Determiners
Universals and variation

Edited by
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Determiners
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Determiners
Universals and variation

Jila Ghomeshi, Ileana Paul & Martina Wiltschko

1. Introduction

The goal of this volume is to investigate the form and function of determiners from a cross-linguistic point of view. In particular, it puts to test some commonly held assumptions about universal characteristics of determiners, which have to a large extent been developed on the basis of Germanic and Romance languages (e.g., Abney 1987; Longobardi 1994). A typical case in point is the assumption that determiners serve to turn a predicate into a referential argument (Higginbotham 1985; Stowell 1989, among others) or that they encode definiteness (Lyons 1999).

Assumptions such as these serve as a convenient starting point in the investigation of lesser studied languages, despite the fact that at least their universal validity has been challenged in the past: Not all languages require determiners for argumenthood (Chierchia 1998), and determiners do not universally encode definiteness (Matthewson 1998). Assuming a universalist framework such as the Principles and Parameters framework (Chomsky 1981; Chomsky & Lasnik 1993) and its minimalist incarnations (Chomsky 1995 and subsequent work), it is then necessary to identify the source of variation.

For the observed variation in requirements for argumenthood, Chierchia (1998) identifies a semantic parameter as its source: Across languages, so the story goes, nouns can differ in their denotation and, consequently, a determiner is required for argumenthood only if the noun is predicative, but not if it is inherently argumental (as in Chinese). For the observed variation in definiteness, Matthewson (1998) identifies a pragmatic parameter as its source: Definiteness requires access to the common ground, and in languages which do not allow for such access, it plays no role.

Both these parameters have since been tweaked, refined, or plainly rejected on the basis of patterns of variation which do not squarely fall into one or the other setting. In other words, the range of language variation is much more subtle and fine-grained than these parameters would make us believe.
These are but two examples, and we will return to them in more detail below. For now, they serve to illustrate a conundrum the present volume seeks to address; if determiners do not universally serve as argument-creators or bearers of definiteness, then how do we identify a given word class as belonging to the category “determiner”?

One strategy is to simply consider any function word which introduces a noun phrase as belonging to the category determiner, unless, of course, it is identifiable as a different category such as a numeral, a quantifier, a preposition, or a case-marker. But the postulation of a series of functional categories within the noun phrase – beginning with NumP (Ritter 1991), all the way to elaborate cartographic structures in the spirit of Cinque (1999) and subsequent work – makes this strategy somewhat spurious: If nominal phrases do indeed consist of several layers of functional structure, then how do we know that the function word we are looking at is a determiner? This is an acute methodological problem. And due to the lack of a better criterion for categorial identification it comes as no surprise that the commonly held assumptions regarding the role determiners play for argumenthood and definiteness still serve as the base-line for analysis, even if we know that they don’t quite work. Moreover, we often feel justified in making these assumptions because somehow we have the impression that there is something right about them. What is needed, then, is a formal typology (in the sense of Baker, to appear) which addresses this problem of categorial identification.

The core goal of this volume is to identify the range of variation in morphological, syntactic, semantic, and pragmatic properties of determiners across a broad range of typologically and geographically unrelated languages. The main languages under discussion are Blackfoot (Plains Algonquian), English (Germanic), French (Romance), German (Germanic), Halkomelem (Central Salish), Hebrew (Semitic), Malagasy (Austronesian), Niuean (Austronesian), Old French (Romance), Persian (Iranian), Shuswap (Northern Interior Salish), and Squamish (Central Salish). The case-studies of these languages will serve to illustrate the necessity for a formal typology, and in this introduction we wish to sketch out some necessary ingredients for such a formal typology.

In considering cross-linguistic variation in determiners, we particularly recognize the necessity of separating the word class “determiner” from the syntactic position which hosts the items so classified, namely D.1 As pointed out in Abney (1987)

1. A similar point is made by Abraham et al. (2007: 1). Based on typological and diachronic considerations, they identify the need to distinguish functional categories such as determination and (in)definiteness from their forms (of overt expressions). The present volume differs slightly in perspective: First, we do not take for granted that (in)definiteness is the universal function of D. The forms (of overt expressions) discussed here are restricted to the word
and Lyons (1999), this separation is necessary given that the syntactic position D is not exclusively occupied by determiners; word classes other than determiners, which have been argued to occupy this position, include at least proper names (Longobardi 1994) and pronouns (Abney 1987). Thus, membership in the word class determiner is not a necessary condition for occupying the syntactic position D. And more recently it has been pointed out that word-class membership is not a sufficient condition either: Indefinite determiners, for example, have been argued to occupy a syntactic position lower than D, namely Num (Stroik 1994 and Lyons 1999: 33–36). More arguments that a is not a determiner, but a marker of agreement or cardinality, can be found in Valois (1991), Muromatsu (1995), Campbell (1996), and references therein.

The remainder of this introduction is organized as follows. We begin by discussing in more detail some of the commonly held assumptions regarding determiners, which will allow us to formulate our research questions (Section 2). We then summarize some of the answers put forward in the collection of articles that follow as well as some of the questions they raise (Section 3). Section 4 concludes.

The terminological conventions that we adopt throughout this volume are the following: We use D, and occasionally D⁰, to refer to the (terminal) node and DP to refer to the maximal projection that is taken to house determiners. We consider the label for a terminal node, such as D, to be an abbreviation for a feature bundle, as is standard in Distributed Morphology. Feature bundles may be collections of features or may involve hierarchical organization imposed by a feature geometry, for example. We put features within square brackets (e.g., [proper]). We use “determiner” to refer to the vocabulary item that is associated with the node D (e.g., the English word the). Under the late insertion model assumed by the authors in this volume, the role of a vocabulary item is to match phonetic content with a feature bundle. Finally, we use “noun phrase” or “nominal” to refer pre-theoretically to the noun and any other elements with which it forms a constituent.

2. Common issues surrounding determiners

We identify three core issues in the investigation of determiners across languages. These are also the main issues discussed in the collection of papers.

classes occupying this position rather than other ways of expressing this function (e.g., case or aspect; for a discussion of such phenomena see Abraham et al. 2007: 5).

2. Postal (1969) was the first to argue that pronouns belong to the word class determiner.
The first issue concerns the proper characterization of the category itself and the features that comprise it (discussed in Section 2.1). This is a question which is not particular to determiners, but must be addressed for functional categories in general. Here, we discuss this issue specifically in relation to the word class determiner and the syntactic position it occupies, namely D.

The other two issues are specific to determiners. First, what is their function (Section 2.2)? And second, what is the relation between determiners and the notion of definiteness (Section 2.3)?

2.1 What is the proper characterization of the category determiner?

In this subsection, we briefly review the rise of the functional category D(eterminer). We specifically focus on issues surrounding its categorial status, which is the main focus of the papers in Part I of the volume. While we will simply use “determiner” from here on, we intend this word to denote the word class only and not the functional category D – a distinction that is important to maintain as the following discussion shows.

In the early days of formal generative grammar, determiners such as English the were analyzed as occupying the specifier position of NP (see Jackendoff 1977):

\[
\text{(1)} \quad \text{a. } [\text{NP}, \text{DET} [N', N^0]]
\]

This position was not itself associated with a categorial label, but instead with a function, call it determination (see Stark, Leiss, & Abraham 2007). In addition, determiners, possessive pronouns as well as possessor phrases were assumed to occupy the same position. These different possibilities are illustrated in (2)–(4).

\[
\text{(2) determinant in SpecNP } \quad [\text{NP}, \text{the } [N', \text{rabbit}_N]]
\]
\[
\text{(3) possessive pronoun in SpecNP } \quad [\text{NP}, \text{her } [N', \text{rabbit}_N]]
\]
\[
\text{(4) possessor phrase in SpecNP } \quad [\text{NP}, \text{the girl's } [N', \text{rabbit}_N]]
\]

Under this view, the notion determiner had the status of a grammatical relation on a par with the grammatical relation subject (see Payne & Huddleston 2002 for a recent incarnation of this view). For this reason it was not expected that SpecNP would be occupied by one and only one category. However, it was expected, under generalized X’-theory, that specifier positions would be occupied by constituents of the same phrasal status (see, however, Jackendoff 1977: 37). It was thus surprising to find a position, SpecNP, that could be filled by both heads and phrases. The idea that heads must project to phrases, an idea that was so central to X’-theory, opened up another possibility, however, namely that the articles preceding nominals
are heads of their own projections. This idea, first found in Brame (1981, 1982), was pursued by Abney (1987), who argued that determiners should be analyzed as occupying the head of a functional category D.

\[(5) \quad [DP \, [\text{the}]_D \, [NP \, [\text{rabbit}]_N]]\]

A crucial motivation for the postulation of D as a functional category was the well-known parallelism between nominal and verbal (clausal) constituents (Chomsky 1970; Szabolcsi 1983). According to Abney’s DP-hypothesis, D was the nominal equivalent to INFL.

\[(6) \quad \begin{align*}
\text{a. } & \quad [DP \, \text{poss} \, [\text{det}]_D \, [NP \, [\text{rabbit}]_N]] \\
\text{b. } & \quad [IP \, \text{subj} \, [\text{aux}]_I \, [VP \, [\text{hop}]_V]]
\end{align*}\]

The DP-analysis thus captured some of the insights of those analyses which viewed determiner as a grammatical relation while maintaining a distinction between heads and specifiers. D itself could be viewed as the nominal equivalent of verbal agreement as argued in Abney (1987), or, as recently argued, the word class auxiliaries (Roehrs 2006/2009). In addition to the head position, the DP hypothesis also made available a specifier position, which paralleled SpecIP. Thus determination could be associated with a grammatical relation in SpecDP on a par with the one in SpecIP, namely the subject.

At the same time as Abney formulated his DP hypothesis according to which D is the nominal counterpart of I, Szabolcsi (1983, 1987) argued on the basis of data from Hungarian that determiners are the nominal equivalent of complementizers which serve the complementation function.

While different researchers differ in the function they ascribe to determiners, what has endured from Abney’s and Szabolcsi’s work is the assumption that there is a syntactic position associated with its own categorial label (D). This label reflects (to some degree) its function. In other words, determiners are assumed to occupy a position fixed by the hierarchy of functional categories, which allows for the dissociation between the word class (determiner) and the syntactic position its members occupy (D). This has been recognized by Abney (1987) and later by Lyons (1999), as shown by the following two quotes from these authors:

“the existence of a functional head of the noun phrase, and the question whether the determiner is the head of the noun phrase are two separate questions.” Abney (1987: 40)

“[…] functional heads correspond to grammatical or semantic categories rather than to word classes.” Lyons (1999: 298f.)

The dissociation of determiners from D predicts that there is no one-to-one correspondence between them. According to this view, word classes other than
determiners should be able to occupy D. And indeed pronouns as well as names have been argued to occupy D (Abney 1987; Longobardi 1994). For pronouns, the evidence stems from the fact that they can replace entire DPs (not just NPs) and that they can optionally co-occur with overt NPs (7b).

\[
\text{(7) a. } \left[ \text{DP } [\text{we}]_D \right] \\
\text{b. } \left[ \text{DP } [\text{we}]_D [\text{NP } [\text{linguists}]_N] \right]
\]

On the basis of data from Italian, Longobardi (1994) argues that names start out as nouns, but that they move into D unless D is occupied by a determiner.

\[
\text{(8) a. } \left[ \text{DP } [\text{il}]_D \text{ mio } [\text{NP } [\text{Mario}]_N] \right] \\
\text{b. } \left[ \text{DP } [\text{Mario}]_D \text{ mio } [\text{NP } [\text{Mario}]_N] \right]
\]

Finally, demonstrative determiners are another obvious candidate to occupy D as they are in complementary distribution with determiners in English.

\[
\text{(9) } \left[ \text{DP } [\text{this}]_D [\text{NP } [\text{rabbit}]_N] \right]
\]

This complementarity, however, does not hold across languages, an observation which may suggest that at least in some languages demonstratives occupy a position other than D (for example, SpecDP; see Haegeman & Gueron 1999; Giusti 2002).

While the DP hypothesis has generally been accepted within the generative tradition (see Hudson 2004 and Bruening 2008 for recent critiques of this view, however), its specific incarnation has changed over the years because of a shift in assumptions regarding the proper characterization of functional categories.

In the initial version put forth in Abney (1987), D was viewed as a syntactic position, itself associated with a categorial label, which to some extent matches that of the word class associated with it. This view has been questioned in recent work within the minimalist program and most clearly within the framework of Distributed Morphology (Halle & Marantz 1993; Embick & Noyer 2001, among others). One of the key questions within this framework regards the relation between word classes (vocabulary items) and syntactic positions. What sets Distributed Morphology apart from previous approaches is the assumption that syntactic (functional) categories are made up of the features that compose them and do not exist as independent entities. If valid, this approach requires an in-depth analysis of the features that comprise determiners. Issues surrounding the feature make-up of D and determiners are explicitly discussed in the first part of the book (in the contributions by Wiltschko, Ghomeshi & Massam, and Cowper & Hall).

2.2 What is the function of determiners?

Another important question relating to determiners concerns their function, an issue taken up in Part 2 of the present volume (in the papers by Mathieu and Tonciulescu).
Many existing analyses of determiners share in common one core insight: Determiners play a crucial role in turning a predicate into an argument (Higginbotham 1985; Stowell 1989, among others). And for some, this function is intimately connected to the referential properties of determiners (for discussion see Carlson 1980; Dayal 1999; Chierchia 2001, among others). Consider English count nouns, as in the examples in (10).

(10) a. # I saw rabbit.
    b. I saw the rabbit.

The claim that determiners create arguments is in part independent of the question regarding their syntactic position. That is, determiners can be viewed as the source of argumenthood, regardless of whether there is an independently available syntactic position, which can be SpecNP or a functional head D. These different assumptions however will have different consequences for what can count as the source of argumenthood. If there is a dedicated syntactic position available (independent of the word class), then argumenthood can be viewed as a function of the syntactic position itself and not of the lexical element that associates with it. Take, for instance, the indefinite article in English which can precede predicative NPs as in (11a) or can be used in argument positions as in (11b):

(11) a. This is a rabbit.
    b. I saw a rabbit.

In the first example a need not occupy D (see Borer 2005; Davis & Matthewson 1999; Ghomeshi 2003; Lyons 1999; Muromatsu 1998; Stroik 1994; Valois 1991; Vangsnes 2001). In the second example it can either be associated with D itself or cooccur with an empty D – an issue to which we will return below.

On the alternative view, it is the properties of the lexical elements which determine what is projected syntactically. The behaviour of indefinite articles would therefore suggest that there are two lexical entries with distinct feature composition or else that in the case of (11b) there is an empty determiner responsible for argumenthood.

The issues surrounding indefinite articles serve as an illustration of the difference in prediction depending on the nature of the category determiner. If there is indeed a syntactic position which exists independently of the word class that occupies it, then we can ascribe a syntactic-semantic function to the position itself. Consequently, we may find evidence for the presence of this function in the absence of an overt determiner.

One’s assumption regarding the nature of the syntactic position D will influence the analysis of bare nominals which function as arguments. In English, mass
nouns (12a) and bare plurals (12b) need not be preceded by a determiner to function as arguments:

(12)  
   a. Yesterday, I drank beer with dinner.  
   b. I wanted to eat apples.

While in English, the use of bare nominal arguments is restricted to bare plurals and mass nouns, in other languages bare nominals are found much more commonly. The existence of bare nominal arguments places some analytical challenges on the picture sketched thus far. There are essentially three positions one can adopt:

i. We could abandon the claim that determiners are required for argumenthood and, consequently, treat bare nominal arguments as what they appear to be at the surface, namely bare nominals (see Chierchia 1998) as in (13).

(13)  
   NP  
   apples

ii. We could maintain the claim that determiners are essential for argumenthood and posit the existence of a silent (i.e., phonologically null) determiner (Longobardi 1994), as in (14).

(14)  
   DP  
   D   NP  
       [Ø] apples

iii. A third option is only available if we take D to be a syntactic position which exists independently of the merger of an actual determiner (be it overt or silent). According to this view, bare nominal arguments would be associated with the DP projection, even if no lexical item is merged in D (Progovac 1998; Abraham et al. 2007: 10f.).

(15)  
   DP  
   D   NP  
       apples

Thus, the question regarding the proper characterization of the category determiner (introduced in Section 2.1) is tied to the function of determiners: It affects the available analyses for bare nominal arguments.
The crucial difference between the second and third option above has to do with the availability of the function of D in the absence of an overt determiner. If D is only available in the presence of a determiner, then covert determiners must be postulated whenever the argument-creating function of D is present. These covert determiners must be associated with specific lexical entries which may then be lexically constrained in potentially arbitrary ways. If, on the other hand, D is available in the absence of a determiner, we may expect the presence of an argument-creating function that need not be subject to any further lexical restrictions.

A potential advantage of the assumption that there is a syntactic position available independent of the occurrence of a lexical determiner has to do with so called expletive determiners (see Vergnaud & Zubizarreta 1992). If there is an independently available syntactic position (D or SpecNP), it may at least in some constructions be associated with an overtness-requirement. This is the insight underlying the Extended Projection Principle (EPP; Chomsky 1981): In English, SpecIP – the position for grammatical subjects – must be overtly filled. Crucial evidence for the EPP stems from constructions which lack a logical (thematic) subject, including weather verbs and raising constructions. In this case, English requires the subject position to be occupied by an expletive subject (*it or there).

(16)  
   a.  It is raining.
   b.  There seems to be a rabbit in my backyard.

While in its initial version, the EPP was strictly tied to the specifier position of IP, it has since become a more general restriction which may be associated with heads of any category. Consequently, we may expect it to be associated with D as well. What we expect is that there are languages where determiners are obligatory but may remain expletive. The existence of such determiners has been argued for by Vergnaud & Zubizaretta (1992): They argue that French determiners may remain uninterpreted for the purpose of referentiality. The particular construction they have in mind is that of inalienable possessor binding in French. Below we can observe this effect in German.

(17)  
   Die Kinder haben die Hand gehoben.
   DET.PL children have DET.FEM hand raised
   ‘The children raised their/*the hand.’

The interpretation of (17) is such that each child raised his or her own hand. It thus follows that the plural subject must bind the object (hand) despite the fact that it is embedded within a definite DP structure. As such it should constitute a referential island resisting binding. The availability of expletive determiners in a given language has been argued to correlate with the possibility for determiners
to co-occur with names (assuming that names are inherently definite, but see Ghomeshi & Massam (this volume) for a different view). This is indeed the case: In certain dialects of German (Austrian German, for example) names need to be preceded by a determiner:

(18) *(Der) Hans hat den Hasen gesehen.
    det.masc Hans has det.masc rabbit seen
    ‘Hans saw the rabbit.’

While in this particular construction, English does not allow for a definite determiner, it is still the case that not all definite DPs resist variable binding. Williams (1997) points out the existence of dependent readings in examples like (19). The interpretation here is such that the relevant hospital administrator is selected relative to the set of first year interns.

(19) Every first year intern was mistreated by the hospital administrator.
    (adapted from Williams 1997: 590 (34a))

Note that in these examples the NP functions as an argument, but not as a definite, referential, one. If the determiner is indeed expletive in these cases it follows that the argument-creating function must be a function of the position itself, independent of the determiner that occupies it. An account for this pattern is much less straightforward under the assumption that the presence of the syntactic position D is always dependent on the existence of a determiner which carries the relevant features. On such a view, one would have to develop an analysis according to which some but not all features of D can remain expletive.

An issue partly related to the one just discussed concerns patterns of optionality. If the function of determiners is to create arguments, then we might expect there to be a one-to-one correspondence between argumenthood and the occurrence of a determiner. In other words, we would not expect determiners to be optional. We do, however, find determiners that are optional, at least when considered from the perspective of creating arguments. For example, in German regiolects mass nouns may optionally occur with a preceding determiner. The use of a definite determiner is anaphoric: its use indicates the existence of a familiar amount or kind of beer.

(20) Gestern habe ich (das) Bier getrunken.
    yesterday have I (det) beer drunk
    ‘Yesterday I drank (the) beer.’

Interestingly, if the determiner is optional for the creation of arguments it can no longer remain expletive. Consequently, in the context of inalienable possessor binding, the presence of a determiner preceding a mass noun blocks the bound
reading. The only available reading in (21b) is the one where the children donate some blood that they own: It triggers an alienable interpretation of blood, the inalienable reading is unavailable (Wiltschko 1995).

(21) a. Die Kinder haben Blut gespendet.
   det.pl children have blood donated
   ‘The children have donated their blood’

b. Die Kinder haben das Blut gespendet.
   det.pl children have det.neut blood donated
   ‘The children have donated the blood.’

This suggests that being expletive is tied to obligatoriness. In other words, a determiner can only remain uninterpreted if it is obligatory. Optional determiners must be interpreted. Since this is a general phenomenon found across unrelated languages (see Mathieu this volume, and Paul, this volume) an adequate analysis of determiners must be able to account for this pattern. And this brings us to the last issue the present collection of papers addresses: What is the relation between determiners and definiteness?

2.3 What is the relation between determiners and definiteness?

Apart from the role that determiners play in the creation of arguments, there is another function with which determiners are often claimed to be associated, namely, definiteness. This is the core issue discussed in the papers of Part 3 (Paul, Gillon).

The proper characterization of definiteness, as well as its relation to determiners, has been the topic of much research spanning across syntactic, semantic, and pragmatic approaches, and we cannot do full justice to everything that has been said (see Lyons 1999 for a detailed overview, and more recently Stark et al. 2007 as well as Alexiadou et al. 2007). For the present purpose, we mainly focus on the question of whether definiteness is associated with the word class determiner or with the syntactic position elements of this word class occupy (i.e., D). Under the assumption that there is no syntactic position D which exists independently of the word class occupying it, definiteness must be an inherent property of the lexical entries of determiners (see Cowper & Hall 2003). But if the syntactic position is dissociated from the word class, then definiteness can be viewed as a function of the syntactic position (see Lyons 1999). Again, the interpretation of bare nominal arguments as well as patterns of optionality might shed some light on this issue.

A proper characterization of the notion definiteness, however, must not only address the locus of definiteness marking, but also its effects. A crucial question is the status of definiteness: Is it a primitive or a derived notion? If the locus of definiteness lies in the lexical entries then we may expect different determiners to be
associated with different features. Two possible features that have been discussed are familiarity and uniqueness (Heim 1982, among many others). Consequently the notion of definiteness may be derivable in different ways and thus be subject to variation within and across languages. As is well-known not all determiners are definite, and some languages appear to lack a grammaticalized expression of definiteness (see Lyons 1999).

If definiteness is a property inherently associated with the syntactic position (rather than individual lexical entries), then the source of variation is less obvious. Lyons (1999) holds the view that definiteness is a grammatical notion which does not neatly map onto a semantic concept and thus may be instantiated in different ways across languages. Thus, if a core property can be isolated which identifies all and only those phrases which project a DP, this may be construed as an argument for the existence of a syntactic position which exists independently of the word class that occupies it.

3. Overview of the articles

In this section we summarize each of these papers, pointing out which of the issues introduced in Section 2 are addressed in these papers, and what further questions the proposed analyses may raise.

3.1 Wiltschko on determiner features

Wiltschko investigates determiners in three unrelated languages: Blackfoot, German, and Halkomelem. In particular, this paper investigates the morphosyntactic features that make up determiners in these languages. While superficially these features appear remarkably similar across the three languages it is shown that their formal properties differ significantly in a way which is independent of feature content. The empirical generalization is that some but not all features enter into an obligatory contrast: some are associated with a binary opposition while others appear to be monovalent. It is then argued that this distinction is a reflex of the well-known distinction between complementation and modification. Some features relate to determiners like heads relate to their complements. The obligatoriness of the head-complement relation gives rise to the possibility for a binary opposition. The second set of features relate to determiners like modifiers relate to their modifiee: They are either present or absent, in which case the determiner is simply not specified for this feature. This optionality therefore does not give rise to a binary opposition.
Wiltschko further discusses the significance of the form of the exponents of determiner features relative to the exponent of the same feature as expressed on the noun (if there is agreement between determiners and nouns). There are two patterns to observe: the exponent of a given feature (e.g., [plural]) can be identical on both determiners and nouns or it can differ. To account for these two patterns, Wiltschko suggests that some exponents may be inserted before agreement takes place: Consequently the feature bundle along with its exponent is copied onto the determiner resulting in identical exponents. Alternatively, exponents may be inserted late and therefore not be transparently related to each other.

