3pl intelligent
'Pigs are intelligent.' |
|----|---|--|

The interpretation for both these sentences is as in (9).

9. Gen s x[x = max(\square pigs_s) & C(s)][intelligent(x,s)]

As we see in (8) and (9), the interpretation of the definite in generic subject position is identical in French and Italian, as expected. On the other hand, the bare partitive does not receive a generic interpretation in this environment. The partitivity implicature which accompanies the bare partitive contributes to the interpretation of this element in generic sentences, ensuring in both languages that it will receive a fully partitive interpretation. In (10) below, for example, the bare partitive is interpreted as giving some subpart of the maximal individual denoted by the common noun in each situation, rather than yielding a regular generic interpretation. That is, *some* pigs are intelligent, not all.

- | | | |
|-----|--|---|
| 10. | a. <i>Des cochons sont intelligents.</i>
indef.pl pigs be.3pl intelligent
'Some pigs are intelligent.' | b. <i>Dei maiali sono intelligenti.</i>
indef.pl.m pigs be.3pl intelligent
'Some pigs are intelligent.' |
|-----|--|---|

² We will have to refine this claim for non-basic cases.

The interpretation that (10a) and (10b) both receive is shown in (11).

11. Gen s $x[x \leq \max(\{ \text{pigs}_s \}) \ \& \ C(s)][\text{intelligent}(x,s)]$

This resolutely non-maximal reading is due to the fact that the bare partitive carries an implicature of partitivity, which stops quantification over minimal situations from giving the effect of maximality with an existential quantifier, as is the case with generic arguments in English. The implicature means that, unlike in English for the bare plural, minimal situations cannot be built around each atomic individual denoted by the bare partitive. The implicature is as follows:

12. **Partitivity implicature**
 $\Box[y \leq \text{CN} \ \& \ P(y)] \ \Box \ \Box[x \leq \text{CN} \ \& \ \Box P(x)]$

To recap briefly from chapter 4, this implicature requires that for every individual denoted by the bare partitive of which some property *P* holds, there must also be some individual denoted by the bare partitive of which the property *P* does not hold. I suggest that this implicature is particularly influential in restricting the use of the bare partitive in Italian.

In the subject position of episodic sentences, on the other hand, the bare partitive is interpreted as a regular plural indefinite determiner (i.e. as an existential quantifier) in both languages. The bare partitive cannot receive a generic reading in generic sentences because of the partitive implicature. In the sentence in (10a) above, the partitive implicature forces an interpretation whereby there will be some pigs which are not intelligent. This, of course, is at odds with the universal nature of generic statements. In the episodic context, on the other hand, the implicature is quite harmless, and so the bare partitive may occur in subject position on an existential reading. This result extends to the

bare partitive in Italian as well, as we see in (13) below. We see the relevant examples in (13a) and (13b) for French and Italian respectively, and the interpretation of both in (14).

13. a. *Des oiseaux chantent dans le jardin.*
 indef.pl birds sing.3pl in def.sg.m garden
 ‘Birds are singing in the garden.’
 b. *Degli ucelli cantano in giardino.*
 indef.pl.m birds sing.3pl in garden
 ‘Birds are singing in the garden.’
14. $\Box x, s$ [birds(x,s) & sing(x,s) & in-the-garden(x,s)]
 $\Box \Box x, s$ [$x \leq \max(\Box \Box \text{birds-in-s})$ & sing(x,s) & in-the-garden(x,s)]

What we see above is that the bare partitive in Italian, as well as in French, has two readings. This first is a fully partitive one, which occurs under generic quantification in these sentences. The partitive implicature is at odds with the generic quantification. In episodic sentences, on the other hand, the implicature is harmless. What we will see in the next section, however, is that in syntactic environments where a bare plural is available, the bare partitive is restricted to its partitive interpretation. We move to these examples now.

5.2.2 Competition from the bare plural in Italian

As we saw in chapter 3, both the definite and the bare partitive are available in the object position of French generic sentences. However, the two receive significantly different interpretations. We saw that in a sentence where a quasi-universal interpretation of the object is required by the verbal predicate, the definite is used. This fact is parallel in Italian, as we see from the sentences in (15). I give the French sentence in (15a), the Italian in (15b).

15. a. *Les chats détestent les chiens.*
 def.pl.m hate def.pl.m dogs
 ‘Cats hate dogs.’
 b. *I gatti odia i cani.*
 def.pl.m hate def.pl.m dogs
 ‘Cats hate dogs.’

Both the subject and object in these sentences receive a quasi-universal interpretation, as in (16) below³.