Wiltschko’s contribution is mainly concerned with the features that are expressed on D without explicitly addressing the question regarding the categorial identity of D. To identify a given word class to belong to category D, it is assumed without discussion that determiners are necessary for creating arguments out of predicates. Thus, whether or not all forms discussed in Wiltschko should be regarded as belonging to one and the same (universal) category and whether or not they occupy the same syntactic position is an open question. But this question only arises under the assumption that there are layers of functional categories found in the nominal phrase (as, for example, in Cowper & Hall’s contribution).

Furthermore, definiteness is not among the features discussed in Wiltschko because it does not appear to be among the explicitly marked morpho-syntactic features in the languages under consideration. While the German determiner is generally considered a definite determiner it does not stand in binary opposition to an indefinite determiner that would share the same formal properties. And definiteness is encoded in neither Halkomelem (Matthewson 1998) nor Blackfoot (Gloougie 2000).

3.2 Ghomeshi & Massam on names and their determiners

The contribution by Ghomeshi & Massam investigates determiners in the context of proper names, again from a cross-linguistic point of view. As mentioned in Section 2 above, proper names have played an important role in the discussion surrounding determiners. On the assumption that the main function of determiners is to provide definiteness or referentiality, it is expected that names do not co-occur with determiners: By virtue of being rigid designators they are already definite/referential (Kripke 1980). But does this mean that proper names are bare NPs or is there an abstract covert determiner preceding them? If one assumes that determiners are necessary to turn a predicate into an argument it must be the case that a name used in argument position is not just a bare NP, but that it is somehow
associated with a DP-structure. The DP approach towards names is supported by the fact that in some languages names can be preceded by regular determiners as well as by the fact that names themselves can function as predicates. Ghomeshi & Massam’s paper investigates languages in which there is an overt determiner dedicated to names. It is argued that the patterns observed in such languages require the postulation of a feature [name] on nouns and a feature [proper] on determiners. On their analysis, the feature [proper] simultaneously encodes [singular] and [definite] and functions to turn predicates into arguments.

The proposed analysis has implications for languages in which names are not preceded by an overt determiner. First, it leads us to expect that there is indeed a phonologically empty D specified for the feature [proper]. Second, it suggests that the determiners preceding names are not expletive.

### 3.3 Cowper & Hall on pronouns and their features

Cowper & Hall’s contribution sheds light on the questions raised in this volume by investigating a word class distinct from determiners but nevertheless sometimes associated with D, namely pronouns. The lexicalization patterns of pronouns provide us with a window into the nature of D, which is independent of the properties of the determiner word class. On their analysis, determiners are comprised of the same features as pronouns.

In particular, they adopt and modify the analysis for pronouns developed in Déchaine & Wiltschko (2002), according to which pronominal forms can be of different categorial identity: D, φ, or N. Cowper & Hall argue that Déchaine & Wiltschko’s category φ is best understood as instantiating two distinct categories: φ and #. This allows for a one-to-one correspondence of category and function and contrasts with Déchaine & Wiltschko’s claim according to which φ – because of its variable status – can function as either a predicate or as an argument. In contrast, Cowper & Hall argue that each of the categories is comprised of a distinct set of feature hierarchies (in the sense of Harley & Ritter 2002), which in turn leads to a distinct function:

i. # is comprised of number and gender and as such is responsible for individuation, but leaves the predicate status of the NP intact.

ii. φ has participant features as dependents and as such introduces an index which converts a predicate into an indexed argument.

iii. D dominates specificity, definiteness and deictic features (including distal) and as such introduces a choice function.

Thus, on their account NPs and #Ps function as predicates, while φPs and DPs function as arguments.
An interesting question raised by this type of approach is the relation between the categorial identity of the pronouns (\#, \varphi, and D) and their semantic function: Is it a property of the word class that lexicalizes these categories, or is it a function of the syntactic position? Cowper & Hall take the position advocated within the framework of Distributed Morphology, according to which categorial labels are, like their dependents, simply morpho-syntactic features. Accordingly, they take syntactic categories to be simply comprised of features and nothing else; in other words, there are no syntactic positions \#, \varphi, or D which would exist independently of the lexical entries that instantiate them. This contrasts with Déchaine & Wiltschko’s analysis of pronouns according to which the categorial label is partly independent of the morpho-syntactic features associated with them.

3.4 Mathieu on optional determiners and diachronic change

Mathieu contributes a case study of Old French, a language in which the use of determiners (as a word class) is optional. That is, Old French allows bare nominals to function as arguments across the board (including bare singulars). This suggests that determiners are not required for argumenthood in this system, which posits a problem for Chierchia’s 1998 typology, according to which determiners should be absent altogether. Mathieu, however, argues that the use of determiners is governed by focus and sometimes by purely phonological requirements, namely the metrics of the verse. As such their optionality is only apparent and Mathieu shows how the pattern can be analyzed within Chierchia’s typology.

Given that there is no evidence for the existence of zero determiners, Mathieu concludes that nouns are inherently argumental: they are of type \langle e \rangle. He argues that Old French determiners did not occupy a syntactic head position (D) but instead the specifier position of NumP. While NumP functions as a predicate in Mathieu’s analysis (like in Cowper & Hall’s), if specified by a determiner, it turns into an argument. Furthermore, Mathieu links the subsequent development of obligatory determiners to the loss of number marking on nouns. In particular, Mathieu assumes that Num is associated with uninterpretable features which need to be checked. In Old French, where nouns are marked for number, they can check these uninterpretable features in Num. But the loss of number marking on nouns renders the use of determiners, which encode number, obligatory.

The diachronic change from optional to obligatory determiners provides us with an interesting window into the nature of the word class determiner. We are dealing with a language in which, according to Mathieu, the development of the word class is independent of the existence of the corresponding syntactic position. When they are optional, they belong to the word class determiner but they don’t
occupy D. This may be taken as evidence for the independence of the syntactic position D from the word class occupying it.

3.5 Tonciulescu on optional determiners and kinds

The issue of optional determiners is also taken up in Tonciulescu on the basis of a case study of Hebrew, which – like Old French – allows for bare singulars in argument position. Her contribution focuses on the fact that a kind reading is available with or without the definite determiner. Just as the Old French pattern discussed in Mathieu, the Hebrew data pose a challenge for accounts that posit a one-to-one correspondence between form and function which essentially rules out optional determiners. Such an account is proposed in Chierchia (1998), who argues that if a language has a definite determiner that can be used to refer to kinds, then it must be used with bare singulars when referring to kinds. On his account, this is an instance of the Blocking Principle.

In a detailed study of the use of determiners in Hebrew, Tonciulescu demonstrates that their optionality is restricted by three factors, which have not been taken into account in previous analyses of this pattern (cf. Doron 2003)

i. whether the predicate is kind- and/or object-selecting;
ii. whether the context is episodic or generic; and
iii. whether the argument occupies subject or object position.

On the basis of their distribution, she argues that bare NPs in Hebrew refer to kinds and thus are of type \( e \). Consequently, bare singulars can be used as arguments referring to kinds. Covert semantic operations are responsible for the non-kind interpretation of bare singulars. To allow for the existential reading of bare singulars (possible in episodic contexts), Tonciulescu makes use of Chierchia’s Derived Kind Predication rule. To allow for the specific reading of bare singulars she uses choice functions.

When the definite determiner combines with a bare NP, the latter is first (covertly) type-shifted to denote a property. The role of the determiner then is two fold: in a generic context it introduces a massifying function resulting in a kind reading; in an episodic context, it introduces a singularity (uniqueness) presupposition.

3.6 Gillon decomposes definiteness

The last two contributions of the volume deal with the question as to how determiners come to be associated with definiteness. In particular, both contributions investigate the syntax and semantics of determiners in languages which do not encode definiteness in their determiner system.
Gillon undertakes a contrastive analysis of English and Squamish, a language where determiners are always obligatory in argument position, but they do not encode definiteness (see also Matthewson 1998). That is, the same determiner can be used no matter whether the denoted referent is novel or familiar. This empirical finding casts doubt on the assumption that definiteness is an inherent property of D (Lyons 1999) or else a defining property of the word class determiner.

To account for the observed variation, Gillon decomposes definiteness of the type found in English into two independent components: domain restriction (in the sense of Westerståhl 1984; von Fintel 1994) and a uniqueness presupposition. She further argues that domain restriction is the core semantic property universally associated with D, while the uniqueness presupposition is a language specific property. On her account, it is the absence of a uniqueness presupposition in Squamish determiners which is responsible for the absence of a contrast between definite and indefinite DP’s. Gillon further shows that the Squamish determiner system employs a different type of contrast, namely one between deictic and non-deictic determiners. While the deictic features associated with most Squamish determiners do not induce a uniqueness presupposition they still play the role of anchoring the referent to the discourse. As such they appear – at times – to induce a familiarity requirement. The contrasting non-deictic determiner however only introduces domain restriction and as such will not induce a familiarity requirement.

The conclusion Gillon draws from this study is that the word class determiner is semantically defined and moreover that there is a strict mapping relation to the syntactic position D: a determiner occupies D if and only if it is associated with domain restriction.

3.7 Paul on familiarity and optionality

In the final contribution to this volume, Paul reports on a case study of Malagasy determiners. Like in Squamish, Malagasy determiners do not seem to encode definiteness, but unlike in Squamish determiners are optional, at least in certain contexts. It is this interaction between optionality and determiner interpretation which constitutes the main focus of this contribution. In particular, Paul first shows that Malagasy determiners signal the familiarity of the discourse referent, rather than their definiteness, per se (i.e., no uniqueness presupposition). This suggests that the defining property of determiners may be familiarity. Second, Paul shows that determiners only signal familiarity if they are syntactically optional; in contexts where a determiner is required for argumenthood it need not be interpreted as familiar. And finally in contexts where determiners are prohibited, a bare NP can be interpreted as familiar.
At first sight, this pattern of optionality suggests that there is no one-to-one correspondence between form and function: the presence of a determiner is neither necessary nor sufficient for a familiar interpretation. On closer inspection, however, this pattern can be interpreted as a pattern of obligatoriness: formal optionality leads to functional obligatoriness, while formal obligatoriness leads to functional optionality.

4. Conclusion

The papers in this collection all address the question of what are the defining characteristics (syntactic and semantic) of determiners and D, but these papers all focus on different aspects of this question. We can now summarize what emerges as universal and what is subject to variation. For example, we see that DP is universally a peripheral projection within a nominal phrase, the projection that “closes off” the nominal domain – though D itself is neither necessary nor sufficient for argumenthood. Massam, Gorrie & Kellner (2006) suggest that this closing off function can be filled by a number of different functional categories, for example Case. Moreover, although NumP is typically treated as a predicate, NP can be either an argument or a predicate. D is universally associated with a certain subset of syntactic features or semantic functions – though these features vary within and across languages. Features can also bundle together in different ways in different languages. Finally, the very notion of definiteness itself, traditionally associated with D, is questioned.

An important point that emerges in this collection is that the syntactic projection DP exists independently of the features associated with it. Indeed it need not be associated with features at all but with a semantic function, as proposed by Gillon. Nevertheless there is a core function that exists across languages: a relationship to the discourse. That relationship may be familiarity, uniqueness or other notions related to definiteness, and it may also be deixis. The relationship to the discourse may also be indirect, namely via encoding a relationship with the main predicate via Case. Crucially, referentiality and argumenthood have been shown to not be uniquely associated with DP.

We furthermore recognize the analytical consequences of the above-mentioned assumptions regarding the functional architecture of noun phrases. One possibility is to consider determiners in the broad sense, namely as a word class that contrasts with the word class numeral, quantifier, etc. Under this view we would consider the English indefinite a(n) as a determiner. Another possibility is to consider determiners in the narrow sense, in other words as being only those function words which occupy D. This view is in line with fine-grained cartographic analyses
which recognize several layers of functional structure within the noun phrase. Under this narrow sense, the English indefinite $a(n)$ is not a determiner.

Once the linguist ventures beyond English, being able to distinguish between the function of a determiner and its syntactic position becomes all the more crucial. The papers in this volume all provide case studies of how to investigate determiners and D from a cross-linguistic perspective.

References


PART I

The features of determiners
What’s in a determiner and how did it get there?

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University of British Columbia

I investigate determiner systems of three unrelated languages (Blackfoot, German, and Halkomelem). I show that the features encoded in determiners vary in content, distribution, and spell-out properties. I argue that the distributional differences are best understood as reflecting the familiar structural difference between heads and adjuncts. As such, features are to be analysed as regular linguistic objects which participate in the syntactic operation merge. Regarding the differences in spell-out properties, I argue that they can be accounted for if we recognize a distinction between early and late insertion of functional morphemes.

1. Introduction

In this article I explore the composition of features expressed in determiners (henceforth, d-features). My core goal is to establish that d-features vary cross-linguistically in terms of their formal properties. Specifically, I wish to establish that d-features divide into two classes: (1) features that are integral to determiners; and (2) features that modify determiners. This distinction is purely formal in nature and as such is independent of feature content, as evidenced by the fact that d-features similar in content differ formally across languages. I investigate the determiner systems across three unrelated languages: German (Germanic), Halkomelem (Central Coast Salish), and Blackfoot (Algonquian).

Given that languages differ in the feature composition of their determiners, it becomes essential to define determiners independently of their feature composition. That is, since the feature composition of determiners is not universally determined, the question arises as to what makes determiners a natural class in the first place.¹ For the purpose of this study, I assume that determiners constitute

¹ Since completing this manuscript, I have started to explore the hypothesis that vocabulary items which introduce argument nominals are not a unified category but instead can occupy different functional categories (cf. Szabolcsi 1983; Giusti 1991). In particular, I am currently entertaining the hypothesis that the Halkomelem determiners occupy the functional category
a natural class because they are associated with a universal core function, namely to turn nominal predicates into arguments (Longobardi 1994; Stowell 1989). On some accounts, this basic function of determiners correlates with the ability to turn a predicate into a referring expression (see for example Carlson 1980). This function appears to be attested in many languages across the world, including the three languages under investigation in this article:

(1) German:\(^{3}\)

<table>
<thead>
<tr>
<th>a. Maria ist [Lehrerin](_{NP})</th>
<th>NP = predicative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary is teacher</td>
<td>‘Mary is a teacher.’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. Maria sah [die Lehrerin](_{DP})</th>
<th>DP = argument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary saw D teacher</td>
<td>‘Mary saw the teacher.’</td>
</tr>
</tbody>
</table>

(2) Halkomelem:

<table>
<thead>
<tr>
<th>a. [swiyeqe](_{NP}) te i:mex</th>
<th>NP = predicative</th>
</tr>
</thead>
<tbody>
<tr>
<td>man D walk</td>
<td>‘It’s the man that’s walking.’</td>
</tr>
</tbody>
</table>

Whatever turns out to be the correct analysis, the main point I argue for in this article still holds: feature composition of determiner systems is syntactically conditioned and subject to variation.

2. But see Chierchia (1998) for the claim that languages differ in this respect. See also some of the other papers in this volume (Mathieu, and Cowper & Hall) for a more fine-grained approach.

3. I use the following abbreviations:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>first person</td>
<td>second person</td>
<td>third person</td>
</tr>
<tr>
<td>INVIS</td>
<td>MASC</td>
<td>NEG</td>
</tr>
<tr>
<td>invisible</td>
<td>masculine</td>
<td>negation</td>
</tr>
<tr>
<td>ACC</td>
<td>ANIM</td>
<td>AUX</td>
</tr>
<tr>
<td>accusative</td>
<td>animate</td>
<td>auxiliary</td>
</tr>
<tr>
<td>NEUT</td>
<td>NOM</td>
<td>O</td>
</tr>
<tr>
<td>neuter</td>
<td>nominative</td>
<td>object</td>
</tr>
<tr>
<td>D</td>
<td>DETERMINER</td>
<td>D</td>
</tr>
<tr>
<td>dative</td>
<td>feminine</td>
<td>DETERMINER</td>
</tr>
<tr>
<td>OBL</td>
<td>OBEL</td>
<td>Oblique</td>
</tr>
<tr>
<td>DAT</td>
<td>ERG</td>
<td>FEM</td>
</tr>
<tr>
<td>dative</td>
<td>ergative</td>
<td>feminine</td>
</tr>
<tr>
<td>PART</td>
<td>PROX</td>
<td>REMOTE</td>
</tr>
<tr>
<td>Participle</td>
<td>Proximate</td>
<td>Remote</td>
</tr>
<tr>
<td>DIS</td>
<td>GEN</td>
<td>INANIM</td>
</tr>
<tr>
<td>distal</td>
<td>genitive</td>
<td>inanimate</td>
</tr>
<tr>
<td>PL</td>
<td>S</td>
<td>SG</td>
</tr>
<tr>
<td>plural</td>
<td>Subject</td>
<td>Singular</td>
</tr>
<tr>
<td>INDEP</td>
<td>GEN</td>
<td>INANIM</td>
</tr>
<tr>
<td>independent</td>
<td>genitive</td>
<td>inanimate</td>
</tr>
</tbody>
</table>
2. What’s in a determiner?

The purpose of this section is to investigate the inventory of d-features in terms of their content. I show that the three languages under investigation have some but not all features in common, suggesting that the selection of feature content varies across different languages and even within a single language.

2.1 The content of d-features in German

Among the three languages under investigation, German is by far the best described language, with many analyses that seek to understand the paradigmatic organization of the determiner system (see for example Müller 2002). German thus serves as the point of departure for the comparative investigation of the d-features in the two lesser studied languages, Halkomelem and Blackfoot. Restricting the discussion to the definite determiner, we observe that within any given syntactic position, it encodes a number of distinct features. First, the form of the determiner co-varies with the gender of the noun it precedes, as illustrated in (4).
This establishes that gender is among the d-features of German determiners and that it comes with three distinct values: [masc(uline)], [fem(inine)], and [neut(er)].

Next, we observe that German determiners also encode a difference in number: [singular] (henceforth [sg]) versus [pl(ural)]. The plural determiner no longer encodes a difference in gender, however; it neutralizes the gender distinction. We thus have to slightly revise the d-features in the glosses for the German examples in (4): a determiner that encodes gender at the same time encodes a value for number, namely [sg] as in (5a, c, e). In contrast, a plural determiner leaves gender unspecified, as in (5b, d, f).

Another feature encoded by German determiners is case. The value of this feature is determined by the position of the nominal phrase within the clause. Therefore, we need to consider different syntactic positions: in (6a) the subject receives...
What's in a determiner and how did it get there? 29

[nom(inative)], the object receives [acc(usative)], and the possessor receives [gen(itive)]; in (6b) the object receives [dat(ive)].

(6)   German: Case

a. der Mann hat den Apfel
D.MASC.SG.NOM man AUX D.MASC.SG.ACC apple

des Schüler gegessen
D.MASC.SG.GEN student eat.PART

‘The man has eaten the student’s apple.’

b. der Mann hat dem Schüler geholfen
D.MASC.SG.NOM man AUX D.MASC.SG.DAT student help.PART

‘The man has helped the student.’

Since the determiner co-varies with syntactic position, we can conclude that case is among the d-features of German determiners. Note that we need to revise the glosses for the German determiners to include case. In (6), the case distinction is illustrated based on a [masc] form. Table 1 summarizes the case forms across the remaining gender and number values; case is distinguished across all three genders and the two numbers.5

Table 1. The German determiner system

<table>
<thead>
<tr>
<th></th>
<th>[SG]</th>
<th></th>
<th>[PL]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[masc]</td>
<td>der</td>
<td>die</td>
<td>die</td>
</tr>
<tr>
<td>[fem]</td>
<td>die</td>
<td>das</td>
<td>die</td>
</tr>
<tr>
<td>[dat]</td>
<td>dem</td>
<td>den</td>
<td>den</td>
</tr>
<tr>
<td>[gen]</td>
<td>des</td>
<td>der</td>
<td>der</td>
</tr>
</tbody>
</table>

Finally, if we include demonstratives among the set of determiners, then we also need to include location among the set of d-features. In German there are two types of demonstratives: one encodes proximity [prox(imate)] (7a), while the other encodes distance [dist(al)] (7b).

5. There are some syncretic forms, but for the present purposes it suffices that across all four cases there are always at least two distinct forms ([fem] and [pl]), but sometimes three ([neut]) and even four ([masc]) distinct forms. I assume that the presence of a two-way split justifies the postulation of a d-feature. See Müller 2002, Blevins 1995, and Karttunen 1984 for relevant discussion of syncretic forms.
Demonstratives display a paradigmatic organization identical to that of definite determiners: they encode gender, number, and case, as illustrated in Tables 2 and 3.

Table 2. The d-features of [PROX] determiners

<table>
<thead>
<tr>
<th></th>
<th>[SG]</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[MASC]</td>
<td>[FEM]</td>
<td>[NEUT]</td>
<td></td>
</tr>
<tr>
<td>[NOM]</td>
<td>dieser</td>
<td>dieser</td>
<td>diesies</td>
</tr>
<tr>
<td>[ACC]</td>
<td>diesen</td>
<td>diese</td>
<td>diesies</td>
</tr>
<tr>
<td>[DAT]</td>
<td>diesem</td>
<td>dieser</td>
<td>diesem</td>
</tr>
<tr>
<td>[GEN]</td>
<td>dieses</td>
<td>dieser</td>
<td>dieses</td>
</tr>
</tbody>
</table>

Table 3. The d-features of [DIST] determiners

<table>
<thead>
<tr>
<th></th>
<th>[SG]</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[MASC]</td>
<td>[FEM]</td>
<td>[MASC]</td>
<td></td>
</tr>
<tr>
<td>[NOM]</td>
<td>jener</td>
<td>jener</td>
<td>jenes</td>
</tr>
<tr>
<td>[ACC]</td>
<td>jenen</td>
<td>jene</td>
<td>jenes</td>
</tr>
<tr>
<td>[DAT]</td>
<td>jenem</td>
<td>jener</td>
<td>jenem</td>
</tr>
<tr>
<td>[GEN]</td>
<td>jenes</td>
<td>jener</td>
<td>jenes</td>
</tr>
</tbody>
</table>

Given that definite determiners on the one hand, and demonstratives on the other hand have the exact same feature content, it seems justified to treat both as belonging to the set of determiners (contra Giusti 1991). This is further supported by the fact that determiners and demonstratives are in complementary distribution, as illustrated in (8).

(8) German:

a. *Ich habe **diesen** den Mann gesehen.
   I have this the man seen

b. *Ich habe **den** diesen Mann gesehen
   I have the this man seen
We have now established the feature content of German determiners (including demonstratives):

\[(9) \quad \text{German:} \]
\[\text{d-features} = \text{(gender, number, case, location)}^6\]

In (9), the d-features encoded are merely listed, but it should be clear from the preceding discussion that the d-features of German differ in terms of their distribution. For example, case is encoded in all determiners, while location is not. Taking different distributional properties as being indicative of a significant syntactic difference, we have a first indication that d-features might not constitute a homogenous class but instead that they differ in terms of their categorial identity.

2.2 The content of d-features in Halkomelem

Let us first consider gender in Halkomelem.\(^7\) We observe that Halkomelem has a special determiner for feminine nouns. Thus, if we take the ability to vary with the gender of a noun as a criterial diagnostic for the existence of gender, we may conclude that Halkomelem, like German, includes gender among its set of d-features:

\[(10) \quad \text{Halkomelem: Gender} \]
\[
a. \quad \text{te swiyeqe} \\
\quad \text{D}^8 \text{ man} \\
\quad \text{'the man'} \\
b. \quad \text{the slhali} \\
\quad \text{D.FEM woman} \\
\quad \text{'the woman'}
\]

---

6. For the present purpose, I ignore definiteness. This reflects my assumption that definiteness does not belong to the set of morphosyntactic d-features. Evidence for this assumption stems from the fact that definiteness is not universally encoded (see Gillon, this volume, for discussion); and even if it is encoded (like in English), it does not paradigmatically contrast with its opposition (indefiniteness). Specifically, it has been argued that the so-called indefinite article (\textit{ein}) has a categorial identity distinct from definite determiners: it occupies number (see for example Borer 2004).

7. Halkomelem is a Central Coast Salish language spoken on the West Coast of British Columbia. There are three main dialects. If not otherwise noted, the data reported in this article are from the Upriver dialect. The data are written in the official orthography of the Stó:lo Nation (see Galloway 1980 for a key).

8. The reason for not glossing \textit{te} as a masculine determiner will become clear in Section 3.
Similarly, on the basis of the examples in (11), we might conclude that number is among the set of d-features in Halkomelem. Specifically, we observe that the determiner varies with the plurality of the noun, just like it does in German. And moreover, we also observe rather strikingly that number marking neutralizes gender marking just like it does in German. That is, the plural marker does not make a distinction between masculine and feminine forms.

(11)  
Halkomelem: Number

\[
\begin{align*}
\text{a. } & \text{ te } \text{ swiyeqe} & \text{b. } & \text{ ye } \text{ swiyeqe} \\
& \text{D man} & & \text{D.PL man.PL} \\
& \text{the man} & & \text{the men} \\
\text{c. } & \text{ dhe } \text{ slháli} & \text{d. } & \text{ ye } \text{ slhéhálì} \\
& \text{D.FEM woman} & & \text{D.PL woman.PL} \\
& \text{the woman} & & \text{the women}
\end{align*}
\]

Since case is a feature that depends on the syntactic position of the DP, we need to consider DPs in different syntactic positions (12).

(12)  
Halkomelem: Case

\[
\begin{align*}
\text{a. } & \text{ kw'ets-l-exw-es tl' } \text{ Strang te Konrad} \\
& \text{see-trans-3o-3s D.OBL Strang D Konrad} \\
& \text{‘Strang saw Konrad.’} \\
\text{b. } & \text{ ímex } \text{ te } \text{ Strang.} \\
& \text{walk D Strang} \\
& \text{‘Strang was walking.’} \\
\text{c. } & \text{ hikw } \text{ te } \text{ pus tl' } \text{ Strang} \\
& \text{big D cat D.OBL Strang} \\
& \text{‘Strang’s cat is big.’}
\end{align*}
\]

On the basis of these examples we might conclude that Halkomelem encodes a distinction in case: the form of the determiner varies across different case positions. \textit{tl’}, which I label \text{[obl(ique)]}, is used in ergative and possessive positions, while \textit{te} is used otherwise (i.e., in \text{[abs(olutive)]} position).

While superficially the determiner system of Halkomelem appears to be quite similar to that of German, when we look at the paradigmatic organization, we observe that the Halkomelem determiner system starts to diverge from the German one: it appears that \text{[obl]} marking neutralizes both gender and number marking. If we organize the Halkomelem determiners in a paradigm, the data we have considered thus far lead us to set up a paradigm as in Table 4 (but we will see in Section 3 that this paradigmatic organization does not adequately capture the behaviour of Halkomelem determiners).
What’s in a determiner and how did it get there?

Table 4. The Halkomelem determiner system (preliminary)

<table>
<thead>
<tr>
<th>[sg]</th>
<th>[pl]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[masc]</td>
<td>[fem]</td>
</tr>
<tr>
<td>[abs]</td>
<td>te</td>
</tr>
<tr>
<td>[obl]</td>
<td>tl’</td>
</tr>
</tbody>
</table>

Finally, we turn to location, the last feature identified as belonging to the set of d-features in German. Based on the following examples, we can conclude that Halkomelem includes location among its set of d-features, albeit in a slightly different way than its German counterpart. Halkomelem encodes a contrast in visibility: [vis(ible)] versus [invis(ible)]. In the following data from the Downriver dialect of Halkomelem, kʷθә encodes that the referent is not visible at the location of the utterance.

(13) **Downriver Halkomelem:**

a. niʔ nem’ kʷoθәxʷlam kʷθә sqʷәmәy be.there go enter D.INVIS dog ‘The dog went in.’

b. iʔ miʔәƛqәl to sqʷәmәy be.here go enter D dog ‘The dog came out.’ (Suttles 2004: 342)

According to Galloway (1993) and Suttles (2004), the determiner we have discussed thus far (te) is used if the discourse referent is present and visible at the location of the utterance, but it can also be used as the “unmarked determiner” without placing any requirements on the location of the discourse referent. In addition to [visibility], Halkomelem also has a special determiner for remote or hypothetical discourse referents (i.e., [remote]).

(14) **Downriver Halkomelem:**

ne-s-c-ƛ’iʔ kʷә пәy 1sg.poss-nom-do-value D.REMOTE pie ‘I want some pie.’ (Suttles 2004: 345)

For ease of exposition (and consistent with the descriptive grammars of Halkomelem), I will continue to assume that the relevant feature in Halkomelem is location, even though the values associated with it are slightly different from the ones found in German.

When we look at the way location marking interacts with the other d-features of Halkomelem, we observe that it is expressed across only two dimensions. Neither the
plural nor the oblique determiner is marked for location. In other words, the contrast in location is neutralized in these contexts. It is for this reason that the organization of the Halkomelem determiner paradigm looks different from the German paradigm, as illustrated in Table 5 (and we will see yet more differences in Section 3).

Table 5. The Halkomelem determiner system (Galloway 1993)

<table>
<thead>
<tr>
<th></th>
<th>[SG]</th>
<th>[PL]</th>
<th>[OBL]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[MASC]</td>
<td>[FEM]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[vis]</td>
<td>te</td>
<td>the</td>
<td></td>
</tr>
<tr>
<td>[invis]</td>
<td>kwthe</td>
<td>kwse</td>
<td>ye</td>
</tr>
<tr>
<td>[remote]</td>
<td>kw'e</td>
<td>kw'se</td>
<td></td>
</tr>
</tbody>
</table>

We have now established the feature content of Halkomelem determiners:

(15) Halkomelem:
    d-features = (gender, number, case, location)

We observe that the set of d-features is identical for German and Halkomelem, but only as far as feature content is concerned. We can already tell from the way we had to illustrate the paradigms that the features are not organized in the same way. This is an indication that d-features differ in their formal properties, despite their similarity in content.

2.3 The content of d-features in Blackfoot

That paradigms based on d-features display different organizations across different languages is also apparent in Blackfoot (Algonquian). Again, we start with a discussion of gender. We observe that the form of the determiner varies with the animacy of the noun (Frantz 1991): [anim(ate)] versus [inanim(ate)]. While [anim] nouns are preceded by the determiner *oma*, [inanim] nouns are preceded by a different determiner (*oomi*):

(16) Blackfoot: Gender
   a. oma piita
      D.ANIM eagle
      ‘the eagle’
   b. oomi aohki
      D.INANIM water
      ‘the water’

Note that gender in Blackfoot displays values slightly different from those of the two other languages we have seen so far: it distinguishes animacy. It has been
independently argued, however, that animacy is a form of gender (see for example Harley & Ritter 2002) such that the distinction between [MASC] and [FEM] can be viewed as being dependent on a distinction in animacy, as illustrated in (17).9

![](image)

Thus, if we consider the distinction in animacy as instantiating a more general case of a gender distinction, then we can conclude that Blackfoot includes gender among its d-features.

Next, when we introduce number, we observe a different pattern than in German or Halkomelem. While Blackfoot also includes number in the set of its d-features, it does not neutralize the gender distinction. That is, the plural marker distinguishes between [ANIM] and [INANIM] forms.

(18) **Blackfoot: Number**

a. oma piita
   D.Anim eagle.Anim
   'the eagle'

b. oma-iksi piita-iks
   D.Anim-Pl.Anim eagle-Pl.Anim
   'those eagles'

c. oomi aohki
   D.Inanim water
   'the water'

d. oomi-istsi aohk-ists
   D.Inanim-Pl.Inanim water-Pl.Inanim
   'bunch of water'

We now turn to case. Unlike in German or Halkomelem, case is not among the set of d-features in Blackfoot. That is, determiners do not vary according the syntactic position of the DP they head.

And finally, location is among the d-features of Blackfoot, although it manifests itself slightly differently than it does in either German or Halkomelem. The determiners we have already seen (oma/oomi) are used if the discourse referent is in a location remote from the location of the utterance.

---

9. See however Wiltschko 2009 for arguments that animacy is not a form of gender, but instead a form of nominal classification akin to the mass/count distinction in English.
(19) **Blackfoot:**

nit-sinowa ooma piita
1-see d.remote eagle
'I saw that eagle.'

Where Blackfoot differs from both German and Halkomelem is that it makes a further distinction between whether the discourse referent is close to the speaker ([loc1]: amo) or close to the addressee ([loc2]: anna), as illustrated in (20)–(21).

(20) **Blackfoot:**

nit-sikahsitsip amo aohki
1-like d.loc1 water
'I like this water.'

*Speaker's comment:* “You can say that when the water is close enough for you to touch.”

(21) nit-sikahsitsip anni aohki
1-like d.loc2 water
'I like that water.'

*Speaker's comment:* “You can say that when the water is close to whom you are talking to.”

We further note that Blackfoot determiners encode this difference in location across all different categories encoded in determiners. That is, there is no neutralization in the paradigm illustrated in Table 6.10

**Table 6.** The Blackfoot determiner system (preliminary)

<table>
<thead>
<tr>
<th></th>
<th>[sg]</th>
<th>[pl]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[anim]</td>
<td>[inanim]</td>
</tr>
<tr>
<td>[loc1]</td>
<td>amo</td>
<td>amo</td>
</tr>
<tr>
<td>[loc2]</td>
<td>anna</td>
<td>anni</td>
</tr>
<tr>
<td>[loc3]</td>
<td>oma</td>
<td>oomi</td>
</tr>
</tbody>
</table>

We have now established the content of the Blackfoot d-features:

(22) **Blackfoot:**

d-features = (gender, number, location)

---

10. There is one syncretic form in this paradigm: amo is invariant across the singular animacy distinction. Since only two cells in the paradigm share the same form, I assume that this is an accidental syncretic form rather than an instance of neutralization.
The set of d-features in Blackfoot is almost but not completely identical to the set of d-features in German or Halkomelem: it does not include case. Thus, Blackfoot makes use of a subset of d-features available to the other languages. In addition, the Blackfoot paradigm is organized differently from the determiner paradigms in either German or Halkomelem.

2.4 Conclusion: Universals and variation

The goal of this section was to establish the set of d-features active in German, Halkomelem, and Blackfoot. Table 7 summarizes what we have found.

Table 7. Cross-linguistic variation in the feature content of determiners

<table>
<thead>
<tr>
<th></th>
<th>German</th>
<th>Halkomelem</th>
<th>Blackfoot</th>
</tr>
</thead>
<tbody>
<tr>
<td>gender</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>number</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>case</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>location</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

We have seen that all three languages encode at least three d-features: gender, number, and location. German and Halkomelem determiners also encode case, but Blackfoot determiners do not. This much establishes that the feature content of d-features is not universally identical but rather that there is variation in the kinds of features determiners encode. This appears to be true even within a single language. For example, in German, location is only encoded in the demonstratives but not in the determiners.

We have also noted that the values associated with the core features identified above differ across the three languages as summarized in Table 8. In German, gender is valued with [masc], [fem], and [neut]; in Halkomelem we have identified a [fem] determiner. But as we will see in Section 3, the feminine determiner does not contrast with a [masc] determiner; thus, the [masc] feature is marked by a question mark (in Table 8). In Blackfoot, the values associated with gender are [anim] and [inanim]. For number, all three languages are associated with [sg] and [pl] values, with a caveat for Halkomelem [sg], as indicated by the question mark in Table 8: we discuss this complication in Section 3. For case, German encodes four values typical for a nominative/accusative system, while Halkomelem appears to be an ergative/absolutive system (but note again the classification of te, as encoding [abs] does not quite do justice to the facts). And finally, the values associated with location differ in all three languages: in German demonstratives (but not in definite determiners), we find a simple distinction between [prox] and [dist]; Halkomelem determiners
encode a distinction based on visibility and on remoteness; and finally, Blackfoot
determiners encode a three-way contrast between proximity to speaker, proximity
to hearer, and remote. These findings are summarized in Table 8.

Table 8. Cross-linguistic variation in the feature content of determiners

<table>
<thead>
<tr>
<th>Feature</th>
<th>German</th>
<th>Halkomelem</th>
<th>Blackfoot</th>
</tr>
</thead>
<tbody>
<tr>
<td>gender</td>
<td>[MASC]</td>
<td>[MASC?]</td>
<td>[ANIM]</td>
</tr>
<tr>
<td></td>
<td>[FEM]</td>
<td>[FEM]</td>
<td>[INANIM]</td>
</tr>
<tr>
<td></td>
<td>[NEUT]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>number</td>
<td>[sg]</td>
<td>[sg?]</td>
<td>[sg]</td>
</tr>
<tr>
<td></td>
<td>[pl]</td>
<td>[pl]</td>
<td>[pl]</td>
</tr>
<tr>
<td>case</td>
<td>[nom]</td>
<td>[abs?]</td>
<td>×</td>
</tr>
<tr>
<td></td>
<td>[dat]</td>
<td>[gen]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[acc]</td>
<td>[obl]</td>
<td></td>
</tr>
<tr>
<td>location</td>
<td>[prox]</td>
<td>[vis]</td>
<td>[loc1]</td>
</tr>
<tr>
<td></td>
<td>[dist]</td>
<td>[invis]</td>
<td>[loc2]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[remote]</td>
<td>[loc3]</td>
</tr>
</tbody>
</table>

3. ... and how did it get there?

In this section I wish to establish that d-features do not form a homogenous class,
either across or within a given language. Specifically, I demonstrate that features
can be associated with a determiner in one of two ways, as summarized in (23). I
further propose that the formal differences associated with the two sets of features
are best understood as instantiating the familiar distinction between heads and
modifiers. Within the adopted framework, this means that inherent features merge
as heads, as in (24a), while modifying features merge as adjuncts, as in (24b).

(23) Two types of d-features:
   i. Inherent feature: F is an integral part if the determiner.
   ii. Modifying feature: F is optional.

(24) Two modes of merge:
   a. Inherent feature: F = head

   F

   F      D

   b. Modifying feature: F = adjunct

   D

   F      D
To distinguish between the two types of features, I use two diagnostics. The first diagnostic relies on agreement patterns: since inherent features must be valued, we expect to find patterns of obligatory concord.\textsuperscript{11} In contrast, modifying features are only optionally added to the determiner and thus we expect to find patterns of optional concord.

The second diagnostic has to do with properties of the \textit{unmarked} determiner. Since inherent features are an integral part of the determiner, we do not expect to find determiners that are unmarked for that feature. However, this does not exclude the possibility for an \textit{unmarked value} of a given feature. In contrast, modifying features can, but need not, be present and thus the absence of a modifying feature results in a determiner that is truly unspecified for that particular feature. Thus, there are two types of unmarked determiners: determiners that are associated with an unmarked value of a given feature, and determiners that are simply not marked for a given feature. In what follows I show that each of the d-features introduced in Section 2 can function as either an inherent or a modifying feature. The formal (syntactic) properties of a given feature are not determined by their content.

### 3.1 Gender and the significance of concord

Consider first gender concord within the nominal phrase. We observe that in German the gender specification of the determiner is uniquely determined by the gender of the noun, that is, it displays obligatory concord (25)–(27).

\begin{align}
(25) \quad & \text{German:} \\
& \text{a. Der } \text{Mann } \text{ist.} \\
& \text{D.MASC man.MASC eat.3SG} \\
& \text{‘The man is eating.’} \\
& \text{b. *Der } \text{Frau } \text{ist.} \\
& \text{D.MASC woman.FEM eat.3SG} \\
(26) \quad & \text{a. *Die } \text{Mann } \text{ist.} \\
& \text{D.FEM man.MASC eat.3SG}
\end{align}

\textsuperscript{11} I use the term concord as a non-technical term indicating that two or more elements within a given domain share the same feature. This contrasts with \textit{agreement}, which I will use later as a technical term for patterns of syntactically conditioned co-variation (see Corbett 2006 for a discussion of these terms).
b. Die Frau isst.
   D.FEM  woman.FEM  eat.3SG
   ‘The woman is eating.’

(27) a. * Das Mann isst.
    D.NEUT  man.MASC  eat.3SG
b. * Das Frau isst.
    D.NEUT  woman.FEM  eat.3SG

In contrast, the choice of the determiner in Halkomelem is only partly restricted by properties of the noun: while the [fem] determiner is restricted to nouns denoting females (28), the other determiner is compatible with nouns denoting males and females, that is, it displays optional concord (29). This suggests that features with the same content differ in terms of their formal properties.

(28) Halkomelem:
   a. *ílhtel the swíyeqe b. ílhtel the slhálì
eat  D.FEM  man  eat  D.FEM  woman
   ‘The woman is eating.’

(29) a. ílhtel te swíyeqe b. ílhtel te slhálì
eat  D  man  eat  D.FEM  woman
   ‘The man is eating.’  ‘The woman is eating.’

In order to determine the significance of the difference in concord, we need to have an understanding of the mechanics of concord. For the purpose of the present article, I will assume a probe-goal approach to agreement (see Chomsky 2000, 2001). In particular, I assume that a probe φ looks for an appropriate goal which is associated with a particular value for φ, namely φα. In other words, the probe is looking for a matching goal. In a second step, the probe is valued by the goal and consequently ends up sharing the same feature value as the goal. Finally, the valued goal is deleted and an appropriate vocabulary item is inserted and spelled out. This last operation is known as late insertion (Halle & Marantz 1993). The three steps of agreement (also known as agree) are summarized in (30).

(30) The mechanics of agree:
    Probe …Goal
    i.  match:   φ    φα
    ii. value:   φα   φα
    iii. spell-out: φα   φα  (delete φ; late insertion of appropriate vocabulary item)
What is crucial for the present purpose is that an unvalued feature $\varphi$ is uninterpretable, and uninterpretable features lead the derivation to crash at LF. As a consequence, agreement is always obligatory.\footnote{Nothing hinges on this particular implementation of agreement. Any approach will do, as long as it has the effect of rendering concord obligatory.}

Let us first apply $\text{agree}$ to German gender concord. Recall that in German the determiner obligatorily matches the gender of the noun, such that each noun can only be preceded by a dedicated determiner, namely the one that matches the gender of the noun. Given the assumptions specified above, $\text{agree}$ will proceed as follows. The nouns $\text{Mann}$ and $\text{Frau}$ are associated with a unique gender ($[\text{masc}]$ and $[\text{fem}]$, respectively). This means that the gender feature $\varphi_G$ is valued for $[\text{masc}]$ or $[\text{fem}]$, respectively. D is associated with an unvalued gender feature and is thus looking for a matching feature. In a second step, the matching gender feature on the noun values the gender feature on D. This allows the gender feature on the determiner to delete and results in the spell-out of the determiner as $\text{der}$ or $\text{die}$, respectively.

\begin{align*}
(31) \quad & i. \quad [D \varphi_G [\text{Mann}]_N] \quad [D \varphi_G [\text{Frau}]_N] \\
& ii. \quad [D \varphi_G [\text{Mann}]_N] \quad [D \varphi_G [\text{Frau}]_N] \\
& iii. \quad [D \varphi_G [\text{Mann}]_N] \quad [D \varphi_G [\text{Frau}]_N]
\end{align*}

This much allows for a straightforward analysis of obligatory concord in German DPs. Next we turn to Halkomelem, where we have seen that concord is possible but not obligatory. Applying $\text{agree}$ to Halkomelem yields the following result. Suppose that just like in German, Halkomelem nouns are inherently associated with a value for a gender, such that $\text{swiyeqe}$ ‘man’ is $[\text{masc}]$ while $\text{slhálì}$ ‘woman’ is $[\text{fem}]$. Suppose further that the determiner is associated with an unvalued (and thus uninterpretable) feature that needs to find a matching goal. In a next step, the determiner is valued: if valued as $[\text{masc}]$, it is spelled out as $\text{te}$ (32), and if valued as $[\text{fem}]$, it is spelled out as $\text{the}$ (33).

\begin{align*}
(32) \quad & i. \quad [D \varphi_G [\text{swiyeqe}]_N] \\
& ii. \quad [D \varphi_G [\text{swiyeqe}]_N] \\
& iii. \quad [D \varphi_G [\text{swiyeqe}]_N]
\end{align*}
The problem we are now facing, however, is the fact that the [fem] noun *slháli* does not need to be preceded by the [fem] determiner but can also be preceded by the other determiner *te*. But if the unvalued feature of the determiner is not valued, the derivation should crash, as illustrated in (34).

(34) i. \([D \ D [slháli]_N \varphi_G \ [\varphi_G: \textit{fem}]]\)

ii. \([D \ te [slháli]_N \ ?? \ [\varphi_G: \textit{fem}]]\)

The mechanics of \textit{agree} in combination with the assumption that gender features are associated with a uniform syntax leads us to expect that concord is obligatory, leaving the Halkomelem pattern unexplained.

The key to understanding optional concord in Halkomelem, while maintaining the view that agreement is always obligatory, is to drop the assumption that the gender feature is the same as in German. The difference between the two types of gender features is sometimes referred to as the difference between grammatical and natural gender. In German, gender functions as a grammatical category and is thus obligatory, whereas in Halkomelem it does not. Rather, in Halkomelem the use of the [fem] determiner is strictly determined by the natural gender of the referent. But this still leaves us with the question as to how to analyse the Halkomelem pattern. What are the formal properties of a determiner that optionally encodes natural gender? I propose that d-gender in Halkomelem differs from its notional counterpart in German across two dimensions:

1. In German, d-gender is an inherent feature of the determiner, while in Halkomelem it is a modifying feature.
2. In German, d-gender is determined by properties of the noun, while in Halkomelem it is determined by properties of the discourse referent.

I discuss each of these differences in turn.

According to the present proposal, d-gender in German is an inherent feature of the determiner with three possible values: [\textit{masc}], [\textit{fem}], and [\textit{neut}]. As an inherent feature, gender merges as a head, as illustrated in (35a). In contrast, in Halkomelem [\textit{fem}] is a modifying feature that merges as an adjunct, as in (35b).
What's in a determiner and how did it get there?

(35)  a.  German grammatical gender:

   gender
   [gender: fem] → D
   [gender: masc] → D
   [gender: neut] → D

b.  Halkomelem natural gender:

   D
   [fem] → D

This analysis accounts for the pattern we have observed above. First, concord is obligatory in German because the inherent gender feature must be valued. This contrasts with Halkomelem, where the feature [fem] is not an integral part of D and as such it need not be valued. And precisely because agree is not triggered, concord is optional.

Second, we can also understand the fact that in German there is no genderless determiner, i.e., no determiner is truly unmarked for gender. Note that on some accounts grammatical gender may remain unmarked as well, but the unmarked form is assumed to be associated with a default value, namely [neut] (see Harley & Ritter 2002). Crucially, the default value [neut] is incompatible with [masc] or [fem] nouns and as such it is not a truly unmarked form: it is itself a form of gender. This contrasts with Halkomelem, which has a truly unmarked determiner: te is a determiner which lacks the [fem] modifier. As a truly unmarked determiner, te is compatible with nouns denoting male or female individuals.