16. Gen s $x[x = \max(\text{cats}_s) \ \& \ C(s)] \forall y[y = \max(\text{dogs}_s) \ \& \ \text{hate}(x, y, s)]$

However, the parallel in the form taken by subject and object breaks down when the verbal predicate requires its object to be interpreted existentially rather than quasi-universally. In these cases the definite in the nuclear scope yields an interpretation which is at odds with the meaning of the verb, as we saw in chapter 3. Rather, as we see in (17) below, French requires a bare partitive in the object position of such a verb. The interpretation of the sentence is in (17b).

17. a. *Les cochons mangent des pommes.*
 def.pl pigs eat.3pl indef.pl apples
 ‘Pigs eat apples.’
 b. Gen s $x[x = \max(\text{pigs}_s) \ \& \ C(s)] \forall y[y \leq (\text{apples}_s) \ \& \ \text{eat}((x, y, s))]$
 $\quad \quad \quad \exists \text{ Gen s } x[x = \max(\text{pigs}_s) \ \& \ C(s)] \forall y[\text{apples}_s(y) \ \& \ \text{eat}((x, y, s))]$

While, as we have seen, the bare partitive in French has a partitive meaning, the reading which *des pommes* receives in (17a) has an existential one, as discussed in chapter 3. The bare partitive’s interpretation is not overtly partitive in the French sentence above. The sentence does not implicate that there are apples in each situation that the pigs do not eat. This is not, however, the case in the equivalent Italian sentence. When the bare partitive occurs in the object position of Italian generic sentences, the reading it receives is not existential, but partitive. We see this in (18) below. Once again, the sentence is given in (18a), the interpretation in (18b).

³ Recall from chapter 3 that under my proposal the maximality of the definite forces a quasi-universal reading despite being mapped in the nuclear scope.

18. a. *I maiali mangiano **delle mele**.*
 def.pl pigs eat.3pl indef.pl apples
 'Pigs eat apples.'
 b. $\text{Gen } s \ x[x = \max(\text{pigs}_s) \ \& \ C(s)] \ \exists y[y \leq \max(\text{apples}_s) \ \& \ \text{eat}((x, y, s))]$

What's going on? Whereas in French the partitivity of the bare partitive was harmless, it has an obvious semantic effect in Italian. In order to obtain an existential interpretation for the object of this sentence, a bare plural must be used instead, as in (19) below. In verbal object position, the bare plural receives an existential interpretation (Longobardi 1994, Chierchia 1998).

19. a. *I maiali mangiano **mele**.*
 def.pl pigs eat.3pl apples
 'Pigs eat apples.'
 b. $\text{Gen } s \ x[x = \max(\text{pigs}_s) \ \& \ C(s)] \ \exists y[\text{apples}_s(y) \ \& \ \text{eat}(x, y, s)]$

Why does Italian not use a bare partitive in this position, if this element would yield the same reading? I suggest that the explicit partitivity of the Italian bare partitive rules it out in this environment, precisely because the bare plural is available. The bare plural is preferred because of the absence of a lexical determiner, and thus the absence of explicit partitivity marking.⁴ The lack of marking for partitivity on the bare plural means that it is a less marked element than the bare partitive, and so is a more economical choice for the existential object in terms of interactions between the generic operator and the determiner's denotation⁵. In other words, I am suggesting in this section that the lack of a lexical determiner with the bare plural makes it a more economical choice for a non-contrastive reading in every environment in which it is available.

⁴ I follow Longobardi 1998, Chierchia 1998, Déprez 2004 in assuming a null D for the bare plural in Italian.

⁵ Particular thanks to Liliana Sanchez for articulating the contrast between definite, bare partitive and bare plural in terms of the presence vs. absence of a value for maximality on each of these forms.

To be more precise about the semantics of the bare plural, I am claiming that the bare plural denotes a predicate, whose variable can undergo direct operator binding, unlike the definite and the bare partitive. My proposal for the Italian bare plural follows that suggested by Wilkinson 1991, Diesing 1992, Gerstner-Link & Krifka 1993, Kratzer 1995 for the English bare plural. However, as we will see later I crucially do not adopt their hypothesis of the ambiguity of the English bare plural. Unlike in their account for the English bare plural, I claim that the Italian bare plural is not ambiguous between a kind and a predicate. I claim, rather that the Italian bare plural denotes only a predicate.

In cases involving these bare partitive and the definite, the relevant generic or existential operators interact with the semantics of the determiners. Of course, the bare plural may not occur in all syntactic environments, so a lexically-headed DP *must* be used in certain cases. The point is that when possible, direct operator binding of variables is a more economical choice, and so the bare plural will occur whenever possible, if direct operator binding can obtain the appropriate interpretation of the sentence. It is important to note, however, that whatever interpretation the bare plural receives, the interpretation is the result of the variable associated with the bare plural being bound by the relevant operator. While the other DPs under discussion here also interact with the sentential quantification, I have shown that the interpretation of both the definite and the bare partitive comes from the meaning of the determiners themselves. The inherent lexical semantics of these items limits the interpretation that both the definite and the bare partitive may receive in generic sentences, as we will see further below.