In sum, there are two different ways for a determiner to be “unmarked” with respect to a given feature: the determiner can be unmarked for gender (like Halkomelem te) or else it can be associated with an unmarked value of gender (like the [neut] German determiner das). I argue that this difference is structurally conditioned: since inherent (head) features are obligatory, they are present even if not overtly marked. Thus, the absence of overt marking is not really unmarked: it is marked with the default value of the feature. In contrast, the absence of an adjoined modifying feature does not receive an interpretation: a determiner that is not modified is not marked with a default interpretation.

The second way in which gender in German differs from gender in Halkomelem is in the way the content of the feature is determined: in German the value of gender is determined via agree, while in Halkomelem the presence of [fem] is determined by relevant properties of the discourse referent, that is, it is determined by the context (36).
What determines the content of the d-feature?

The difference in the way d-gender is determined correlates with a difference in whether or not the [fem] determiner can be used to assert that the discourse referent is female. The [fem] feature of the Halkomelem determiners is interpretable, while in German it is a purely formal feature. This difference is evidenced by the following considerations. Halkomelem has a set of nouns compatible with both male and female individuals. Crucially, such nouns can be disambiguated by the use of the [fem] determiner, which restricts the denotation to that of female individuals. Take for example the noun á:lex which is best translated as 'sibling'. It leaves the sex of the sibling unspecified and as such denotes male siblings (brothers) as well as female siblings (sisters). If the [fem] determiner precedes this noun, it must be interpreted as referring to a female sibling ('sister') (37). Similar facts hold for many other nouns that are unspecified for, but compatible with, biological gender (i.e., nouns denoting humans and animals) (38)–(40).

Halkomelem:

(37) a. te-l á:lex
    b. the-l á:lex
    D-1SG.POSS sibling
    D.FEM-1SG.POSS sibling
    'my sibling/brother'
    'my sister'

(38) a. te siyolexwe
    b. the siyolexwe
    D old.person
    D.FEM old.person
    'the old person/man'
    'the old woman'

(39) a. te stl’itléqelh
    b. the stl’itléqelh
    D child
    D.FEM child
    'the child/boy'
    'the girl'

(40) a. te músmes
    b. the músmes
    D cow
    D.FEM cow
    'the cow/male cow'
    'the female cow'

The use of the unmarked determiner te is compatible with an unmarked interpretation but can also be used to refer to male siblings ('brother'). The possible preference for the male interpretation might arise as a consequence of a Gricean implicature: If the speaker chooses not to use the [fem] determiner, the hearer might infer that the discourse referent is male (though this is by no means necessary).
Languages with grammatical gender differ in this respect: in such languages, the [fem] determiner cannot determine the interpretation of the noun. This can be seen on the basis of the following examples. While a doctor can be either male or female, its grammatical gender in German is [masc]. Crucially, German speakers cannot convey that the doctor is female by simply using the [fem] determiner—the result is ungrammatical (41b).

(41) German:

<table>
<thead>
<tr>
<th>a. der Doktor</th>
<th>b. *die Doktor</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.MASC doctor</td>
<td>D.FEM doctor</td>
</tr>
<tr>
<td>‘the doctor’</td>
<td>Intended: ‘the female doctor’</td>
</tr>
</tbody>
</table>

A change in gender is possible nevertheless. Speakers can either classify the noun *Doktor* with the noun *Frau* (‘woman’), as in (42a), or by suffixing the feminizer –*in*, as in (42b). In both cases the grammatical gender of the noun phrase changes to [fem] and now the [fem] determiner is obligatory.

(42) German:

<table>
<thead>
<tr>
<th>a. die Frau Doktor</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.FEM woman.FEM doctor</td>
</tr>
<tr>
<td>‘Mrs. Doctor’</td>
</tr>
<tr>
<td>b. die Doktor-<em>in</em></td>
</tr>
<tr>
<td>D.FEM woman-<em>FEM</em></td>
</tr>
<tr>
<td>‘the female doctor’</td>
</tr>
</tbody>
</table>

We have now seen evidence that there are two types of gender d-features which display different formal properties: if gender functions as a grammatical category, it displays obligatory agreement, which is a result of its participation in the syntactic operation *agree*. Its gender value is determined by the grammatical gender of the noun it precedes.

Grammatical gender features are by hypothesis non-interpretable, which accounts for the fact that they cannot be used to assert the gender of the discourse referent. The second type of feature is not valued by grammatical properties of the noun but instead by the biological gender of the discourse referent. Consequently, such features do not participate in the syntactic operation *agree* and therefore do not display obligatory concord. Furthermore, d-features whose value is determined by properties of the discourse referent are interpretable and can therefore be used to assert the gender of the discourse referent.

A question that arises in this context is whether or not these two properties are dependent on each other. Is it the case that all determiners whose content is determined by context are modificational? While the properties of gender do not allow us to answer this question (at least not in the languages under consideration), we will see that the behaviour of other d-features suggests that these two properties
are independent of each other. Specifically, I will show that inherent features can be valued from inside and from outside the nominal phrase, but the presence of modifying features is never determined from inside the nominal phrase.

3.2 The formal properties of number

I have argued for a particular formalization of the difference between natural and grammatical gender. I claim that the formal distinction underlying this difference reflects the familiar syntactic distinction between heads and modifiers. It is thus predicted that other features should display the same contrast. In other words, the difference between “natural” versus “grammatical” categories should not be restricted to gender.

In this section, I demonstrate that the d-feature number can vary across exactly the same distinction as gender. Specifically, I show that in German number is an inherent d-feature, while in Halkomelem plural marking is modificational (see Wiltschko, 2008, for a detailed discussion). Second, the content of number is determined by the properties of the (number-marked) noun, while in Halkomelem plural marking is determined by properties of the discourse referent (DR).

As a consequence of the inherent and thus obligatory nature of number on determiners in German, number must be valued via agree and is thus obligatory. In contrast, plural marking on Halkomelem determiners is optional. This results in a difference in the forms that are apparently unmarked for number. In German the unmarked value of number is singular, which is itself a numbered form and thus not compatible with plural nouns. The result is obligatory concord and the absence of a truly unmarked form, as illustrated in (43) and (44). (For reasons of space, I do not give the derivations; they are essentially the same as the ones illustrating agreement for gender in (31).)

(43) German:
   a. der Mann  b. *die Mann
     D.SG  man     D.PL  man
     ‘the man’

(44) a. *der Männ-er  b. die Männ-er
     D.SG  man-PL  D.PL  man-PL
     ‘the men’

In contrast, plural marking on determiners in Halkomelem displays very different distributional properties despite the apparent identity in content. First, we observe that plural marking on the determiner is not unambiguously determined by plural marking on the noun. That is, the plural determiner ye can precede a plural marked noun, as in (45a), but it can also precede an unmarked noun (45b).
What's in a determiner and how did it get there?

Halkomelem:

a. ye sí:wí:qe  b. ye swiyeqe
D.PL man.PL  D.PL man
‘the men’  ‘the men’

This much establishes that plural marking on determiners cannot be a function of the (obligatory) syntactic operation agree. Instead I argue that plural marking on Halkomelem determiners is modificational and as such, not obligatory. Moreover, we observe that the determiner that is not marked for plural (te) is truly unmarked (and not associated with a singular interpretation). This is illustrated in the following example: the unmarked determiner te can be used to introduce an unmarked noun and is compatible with a singular interpretation (46a), but it can also be used preceding a pluralized noun, indicating that it is also compatible with a plural interpretation (46b).

(46) Halkomelem:

a. te swiyeqe  b. te sí:wí:qe
D man  D man.PL
‘the man’  ‘the men’

This establishes that plural marking in Halkomelem is determined by properties of the discourse referent rather than by properties of the noun. This suggests that Halkomelem plural marking is a modifying feature, rather than a syntactically active head-feature.

(47) What determines the content of the d-feature?

German:  Halkomelem:

As mentioned above, this analysis raises the question as to whether the modifying character of a feature is necessarily correlated with the way it is being assigned—i.e., by properties of the noun, as in German, or by properties of the discourse referent, as in Halkomelem. Nothing in our analysis would require the two properties to be correlated. And there is indeed evidence to the effect that these two properties are independent of each other. The evidence comes from another Salish language, namely Lilooet (Northern Interior Salish). Here, unlike in Halkomelem, there is a determiner (ti) that is exclusively used for non-pluralized nouns (48a, b); but like
in Halkomelem, the use of the plural determiner is not dependent on the plurality of the noun.\textsuperscript{13}

\begin{equation}
\text{(48) Lillooet:}
\begin{align*}
a. & \quad \text{ti sk'úk'wmi7ta} \quad \text{ti spzúz7a} \\
& \quad D \quad \text{child} \quad D \quad \text{bird} \\
& \quad '\text{the/a child}' \quad '\text{the/a bird}' \\
b. & \quad *\text{ti sk'wemk'úk'wmi7ta} \quad *\text{ti spepzúz7a} \\
& \quad D \quad \text{child.pl} \quad D \quad \text{bird.pl} \\
c. & \quad i \quad \text{sk'úk'wmi7ta} \quad i \quad \text{spzúz7a} \\
& \quad D.pl \quad \text{child} \quad D.pl \quad \text{bird} \\
& \quad '\text{the/some children}' \quad '\text{the/some birds}' \\
d. & \quad i \quad \text{sk'wemk'úk'wmi7ta} \quad i \quad \text{spepzúz7a} \\
& \quad D.pl \quad \text{child.pl} \quad D.pl \quad \text{bird.pl} \\
& \quad '\text{the/some children}' \quad '\text{the/some birds}'
\end{align*}
\end{equation}

Thus in Lillooet there is no truly unmarked determiner. This suggests that plural marking on determiners in Lillooet is determined by properties of the discourse referent (like in Halkomelem), but at the same time it is an inherent head feature that requires valuation (like in German):

\begin{equation}
\text{(49) Lillooet:}
\begin{array}{c}
\text{D} \\
\text{context} \rightarrow \\
\text{number} \rightarrow \\
\text{N} \\
\text{[number: pl]} \rightarrow \\
\text{[number: sg]} \rightarrow \\
\text{D}
\end{array}
\end{equation}

This establishes that the two ways in which features can differ in terms of their distribution are indeed independent of each other, as predicted by the analysis.

3.3 The formal properties of case

As discussed in Section 2, case is among the set of d-features in both German and Halkomelem, albeit in different ways. Let us investigate the case features in terms of the two diagnostics. First, we need to determine whether case is determined by properties of the noun or from outside. Given that the value of the case feature is a function of the linguistic environment, namely the syntactic position of the DP, we can conclude that case is determined from outside the DP in both languages.

\textsuperscript{13} Thanks to Henry Davis for pointing out the Lillooet pattern to me and for providing me with the relevant examples.
In this instance, however, it is not determined by properties of the discourse referent, but instead by the syntactic position of the DP. Specifically, in German, [nom] is the value of the case feature on a DP in subject position (SpecIP), while [acc] is the value of the case feature on a DP in object position. Similarly, in Halkomelem, the presence of a case feature is determined by the syntactic position: only transitive subjects, possessors, and oblique arguments can be introduced by an oblique determiner (see Section 2.2 for relevant data). Thus, case is a feature determined by syntactic context, that is, from outside the DP.

Next is the question as to whether case is an inherent or a modifying feature. Let us apply the diagnostics we have developed thus far, that is, whether there is a truly unmarked form compatible with all environments (which would mean we are dealing with a modifying feature), or whether the unmarked form is a default value that still encodes case. I demonstrate below that German case is an inherent head feature, while Halkomelem case is a modifying feature.

Consider first German. Judging from the paradigm alone, we can conclude that there is no truly unmarked form because case appears to be marked across all values for gender, number, and location. Note again that there is an unmarked value for case ([nom]), which is, however, still a form of case and is thus restricted to the position of grammatical subjects:

(50) **German:**

\[
\text{Der Mann hat (den/*der) Hund gefüttert.}
\]

\[
\text{d.nom man aux d.acc/*d.nom dog fed.part}
\]

‘The man has fed the dog.’

We now turn to case in Halkomelem. Applying our diagnostics to case marking on determiners, we are led to conclude that case is a modifying feature. Specifically, we observe that what we have labelled as an [abs] determiner (te) is in fact not marked for case, but instead is truly unmarked. This has the effect that the use of te is always possible, even in environments when the [obl] determiner tl’ can be used.

(51) **Halkomelem:**

\[
\text{kw’e-t-l-exw-es (tl’/te) Strang te Konrad}
\]

\[
\text{see-trans-3o-3s d.obl/d Strang d Konrad}
\]

‘Strang saw Konrad.’

(52) **Halkomelem:**

\[
\text{hikw te pus (tl’/te) Strang}
\]

\[
\text{big d cat d.obl/d Strang}
\]

‘Strang’s cat is big.’
In contrast, the oblique determiner *tl’* is banned from intransitive subjects and transitive object position:

(53)  

Halkomelem:

\[
\text{kw’ets-l-exw-es \ te \ Strang (te/*tl’) \ Konrad}
\]

\[
\text{see-trans-3o-3} \ D \ \text{Strang D/*D.OBL Konrad}
\]

‘Strang saw Konrad.’

(54)  

Halkomelem:

\[
\text{ímex (te/*tl’) \ Strang}
\]

\[
\text{walk D/D.OBL Strang}
\]

‘Strang is walking.’

This shows that *tl’* is marked for case while all other determiners are truly unmarked, suggesting that case is a modifying d-feature in Halkomelem.

We can thus conclude that the d-feature case differs cross-linguistically: while in German case functions as an inherent feature, in Halkomelem case functions as a modifying feature.

(55)  

a.  

German:  

\[
\text{case} \rightarrow [\text{case: nom}] \ D
\]

[b.  

Halkomelem:  

\[
\text{D} \rightarrow [\text{obl}] \ D
\]

What case has in common across the two languages is that it is assigned from outside the DP rather than from within. This simply follows from the very nature of case which is determined on the basis of syntactic position rather than on the basis of inherent properties of the noun. Thus, we have another instance where an inherent feature receives its value from outside the nominal phrase, supporting the claim that the two dimensions of variation discussed in this article are partly independent of each other.

There is one more issue to discuss here. It turns out that the oblique case feature of Halkomelem is in fact sensitive to properties of the noun it precedes. In particular, the oblique determiner (*tl’) is restricted to proper names and first and second person pronouns, as shown in (56).14 In contrast, *tl’* cannot precede common nouns or third person independent pronouns.

14. See Ghomeshi & Massam, this volume, for evidence that [proper] is an active feature at least in some languages.
What's in a determiner and how did it get there?

Halkomelem:

(56) a. kw'ets-l-exw-es (te/tl') Strang te Konrad
    see-trans-3O-3s D/D.OBL Strang D Konrad
    'Strang saw Konrad.'

(57) a. kw'ets-l-exw-es (tu-t'lo/*tl'-tl'o)
    see-trans-3O-3s D-INDEP/*D.OBL-INDEP
    'He saw him.'

b. kw'ets-l-exw-es (te/*tl') swiyeqe
    see-trans-3O-3s D/*D.OBL man
    'He saw the man.'

This suggests that modifying features can be sensitive to properties of the noun, but crucially, their form is not determined by these properties. I suggest that this sensitivity of the modifying case feature is reminiscent of the behaviour of adjoined modifiers in general. For example, in English modifiers are sensitive to the category of the modified element: while VP-modifiers are suffixed by -ly, NP modifiers are not:

(58) a. He drove slow(ly)
    b. His slow(*ly) driving was annoying
    c. He has a slow(*ly) car.

I conclude that it is not surprising that modifiers can be sensitive to categorial (or semantic) properties of the modifyee.

3.4 The formal properties of location

The final d-feature we need to consider is location. According to the proposal developed here, there are two ways in which d-features can differ formally: they can be inherent or modifying, and their content can be determined by properties from within or outside of the nominal phrase. It follows from its very nature that the content of location has to be determined by properties of the discourse referent, because it concerns the location of the discourse referent. But as we have seen above, the way the content of a feature is determined is independent of the way the feature is associated with the determiner. In this section I show that location, just like the other features, can be either inherent or modificational.

I start with a discussion of German. We have seen in Section 2 that German determiners are traditionally divided into definite determiners on the one hand,
and demonstratives on the other hand. This distinction is based on the observation that only demonstratives are deictic in nature: they encode information about the location of the referent with respect to the utterance location. Definite determiners express no such distinction. In other words, what is classified as a definite determiner is truly unmarked for location, as evidenced by the data in (59). Demonstratives are restricted in use by the location of the referent in ways the definite determiner is not.

(59) German:
      see-2SG you D.PROX painting
      ‘Do you see this painting?’ (the painting is close)
   b. Sieh-st du jenes Bild.
      see-2SG you D.DIST painting
      ‘Do you see this painting?’ (the painting is farther away)
   c. Sieh-st du das Bild.
      see-2SG you D painting
      ‘Do you see this painting?’ (the location of the painting is irrelevant)

Further evidence that the specification for location is indeed an adjoined modifier in German stems from the fact that, in colloquial German, where demonstratives are rarely used, location is specified by an adjoined locative (deictic) particle: *hier* (‘here’) or *dort* (‘there’), as illustrated in (60).

(60) German:
   a. Der Mann hier schläft.
      D man here sleep.3SG
      ‘This man here is sleeping.’
   b. Der Mann dort schläft.
      D man there sleep.3SG
      ‘That man there is sleeping.’

Having established that location in German is a modifying feature, we now turn to Halkomelem. From looking at the paradigmatic organisation of the determiner system, we might conclude that location in Halkomelem is not an inherent feature because it is not encoded across the entire paradigm. For example, the [pl] and the [obl] determiners do not encode such a distinction.

If location in Halkomelem is a modifying feature, we predict there to be a determiner that is truly unmarked for location (similar to the definite determiner in German). This is indeed the case. The determiner *te*, which is classified as [vis], is in fact unmarked for location, just as it is unmarked for gender, number, and
Galloway (1993) states that *te* is both the unmarked determiner as well as the near & visible determiner. I propose that the specification as 'near & visible' is only apparent and arises as a byproduct of a Gricean implicature. That is, the hearer might infer that the speaker means to refer to a visible, nearby discourse referent simply because the speaker did not use any of the other determiners which assert either that the discourse referent is invisible or that it is remote. The claim that *te* is the unmarked determiner is supported by the examples in (61): in the absence of coffee, both the [REMOTE] determiner *kwê* and the unmarked determiner *te* can be used.

(61) **Halkomelem:**

a. éwe te kyópi
   \[\text{NEG D coffee}\]
   ‘There is no coffee.’

b. éwe kwê kyópi
   \[\text{NEG D,REMOTE coffee}\]
   ‘There is no coffee.’

We can now conclude that location is a modifying feature in Halkomelem, just like it is in German. Halkomelem is also similar to German in that it has two different location modifiers: [INVIS] and [REMOTE], while the two features in German are [PROX] and [DIST].

(62) a. **German:**

\[\text{D} \rightarrow \text{[PROX]} \quad \text{D} \rightarrow \text{[DIST]}\]

b. **Halkomelem:**

\[\text{D} \rightarrow \text{[INVIS]} \quad \text{D} \rightarrow \text{[REMOTE]}\]

Given that location is a modifying feature in both German and Halkomelem, the question arises whether it is even possible for location to be an inherent feature. I will now show that the answer to this question is positive: in Blackfoot, location is an inherent feature of the determiner.

The first indication that location is an inherent d-feature stems from the fact that all determiners are marked for location in Blackfoot. That is, location is marked across gender (animacy) and number (see Table 6). Thus the paradigmatic organisation leads us to expect that we are dealing with an inherent d-feature.

---

15. See Gillon (2006) for extensive discussion of the determiner system in Squamish, which displays a similar pattern.
This is further confirmed by the fact that no determiner is truly unmarked for location: amo can only be used if the discourse referent is close to the speaker; anna/anni can only be used if discourse referent is close to the addressee; and ooma/oomi is only used if the discourse referent is farther away.

(63) **Blackfoot:**

nitsikahsitsip amo aohki
1-like d.loc1 water
'I like this water.'

*Speaker’s comment:* “You can say that when the water is close enough for you to touch.”

(64) nitsikahsitsip anni aohki
1-like d.loc2 water
'I like that water.’

*Speaker’s comment:* “You can say that when the water is close to who you are talking to.”

(65) nitsinowa ooma piita
1-see d.loc3 eagle
'I saw that eagle.’

*Speaker’s comment:* “You can say that, when the eagle is away from us (and the longer you say ooooooo, the farther it is away).”

We can conclude that location in Blackfoot is an inherent d-feature, and as such, it is merged as a head. This supports our main proposal according to which the formal properties of d-features are independent of their content: each of the features we have investigated can be an inherent feature or a modifying feature.

### 3.5 Conclusion

In this section I have argued that the syntactic properties of features can vary cross-linguistically. In particular, features can be inherent or modifying features. The cluster of properties associated with this distinction is summarized in Table 9.

**Table 9.** Properties of different types of features

<table>
<thead>
<tr>
<th></th>
<th>inherent</th>
<th>modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>participates in agree (obligatory concord)</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>marked across the paradigm</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>unmarked form is associated with default value</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>unmarked form is truly unmarked</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

For the three languages under discussion, the study has yielded the results in Table 10.
Table 10. Cross-linguistic variation in the syntax of d-features

<table>
<thead>
<tr>
<th></th>
<th>German</th>
<th>Halkomelem</th>
<th>Blackfoot</th>
</tr>
</thead>
<tbody>
<tr>
<td>gender</td>
<td>inherent</td>
<td>modifier</td>
<td>inherent *</td>
</tr>
<tr>
<td>number</td>
<td>inherent</td>
<td>modifier</td>
<td>inherent</td>
</tr>
<tr>
<td>case</td>
<td>inherent</td>
<td>modifier</td>
<td>–</td>
</tr>
<tr>
<td>location</td>
<td>modifier</td>
<td>modifier</td>
<td>inherent</td>
</tr>
</tbody>
</table>

* For reasons of space I am unable to provide detailed evidence for the head-status of the number and gender features encoded in Blackfoot determiners. Suffice it to say that there is no truly unmarked form available and the animacy of the determiner appears to be determined by agreement (Frantz 1991). We see some of the relevant data for number marking in Section 4.

I argue that the difference between inherent and modifying features is a reflex of the familiar structural distinction between heads and adjuncts. More specifically, the difference in feature composition is a result of the syntactic operation \textit{merge}. When a given linguistic object (LO) merges with another LO, it can do so in one of two ways: It can determine the label of the newly formed LO, in which case the merged LO functions as a head. Alternatively, the label of the newly formed LO can be identical to the label of the LO before the application of \textit{merge}, in which case the merged LO functions as an adjunct. If this approach is on the right track, we can conclude that features are regular LOs that participate in syntactic operations. While it is mostly assumed within the minimalist program that features participate in the syntactic operation \textit{agree}, the present article argues that they also participate in the syntactic operation \textit{merge}. The main argument for this claim stems from the fact that there are two types of features (inherent and modifying), and that this distinction straightforwardly falls into place if we assume that features are composed via \textit{merge}.

Modifying features are by definition optional in contrast to inherent head features. It thus follows that their presence is semantically conditioned: adding a modifying feature narrows down the set of possible discourse referents that can be picked out by a given DP. For example, a DP headed by a determiner that is unmarked for gender can pick out any discourse referent, while a DP headed by a determiner modified with a \textit{fem} feature is restricted to female discourse referents. As such, the presence of a modifying feature is always determined from outside the DP, either by properties of the discourse referent or by the syntactic context of the DP. This contrasts with features that form an integral property of the determiner and are therefore obligatory, just like the presence of functional heads, for example. However, what is subject to variation is the way in which the value of this inherent feature is determined. While feature valuation is always a function of the syntactic operation \textit{agree}, we have seen that the valuing element (the goal, in Chomsky’s terms) can but need not be in the c-command domain.
of the determiner (see Baker 2007 for a similar view). For example, we have seen that the value of gender on determiners in German is determined by the nominal complement below the determiner. In contrast, the value of case on German determiners is determined by the syntactic context of the DP as a whole and thus is independent of the nominal complement. We have seen that the varying properties of features are purely formal in nature and as such are independent of feature content. This is expected under the assumption that features are regular LOs that can undergo the familiar syntactic operations. Given the assumption that syntax is autonomous, we do expect that features too have an autonomous syntax that is independent of their content.

Finally, I briefly compare the present proposal to previous approaches towards feature composition. It is one of the main results of the present study that feature bundles are not unordered sets but instead structured. As a consequence, the paradigmatic organisation of d-features differs cross-linguistically, despite the fact that their feature content is nearly identical. This in itself is not a new conclusion: several researchers have previously proposed a hierarchical organisation of features (Blevins 1995; Harley & Ritter 2002; Cowper & Hall, this volume, among many others). Such feature hierarchies are generally used to explain systematic gaps in the paradigms (patterns of syncretism) or cross-linguistic variation within paradigms. An example of such a feature hierarchy is the feature geometry developed in Harley & Ritter (2002) for pronouns, given in (66).

\[(66) \text{ Referring expression (= Pronoun)} \]

\[
\begin{array}{c}
\text{PARTICIPANT} \\
\text{Speaker} \quad \text{Addressee} \\
\text{INDIVIDUATION} \\
\text{Group} \quad \text{Minimal} \\
\text{augmented [ANIM]} \quad \text{[INANIM]} \\
\text{[MASC]} \quad \text{[FEM]} \quad \text{[NEUT]} \\
\text{CLASS} \\
\end{array}
\]

(Harley & Ritter 2002: 486, Ex.6)

The geometry in (66) captures the insight that features do not just come in bundles but are hierarchically organized: it defines natural classes of features and it identifies the conceptual bases for different sets of features (i.e., the features represented in small caps). Furthermore, in the hierarchy in (66), underlining represents the default interpretation of an unmarked organising node and as such captures the difference between marked and unmarked features. That is, if INDIVIDUATION is unmarked, the default interpretation is Speaker (i.e., [1st person]); if INDIVIDUATION is unmarked, the default interpretation is Minimal (i.e., [SG]); and finally, if CLASS
is unmarked, the default interpretation is inanimate (i.e., [neut]). Note that in this system, the distinction in markedness is not a result of the hierarchy itself, it is instead encoded with an additional diacritic, which is independent of the hierarchical organisation. The main problem with the feature geometry in (66) is its failure to recognize the distinction between an unmarked feature value and the absence of marking. Take for example number. According to the feature geometry in (66), the value [sg] arises in the absence of the feature [augmented]. If this were the case universally, we would expect that the Halkomelem determiner, which is not specifically marked as plural, would necessarily be interpreted as singular, contrary to fact. While we might need a feature geometry to understand the nature of unmarked values (something that the current proposal does not provide), we need to also make sure that the system allows for a recognition of the two types of being unmarked. This is what the present syntactically grounded system allows us to do. I submit that the effects of feature geometries are ultimately derivable from independently established properties of the computational system.

4. … and how is it spelled out?

So far we have investigated the determiner system of three different languages in terms of two questions: (1) what is in a determiner in terms of feature content, and (2) whether it functions as an inherent or a modifying feature, which affects its distribution. We have seen that languages display variation in both these dimensions. We now turn to another dimension in which features may differ across languages, namely in terms of their spell-out properties. By spell-out properties, I mean the phonetic content associated with a given d-feature. Specifically, I am interested in the spell-out of d-features as it relates to the spell-out of the equivalent feature that serves as the valuing feature. Roughly, we observe that languages differ as to whether or not the phonetic content of the valued feature is identical to the phonetic content of the valuing feature. To illustrate, consider the spell-out properties of plural marking in German (67)–(69) and Blackfoot (70)–(71).

(67) German:
  a. der Mann
     D.MASC.SG man
     ‘the man’
  b. die Männ-er
     D.PL man-PL
     ‘the men’

(68) German:
  a. die Frau
     D.FEM.SG woman
     ‘the woman’
  b. die Frau-en
     D.PL woman-PL
     ‘the women’
We observe that in German, the spell-out of [pl] on determiners is **distinct** from the spell-out of [pl] on nouns. This contrasts with Blackfoot, where the spell-out of [pl] is **identical** on nouns and determiners. In the typological literature, the latter spell-out type is classified as **alliterative agreement** (Corbett 2006: 16f.). In light of this empirical observation, the question arises as to whether this is a significant difference, and if so, what it tells us about the spell-out properties of d-features. Note that the syntax of [pl]-marking is identical in Blackfoot and German: in both languages, number functions as an inherent feature. We have seen evidence for this in German in Section 3.2. Blackfoot [pl] marking displays precisely the same properties: there are no determiners that are truly unmarked for number, and as such, [pl] marking is obligatory in the context of a [pl] noun (72).

This leads us to our first conclusion regarding the spell-out properties of d-features: they are independent of feature content and independent of feature syntax. The purpose of this section is to develop a principled analysis that accounts for the spell-out properties of d-features. I first outline the basic assumptions concerning the nature of spell-out as proposed in the framework of Distributed Morphology (Section 4.1); then I show how the Blackfoot pattern cannot be straightforwardly accounted for within this set of assumptions (Section 4.2); and finally I develop a proposal that provides a principled explanation for different spell-out patterns of d-features (Section 4.3).
4.1 The mechanics of spell-out

For the purpose of this article, I adopt the main assumptions regarding spell-out as developed in the framework of Distributed Morphology (Halle & Marantz 1993). According to this approach, the computational system (syntax) manipulates abstract heads without phonetic content. The computational system derives complex heads, which must then be matched by appropriate vocabulary items (i.e., items with phonological content). Only the most specific vocabulary item can be inserted, and this is what is known as the operation spell-out. This amounts to saying that the insertion of syntactically derived vocabulary items is post-syntactic. This leads to a strict division of √roots which are inserted early and functional categories which are inserted late.

Let us briefly work through a derivation of German determiners given this view of spell-out. In Section 3 we saw that the value of number is determined by properties of the noun, namely by means of the syntactic operation agree. The derivation is repeated below for convenience.

(73)

i. \[\sqrt{mann}\_N\]

[\text{number: pl}]

ii. \[D \ D \ [\sqrt{mann}\_N] \rightarrow F\text{-matching}\]

[\text{number: u}] [\text{number: pl}]

iii. \[D \ D \ [\sqrt{mann}\_N] \rightarrow F\text{-valuation}\]

[\text{number: pl}] [\text{number: pl}]

In (73), the nominal root √mann (‘man’) is inserted early. In the course of the derivation, the functional feature number is added (on some accounts by virtue of a functional category; see Ritter 1991). When the abstract functional head D is added, it comes with an unvalued feature [number: u], which subsequently gets valued via agree. Once the abstract D head is valued for all its features, a vocabulary item is chosen that most closely matches the feature specification of the derived and valued D-head. For the case at hand, the following determiners are among the ones lexical insertion can select:

---

16. Within Distributed Morphology, the derived syntactic heads can be interpreted by a component identified as “morphology”. However, for the purpose of this article, we can abstract away from this component as it plays no role.
(74) **Vocabulary items:**

\[
\begin{align*}
\text{D:} & \quad ([\text{sg}], [\text{masc}], [\text{nom}]) \rightarrow \text{der} \\
& \quad ([\text{sg}], [\text{fem}], [\text{nom}]) \rightarrow \text{die} \\
& \quad ([\text{sg}], [\text{neut}], [\text{nom}]) \rightarrow \text{das} \\
& \quad ([\text{pl}],[\text{nom}]) \rightarrow \text{das} \\
\sqrt{\text{mann}:} & \quad ([\text{sg}]) \rightarrow \text{Mann} \\
& \quad ([\text{pl}]) \rightarrow \text{Männer}
\end{align*}
\]

The operation **spell-out** then inserts these vocabulary items, and as such, the phonological content missing from the abstract syntactic heads is added, as shown in (75).

(75) \[
[D \quad \text{die} \quad [\text{Männer}]_\text{N} \rightarrow \text{spell-out}
\]

\[
[\text{number: pl}] \quad [\text{number: pl}]
\]

For the purpose of the present discussion, it is crucial that under this approach the phonological content of the [pl] feature on the determiner is independent of the phonological content of [pl] marking on the noun. Thus, we do not expect [pl] marking on nouns and [pl] marking on determiners to be related. This is in fact what we find in German, as we have seen in (67)–(69). This approach also correctly predicts the existence of suppletive forms. That is, since the spell-out of [pl] on nouns is independent of the spell-out of [pl] on determiners, it is irrelevant what form the [pl] marker on the noun takes. What is crucial is the presence of the morpho-syntactic feature.

4.2 The problem with Blackfoot

As shown above, in Blackfoot, [pl] marking on the noun is spelled out identically to [pl] marking on the determiner. Assuming the same derivation for [pl] marking in German and Blackfoot, we come to the conclusion that the identity in form of Blackfoot [pl] marking is coincidental. Consider the derivation of the plural phrase *omiksi ponokáiks* (‘those elks’) in (76). In a first step, the nominal root *ponoká* is inserted early; the plural feature is subsequently added in the form of a functional head. Next, the abstract D-head is merged (without phonological content because it is a functional morpheme) and it contains an unvalued [pl] feature. This

---

17. This is not completely true. In fact plural marking on the noun is pronounced (*iks/ists*), while the equivalent marker on the determiner is marked with (*iksi/istsi*). I assume that this is due to a late phonological rule.
feature is valued by the corresponding [pl] feature on the noun. Finally, an appropriate vocabulary item is chosen, namely one that most closely matches the feature specification of the derived abstract D-head. These forms include the ones shown in (77). And finally, the operation spell-out produces the plural phrase.

(76)  
  i. \([ponoká]_N\)  
      \([\text{number: pl}]\)  
  ii. \([D \ D] [ponoká]_N\)  
      \([\text{number: pl}] [\text{number: pl}]\)  
      \(\rightarrow\) F- matching  
  iii. \([D \ D] [ponoká]_N\)  
      \([\text{number: pl}] [\text{number: pl}]\)  
      \(\rightarrow\) F- valuation

(77) Vocabulary items:  
D:  
([sg], [anim]) \(\rightarrow\) ooma  
([sg], [inanim]) \(\rightarrow\) oomi  
([pl], [anim]) \(\rightarrow\) oomiksi  
([pl], [inanim]) \(\rightarrow\) omistsi

(78)  
[D omiksi]  
[ponokáiksi]_N  
\(\rightarrow\) spell-out  
\([\text{number: pl}] [\text{number: pl}]\)

The problem with this derivation is obvious. Since the expression of [number: pl] on D is independent of the expression of [number: pl] on N, the sameness in phonological form is purely coincidental.

4.3 The proposal: Early insertion of f-morphemes

The identity in phonological content between [pl] marking on nouns and determiners leads to an obvious conclusion. It appears that [pl] marking is associated with one and the same phonetic content across the two categories (nouns and determiners), and thus with one and the same vocabulary item. If so, we can conclude that [pl] marking in Blackfoot is inserted early; specifically it is inserted before agree values the number feature on the determiner. This still allows us to understand feature valuation in terms of agree, but because the plural exponent is inserted early, agree has the effect of copying the plural formative to the higher position. The derivation I propose for Blackfoot [pl] marking is illustrated in (79).
As before, the nominal root \([\sqrt{ponoká}]_{n}\) is inserted early, but now the functional category \textsc{number} is merged with its phonological content (i.e., via early insertion). When the determiner is merged with an unvalued feature \([\text{number: } u]\), it is matched with the corresponding number feature on the noun. This time the effects of \textsc{agree} are that of copying, because the phonological content is already present at the point of \textsc{agree}. As a consequence, \([\text{pl}]\) marking on the noun and the determiner are identical in form.

\begin{enumerate}
  \item \([\sqrt{ponoká]}_{i} \textsc{number}] \textsc{number} \quad \text{[number: } \text{pl}]\)
  \item \([\sqrt{ponoká}_{i} \textsc{iksi}] \textsc{number} \rightarrow \text{VI insertion (} \text{=early} ) \quad \text{[number: } \text{pl}]\)
  \item \([\text{D } D] \quad [\sqrt{ponoká}_{i} \textsc{iksi}] \textsc{number} \rightarrow \text{F-matching} \quad \text{[number: } u] \quad \text{[number: } \text{pl}]\)
  \item \([\text{D } D-\text{iksi}] \quad [\sqrt{ponoká}_{i} \textsc{iksi}] \textsc{number} \rightarrow \text{F-valuation = F-COPY} \quad \text{[number: } \text{pl}] \quad \text{[number: } \text{pl}] \quad = \text{pied piping of phonetic material}\)
  \item \([\text{D } oma-\text{iksi}] \quad [\sqrt{ponoká}_{i} \textsc{iksi}] \textsc{number} \rightarrow \text{VI insertion (} \text{late} ) \quad \text{[number: } \text{pl}] \quad \text{[number: } \text{pl}]\)
\end{enumerate}

The assumption that \([\text{pl}]\) is inserted early in Blackfoot immediately predicts the absence of suppletive forms or allomorphy in Blackfoot \([\text{pl}]\) marking. And to the best of my knowledge, this is indeed the case: Blackfoot \([\text{pl}]\) marking is completely regular on both nouns and determiners. Thus, our argument for early insertion of a functional morpheme which is based on economy considerations receives independent empirical support.

### 4.4 Summary

I have argued in this section that in Blackfoot, \([\text{pl}]\) marking undergoes early insertion despite its status as a functional morpheme. This differs from standard assumptions within the framework of Distributed Morphology, according to which f-morphemes are always inserted late. There are two correlates for early insertion of f-morphemes: no suppletive forms (or allomorphs) and (near) identity in phonetic content.
This proposal makes a number of predictions, which I have to leave for future research. In particular, we predict that plural markings on two distinct categories can only be identical in form if they are inserted early and if the feature is a head feature (otherwise co-occurrence is not a function of agree). What remains to be determined is the triggering factor for early versus late insertion: is it something that needs to be learned as part of the lexical entry of a given functional morpheme? Or are there language-specific or morpheme-specific factors that will determine the insertion site? I will have to leave this question for future research.

5. Conclusion and remaining questions

The main goal of this article was to explore the feature composition of determiners across three unrelated languages. In particular, I was concerned with three questions:

1. What is the feature content that is expressed in given determiner?
2. What are the formal syntactic properties of any given d-feature?
3. What are the spell-out properties of any given d-feature?

With respect to the first question, we have found that the feature content encoded in the three systems is virtually identical, with the exception of case, which is missing in Blackfoot (Table 7, Section 2.3).

In exploring the formal syntactic properties of d-features, we have seen that despite identity in content, the d-features behave differently. Specifically, I have shown that there are two ways in which features differ syntactically: the modes of merge (as a head or as a modifier) and the locus of feature valuation (from within or from outside the DP). The findings are summarized in Table 11.

<table>
<thead>
<tr>
<th></th>
<th>German</th>
<th>Halkomelem</th>
<th>Blackfoot</th>
</tr>
</thead>
<tbody>
<tr>
<td>gender</td>
<td>Head dependent on N</td>
<td>modifier dependent on N(um)</td>
<td>head dependent on N(um)</td>
</tr>
<tr>
<td>number</td>
<td>Head dependent on N(um)</td>
<td>Modifier dependent on N(um)</td>
<td>head dependent on N(um)</td>
</tr>
<tr>
<td>case</td>
<td>Head dependent on syntactic position</td>
<td>Modifier dependent on syntactic position</td>
<td>–</td>
</tr>
<tr>
<td>location</td>
<td>Modifier dependent on discourse referent</td>
<td>head dependent on discourse referent</td>
<td>head dependent on discourse referent</td>
</tr>
</tbody>
</table>
Assuming that d-features are composed in two different ways allowed us to understand a number of puzzling properties associated with the paradigmatic organisation of d-features. In particular, under this approach it is clear why determiner paradigms seem to be organised so differently even if they involve features of similar or even identical content. Paradigmatic organisation will in part reflect the head/modifier distinction. Furthermore, I have established the existence of two kinds of unmarked forms: a determiner can be marked or unmarked for a given feature, and a marked feature can be associated with an unmarked value. A determiner marked with a modifying feature does not enter into a paradigmatic contrast: the unmarked form is truly unmarked for the relevant feature. In contrast, a determiner marked with an inherent head feature enters into opposition with other values for the same feature. But even head features can be associated with a default value that is used in the absence of explicit marking (for example, the unmarked gender value in German is [neut]). Previous approaches that seek to capture the fact that features are not simply unordered bundles cannot distinguish between these two types of markedness. I have argued that this distinction is best analysed as a reflex of a structural distinction familiar from syntactic composition, namely the one between heads and adjuncts. This leads me to conclude that feature composition is essentially syntactic. This suggests that features are not special linguistic objects, but instead that they are subject to the same syntactic operations as any other linguistic object. As such, the present study supports the view that there is a single engine for composition that applies above and below the word level. This is hardly surprising, given recent claims about the role of features in natural languages. That is, within the minimalist program it is assumed that syntactic operations are essentially feature driven: features are standardly assumed to undergo and thus trigger movement and/or agreement.

An important byproduct of the proposed analysis is a new approach towards the distinction between determiners and demonstratives. In particular, it allows us to understand why some languages appear to only have demonstratives, while others have determiners and demonstratives. If location functions as an inherent head feature, all determiners will be so marked and we get a language with only demonstratives (such as Blackfoot). In contrast, in a language where location functions as a modifying feature, we expect a difference between determiners that are truly unmarked for location (i.e., determiners) and determiners that are marked for location (i.e., demonstratives).

Finally, I have also shown that the spell-out properties of features can differ: a given feature can be inserted early, in which case feature valuation results in copying the feature including the phonological content. In contrast, a feature can instead be
inserted late, in which case the marking will differ in form on the two elements that are so marked (for example, [p.l.] marking on nouns and determiners in English).

While this article has only analysed three languages, it makes clear predictions regarding the range of variation we expect to find. It remains to be seen whether or not these predictions are borne out. But to do so, we will have to investigate many more languages, which goes beyond the scope of this article.

References

Corbett, G. 2006. Agreement. Cambridge: CUP.
Cowper, E. & Hall. D.C. This volume. Argumenthood, pronouns, and nominal feature geometry.
Ghameshi, J. & Massam, D. This volume. The proper D connection.
Mathieu, E. This volume. From local blocking to cyclic agree: The role and meaning of determiners in the history of French.


The proper D connection

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We examine the concepts “proper” and “common” to determine how they are encoded in noun phrases. We address the issue of the noun-determiner relation in fixing the value of a noun phrase, arguing that both noun class and determiner features are involved. We suggest that in both definite common and proper noun phrases, NP is topped with a DP. In the former case, the DP contains the overt definite determiner the (in English), which is unmarked for any proper value as well as for number. In the latter, the DP also contains a definite determiner, which is null in English but not in all languages. This determiner has the features [proper] and [singular], which restrict it to appearing with singular NPs with a [name] feature.

1. Introduction

In this article we look at the features proper and common to determine how they are encoded in noun phrases.1 By examining English and some other languages, we argue that cross-linguistically both the noun and the determiner play a role in establishing the proper/common value of a noun phrase. We develop a system in which there is a distinct proper determiner with the values [definite], [proper], and [singular], which are related to the concept of unique reference.2 We also consider

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1. We use “noun phrase” as a cover term for the nominal constituent that is comprised of the NP and the projections dominating it such as NumP and DP. To refer solely to the projection of the noun we use NP. We use “proper name” to refer to names at the N0 level and “proper noun phrases” to refer to names at the DP level.

2. We use features such as [singular]/[plural] and [name]/[common] in order to reserve the absence of featural specification for true unmarkedness (i.e., neutrality with respect to a feature). We do so without intending to situate ourselves within a formal feature theory, the development of which we leave for future work. Many interesting questions remain, such as whether there could be languages without the [name]/[common] distinction or whether
proper names to be distinct from common nouns at the N level by virtue of the feature [name]. We contrast our system with others in the literature (Longobardi 1994, 2005; Thomsen 1997; Anderson 2004, 2007; Borer 2005; Matushansky 2006), and we illustrate how it can account for a wide range of facts in English, as well as other languages such as Persian and Niuean.

Judging from the norm in English as shown in (1), English can be pre-theoretically described as a language in which determiners occur with common nouns but do not occur with proper names.

(1) a. The dog is in the living room.
   b. Maria is in Rome.

This descriptive generalization has been called into question, however. The strongest reason for further examination of the role of determiners in proper noun phrases is the fact that in some languages there are morphemes that might be classified as articles or determiners that do appear with proper names. These languages include Catalan (Gili 1967), Fijian (Alderete 1998), Greek (Anderson 2004), Halkomelem (Wiltschko, this volume), Kavalan (Chang, et al. 1998), Niuean (Seiter 1980), Seri (Marlett 2008), and Skwxwú7mesh (Gillon, this volume). Across these languages, the particular character of the relevant marker varies. For example, in Niuean (Polynesian), proper/common marking is syncretic with case marking, as shown in (2) and (3). This distinction runs across the case system, as illustrated in (3).

these features might vary cross-linguistically along the lines suggested by Wiltschko (this volume).

We are positing that the null proper determiner has three features: [definite], [proper], and [singular]. It is clear, as we discuss below, that the first of these features is interpretable, but the status of the other two is less clear. For the most part in this article, we treat them as uninterpretable (agreement or selection) features, the role of which is to ensure that the proper determiner appears only with singular nominal phrases with the value [name]. Yet their presence is discernable in syntax (see Section 5.2) and at PF (to ensure the determiner is pronounced “null”). And it seems clear to us that the presence of these features in particular on the proper determiner is not an accident, but rather is rooted in the semantics of uniqueness and non-partitivity. Finally, note that if the only determiner feature with semantic content is [definite], then given that the common case markers in Niuean are not marked for definiteness, we can conclude that the common case markers in Niuean mark precisely the absence of any determiner features, and that definite determiner features (syncretic with case) only occur with proper names.
(2) Niuean:\(^3\)

a. Ne tohitohi a Sione.
   \(\text{PST writing ABS.P Sione}\)
   ‘Sione was writing.’
   (Massam field notes 1997)

b. Kua egaega e kau kauvehe.
   \(\text{PERF rosy ABS.C PL cheek}\)
   ‘The cheeks are rosy.’
   (Sperlich 1997: 55)

c. Ko e tele e Sione a Sefa.
   \(\text{PRES kick ERG.P Sione ABS.P Sefa}\)
   ‘Sione is kicking Sefa.’
   (Seiter 1980: 29.73d)

d. To lagomatai he ekekafo a ia.
   \(\text{FUT help ERG.C doctor ABS.P 3SG}\)
   ‘The doctor will help him.’
   (Seiter 1980: 29.73b)

(3) Niuean Case System (Seiter 1980):

| COMMON    | e | he | he | ke | he | he | mai | he |
| PROPER    | a | e  | i  | ki | ha | mai |

In Catalan the definite determiner shows a common/proper distinction before masculine nouns beginning with a consonant, as shown in (4)–(6).