As we see from the paradigm above, the availability of the bare plural in Italian leads to a noteworthy difference in the form that the existentially-quantified object of a

generic sentence takes in that language. It also has the consequence of limiting the bare partitive in this context to a strictly partitive interpretation, whereas the same element in French is interpreted as a weak existential quantifier.

An alternative explanation that has been offered for the choice of bare plural over bare partitive is that the bare plural is preferred for reasons of syntactic economy. That is, the extra structure that accompanies the bare partitive in (19b) is redundant in obtaining the desired reading (see also Dayal *in prep*), and so the bare plural is preferred. While my proposal here is compatible with this approach, I favour a semantic economy analysis to a purely syntactic one because the syntactic approach must in any case be accompanied by some semantic considerations in order to account for syntactic environments where both the bare partitive and the bare plural may occur on a generic reading. We will see such cases in section 5.3.1.

One further question which remains is that of why the bare plural in Italian does not block the use of the definite in generic sentences. I suggest that the definite is the only form available for generic objects because it is the only form which does not receive an existential reading when mapped into the nuclear scope of the generic sentence. For the bare plural, the surface object position requires a mapping of the bare plural into the nuclear scope, where it can only be interpreted existentially. I suggest that the syntactic prohibition on bare arguments in subject position has influence in the tripartite structure, with the result that the bare plural may not be mapped into the restrictor. I suggest that such a mapping is blocked syntactically, meaning that the definite is the only element which can receive a generic interpretation in generic object position.

French and Italian differ with respect to the preferred form taken by the existentially-quantified object of a generic sentence, though not in the form of generically-quantified elements in these sentences. In the latter case, only the definite is available, whereas in existential object position of a French generic sentence the bare partitive is required. In both cases lexically-headed DPs are required due to a syntactic restriction on bare arguments in French, as discussed in Delfitto & Schroten 1991, Déprez 1999, 2004. We see from the availability of the bare plural in the sentences above that such a restriction on bare arguments does not hold for Italian object positions. However, as noted above, bare plurals are *not* permitted in subject position in either French or Italian (for an account, see (Contreras 1986, Casalegno 1987, Longobardi 1994). This subject-object asymmetry means that, in subject position, French and Italian are identical with respect to the availability and interpretation of the forms of the different subject DPs. That is, in both Italian and French the definite is the form used for a generically-quantified subject of a generic sentence, and the bare partitive may receive only a non-generic partitive interpretation in this environment. In object position, on the other hand, the semantics of the verbal predicate influence the choice between these two elements. In French, where no bare plural is available, the bare partitive is interpreted existentially. In Italian, on the other hand, the partitive implicature limits the interpretational possibilities of the bare partitive. In this language, the bare plural is preferred in object position on a existential reading.

I have shown in this section that the definite and the bare partitive are available in both subject and object positions, in both Italian and French. These two elements may both be mapped either into the restrictor or the nuclear scope. However, the lexical

semantics of these elements limits the ways in which each be interpreted. That is, the definite always receives a quasi-universal reading in generic sentences, and the bare partitive always receives an existential one. This is the whole picture as we see it in French. In Italian, the bare plural adds another element to the set of possible DP forms taken in generic sentences. When an existential reading is desired, the bare plural and the bare partitive compete. The bare partitive takes a contrastive reading, the bare plural a neutral one. In French, these two readings both reside in the bare partitive. In Italian, the choice of the bare partitive for the contrastive reading is due to the partitivity implicature of this element. The bare plural, on the other hand, lends itself to the neutral reading precisely because of its lack of partitivity.

Due to the syntactic restriction on bare arguments, French and Italian are the same with respect to the choice of their subject DPs, and the availability of a generic reading for these. However, as has been noted (Chierchia 1997, Chierchia 1998, Zamparelli 2000, Longobardi 2001), when modified the bare plural in Italian *is* available in subject position. In French, on the other hand, modification has no licensing effect on bare plurals. French and Italian therefore diverge once again when modification enters the picture. In Italian a three-way contrast opens up in subject and object position of generic sentences, similar to the three-way contrast that we saw in Italian object position in this section. Importantly, the three forms – definite, bare partitive, bare plural – do not receive equivalent interpretations when modified. I will explore the semantic interactions between modification and the form of the DP in Italian generic sentences below, to bring out interesting areas for future research.

5.3 Open questions

In this section I will introduce two questions which remain open in the discussion of the choice of generic arguments in French and Italian. The first question has to do with modification, and the role modification plays in Italian in allowing generic interpretations of both the bare plural and the bare partitive, as well as the definite. I will give a detailed discussion of the different interpretations that these elements receive, as well as drawing a contrast with French, which only has the definite and the bare partitive available.

The second open question concerns the forms used for generic arguments in conditional and modal sentences in Italian. As we saw in chapter 4, while in French the form taken by generic arguments in conditional and modals sentences was the bare partitive, in Italian we see that the definite is used instead, just as in basic generic sentences. The observations in both these sections open up important paths for future research.

5.3.1 Modification on generic arguments

In section 5.2 I claimed that the bare partitive was restricted to its partitive interpretation when the bare plural was available in Italian. This claim, however, is too strong. In the following section I will show the three elements – bare plural, bare partitive and definite – under rare conditions, conditions which make all three elements available on a generic, or generic-like reading. Given the syntactic restrictions on bare arguments in Italian that I have discussed above, such a situation is rare indeed. However, we will see that modification by relative clause (or other phrasal modification) licenses the bare plural in Italian in subject position (Chierchia 1997, 1998, Longobardi 1994, 2001. See also Dayal

2004b for a semantic account).⁶ I will show that while the interpretation of all three elements can be roughly described as generic, the modification interacts semantically with the determiners in each case. These interactions have the result that all three of the forms are licensed, but only under particular interpretations. The availability of the bare plural in subject position does not block the occurrence of either the definite or the bare partitive as the subject of the generic sentence, but it gives rise to an intricate system of interpretation in which Gricean factors make the choice between the three forms.

5.3.1.1 Modified generic subjects

The definite, bare partitive and bare plural are all available as a generic argument when modified. This means that all three options are available, and appear to have the same meaning, in both subject and object position. In each case, however, the modification interacts with the interpretation of the choice of determiner, producing a different reading for each of the three options. The choice between bare plural, bare partitive and definite in these sentences is therefore a semantic one.

I will present the examples first, and then go through the different interpretations of the three. I give the bare plural in the (a) sentences, the bare partitive in the (b) forms, and the definite in the (c) sentences. The three elements are all licit in these sentences.

Modified subject

20. a. *Italiani del sud sono raramente biondi.* (Chierchia 1997)
 italians from-def.sg.m south be.3pl rarely blond
 ‘Few Italians from the south are blonde.’
 b. *Degli italiani del sud sono raramente biondi.*
 indef.pl.m Italians from-def.sg.m south be.3pl rarely blond
 ‘Few Italians from the south are blonde.’

⁶ I assume that the licensing of the bare plural via modification is syntactic. However, I will leave offering an account for *how* modification licenses bare arguments in Italian to future research.

- c. *Gli italiani del sud sono raramente biondi.*
 def.pl.m Italians from-def.sg.m south be.3pl rarely blond
 ‘Few Italians from the south are blonde.’

In (20a), the bare plural receives a basic generic interpretation. The sentence is used to make a generalization its subject, Italians from the south. Importantly, the interpretation of the modification is neutral – it is important in identifying the group to which the speaker wants to refer, but it is not being used to contrast these types of individuals with any others. This distinction, between a contrastive and neutral reading for the modification, is important in distinguishing where the bare plural and bare partitive will be used.

The bare partitive, as in (20b) accompanies a *contrastive* reading of the modification. The difference between the neutral and contrastive interpretation of the modification is shown in the English sentences below. (21a) shows the contrastive reading, (21b) the neutral one. It is thus (21a) which would have the bare partitive, (21b) the bare plural, in Italian. In both cases, it is the coda on the sentences which shows the relevant interpretation of the modification on the subject of the first sentence.

21. a. *Italians from the south are rarely blonde, Italians from the north are rarely brunettes.*⁷
 b. *Italians from the south are rarely blonde, and so are Italians from other regions.*

What we see above is the bare partitive licensed on a generic reading, but only when the modification receives a specialized interpretation. The reading is similar to that of the unmodified generic definite, but, importantly, the contrastive interpretation of the modification is made salient by the use of the bare partitive. This is the reading in (21a).

⁷ Example due to Veneeta Dayal, p.c.

The partitive implicature is thus manifested in a different way to when the bare partitive is unmodified, but it does play a role in bringing out the contrastive reading. The bare plural, on the other hand, effectively takes over the type of interpretation that the definite received in subject position when unmodified: the sentence in (21b) makes a basic generalization about individuals who are Italians from the south, but there is no salient contrast with any other group of Italians.

What interpretation, then, does the modified definite receive? In fact, the definite is limited in its available readings to either naming a kind. We see this reading in (20c), in which the definite must be taken to refer to all Italians of whom the property denoted by the modification holds. This, I suggest, gives the equivalent of a kinds reading, in the manner suggested in Chierchia 1998. This kinds reading comes out even more clearly in the examples below.