(4) Catalan:

a. el noi
   \(\text{DET boy}\)
   ‘the boy’

b. l’ home
   \(\text{DET man}\)
   ‘the man’

3. The following abbreviations are used:

| \(\text{ABS}\) | absolutive | \(\text{LOC}\) | locative |
| \(\text{ASP}\) | aspect     | \(\text{OM}\) | object marker |
| \(\text{AV}\)  | actor voice| \(\text{P}\)  | proper      |
| \(\text{C}\)   | common     | \(\text{PERF}\) | perfective |
| \(\text{CL}\)  | clitic     | \(\text{PL}\) | plural     |
| \(\text{DEF}\) | definite   | \(\text{PRED}\) | predicate  |
| \(\text{DUR}\) | durative morpheme | \(\text{PRES}\) | present |
| \(\text{ERG}\) | ergative   | \(\text{PST}\) | past       |
| \(\text{EZ}\)  | ezafe (Persian linking vowel) | \(\text{REL}\) | relativizer |
| \(\text{FUT}\) | future     | \(\text{SG}\) | singular   |
| \(\text{GEN}\) | genitive   | \(\text{SUBJ}\) | subjunctive |
| \(\text{LIG}\) | ligature   |                 |            |
Finally, in Kavalan the prefix ti- appears on arguments that are both proper and human, as discussed in Chang et al. (1998). As the examples in (7) show, a common noun like tazuNan ‘woman’ cannot appear with the prefix ti-, and a proper name like Abas must appear with this marker. The noun tina ‘mother’ can be used as either common or proper, which is also the case in English and other languages. We discuss this type of flexibility further in Section 4.

(7) Kavalan:

a. p-um-ukun=ti ti-tina (*ti-)tazuNan
   hit-ASP TI-Mother TI-woman
   ‘Mother has hit a woman.’

b. p-um-ukun=ti ti-abas (*ti-)tina-na
   hit-ASP TI-Abas TI-mother-3sg-gen.
   ‘Abas has hit his mother.’ (Chang et al. 1998: 3.5)

Such languages provide evidence that proper names can appear with determiners or their functional equivalents. In fact, even in languages such as English where proper names do not appear with determiners in general, a determiner position

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4. The functional equivalent of DP is the left-peripheral functional head that must appear with NP in order for NP to function as an argument. For example, Cowper and Hall (this volume) argue that in English either DP or φP can have this function. The functional equivalent of DP in Niuean is case phrase (KP) (Massam et al. 2006).
has been argued for (Longobardi 1994, 2005). One argument for this is that proper names pattern identically with DPs, for the most part, in their ability to appear as subjects and objects of sentences, for example. Here we briefly survey a few recent analyses of proper names that account for their status as DPs.5

In his explicit syntactic account of the behaviour of proper names, Longobardi (1994, 2005) proposes that proper noun phrases are DPs headed by an empty determiner position with no substantive properties and with subsequent N-to-D movement.6 This movement is necessary to ensure that proper names, as bare nouns, do not receive an existential interpretation. In Romance, the movement may take place overtly or, alternatively, the D position may be filled with an expletive article. This accounts for variations in adjective/noun order in Romance languages. In English, N-to-D movement takes place at LF.

(8) a. \([\text{DP } [\text{D} \text{Gianni}] [\text{NP} \text{Gianni}]]\)  
   \(\text{Italian, N-to-D at S-structure}\)  

b. \([\text{DP } [\text{D} \text{Il}] [\text{NP} \text{Gianni}]]\)  
   \(\text{Italian, name with expletive article}\)  

c. \(\text{*}[\text{DP } [\text{D} e] [\text{NP} \text{Gianni}]]\)  
   \(\text{Italian, name in situ}\)  

d. \([\text{DP } [\text{D} \text{John}] [\text{NP} \text{John}]]\)  
   \(\text{English, N-to-D at LF}\)  

(Longobardi 1994, 2005)

In Longobardi (1994), the movement is motivated by an uninterpretable feature on D, while in his 2005 work the movement is motivated by a semantic difference between the two types of nouns, that is, whether they are object-referring (proper) or kind-referring (common).

Thomsen (1997), working within the generalized quantifier framework, considers nouns and names to be two different categories (CN vs. PN) which nevertheless both denote sets. Proper names differ from common nouns in that syntactically they can behave as phrases (NPs) rather than nouns. As noun phrases, proper names have the corresponding semantics of definite descriptions. This is achieved via a semantic rule which adds the features \([\text{def.sing}]\) to names.

Borer (2005), in contrast, considers the difference between common nouns and proper names to be fundamentally non-computational, instead being determined by social convention and associated with their encyclopaedic entry. Nouns are hence not lexically marked as proper or common, but are interpreted as such depending on their context: proper in \textit{Kim} and \textit{good old Kim}, and common in \textit{the tall Kim}, and \textit{the Clintons} (Borer 2005: 74). In Borer’s system, a null determiner

5. This survey is by no means comprehensive, and for each of the works cited, there are references contained therein (e.g., Gary-Prieur 1994) that would be worthy of discussion in a longer piece of work.

6. In his more recent work, Longobardi (2006) proposes that D minimally consists of the person feature cross-linguistically.
head is merged, and must be assigned range, which can occur by merging an overt
determiner in the specifier position of DP, or by the determiner head containing
an abstract head feature \(<\text{def-u}\>\), which triggers merger of a copy of the noun
to the specifier position of DP giving phonological support. Thus, for Borer, the
interpretation of a noun as proper or common is determined entirely by the deter-
miner it is merged with.

Matushansky (2006) proposes that proper names are definite descriptions,
that is, they appear with the same definite determiner contained in definite noun
phrases, but this determiner is not pronounced. The mechanism by which the defi-
nite determiner is omitted is m-merger, a morphological process that takes two
heads and returns one. As a result of this, Matushansky states, the definite deter-
miner becomes an affix on the proper name and can be conditioned to be null or
to take a special form. Because m-merger requires strict locality between N and D,
it is blocked in the presence of some types of inflectional morphology (e.g., plural
marking) and where the noun is restrictively modified. It is also blocked with cer-
tain lexical classes (e.g., names of ships).

For Anderson (2007), who builds on his past work (see, for example, Anderson
2004), names constitute their own primitive syntactic category akin to nouns.
When names are used as arguments they are determinatives, as are pronouns
and determiners. Names acquire this status and the added meaning of definite-
ness either “analytically” by the addition of an overt determiner, as in Greek, or
by a covert lexical process, as in English. In addition to definiteness, names may
acquire number (singular) and gender.

Table 1 summarizes the different positions of these authors. The first row indi-
cates whether the authors consider proper names to be distinct categorially from
common nouns, the second row indicates whether or not definiteness is present
(introduced via a D-head for those working within Minimalism), and the third
row indicates whether the authors believe the feature \([\text{singular}]\) is part of the fea-
ture bundle associated with proper noun phrases.

Table 1. A summary of some recent analyses of proper names

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference at N-level</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>DP is definite</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>DP is singular</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

* For Thomsen it is not strictly speaking DP that is definite and singular, since she does not assume a DP in syntax. Rather, she proposes that the features \([\text{def.sg}]\) are added to a proper name by semantic rule when the proper name constitutes a phrase (NP) rather than a head (N).
All of these systems are trying to account for the roles of both nouns and determiners in flagging the proper or common status of a noun phrase.

Here, we argue—like Longobardi, Borer, and Matushansky—that there is syntactically a null determiner in proper noun phrases, but we follow Thomsen and Anderson in having the three properties listed in the table above: a distinction at the N-level, and a DP that is specified as definite and singular. We employ the feature [name] to distinguish proper names from common nouns at the point of merge, and consider the null determiner to have the features [proper], [definite], and [singular]. The [proper] determiner must occur with a [name] NP. The interpretable feature [definite] on the null determiner captures the notion that proper noun phrases are definite expressions. Noting that the definite determiner the can often appear with proper names and appears with both singular and plural nouns, we consider that it is also [definite], but is unmarked for [proper] and number. While we simply posit the features of [definite], [proper], and [singular] on the null determiner and do not explore their exact feature-theoretic relations with each other, we consider that they can be semantically derived from the concept of uniqueness associated with naming. We argue that by building in the feature [definite] and positing two other features [proper] and [name] that play a role in syntactic processes such as selection and/or agreement, we can capture the full range of interpretive options for noun phrases across several languages.

2. Our current proposal

We assume a Distributed Morphology model of grammar in which syntax operates on bundles of features in terminal nodes, which we call morphemes here. After syntax, Vocabulary Insertion occurs, inserting phonological specifications into these nodes. (Halle & Marantz 1993, 1994; Harley & Noyer 1999). Additional real-world knowledge about pieces of syntax (terminal nodes and phrases) is contained in the encyclopaedia.

A natural starting point is to consider the featural status of the head noun morpheme (N^0) in a proper noun phrase. We consider that there are (at least) two types of noun morphemes, [name] nouns (N^0_{name}) and [common] nouns (N^0_{common}), which differ semantically in that they pick out different kinds of sets

---

7. We do not take a stand in this article on the mechanisms involved in establishing that a proper determiner occurs with a noun that is [singular] and [name]. This could be done by selection or agreement, for example. What is important (see Section 4) is that while [name] nouns can appear in the syntactic frames used for [common] nouns, the proper determiner cannot appear with a [common] noun.
Nouns specified as [name] pick out sets of individuals bearing the same name, while [common] nouns pick out sets of individuals sharing the same properties, i.e., properties other than having the same name. This is illustrated in (9), using representations based on those presented by Thomsen:

(9) a. \(N_{name}: \{x: \text{is-named}(x, N_{\text{proper}})\}\)

b. \(N_{\text{common}}: \{x: \text{properties-of-N}_{\text{common}}(x)\}\)

Given these different semantics for proper names and common nouns, we consider them to be formally distinguishable, as indicated by our use of the features [name] and [common]. Note that we use the feature [name] rather than [proper] in order to reserve the latter as a formal property of the noun phrase, which comes in at the grammatical level of determiner.

While we propose that the [name] vs. [common] distinction is semantically based, it is possible for there to be cross-linguistic variation in the way vocabulary items are associated with one or the other category. In Niuean, for example, the [name] vs. [common] feature is relevant for whether nouns appear with proper marking, and the vocabulary items that are so marked are given below. Interestingly, this division largely patterns with the Romance alternations between N-to-D vs. articles (Longobardi, p.c.; see also Strang 1962).

(10) a. **Types of nouns appearing with proper case marking in Niuean:**
   - Pronouns
   - Names of people/places
   - Names of days/months
   - Kinship/home-type nouns/local nouns (outside, front, sea, land)

b. **Types of nouns occurring with common case marking in Niuean:**
   - Names of ships, schools, organizations
   - Common nouns

---

8. Note that this system does not have the problem discussed by Borer (2005) in which designating nouns as proper means that every noun must have two lexical entries to allow for the flexibility by which proper names can be used as common nouns and vice versa. We actually only have two lexical items, a proper name and a common noun, in the pre-syntactic lexicon. Any noun can be inserted into these categories, with varying effects, as we discuss below.

9. These representations are compatible with Matushansky (2006: 288–289), who proposes that proper names and common nouns both enter the syntax as predicates but that proper names have an extra argument slot for the naming convention.
In addition to distinguishing proper names from common nouns at the N-level, we follow Longobardi (1994) in positing a phonologically null determiner that occurs in English proper noun phrases. We further propose that it shares semantic features with the definite determiner *the*, in English and possibly in other languages too. That is, it provides definiteness to the nominal phrase. (See also Matushansky 2006, who argues that the two determiners are semantically identical.) It differs from *the*, however, in that it bears both the feature [proper] and the feature [singular], while *the* is neutral with respect to the proper/common distinction and number (Bernstein 2008). As the less specified determiner, *the* is the default in English and will always appear with common nouns. We illustrate the featural character of the two determiners in (11). Under the late insertion model of Distributed Morphology, where feature bundles are associated with phonological representations post-syntactically, we consider it to be the feature [proper] that serves as the instruction to “spell out” the determiner as null.

\[ (11) \]
\[ \begin{align*} 
  \text{a. NULL} & \leftrightarrow [\text{proper}, \text{singular}, \text{definite}] & \text{featurally marked} \\
  \text{b. the} & \leftrightarrow [\text{definite}] & \text{unmarked}
\end{align*} \]

In a language like Catalan, both determiners also include a gender feature and both are phonologically realized, as shown in (12) and (13).¹⁰

\[ (12) \]
\[-\]
\[-\]

\[ (13) \]
\[-\]
\[-\]

In English, the null determiner shares with *the* a number of semantic features such as identifiability, familiarity, and uniqueness, which fall under the cover term definiteness (Lyons 1999). For this reason, a proper noun phrase is similar to a definite

---

¹⁰ The following abbreviations are used in the trees: DEF=definite, F=feminine, M=masculine, PL=plural, PR=proper, SG=singular.
description. Note that (14a) contrasts with a bare plural *Kellys*, which is a NumP (see (29a) and discussion in Section 5.1).

\[(14)\]

\[\begin{align*}
\text{a.} & \quad \text{DP} & \quad \text{b.} & \quad \text{DP} \\
& \quad D_{\text{DEF, PR, SG}} & \quad D_{\text{DEF}} \\
& \quad \emptyset & \quad \text{NP} \\
& \quad \text{name} & \quad \text{NP} \\
& \quad N_0^{\text{name}} & \quad N_0^{\text{common}} \\
& \quad \text{Kelly} & \quad \text{rabbit}
\end{align*}\]

We have simply posited the features [proper], [definite], and [singular] on the proper determiner morpheme. We consider, though, that these features can be derived from the semantics of uniqueness, given that to be proper is to be unique and identifiable.

3. **Proper names and determiners**

In this section we explore some implications of the claims presented above, namely that proper names and common nouns are lexically distinguished by the semantic features [name]/[common], and that there is a null determiner that appears in proper DPs which shares the semantic property [definite] with the overt definite determiner *the* and is also marked with the features [proper] and [singular].

3.1 **Overt determiners with proper names**

Since we have claimed that the proper determiner is null in English, let us first consider cases where proper names appear with an overt determiner (see Borer 2005; Matushansky 2006; Anderson 2007; and references therein). Geographic names such as *The Hague* and country names such as *the United Kingdom* may appear with the definite determiner.

Abbreviations (*the CIA*) systematically require a definite determiners, while acronyms (*the NATO*) do not (Harley 2004). We treat [name] morphemes that appear with an overt determiner as idiosyncratically lexically marked. In our system, there is no proper/common contradiction in this configuration, as *the* is unmarked for the feature [proper]. The noun phrase is interpreted as a [name] due to the semantic feature on the head noun.

Treating these cases as idiosyncratic explains the variation in country names we find across languages, for instance, though note that when a name is plural, languages are remarkably consistent in marking them with the determiner that is unmarked for proper/common. We will discuss the relation between determiners and number further below.
The proper D connection

Country Names:

<table>
<thead>
<tr>
<th>English</th>
<th>French</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niue</td>
<td>Nioué</td>
<td>Niue</td>
</tr>
<tr>
<td>India</td>
<td>L’Inde</td>
<td>Indien</td>
</tr>
<tr>
<td>China</td>
<td>La Chine</td>
<td>China</td>
</tr>
<tr>
<td>Iran</td>
<td>L’Iran</td>
<td>(Der) Iran</td>
</tr>
<tr>
<td>Iraq</td>
<td>L’Iraq</td>
<td>Der Irak</td>
</tr>
<tr>
<td>Switzerland</td>
<td>La Suisse</td>
<td>Die Schweiz</td>
</tr>
<tr>
<td>The United Kingdom</td>
<td>Le Royaume-Uni</td>
<td>Das Vereinigte Königreich</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Les Pays-Bas</td>
<td>Die Niederlande</td>
</tr>
<tr>
<td>The Philippines</td>
<td>Les Philippines</td>
<td>Die Philippinen</td>
</tr>
<tr>
<td>The United States</td>
<td>Les États-Unis</td>
<td>Die Vereinigten Staaten</td>
</tr>
</tbody>
</table>

The idiosyncratic presence/absence of an article extends to other subclasses of names, particularly those for inanimate objects. Anderson (2007, Section 6.3.1) discusses such cases noting the “parochiality” of the “presence of an article criterion” for non-name status. Thus, names of continents may or may not be preceded by an article (the Antarctic vs. Asia), names of rivers consistently appear with the definite article (the Trent, the Tay) but not names of lakes (Windermere). There is also variation among subclasses as to where the ‘classifier’ appears. Lakes and rivers take it on their left ((Lake) Windermere, the (River) Thames), while oceans, seas, straits, and bays take it on their right (the Baltic (Sea), the Atlantic (Ocean), Davis Strait, Baffin Bay). With Anderson, we consider these all to be names, though not prototypical ones.

Under our account, there are no semantic differences between phrases with [name] nouns that are lexically marked as requiring an overt determiner and [name] nouns that occur with the null determiner—since both the null determiner and the share the same semantic feature [definite]. Such nouns simply occur with a determiner that is unspecified for the features [proper] and [singular]. The semantic difference between the resulting noun phrases and definite noun phrases containing common nouns is the [name] feature marked on the noun itself:

\[
\begin{align*}
\text{(16) a. } & \quad \text{DP} \\
& \quad \text{D} \quad \text{NP}\_\text{name} \\
& \quad \text{N}^0\_\text{name} \\
& \quad \text{Hague} \\
\end{align*} \quad \begin{align*}
\text{b. } & \quad \text{DP} \\
& \quad \text{D} \quad \text{NP}\_\text{common} \\
& \quad \text{N}^0\_\text{common} \\
& \quad \text{dog}
\end{align*}
\]
In contrast to the cases where the presence of an overt determiner is part of the lexical specification of a name, there are cases where an overt determiner appears with a [name] noun that does not require it:

(17) a. The Donald (name for Donald Trump)
b. The Nana (from the television program The O.C., name for the grandmother)
c. “The New York Review of Books has published a letter by Theodore John Kaczynski—yes, the Unabomber, currently serving out several life sentences in a federal prison in Colorado—taking issue with one writer’s depiction of pygmies in ancient Egypt. The literary journal’s editor, Robert Silvers, says that his staff took no special precautions when opening the notorious mail bomber’s missive, admitting, ‘It only dawned on us afterward that it was the Theodore Kaczynski.’”
(In Salon’s The Fix, Wed. June 29, 2005, reprinted from Lloyd Grove’s Lowdown.)

In these cases the structure is the same as that of The Hague, as given in (16a), but the difference is that these names, unlike Hague, are not lexically specified as requiring an overt determiner. Given that these names do not require determiners, the examples in (17) can be seen as violating Grice’s second Maxim of Quantity (“Do not make your contribution more informative than is required,” Grice 1975: 45–46, cf. violations of the Avoid Pronoun Principle of Chomsky 1981).11 Such violations give rise to what Grice called “implicatures.” An implicature can be loosely defined as something that is implied beyond what is actually said (see also Horn’s [1993] R Principle and, more generally, the theory of Relevance [Sperber & Wilson 1995] that takes Grice’s work as the starting point for a theory of pragmatics). In most cases the extra meaning is arrived at on an ad hoc basis (see Wilson & Carston 2007 on the inferential calculation of an ad hoc concept or occasion-specific sense of a word), though often the meaning of the with a proper name seems to be “the famous one,” as in (17c).

3.2 Bare proper names

An argument in favour of considering nouns to be marked as names at the N-level comes from their interpretation in non-argument positions. In such positions, where they typically do not appear with determiners, crucially they are still interpreted as names (as opposed to set of properties—see (9)). For instance, as both Anderson (2004) and Matushansky (2006) point out, names do not appear with determiners

11. Note that the quantity referred to here is in the phonology, not in the semantics. That is, the makes the noun phrase phonologically longer but actually contributes less in terms of meaning than its null counterpart (see (11) above). In this way it is similar to the presence of pronouns in null pronoun languages in that no additional semantic information is contributed to the utterance, just more phonetic content.
in naming constructions. This is evident in Greek, where proper names ordinarily appear with a definite determiner (18a, b) but do not in the naming construction given in (18c):

(18) Greek:
   a. Aftos ine o Vasilis.
      This is the Basil
      ‘This is Basil.’
   b. Ðen iđa to Vasili.
      not I.saw the Basil
      ‘I did not see Basil.’
   c. Onomazete Vasilis /Ton lene Vasili.
      he.is.called Basil /him they.call Basil
      ‘They call him Basil.’

(Anderson 2004: 441, translations added)

For both Anderson and Matushansky (see also Anderson 2007: 179–183 for similar examples from Seri and Maori), their behaviour with predicates of nomination shows that proper names are predicates and require a determiner to be used as arguments.

In a similar fashion, proper names do not appear with determiners when used as modifiers, as in (19). Since in such contexts, the status of these words as names remains intact, this demonstrates that there is need for a feature such as [name], on the head noun itself. Their status as names cannot be attributed entirely to the proper determiner, since determiners are stripped in adjectival contexts, as in the examples in (20).

(19) He’s a Nixon-hater.

(20) a. Name = The Hague
    CAFAC is a licensed adoption agency in the Province of Manitoba, accredited to work with Hague and non-Hague countries. (http://www.cafac.ca/)
   b. Name = The Who
    Popular performance gimmicks were: ... Paul’s Who-style guitar smashing, and ostentatious pyrotechnics throughout. (http://www.lyricsfreak.com/k/kiss/biography.html)
   c. Name = The Bronx
    This is a Bronx-type environment (Borer 2005: 84.35b)

12. It might be argued that this distinction resides in the encyclopaedia, but without further elaboration of the structure and role of this component of the grammar it is difficult to develop an explicit analysis. In our view, the feature [name] would always be on the noun in constructions like (18c) due to the selectional requirements of verbs like name or call. This would be true even for nouns like desk or table.
The absence of the proper determiner when a [name] noun is used as a modifier can be seen more clearly in a language with normally obligatory overt proper marking, such as Niuean. In (21) *Niue* is used as a modifier, and we note that it appears bare, with no marking for either common or proper.

(21) **Niuean:**

a. He falua tau fuata Niue  
   `some Niuean youths’ (Asekona et al. 2005)

b. he vagahau Niue  
   `in the Niuean language’ (Asekona et al. 2005)

4. **Flexibility across common/proper**

One of the advantages of our claim that there is a distinction between proper and common at both the D and the N level is that it can account for the considerable flexibility in the way nouns can be construed. One type of ‘mismatch’ occurs when a common noun is used as a proper name.13 This is seen in the following example in which a common noun, *mole* is inserted under $N^0_{name}$:

(22) a. “… that suddenly reached Mole in the darkness, …”  
   *(The Wind in the Willows, p. 86)*

b. “… too far to hear clearly what the Mole was calling, …”  
   *(The Wind in the Willows, p. 87)*

There is nothing that rules out common nouns being used in this way. Interestingly, it is possible to shift back and forth from proper to common reference within a story, as the example in (22b) shows, taken from an adjacent page in the same book.14 In (23) we provide an example from Niuean. In this language too we find variation, though

13. In this section, for ease of exposition, we use the terms common noun and proper name to refer to words like *mole* and *Picasso*, respectively. Strictly speaking, however, common and proper refer to merged $N^0$ items that are featurally distinct: $N^0_{common}$ vs. $N^0_{name}$. Vocabulary items such as *mole* and *Picasso* do not bear features, but rather are encyclopaedically understood to be more likely to be inserted under one node or the other (Borer 2005).

14. The capitalization conventions here and in (23) are interesting and probably worthy of further study, but we don’t take them into account in our analysis because they are variable and because we consider that orthographic conventions do not systematically inform us about linguistic structure, especially in a traditionally non-written language like Niuean.
in (23) the variation is from one story to another, not within the same story as in (22). In (23a), the character is referred to by the usual common noun, but it takes a proper case marker. In (23b), the characters appear with common case marking.

(23) Niuean:
   a. Pehe a Kiu ka …  
      said ABS.P kiu  if … 
      ‘Kiu said “if …”’  (Loeb 1926)  
      (From a story about a kiu ‘plover’.)
   b. Ti pehe e Kule kehe Veka “…”  
      then said ABS.C kule  GOAL.C Veka “…”  
      ‘Then the kule said to the veka “…”’  (Loeb 1926)  
      (From a story about a kule ‘purple swamphen’ and a veka ‘crane’.)