We see more instances of the modified definite on its kind reading still more clearly in the sentences below. In (22) and (23) we note the contrast in availability between the definite and the bare plural and bare partitive when the predicate is kind-level. In these cases, the modification cannot save the bare plural or the bare partitive; only the definite is licit.

22. a. *Le valigie con bordo giallo hanno due sottotipi.*
 def.pl.f suitcases with border yellow have.3pl two subtypes
 ‘Suitcases with yellow borders have two subtypes.’
 b. *#Delle valigie/ valigie con bordo giallo hanno due sottotipi.*⁸
 indef.pl.f suitcases/suitcases with border yellow have.3pl two subtypes

⁸ Examples due to Zamparelli 2000.

23. a. *Gli elefanti di colore bianco diventano sempre più grandi man mano che si va a nord*⁹.
 def.pl.m elephants of colour white become.3pl always more large when go to north
 ‘White-coloured elephants become bigger as one goes north.’
- b. *#Degli Elefanti/Elefanti di colore bianco diventano sempre più grandi man mano che si va a nord.*
 indef.pl.m/Ø elephants of colour white become.3pl always more big when go to north

We see in (22) and (23) above that the bare plural is not available with a kind-level predicate, indicating that only the definite may have a kinds reading. This point supports the suggestion I made above that the bare plural is a predicate, whereas the definite determiner in Romance denotes a kind-formation operator. This being the case, it is simple to see why the bare plural is not licit in (22) and (23): while the modification can make a generic reading available for the bare plural by licensing it syntactically in the scope of the generic operator, modification does not trigger a kind-formation operation with the bare plural. The interpretation of the bare plural is therefore necessarily generic, rather than kind-naming, and so it will not be available with a kind-level predicate. This point is in striking contrast to English, where the bare plural is available with both readings.

The examples below further support my claim that the bare plural is the form used for a generic reading with neutral interpretation of the modification, whereas the definite is preferred for the kinds reading. In (24) and (25) we see two sentences which are very similar. They differ, however, in one detail, which is crucial in choosing which DP will be used as the subject. We see the bare plural in (24a), (25a), the definite in (24b), (25b) (sentences from Longobardi 2001).

⁹ Example due to Longobardi 2001.

24. a. *Ucelli di zone paludose sono ghiotti per insetti.*
birds of zones swampy be.3pl greedy for insects
'Birds from swampy areas are greedy for insects.'
- b. *Gli ucelli di zone paludose sono ghiotti per insetti.*
def.pl.m birds of zones swampy be.3pl greedy for insects
'Birds from swampy areas are greedy for insects.'
25. a. *#Ucelli di zone paludose sono scuri.*
birds of zones swampy be.3pl dark
- b. *Gli ucelli di zone paludose sono scuri.*
def.pl.m birds of zones swampy be.3pl greedy for insects
'Birds from swampy areas are dark-coloured.'

In (24) we see that both the definite and the bare plural are licit. However, in (25), only the definite may occur. I suggest that this is because the predicate in (24) permits an interpretation of its subject both as a generic and a kind-naming expression. The bare plural may therefore receive a different reading to the definite: (24a) is a generalization about individual birds, whereas (24b) is a description of the kind. The predicate in (25), on the other hand, only allows the reading which is a description of the kind, and so the bare plural is blocked. While the exact cause of this difference must remain a subject for future research, the contrast in availability of the bare plural with these different predicates suggests that there is a real distinction in the way the definite and the bare plural may be interpreted. Assuming that two different lexical items will not have exactly the same interpretation, I suggest that the modification blocks a reading for the definite which is available in basic generic contexts. Instead, this meaning is expressed using the bare plural, via direct operator binding of the bare plural's variable. An important point to note is that the choice between definite and bare plural is a Gricean effect (Grice 1975). The definite comes in only when its maximality plays a role, resulting in a kinds interpretation. When maximality is not relevant, the maximality-neutral bare plural is used.

We have seen the paradigm in subject position when modification enters the picture. Modification not only licenses the bare plural in the subject position of these sentences, but it makes the bare partitive available on a generic reading where, when unmodified, only a non-generic partitive reading is available. On the other hand, modification limits the available readings of the definite to either a kind-naming one: the basic generic reading that it was used to express in basic generic sentences is taken over by the bare plural.