The reverse type of flexibility is also possible: a proper name can be used as a common noun thereby denoting a set of properties (Thomsen 1997; see also De Clercq 2008 for a discussion of the different semantic classes that proper names used as common nouns can fall into). In this case, the vocabulary item is inserted under a node specified as N0\textsubscript{common} rather than N0\textsubscript{name}, and knowing the set of properties denoted requires context and real world knowledge. In the examples below, a Picasso refers to a painting by the famous artist of that name, Wayne Gretzky refers to an outstanding hockey player, and Pierre Trudeau refers to a Canadian Liberal party leader considered by many to be charismatic and intelligent. Under our view, this interpretation arises from the absence of the morphological feature [name], not from the vocabulary item, nor from the determiner.15

(24) a. The museum has bought a Picasso.
   b. He is supposed to be the new Wayne Gretzky, and has been nicknamed ‘The Next One’, in homage to Gretzky, ‘The Great One’. (In reference to Sidney Crosby in an article about hockey (http://www.telegraph.co.uk/sport/main.jhtml?xml=/sport/2005/10/06/soiceh06.xml)
   c. It is not hard to see the attraction of Mr. Ignatieff to Liberals who are engaged in a perpetual search for the next Pierre Trudeau. (http://www.theglobeandmail.com/servlet/story/RTGAM.20061125.weliberal25/BNStory/specialComment/home)

15. Note that in Borer’s (2005) system, the only possible places for this interpretation to arise are the determiner or the encyclopaedia entry. Clearly, we argue, the determiner does not provide the ’set of properties’ meaning, as this meaning is not present in uses such as the next Tremblay referring to a baby about to be born to the Tremblay family. As for the encyclopaedia, it remains unclear how this would work (see Footnote 12 and 13).
To summarize so far, a usually common noun can be used as a proper name, thus appearing in the syntactic frame in (25a), and a usually proper name can be used as a common noun, thus appearing in the syntactic frame in (25b).\footnote{16}

\[(25)\]

\[
\begin{align*}
\text{a. } & \quad \text{DP} \\
& \quad D_{\text{DEF,PR,SG}} \quad \text{NP}_{\text{name}} \\
& \quad \emptyset \\
& \quad \text{NP}_{\text{non-}} \\
& \quad \text{Mole} \\
\text{b. } & \quad \text{NumP} \\
& \quad \text{Num}_{\text{INDEF}} \quad \text{NP}_{\text{common}} \\
& \quad a \quad \text{NP}_{\text{name}} \\
& \quad \text{Picasso}
\end{align*}
\]

A third type of mismatch occurs when a noun bearing the feature [name] does not occur with the proper determiner but appears within the syntactic frames used for common nouns. The relevant contrast is between (25a) above and a sentence like the following, where what is meant by \textit{Picasso} is not “painting” but “someone by the name Picasso”. The corresponding structure contrasts with that in (25b):

\[(26)\]

\[
\begin{align*}
\text{a. } & \quad \text{There is a Picasso at the door} \\
\text{b. } & \quad \text{NumP} \\
& \quad \text{Num}_{\text{INDEF}} \quad \text{NP}_{\text{name}} \\
& \quad a \quad \text{NP}_{\text{name}} \\
& \quad \text{Picasso}
\end{align*}
\]

Further examples are provided below illustrating the use of a name in the plural (27a), as modified (27b), as indefinite ((27c) and also (26) above); as a bare plural used generically (27d) and as a mass noun (27e).\footnote{17}

\[(27)\]

\[
\begin{align*}
\text{a. } & \quad \text{The Smiths live on the next street.} \\
\text{b. } & \quad \text{The Kelly I know has long hair.} \\
\text{c. } & \quad \text{There are two Kellys in my class.} \\
\text{d. } & \quad \text{Kellys tend to be athletic.} \\
\text{e. } & \quad \text{There was Fido all over the floor. (cf. There was rabbit all over the floor.)}
\end{align*}
\]

\footnote{16}. We follow a number of researchers in considering the indefinite article \textit{a} in English not to be a determiner (D) but a marker of agreement or cardinality (Valois 1991; Stroik 1994; Muromatsu 1995; Campbell 1996; Lyons 1999; Vangsnes 2001). We consider it unmarked for the feature [proper], and we generate it in Num\textsuperscript{0}, as proposed in Ghomeshi (2003), although nothing hinges on this.

\footnote{17}. We discuss number and restrictive modification in Section 5. With regard to Example (27e), note that the use of a common count noun as a mass noun is sometimes referred to as
In each of these cases, the lexical items retain their status as names (as opposed to sets of properties—see (9)). It is these types of mismatches that require name/proper specification at both the N- and D-level. A system which puts all the weight on the features of the determiner or one which puts no weight on the determiner cannot account for the range of semantic interpretations that we find. To sum up, there are at least three ways in which a name like Picasso can be used: as a common noun to mean “painting” (28a); as a name in the plural to mean a group of people by the name Picasso (28b) (note that in this use it requires an overt determiner); and as a name with an overt definite determiner giving rise to a special interpretation (28c).

(28)  
   a. The museum has bought the Picassos.  
   b. The Picassos are coming for dinner.  
   c. Is he the Picasso?

In the types of mismatches we have surveyed here, we have not seen a case where a morphologically common noun (N^0_{common}) appears with the proper determiner. This is not possible since the selection properties of the proper determiner would not be satisfied.

5. The features [singular], [proper], [definite]

We have posited three features on the null proper determiner, namely [singular], [proper], and [definite]. In this section we will discuss the role of each of these features, concluding with a discussion of restrictive modification.

5.1 Number and the feature [singular]

Given the presence of the feature [singular] on the null proper determiner, when proper names are plural, the null definite determiner cannot appear. Bare plural proper names, like bare plural common nouns, can be generic or existential but are not construed as definite. This provides evidence that the proper determiner

the output of the universal grinder (Pelletier 1975: 5–6, as cited in Gillon 1992: 601). There seem to be limitations on the ability for proper names to be used as mass nouns. For example, Longobardi (2006) notes that (i) cannot receive the intended mass interpretation:

(i) They assigned Berlin to each of the victorious powers.

He also notes (p.c.) that the equivalent to Example (28e) Fido is questionable in Italian.
has semantic content, since it clearly adds meaning (definiteness) in contrast to phrases with no determination at all (generic bare plurals or bare mass nouns).\(^{18}\)

\[ (29) \]
\[
\begin{array}{ll}
\text{a.} & \text{NumP} \\
& \text{Num}_{pl} \downarrow \\
& \text{NP}_{name} \\
& \text{N}^0_{name} \ \\n& \text{Kellys} \\
\text{b.} & \text{NumP} \\
& \text{Num}_{pl} \downarrow \\
& \text{NP}_{common} \\
& \text{N}^0_{common} \ \\
& \text{rabbits}
\end{array}
\]

In the following examples we see that plural [name] nouns can be generic (30) or existential (31). Example (32) shows that a [name] noun that is lexically specified as requiring an overt determiner (e.g., *The Hague*) generally loses this determiner when the name is used in an existential context to avoid a violation of the definiteness effect.

\[ (30) \]
\[
\begin{array}{ll}
\text{a.} & \text{Kellys tend to have long hair.} \\
\text{b.} & \text{Rabbits tend to have fluffy tails.}
\end{array}
\]

\[ (31) \]
\[
\begin{array}{ll}
\text{a.} & \text{There are (some) Kellys in my class.} \\
\text{b.} & \text{There are some rabbits in the park.}
\end{array}
\]

\[ (32) \]
\[
\begin{array}{ll}
\text{a.} & \text{There are Hagues in every country.} \\
\text{b.} & \text{*There are The Hagues in every country.}
\end{array}
\]

Plural proper names require an overt definite determiner in order to pick out an identifiable, familiar, and unique set:

\[ (33) \]
\[
\begin{array}{ll}
\text{a.} & \text{The Tremblays are coming for dinner.} \\
\text{b.} & \text{*Tremblays are coming for dinner.}
\end{array}
\]

The link between the feature [proper] and the feature [singular] appears to hold across many languages. For example, in Niuean, if a proper name is plural, it is interpreted as an ethnonym and appears with the common determiner, as in (34):

\[ (34) \]
\[
\text{Niuean:}
\]
\[
\begin{array}{ll}
\text{he tau Tonga} \\
ERG.C PL Tonga \\
\text{‘the/some Tongans’}
\end{array}
\]

Our approach differs from Matushansky’s (2006), who proposes that plural specification blocks m-merger and thus rules out the appearance of the null determiner

\(^{18}\) An anonymous reviewer points out that *There was Fido in the doghouse* also demonstrates the content of the proper determiner, since it is the definiteness of Fido that makes this construction ungrammatical as an existential.
with plural names. It also differs from Borer’s (2005: 74, Fn. 12), who suggests that this is ruled out as a matter of interpretation.

The cross-linguistically prevalent association of [singular] with the proper determiner explains why plural names, such as those for bands (35a), almost always appear with the overt determiner which is unmarked for number. If a name is singular, on the other hand, there is more freedom as to whether it is lexically specified to appear with the overt determiner or not, as in (35b). That said, exceptions are also possible, as in (35c). For such names, however, there is a strong tendency to add the overt determiner: our quick internet study has shown that usage fluctuates a great deal, even on the official websites for bands with names of the type in (35c), which is not the case for the examples of the type in (35a) and (35b).

(35)  

**Band Names:**

a. the Beatles, the Cars, the Doors
b. the Who, the Clash, le Tigre vs. Oasis, Kiss, Jet
c. Flaming Lips, Dixie Chicks, Red Hot Chili Peppers

Similarly, Borer (2005: 74) notes that if a name is morphologically plural but treated as grammatically singular, it does not require an overt determiner:

(36)  

Peaches, my neighbour’s cat, is dying.

If our claim is correct that proper determiners, by virtue of having a [singular] feature, are incompatible with plural noun phrases, it follows that number in pronouns is substantially different from number in noun phrases. As we saw in (34), in Niuean the proper article does not appear with plural proper names but it does appear with plural pronouns (37).

(37)  

**Niuean:**

Momui oti agaia a lautolu  
live all still ABS.P 3PL

“They’re all still living.” (Seiter 1980: 166.170c)

The difference between number in nouns and number in pronouns is supported by the fact that they involve completely different morphology. Plural in non-pronominal noun phrases is indicated by the morpheme *tau*, as shown in (34). In pronouns, on the other hand, number is indicated as follows:

19. Matushansky (2006) generates both singular and plural as Num heads, but notes that only the plural blocks m-merger. She therefore attributes the ability of a morpheme to block m-merger as being a lexical property of that morpheme.

20. Note that Matushansky (2006) would also have to consider pronominal number to be different since in her system it would not block m-merger.
Niuean pronouns:

<table>
<thead>
<tr>
<th></th>
<th>SG</th>
<th>Dual</th>
<th>Plural</th>
<th>Possessive SG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Excl</td>
<td>au</td>
<td>maua</td>
<td>mautolu</td>
<td>aku</td>
</tr>
<tr>
<td>1 Incl</td>
<td>---</td>
<td>taua</td>
<td>tautolu</td>
<td>---</td>
</tr>
<tr>
<td>2</td>
<td>koe</td>
<td>mua</td>
<td>mutolu</td>
<td>au</td>
</tr>
<tr>
<td>3</td>
<td>ia</td>
<td>laua</td>
<td>lautolu</td>
<td>ana</td>
</tr>
</tbody>
</table>

In this system, the singular/non-singular distinction is usually marked by suppletion. Within the plural group, dual is marked by suffix -ua ‘two’ and plural by the suffix -tolu ‘three’. Possessive pronouns consist of the Genitive case + pronoun. In case of singular possessive pronouns, a suppletive form of the pronoun is used, and these forms are given here.

We conclude both from the morphological facts and from the fact that pronominal number is not incompatible with the feature [proper], that number in pronouns is different from number in noun phrases.

5.2 The feature [proper]

We have been arguing that there is a feature [name] on the N₀ associated with proper names and that the corresponding proper noun phrases contain a determiner with the features [proper], [definite], [singular]. In this section we show that the feature [proper] participates in some syntactic processes, such as being visible for selection and participating in word order alternations.

First we consider data from colloquial Persian, a language in which number and definiteness are marked together. In this language, an unmodified definite noun can appear with the stress-attracting suffix -e in the singular and with the plural marker -a in the plural (Ghomeshi 2003). (The suffix -e is not obligatory, and without it bare nouns can still be construed as definite; Ghomeshi 2008.) Proper names are always bare:

(39) Persian:

a. sæg-e xabid
   dog-DEF.SG slept.3SG
   ‘The dog slept.’

b. sæg-a xabid-æn
   dog-DEF.PL slept-3PL
   ‘The dogs slept.’

c. kian xabid
   Kian slept.3SG
   ‘Kian slept.’
Proper names do not appear with the singular definite marker (*Kian-e*) unless there is a sense of diminution or endearment—with some variation from speaker to speaker. Proper names can take plural definite marking to yield the same sorts of readings found in English, that is, to refer to groups of people with the same name:

(40) Persian:
   a. qomeshi-á æxsæræn æz shomal-e iran-æn
      Ghomeshi-PL mostly from north-EZ Iran-3PL
      ‘Ghomeshis are usually from the north of Iran.’
   b. æli-á in vær vais-æn bæqiye un vær
      Ali-PL this side stand-3PL the.rest that side
      ‘The Alis should stand on this side and the rest (of you) on the other side.’

They can also, as in English, be used as common nouns to refer to people sharing the same properties:

(41) Persian:
   mærg-æ Atefe-ha væ Zæhra-ha, šekanje-ha-ýi ke Fateme-ha væ Žila-ha
   death-ÆZ Atefe-PL and Zahra-PL torture-PL-REL that Fateme-PL and Zhila-PL
   tæhæmmol=mi-kon-ænd, qeymæt-e sængin-i-st ke
   bear=DUR-do-3PL price-EZ heavy-REL-is that
   an mellæt mi-pærdaz-æd
   that nation DUR-pay-3SG
   ta yad=be-gir-æd hærf-æš-ra be-zæn-æd.
   in order to memory=SUBJ-get-3SG word-3SG.CL-OM SUBJ-beat-3SG
   ‘The death of [people like] Atefe and Zahra [and] the tortures that [people like]
   Fateme and Zhila undergo is the heavy price that the nation pays in order
   to learn to voice its demand.’ (http://ali-ohadi.com/guest/birooni.php?lang=fa)

The only way plural names cannot be used in Persian is to refer to families (e.g., *The Tremblays*). For this either one must say *the Tremblay family* or use an associative construction:21

(42) Persian:
   kian ina resid-æn
   Kian them arrived-3 PL
   ‘Kian and his family arrived.’

---

21. It is possible that “the ___ family” as a construction is marked in many languages. Marlett (2008) notes that in Seri the only context in which a name may be pluralized is with Spanish
To sum up, there are four possible combinations of nouns and determiners in Persian and, as in English, the determiner specified as proper is null:

\[(43)\]  
\[
\begin{align*}
  \text{a. } & N_{\text{common}} + \text{def.sg} (-e) & \text{c. } & N_{\text{name}} + \text{def.sg.proper} (\emptyset) \\
  \text{b. } & N_{\text{common}} + \text{def.pl} (-a) & \text{d. } & N_{\text{name}} + \text{def.pl} (-a)
\end{align*}
\]

We see then that the choice of \(-e\) vs. \(\emptyset\) depends on the feature \[\text{name}\] specified on the N. Singular definite common nouns can appear with \(-e\), while proper names, which are also singular and definite, cannot.

So far we have seen that \[\text{name}\] is marked on nouns and affects the choice of determiner with which they appear. There is also evidence that the \[\text{proper}\] vs. \[\text{common}\] status of the resulting DPs is syntactically relevant. Persian allows demonstratives to co-occur with overt definiteness marking, as shown in (44a); however, demonstratives do not ordinarily co-occur with proper names (44b), even for the kind of added affective value we find in English (e.g., \textit{this Alex}; Lyons 1999: 122):

\[(44)\]  
\[
\begin{align*}
  \text{Persian:} \\
  \text{a. } & \text{un sæg-e xabid} & \text{b. } & \text{*un kian xabid} \\
  \text{\quad that dog-def.sg slept.3sg} & \text{\quad that Kian slept.3sg} \\
  \text{\quad \text{‘That dog slept.’}} & \text{\quad \text{\textit{‘That Kian slept.’}}} \\
\end{align*}
\]

Assuming that demonstratives are generated higher than D-heads (Haegeman & Guéron 1999), the data suggests that they are sensitive to the feature \[\text{[proper]}\].

Niuean also lends support to the idea that \[\text{[proper]}\] is a syntactically relevant feature. Possession can be expressed post-nominally, as in (45a), (46a), and (47a). Alternatively, the possessor can appear pre-nominally, as in (45b) and (46b). (There is a ligature item \(a\) in the case of pre-nominal genitives.) This latter option is only possible, however, with proper possessors, as indicated by the ungrammaticality of (47b). Recall that the category \[\text{[proper]}\] includes proper names and pronouns.

\[\text{surnames and, although a plural marker appears on the name and the verb takes plural agreement, a \textit{singular} definite article is used (in Seri the singular definite article is used with all names):}\]

\[(i)\]  
\[
\begin{align*}
  \text{Seri:} \\
  & \text{Astorga-j quih yoozcam. (*...yoolfp.)} \\
  & \text{Astorga-pl the.(sg) they.arrived s/he/it arrived} \\
  & \text{‘The Astorgas arrived.’} & \text{(Marlett 2008: 50.5)}
\end{align*}
\]

He notes that this is unlikely to be a calque from Spanish, since the Spanish version of “the Smiths” is to use a plural article with a simple surname in the singular (“los Molina”).
These data argue that the feature [proper] exists in Niuean and is accessible to computational processes.

5.3 The feature [definite]

Scholars generally agree that proper noun phrases are semantically definite, and several have proposed that the proper determiner is definite (see Table 1). We find interesting evidence for a connection between proper and definiteness in Niuean, a language without definite determiners, in which (48) can be construed freely as definite or indefinite.

(48) Niuean:

\[
\text{e motu}
\]

\text{ABS.C} island

‘a/the island’

As we now show, in spite of not encoding definiteness in common noun phrases, Niuean proper noun phrases are definite. It seems reasonable then to posit that in
Niuean, as in other languages, [proper] is linked to [definite]. If this is universal, it would be understandable that in languages with definite determiners, [proper] would be situated in the D head. In languages without definite determiners, we might expect more flexibility, but the link with the highest functional projection in the noun phrase in fact seems strong since it has been argued that in Niuean, the functional head case (K) fulfils some of the functions of determiners in English (Massam et al. 2006), and indeed, we find [proper] syncretic on K in Niuean, as shown in (2) and (3) in Section 1.

It has long been observed that there is an intriguing percolation found across languages in possessed noun phrases whereby noun phrases with definite pre-nominal possessors are themselves construed as definite (see Woisetschlaeger 1983; Chung 2008; and references therein). Thus, in (49), hat is definite (or strong), though the determiner selects old man, not hat.

(49) the old man's hat

Crucially, as in English and other languages, Niuean pre-posed proper possessors lend definiteness to the noun phrase as a whole. As discussed in McEwen (1970) and Massam & Sperlich (2000), noun phrases with pre-posed definite possessors can only be construed as definite.

(50) Niuean:

a. Ko e hāku a fale
   pred 1sg-gen lig house
   'my house' (McEwen 1970: xvi)

b. ko e fale haaku
   pred house 1sg-gen
   'my house/a house of mine' (McEwen 1970: xvi)

Note that the noun phrases are not construed as [proper], thus [definite] must exist as a separable component of the possessor DP. Even though definiteness plays a limited role in the language and is parasitic on [proper], its existence can nonetheless be detected. This demonstrates that as well as being [proper], proper nouns in Niuean are also [definite].

5.4 Restrictive modification

Proper names that are restrictively modified must occur with the overt determiner rather than the null proper determiner:

(51) *(the) Kelly I know from high school

Matushansky (2006) proposes that restrictive modifiers block m-merger in the same way that plural marking does. As an alternate explanation we note that restrictive
The proper D connection

modification has to do with partitivity, i.e., picking out subsets of sets. This is true even if the subset consists of only one member. We suggest, therefore, that the proper determiner is incompatible with partitivity. In fact, this may also explain the incompatibility between the proper determiner and plural names. Anderson (2007: 230) notes that overtly definite plurals in English are normally partitive. Further, with respect to the overt definite determiner with singular noun phrases, he cites Vendler (1967) as claiming that “the is usually associated with a definite partitive—i.e., it involves subsetting, often marked by the presence of attributives, but also in their absence.” (Anderson 2007: 231, Fn. 3)

Following Anderson, we propose that [partitive] can be part of the featural content of a determinative element. This means that the features that we gave for the two definite determiners in English in Section 2.0 would now look like this:

\[(52)\]
\[
a. \text{NULL} \leftrightarrow \text{[proper, singular, definite]}
\]
\[
b. \text{the} \leftrightarrow \text{[definite, partitive]}
\]

It remains to be explored whether partitivity is a kind of domain restriction in the sense of Gillon (this volume).

While both the featural and the m-merger approach work equally well for English, we note that the featural approach has a slight advantage in languages in which restrictive modification is not marked with a definite article. In Persian, for instance, restrictive relative clauses trigger the presence of a morpheme -i on the head noun, even when it is a proper name:

\[(53)\]  

**Persian:**

\[
\begin{align*}
a. \text{æhmæd, ke diruz amæd, inja-st} \\
\text{Ahmad that yesterday come. past 3sg here-3sg} \\
\text{‘Ahmad, who came yesterday, is here.’}
\end{align*}
\]

\[
\begin{align*}
b. \text{æhmæd-i-ke diruz amæd, inja-st} \\
\text{Ahmad-???-that yesterday come. past 3sg here-3sg} \\
\text{‘The Ahmad who came yesterday is here.’} \\
\text{(as opposed to the one who came today)} \\
\text{(Thackston 1983: 82)}
\end{align*}
\]

Even though the translation of (53b) involves the English definite article, the morpheme -i is homophonous with the indefinite enclitic in Persian (Ghomeshi 2003).

Note, then that it is not the definite determiner that emerges when proper names are restrictively modified.

6. Conclusion

We have examined the roles of features on nouns and determiners in establishing the universal classes of common and proper nouns. We have argued for a
proper determiner with features [definite], [proper], and [singular], which appears with nouns marked as [name]. Vocabulary insertion takes place after syntax, and nouns normally used as names can be inserted into common nodes or frames, and vice versa, with a range of semantic effects, which we have discussed in some detail. We have compared our system with others in the literature; for example, we differ from Borer (2005) in positing a category of nouns with the semantic feature [name], and we differ from Longobardi (1994, 2005) and Matushansky (2006) in considering the definite proper determiner to contain the features [proper] and [singular]. Two salient features of our analysis are first, that we employ features at both the N₀ and D₀ level in order to fix the proper/common value of a noun phrase, and second, that the feature [proper] is tied to definiteness, and hence is expressed across languages within the determiner system, regardless of whether this system regularly contains a value for [definite] in the language.

The expression of proper names involves complex interactions between syntax, semantics, and convention, and over the years it has proved difficult to systematize this complexity. In the literature there are several systems proposed, all trying to capture the roles and interactions of the relevant ingredients in fixing on a concept that is surprisingly elastic. We have taken a middle ground that considers features on both nouns and determiners to play a role in establishing the proper or common value of a noun phrase.

Acknowledgement

We would like to thank the participants of the Determiners Workshop (Winnipeg, 2006), especially Ileana Paul and Martina Wiltschko. Thanks also to Isaac Gould, for his work as a research assistant, Saeed Ghaniabadi, Maria Kyriakaki, and Sophie Massam Roberge for providing data help in Persian, Greek, and English, respectively, and Giuseppe Longobardi along with two other anonymous reviewers for their helpful comments. This work has grown out of an earlier paper (Ghomeshi & Massam 2005) presented at the 2005 meeting of the Canadian Linguistic Association, and we would like to thank audience members for their comments as well.

Texts cited


References


Gillon, C. This volume. The semantic core of determiners: Evidence from Skwxwú7mesh.