From the above discussion, it is clear that the possible interpretation of the modification on a generic DP has a significant effect on the availability of the various DP forms under discussion. The three interpretations of modification which I am discussing here would all fall under the broad heading of *restrictive modification*. Restrictive modification is interpreted as an intersection between the set denoted by the common noun, and the set denoted by the modification (assuming that common nouns and modifiers both denote properties). This means that the modified NP is a subset of the bare NP. Restrictive modification has traditionally been contrasted with non-restrictive modification, whereby modification on the NP returns the same individual as the bare NP – it just provides extra information to the speaker, but is not essential in identifying the speaker's referent. Clearly, in the sentences above we are seeing modification which is essential to the identification of the referent. Once again, the contrast that we are seeing has to do with the salience of a contrast set to the modified NP – that is, whether or not the modified NP is being contrasted to those entities which bear the common noun property, but crucially not that denoted by the modification.

I suggested above that the bare partitive is *only* compatible with modification which is interpreted contrastively. The partitivity associated with the bare partitive, I suggest, makes the contrast salient. This is a Gricean effect, which has its source in the non-maximality of the determiner. I suggest that the maximality of the definite, on the other hand, gives the maximal individual that bears the common noun and modification property in each contextually-relevant situation, effectively giving a kind reading. It is not compatible with a contrastive interpretation of modification. The interaction between the maximality of the definite, and the modification, limits the possible readings of modified definites in generic sentences. The definite only comes in when its maximality plays a role, thus yielding a kind interpretation of the modified definite.

As a final point I will mention that because the bare plural is neither marked for maximality or partitivity, it should be available with modification under any interpretation. We do not see the bare plural arising everywhere, however. The picture in Italian for the generic modified subject position is as follows. The definite has an explicit requirement of referring to the maximal entity, the bare partitive an explicit requirement of non-maximality, the bare plural has neither. What appears to be happening in these cases is that the more specified forms get reserved for those readings in which their particular specifications play a role, namely the kind reading for the definite and the contrastive reading for the bare partitive, and the bare plural picks up the remaining use, namely the neutral one. It gives the closest interpretation to the ‘basic’ generic cases that we saw with the French definite in chapter 3.

We see a similar paradigm in the object position of generic sentences. There is one important difference in this position: the bare partitive is not licensed on a generic

reading. Instead, the bare partitive in generic object position returns us to the familiar non-generic partitive reading of this element: once again, its lexical semantics dictate its interpretation. The other two elements receive the same interpretation as discussed above. I explore the full generic-object paradigm in the section below.

5.3.1.2 Modified DPs in object position

The paradigm of object position DPs is similar to that in subject position, with one important difference. This difference is that in Italian the bare partitive in a sentence with a universally-quantified object may only ever receive a partitive reading over the whole DP. In this case, the bare plural thus accompanies both the neutral and the contrast-set reading of the modification, and the definite the kind-naming one, as expected. We see this paradigm in (26) (examples from Dayal 2004b, Longobardi 2001).

26. a. *Leo odia cani di grandi dimensioni.*
 Leo hate.3pl dogs of large size
 ‘Leo hates big dogs.’
 b. *#Leo odia dei cani di grandi dimensioni.* (# on generic reading)
 Leo hate.3pl indef.pl dogs of large size
 ‘Leo hates some dogs.’
 c. *Leo odia i cani di grandi dimensioni.*
 Leo hate.3pl def.pl dogs of large size
 ‘Leo hates big dogs/Leo hates the big dogs.’

Just as in modified generic subject position, we see that the bare plural receives a neutral generic reading in generic object position. The definite is interpreted as naming a kind. Finally, the bare partitive yields the partitive reading. The paradigm here poses the following problem. If we assume that DPs in object position must be mapped into the nuclear scope, not the restrictor, we can account for the interpretation of the bare partitive and the definite (as demonstrated in chapter 3 for French and earlier in this chapter for Italian). However, we get the wrong result for the bare plural, which *does* have the

generic reading. If, on the other hand, we allow mapping of the object DP into restrictor we have the opposite problem: while the definite receives its usual kinds interpretation, we predict that the bare partitive will have the contrastive generic reading. As a possible way to a solution for this issue, let us recall that the unmodified bare plural was not able to have a generic reading. Therefore the assumption that objects must be mapped into the nuclear scope seems worth maintaining. What seems to be happening here is that the modification allows for a different mapping for the bare plural. Why exactly this should be so I leave for future research.

In (27) below we see the paradigm in existential object position. Once again, the bare plural receives a neutral interpretation, and the bare partitive a contrastive one. The definite, on the other hand, may only be interpreted as referring to a specific individual: the maximality of the definite is at odds with the existential quantification required of the object of a verb such as this. It therefore is excluded from the paradigm on a generic reading.

27. a. *I buoni architetti costruiscono **case sia belle che comode**.*¹⁰
 def.pl.m good.pl architects build.3pl indef.pl.f houses as beautiful as
 comfortable
 ‘Good architects build houses as beautiful as they are comfortable.’
 b. *I buoni architetti costruiscono **delle case sia belle che comode**.*
 def.pl.m good.pl architects build.3pl indef.pl.f houses as beautiful as
 comfortable
 ‘Good architects build houses as beautiful as they are comfortable.’
 c. *#I buoni architetti costruiscono **le case sia belle che comode**.*
 def.pl.m good.pl architects build.3pl def.pl.f houses as beautiful as
 comfortable

We have seen that the presence of modification has a significant effect on the interpretation of DPs in Italian generic sentences. These effects are subtle, but important.

¹⁰ Example due to Ivano Caponigro, (p.c.).

Future research lies in exploring exactly how the modification licenses these unexpected readings of these three elements. In the meantime, I provide a summary of the readings we see for each of the elements in the various environments, and what kind of interpretation their modification receives.

Table 1: Interpretation of modified DPs in Italian

Position	form of DP	interpretation of modification	Interpretation of modified DP
generic subject	bare partitive	contrastive	generic
	definite		kind-naming or specific
	bare plural	neutral	Generic
generic object	bare partitive	contrastive	partitive (□)
	definite		kind-naming or specific
	bare plural	neutral	Generic
existential object	bare partitive	contrastive	partitive (□)
	definite		Specific
	bare plural	neutral	Existential

Modification in Italian has the significant effect of making the bare plural available on a generic reading in Italian. It also licensed a generic reading for the bare partitive when the intended interpretation of this element was a contrastive one. We will now return to French, where we will see that the modification only has a limited effect on licensing the bare partitive on a generic reading in basic generic sentences. The bare plural, of course, is completely blocked for syntactic reasons.

5.3.2 Modification and the French bare partitive

French speakers vary as to whether modification can license a bare partitive as a generic argument in that language. On the whole, in subject position and in generic object position of basic generic sentences, the French bare partitive *only* receives a partitive

reading, like the one it receives when unmodified. The blocking of the bare partitive in these sentences follows from the analysis that I gave in chapter 4: bare partitives will never be licit on a generic reading under an unselective generic operator. I show the relevant contrast below.

28. a. *Des femmes de bon goût s'habillent chez Armani, des femmes de mauvais goût chez K-Mart.*
 indef.pl women of good taste refl-dress.3pl at Armani, indef.pl w. of. b.t. at K-Mart.
 'Some women with good taste wear Armani, some women with bad taste wear K-Mart.'
- b. *Les femmes de bon goût s'habillent chez Armani, les femmes de mauvais goût chez K-Mart.*
 def.pl women of good taste refl-dress.3pl at Armani, def-pl w. of b.t. at K-Mart.
 'Women with good taste wear Armani, women with bad taste wear K-Mart.'

The bare partitive in the subject of the sentence in (28a) may only be interpreted on a true partitive reading, despite the fact that the continuation forces a restrictive reading of the modification on the common noun. The definite in (28b) carries the basic generic reading, familiar to us from chapter 3.

In fact, French speakers vary greatly as to whether they will permit generic bare partitives in basic generic contexts at all. I provide examples where it is acceptable below in (29) – (31), to show that the Italian facts are replicated in French for at least some speakers.

29. *Méfie-toi, des guêpes énervées sont un danger terrible.* (Dobrovie-Sorin 2004)
 suspect.INF-REFL.2sg indef.pl wasps annoyed be.3pl a danger terrible
 'Take care, excited wasps are a terrible danger.'
30. *Des pianistes talentueux exécutent souvent des morceaux difficiles.* (Delfitto 1993)
 indef.pl pianists talented execute.3pl often indef.pl pieces difficult.'
 'Talented pianists often play difficult pieces.'
31. *Des enfants qui jouent ensemble font beaucoup de bruit.* (Spector 2001)
 indef.pl children who play.3pl together make.3pl a-lot of noise
 'Children who play together make a lot of noise.'

I would like to suggest that speakers who permit a generic bare partitive in basic generic sentences are signaling an intended contrastive interpretation of the modification,

via the use of the determiner, as is the case in Italian. In the sentences above, the reading of the bare partitive would clearly be a fully partitive one if the common nouns were not modified. When modified, however, as in (29)-(31), the bare partitive is needed to avoid the too-strong truth conditions that we saw earlier for Italian. Just why this does not hold for all speakers is a question I must leave for future research.

There is also an issue with the availability of the bare partitive on a generic reading in object position. The choice for French objects is not between bare partitive and bare plural as in Italian, but between definite and bare partitive. The quasi-universal reading of the object can only be obtained with the definite; whether it is mapped into restrictor or nuclear scope the bare partitive will yield a non-maximal reading due to its partitive implicature. Therefore, while both determiners are syntactically licensed, only one allows the regular generic interpretation. We see the contrast in availability in (32) below.

32. *Leo déteste *des/les chiens de grande taille.* (* on generic reading)
 Leo hate.3pl dogs of large size
 'Leo hates big dogs.'

In the object position of predicate which assigns a generic reading to both arguments, the bare partitive receives a partitive reading, rather than a contrastive one. This indicates that the lexical semantics of the noun force mapping into the restrictor of any DP that would not get a generic reading in situ – i.e. any DP except the definite. The definite is therefore the better choice for a generically-quantified determiner in all syntactic environments. It is the only one whose lexical semantics allow a quasi-universal reading.

In existential object position it is, of course, the bare partitive which occurs. The only question that remains here for existentially-quantified objects is whether the bare partitive is compatible with a neutral reading of the modification as well as a contrastive one. The answer, I suggest, must be yes: there is no other construction available in French that will give an existential reading for the object. We see, then, in French syntactic considerations necessarily win out over semantic ones, whereas in Italian the less restrictive syntax means that the intended interpretation of the modification plays a larger role in choosing the form that the generic argument takes. While the suggestions that I have made in this section are at this point tentative, they suggest promising topics for future investigation. I give below a summary of the distribution of modified elements in French.

Table 2: Interpretation of modified DPs in French

Position	form of DP	interpretation of modification	Interpretation of modified DP
generic subject	bare partitive	contrastive	?generic/partitive
	definite		generic
	bare plural	NOT AVAILABLE	
generic object	bare partitive	contrastive	partitive (□)
	definite		generic
	bare plural	NOT AVAILABLE	
existential object	bare partitive	contrastive	partitive (□)
	definite		specific
	bare plural	NOT AVAILABLE	

5.3.3 Definite vs. Bare Partitive in Conditionals and Modals

In the introduction to this chapter I mentioned one environment in French where the bare partitive was uncontroversially licit on a generic reading – conditionals and modals. In this section I will lay out relevant Italian data for comparison, though I will once again leave an analysis of the differences that we see for future research.

In chapter 4 I proposed that conditionals and modals differed from basic generic sentences in that they involved selective quantification over situations/worlds only, not over situations *and* individuals. This kind of quantification, I proposed, meant that the maximality of the definite obstructed a true generic reading, and so the bare partitive was necessary to yield the right reading. Some relevant examples are given below. We see that the bare partitive is the only choice for generic subject in conditional and possibility modals; the definite and the bare partitive are both licensed in necessity modals, though they each have different implicatures associated with their use.

33. *Si/Quand **des Italiens** vont à Paris, ils vont visiter le Louvre.* (Spector 2001)
when indef.pl Italians go.3pl to Paris, PRO.3pl go-3pl visit-INF def.sg.m Louvre
'When Italians go to Paris, they go and visit the Louvre.'
34. ***Des grévistes ténaces** peuvent ruiner une entreprise.* (Storto 2001)
indef.pl strikers persistent.pl can.3pl ruin-INF indef.sg.f business
'Persistent strikers can ruin a business.'
35. ***Des/Les diplomats** doivent se montrer discrètes.* (Roy 2001)
indef.pl/def.pl diplomats must.3pl REFL-3sg/pl show-INF discreet-pl
'Diplomats must behave discreetly.'

In Italian, on the other hand, the definite occurs on a generic reading in all these sentences, as we see in (36-38). The bare partitive is not permitted on a generic reading in these contexts.

36. ***Quando i Tedeschi** vanno a Firenze, visitano gli Uffizi.*
when def.pl.m Germans go-3pl to Florence, visit.3pl def.pl.m Uffizi
'When Germans go to Florence, they visit the Uffizi.'
37. ***Gli scioperi frequenti** possono danneggiare le attività commerciali.*
def.pl.m strikers frequent can damage def.pl.f activities commercial
'Persistent strikers can ruin a business.'
38. ***I diplomatici** devono comportarsi in maniera discreta.*
def.pl.m diplomats must behave.INF in manner discreet.
'Diplomats must behave discreetly.'

The above examples show that there is still more to be said about the differences between French and Italian with respect to the availability of the various possible DP

forms that *can* occur as generically-quantified arguments. I would suggest that the interaction between (non)-maximality and the other elements of the sentence are crucial in any account for these differences. However, I will leave an exploration of these issues for future research.

We have seen in the discussion above that the account of generic DPs developed for French also goes a long way in accounting for the choice of generic arguments in Italian. The sections above show in some cases how this account works, and bring out other areas that need further investigation. There is future research to be done in considering further the role modification plays in licensing generic readings, and of the interplay between bare partitive and bare plural with respect to this topic. Furthermore, there remains the question of *how* modification licenses bare arguments in Italian in the first place, and also, what causes the differences between French and Italian with respect to the choice of bare partitive or definite in the various generic sentences. The above discussion shows that the proposal developed in this dissertation provides a solid foundation for further exploration of these questions.

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