Wiltchko, M. This volume. What’s in a determiner and how did it get there?
Argumenthood, pronouns, and nominal feature geometry

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This article explores the syntactic and feature-geometric properties of English pronouns, and offers some novel solutions to questions identified by Déchaine & Wiltschko (2002) and Rullmann (2004). Building on work by Cowper & Hall (2003, 2005) and Cowper (2005), we propose denotations and geometrical organizations for features of #, \( \phi \), and D, and show how these representations and their various syntactic realizations can account for the behaviour of pronouns in English, Halkomelem, and Shuswap. Our analysis provides a consistent interpretation for \( \phi \), rather than the dual nature proposed by Déchaine & Wiltschko (2002), and eliminates the need for at least one instance of coercion.

1. Introduction

Déchaine & Wiltschko (2002, 2007) argue that pronouns can be classified into three types, corresponding to the nominal categories DP, \( \phi \)P, and NP. Each category has a characteristic set of syntactic and semantic properties:

- Pro-DPs appear where DPs appear in the syntax, and are always interpreted as arguments rather than as predicates. They behave like R-expressions and thus have no bound readings. They can be coreferential with other arguments by assigned coreference but not by binding.
- Pro-\( \phi \)Ps appear where \( \phi \)Ps appear in the syntax. They can be either arguments or predicates, and are able, but not required, to be interpreted as bound variables.
- Pro-NPs appear where NPs appear in the syntax. They can be predicates but not arguments, and are undefined with respect to the binding theory. Their interpretation depends on their semantic content.

The English pronoun one, Déchaine & Wiltschko argue, is a pro-NP. The focus of this article is the other personal pronouns of English, which they argue are of two sorts: pro-DPs and pro-\( \phi \)Ps. According to Déchaine & Wiltschko (2002), English first- and second-person pronouns are DPs, while third-person pronouns are \( \phi \)Ps; Déchaine & Wiltschko (2007) present an account, revised in light of binding facts
pointed out by Rullmann (2004), in which first- and second-person pronouns, though still usually DPs, can be coerced to be $\phi$Ps by the presence of a suitable A-bar binder.

In this article, we present an account of English pronouns that builds on Déchaine & Wiltschko’s set of categorial distinctions and further incorporates insights on the geometry of person, number, gender, and definiteness features (Harley & Ritter 2002; Cowper & Hall 2003, 2005; Cowper 2005, *inter alia*). In our approach, the interpretation of DPs, $\phi$Ps, #Ps, and NPs as predicates or arguments, and as constants or bound variables, is determined by the semantic content of the features hosted on each projection. Contra Déchaine & Wiltschko (2002), we propose that all English personal pronouns other than *one* are $\phi$Ps, and offer an account of the person asymmetries based primarily on featural, rather than categorial, distinctions. We also briefly show how our system of features and projections can apply to Halkomelem and Shuswap, two other languages treated by Déchaine & Wiltschko (2002).

2. The features and their combinations

We assume that the morphosyntactic features of the nominal system are privative, and that they enter into dependency relations with one another. These dependency relations are frequently represented in tree form, and are commonly known as feature geometries (Harley 1994).

2.1 Dependency relations

The feature-geometric dependency structures we propose for English are shown in (1). #, $\phi$, and D each represent a syntactic head (i.e., a feature that projects in the syntax), and the dependents of each are the features that can further characterize that head.

(1)  

```
 a. #  b. $\phi$  c. D
     >1 Animate  Participant  Specific
          Feminine  Speaker  Definite
                          Deictic  Distal
```

The features in (1a), which appear on the head of a $\#P$, encode number and gender in English. The presence of # in a nominal makes it individuated; nominals lacking
a # projection are interpreted as mass.\textsuperscript{1} The feature [>1], taken from Cowper (2005), encodes plural; nominals without this feature are interpreted as singular.\textsuperscript{2} Following Ritter (1993), we assume that the syntactic placement of gender features varies from language to language; we claim here that in English, gender is a dependent of #. The dependence of [Animate] on # correctly predicts that nominal phrases referring to animate beings in English are count, not mass.\textsuperscript{3} Languages with a more extensive grammatical gender system can have mass nouns with gender. (See Ritter 1993 for further discussion of the variable location of gender.) The feature [Animate] characterizes animate or human nominals; in its absence, the nominal is non-human or inanimate.\textsuperscript{4} Animate nominals are further subdivided into those that are feminine, characterized by a dependent feature, and those that are not. In the absence of the feature [Feminine], a nominal bearing the feature [Animate] will be interpreted as masculine.

Person features in English are dependents of $\phi$. The features [Participant] and [Speaker] are due to Harley & Ritter (2002), and are also discussed in Cowper & Hall (2005). $\phi$ corresponds structurally, but not semantically, to what Cowper & Hall (2005) called $\pi$, following Béjar (2003). We propose that $\phi$ introduces an index, converting a predicate into an indexed argument. In English, $\phi$ hosts the grammatical person features [Participant] and [Speaker]; these features, however, like gender features, may be hosted by different syntactic heads in different languages. The dependent feature [Participant] indicates that the referent is a discourse participant; in the absence of this feature the nominal is interpreted as third person. Participants

\textsuperscript{1} Generally speaking, this means that nominals with a # projection are count, while those without a # projection are mass. Clearly there is more to be said about how the feature [#] interacts with the lexical semantics of noun roots, and about the consequences of this for the mass–count distinction; we leave this for another paper.

\textsuperscript{2} Cowper (2005) argues that in three-way number systems, the plural is encoded by a further dependent [>2], and [>1] without dependents encodes the dual. Nothing in this article hinges on accepting this particular treatment of duals, however.

\textsuperscript{3} Thus, for example, in \textit{Julius Caesar} (Shakespeare) I.i, Marullus addresses the citizens of Rome as “you blocks, you stones, you worse than senseless things,” rather than “you worse than senseless stuff.” The incompatibility of animacy and non-individuation is implicit in Sasse’s (1993) continuum of individuation, and is also discussed, from a cognitive perspective, by Wisniewski (to appear). The generalization about English is also stated explicitly by Heidinger (1984).

\textsuperscript{4} We do not intend, in using this feature, to make any claims about exactly where speakers of English draw the line, zoologically speaking, between entities referred to with \textit{he} or \textit{she} and those referred to with \textit{it}.
are further subdivided by the feature [Speaker], which characterizes first-person nominals. [Participant] without [Speaker] gives second person.5

The features in the D hierarchy in (1c) are those of Cowper & Hall (2003). We now propose that D introduces a choice function that converts a predicate into an argument, and its dependent features further specify the scope and domain of this choice function. The feature [Specific] gives the function wide scope; in the absence of further dependents, a specific DP will be a wide-scope indefinite. Definite DPs have a [Definite] feature dependent on [Specific], and may be further specified with either or both of the features [Deictic] and [Distal]. A deictic DP must be explicitly located with reference to the deictic centre of the utterance. A distal DP, if it is also deictic, is physically distant from the speaker; in the absence of [Deictic], [Distal] identifies the referent of the DP as being remote from the foreground of the discourse. The interaction between [Deictic] and [Distal] is illustrated in the examples in (2).

(2) a. [Deictic] without [Distal]:
   these doughnuts (over here) are stale.

b. [Distal] without [Deictic]:
   Those doughnuts you brought last week were stale.

c. [Deictic] and [Distal]:
   those doughnuts (over there) are stale.

(Cowper & Hall 2003: 62)

The features in (1) are monovalent; when a feature is absent from a representation, the meaning of that representation will depend on whether there is another, contrasting representation in which that feature is present.6 Thus, for example, the English indefinite determiners a(n) and sm̃ are inserted not in the context of a feature [–definite], but rather in representations that have the feature [D] and (contrastively) lack [Definite]. This approach is consonant with, but does not depend upon, Lyons’s proposal that a(n) and sm̃ are “quasi-indefinite cardinal articles” that “indirectly signal indefiniteness while not encoding it” (1999: 49). It assumes that indefinite determiners, like definite determiners, are inserted in D.

5. Languages may vary as to which features can appear as marked dependents of [Participant]. For example, Béjar (2003) claims that in Algonquian languages, [Addressee] rather than [Speaker] is the marked dependent. In contrast, McGinnis (2005) argues that languages without an inclusive–exclusive distinction consistently use only [Speaker] as the marked dependent of [Participant], and that both [Addressee] and [Speaker] are marked dependents of [Participant] in languages where the distinction is made.

6. See Wiltschko (this volume) for one treatment of the difference between contrastive and non-contrastive underspecification of morphosyntactic features.
This contrasts with the position taken by Valois (1991), Lyons (1999), Ghomeshi & Massam (this volume), and Witschko (this volume), among others, in which indefinite determiners occupy a lower projection, and D is always definite. In our analysis, D introduces a choice function, and definiteness arises through the addition of further semantic features (see Section 3.2); this is similar in spirit, though not in implementation, to the approach taken by Gillon (this volume), for whom D encodes domain restriction, which yields definiteness only when combined with uniqueness.

2.2 Vocabulary items

The English vocabulary items that spell out the features in (1) are listed in Tables 1 and 2. The determiners listed in Table 1, discussed in detail in Cowper & Hall (2003), spell out features in the D hierarchy and sometimes also number.\(^7\) We propose that the English personal pronouns spell out features of \(\phi P\) and \#P, and also Case, as shown in Table 2.\(^8\)

Table 1. Features of English determiners

<table>
<thead>
<tr>
<th>Vocabulary item</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a(n))</td>
<td>[D, #]</td>
</tr>
<tr>
<td>the</td>
<td>[Definite]</td>
</tr>
<tr>
<td>sm</td>
<td>[D]</td>
</tr>
<tr>
<td>Ø</td>
<td>[D]</td>
</tr>
<tr>
<td>this</td>
<td>[Specific]</td>
</tr>
<tr>
<td>these</td>
<td>[Specific, &gt;1]</td>
</tr>
<tr>
<td>that</td>
<td>[Distal]</td>
</tr>
<tr>
<td>those</td>
<td>[Distal, &gt;1]</td>
</tr>
<tr>
<td>THIS</td>
<td>[Deictic]</td>
</tr>
<tr>
<td>THESE</td>
<td>[Deictic, &gt;1]</td>
</tr>
<tr>
<td>THAT</td>
<td>[Deictic, Distal]</td>
</tr>
<tr>
<td>THOSE</td>
<td>[Deictic, Distal, &gt;1]</td>
</tr>
</tbody>
</table>

\(^7\) Ghomeshi & Massam (this volume) propose a second null determiner which appears with proper names. Under our analysis of determiners, their null determiner would be a vocabulary item that is specified for the features [Definite], [#], and [Proper], and that is therefore inserted in the heads of DPs containing proper NPs.

\(^8\) We will not attempt an analysis of the features of Case here. See for example Béjar & Hall (2000) and Müller (2004) for proposals on case feature systems in Arabic, Old Church Slavonic, and Russian.
Table 2. Features of English personal pronouns

<table>
<thead>
<tr>
<th>Vocabulary item</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>I, me</td>
<td>[Speaker, Animate]</td>
</tr>
<tr>
<td>you</td>
<td>[Participant, Animate]</td>
</tr>
<tr>
<td>we, us</td>
<td>[Speaker, &gt;1, Animate]</td>
</tr>
<tr>
<td>it</td>
<td>[ϕ]</td>
</tr>
<tr>
<td>he, him</td>
<td>[ϕ, Animate]</td>
</tr>
<tr>
<td>she, her</td>
<td>[ϕ, Feminine]</td>
</tr>
<tr>
<td>they, them</td>
<td>[ϕ, &gt;1]</td>
</tr>
</tbody>
</table>

The deictic determiners in the third series in Table 1 differ from their non-deictic counterparts in their ability to be stressed, which is indicated here by small capitals. In Tables 1 and 2, only the most subordinate features realized by each vocabulary item are shown explicitly. The superordinate features shown in the geometries in (1) are entailed by their dependent features, and have thus been omitted.

3. Argumental phrases: φP and DP

Given the semantic content of the features presented in Section 2.1, the features [D] and [ϕ] provide two different ways in which a predicate NP or #P can be

---

9. An anonymous reviewer points out that personal pronouns, when stressed, can also be used deictically. This might suggest that it is stress itself—rather than the vocabulary items this and that—that spells out the feature [Deictic]. Such a view cannot be maintained, however, since not all stressed personal pronouns are deictic. For example, the stressed personal pronoun in (i) is a bound variable:

(i) Every girl in the class thinks that shé should win the prize.

Conversely, deictic this and that need not always be realized with phonetically marked stress, as shown in (ii):

(ii) Could you pass me that book, please?

Spoken with no particular emphasis on the word that, the request in (ii) is ambiguous between a non-deictic reading, in which the book in question has been referred to before, and deictic one, containing a phonetically unstressed instance of that, in which the book must be explicitly pointed out. Stressing the determiner, however, would force a deictic reading.

It is worth bearing in mind that the grammatical feature [Deictic] is not the only source of deictic meaning. Gestures can give deictic meaning to almost any referential element, including personal pronouns.
converted into an argument of semantic type $\langle e \rangle$: $[\phi]$ accomplishes this by introducing an index, $[D]$ by introducing a choice function. It is thus impossible in our system for a $D$ to take a $\phi P$ complement as it may in Déchaine & Wiltschko’s (2002). However, our features do provide a principled semantic account for Déchaine & Wiltschko’s generalization that $\phi P$s can be bound variables, but DPs cannot.

While $\phi$ and $D$ are used as syntactic category labels throughout the discussion, it is worth bearing in mind that they are, like their dependents, simply morpho-syntactic features. We take syntactic categories to be no more—and no less—than the features that compose them. This view follows from the theory of Bare Phrase Structure (Chomsky 1995) combined with Distributed Morphology (Halle & Marantz 1993). The question of whether $\phi$ and $D$ are distinct syntactic categories, or different instantiations of the same syntactic category, reduces to one of mere nomenclature. Both $D$ and $\phi$ select a predicate and derive an argument, but they do so by different semantic mechanisms.

### 3.1 $\phi P$

The feature $[\phi]$ creates an argument by introducing an index, which may either be bound, or, in the absence of a suitable binder, receive its reference from the discourse context. If the index is not bound, then person features dependent on $\phi$, and number and gender features present in its complement $#P$ if one is present, restrict the set of possible referents. If the index is bound, then the $\phi P$ has no further featural content of its own. At PF, however, the features of its antecedent determine the form of the pronoun that is used to spell it out.

These two possibilities can be seen in ambiguous sentences such as the one in (3):

(3) Every girl thinks that she is winning.

a. **non-bound:** $[\forall x: \text{girl}(x)] \text{thinks}(x, \text{winning}(y))$

b. **bound:** $[\forall x: \text{girl}(x)] \text{thinks}(x, \text{winning}(x))$

In the non-bound reading of (3), the $\phi P$ *she* has its person and number features already specified, and its index $y$ picks out some contextually salient individual who must be animate and female. The relevant portion of the structure is shown in (4).
The corresponding structure in the bound reading of (3) is shown in (5):

(5)

\[ \text{IP} \]
\[ \text{DP} \]
\[ \text{\textit{every girl}} \]
\[ \text{\textit{thinks that \textphi_P is winning}} \]

The underspecified \( \phi_P \) in (5) must find an antecedent to bind its index (represented here as a question mark) and to supply the \( \phi \)-features that will determine how it is to be spelled out at PF. The ? index is bound by \textit{every girl}, and at PF, the features [\( \phi \)], [#], [Animate], and [Feminine] are filled in, causing the \( \phi_P \) to be spelled out as \textit{she}.

3.2 DP

The feature [D], on the other hand, creates an argument by applying a choice function to the set/predicate \( F \) denoted by its complement NP or \( \#P \).\textsuperscript{10} Additional features dependent on D, if any, further determine the scope and content of the choice function as follows:

- If D has no dependent features, then the denotation of the DP will be \( [\eta_x F(x)] \), a (new to the discourse) member of the set \( F \) selected by a choice function, as in von Heusinger’s (1997) treatment of indefinites.
- If D has the feature [Specific], but no other dependents, then \( [\eta_x F(x)] \) will obligatorily take wide scope.
- If D has the feature [Definite], then the DP will denote \( [\varepsilon x F(x)] \), which is the member of \( F \) chosen by the choice function that selects the most contextually salient member of any set, as in von Heusinger’s (1997) treatment of definites.

Further dependents of [Definite] alter the way in which the choice function identifies a member of \( F \) as salient. [Deictic] signals that the salient entity is to be located with reference to the deictic centre; [Distal] indicates that it is spatially, temporally, or discursively remote.

This treatment of the semantics of D correctly predicts that the DPs in (6) cannot receive bound interpretations:\textsuperscript{11}

\textsuperscript{10} Gillon (this volume) argues that what is cross-linguistically consistent about the semantic contribution of D is that it introduces domain restriction. The various instantiations of the choice functions we propose here do indeed operate on restricted domains.

\textsuperscript{11} As Déchaîne & Wiltschko (2007) note, DPs in donkey anaphora contexts can receive apparently bound readings; following Evans (1980), they show that such DPs can successfully be treated as definite descriptions rather than as bound variables.
Every girl thinks that 
\[
\begin{array}{l}
\text{a girl} \\
\text{the girl} \\
\text{this girl} \\
\text{etc.}
\end{array}
\] is winning.

3.3 Person asymmetries and the categorial status of English pronouns

The system of features and vocabulary items outlined in Section 2 predicts that all English personal pronouns are $\phi$Ps. This is contrary to Déchaine & Wiltschko’s (2002) claim that first- and second-person pronouns are DPs, which is based on data such as (7).

(7) a. Fred knows that John saw him, and Bill does, too.
   i. $\checkmark$ \textbf{strict}: $\llbracket \text{does, too} \rrbracket = \lambda x. x$ knows that John saw Fred
   ii. $\checkmark$ \textbf{sloppy}: $\llbracket \text{does, too} \rrbracket = \lambda x. x$ knows that John saw $x$

b. I know that John saw me, and Bill does, too.
   i. $\checkmark$ \textbf{strict}: $\llbracket \text{does, too} \rrbracket = \lambda x. x$ knows that John saw me
   ii. $\ast$ \textbf{sloppy}: $\llbracket \text{does, too} \rrbracket \neq \lambda x. x$ knows that John saw $x$

The impossibility of sloppy-identity (bound variable) readings of first- and second-person pronouns in sentences such as (7b) follows automatically from Déchaine & Wiltschko’s (2002) claim that such pronouns are pro-DPs rather than pro-$\phi$Ps. However, as Rullmann (2004) points out, first- and second-person pronouns can be interpreted as bound variables in other contexts, such as (8).

(8) Only I got a question I could understand.
   a. $\checkmark$ \textbf{strict}: No other person $x$ got a question I could understand.
   b. $\checkmark$ \textbf{sloppy}: No other person $x$ got a question $x$ could understand.

Déchaine & Wiltschko (2007) deal with these facts by positing that operators such as the focusing operator only in (8) are capable of coercing first- and second-person pronouns to be pro-$\phi$Ps instead of pro-DPs.\textsuperscript{12} As an alternative to this approach, we propose that first- and second-person pronouns, like third-person pronouns, are always $\phi$Ps, and that bound readings of them in contexts such as (7b) are ruled out by clashing $\phi$-features.

There is considerable interspeaker variation in grammaticality judgements on sloppy-identity readings of first- and second-person pronouns (an observation at

\textsuperscript{12} Note that the strict-identity reading of (8) is still available. This means either that coercion is optional, or that the strict interpretation involves semantically vacuous coercion to a non-bound $\phi$P.
least partially confirmed by Martina Wiltschko, p.c.), and even on bound readings of third-person pronouns in some contexts. For example, some speakers find a sloppy-identity reading markedly less accessible in (9) than in (7a).

(9) Mary knows that John saw her, and Bill does, too.
   a. \textsc{strict}: \([\text{does, too}] = \lambda x. \text{x knows that John saw Mary}\)
   b. \textsc{sloppy}: \([\text{does, too}] = \lambda x. \text{x knows that John saw x}\)

It seems that the difference in gender features between Bill and Mary can impede to some degree the possibility of interpreting her as a bound variable whose elided counterpart refers to Bill. If differing \(\phi\)-features diminish the availability of sloppy-identity readings, then it is unsurprising that such readings are typically dispreferred when first- and second-person pronouns are involved: the subject of the elided clause in a sentence like (7b) will almost always differ in person features from the subject of the first conjunct. If a clash of \(\phi\)-features is the culprit in (7b) and (9), then sloppy-identity readings involving overlapping sets of referents with first- or second-person plural pronouns, as in (10), should be more acceptable than their singular counterparts.

(10) a. Jean and I think that our joint paper will be accepted, and Susana and I think so, too.
   b. You and Roger want people to treat you as equals, and you and Samantha do, too.

In light of the variability of judgements, we tentatively posit that bound interpretations of first- and second-person pronouns are not ungrammatical (i.e., not ruled out by the syntax), but are instead made more or less accessible by a combination of factors affecting the processing of these pronouns in comprehension. A clash in \(\phi\)-features between the potential referents of a pronoun will make the pronoun more difficult to interpret as a bound variable, while the presence of an overt binder such as a focus or distributive operator will make a bound reading more accessible. There are doubtless other pragmatic factors that affect the interpretive possibilities—for example, an anonymous reviewer points out that the sloppy reading is significantly more available in (11) than in (7b).

(11) a. I said that I would go to the meeting, and so did Mary.
   b. I was determined to convince the department to hire me, but of course so was the other candidate.

The sloppy reading of (7b) can be derived as follows:

1. The structure [[I know [that John saw \(\phi P\)], and [Bill knows [that John saw \(\phi P\)], too]] is generated.
2. Ellipsis arises through deletion under identity of the second instance of 
   know(s) [that John saw ϕP?].
3. The ϕ-features of the antecedent I are copied onto the surviving instance of
   ϕP?, causing it to be spelled out as me.

In the hearer’s processing of the resulting sentence, however, the strict-identity inter-
pretation (in which me is underlingly specified with the feature [Speaker], as is its
elided counterpart) is straightforwardly accessible, while the sloppy-identity reading
requires the listener to abstract away from all the ϕ-features not shared between
me and Bill, with no support from any overt binding operator. (As Déchaine &
Wiltschko 2007 note, the addition of contrastive stress provides a focus operator
that improves the perceived grammaticality of the sloppy reading.) In a sentence
such as (8), on the other hand, the bound variable interpretation is made much
more readily available by the presence of only, and perhaps also by the absence of
an overt non–first-person referent for the bound variable—the third persons over
which it ranges are all implicit.

This approach to the person asymmetry—while it does not permit the draw-
ing of a clear boundary between contexts that permit bound first- and second-
person pronouns and contexts that do not—offers a potential explanation for the
observed variability in intuitions, while preserving Déchaine & Wiltschko’s (2007)
central insight that overt binders facilitate bound readings that might otherwise
be unavailable.

4. Predicate nominals: NP and #P

We have seen that English personal pronouns are, in general, ϕPs. However, there
are two exceptions to this generalization. Personal pronouns can sometimes be
used predicatively, and can even appear in compounds, while the pronoun one is
always a predicate, and belongs to the category #.

4.1 NP

According to the semantics of ϕPs sketched above, a ϕP is always an argument,
ever a predicate. However, English personal pronouns can be used predicatively,
both on their own and as parts of complex words. Déchaine & Wiltschko (2002)
observe that this is true of third-person pronouns, as in the examples in (12a)–(12e);
Rullmann (2004) points out that first- and second-person pronouns can also be
used in this way, as in (12f)–(12j).
(12)  
  a. a she-wolf  
  b. a he-man  
  c. Is that a he or a she? Neither; it’s an it.  
  d. “Lady, you are the cruellest she alive./ If you will lead these graces to the grave/ And leave the world no copy.” (William Shakespeare, Twelfth Night I.v.241–243)  
  e. “The theys are not individual hes and shes with votes.” (Jenkins 1973: 1015)  
  f. It just looked absolutely us somehow.  
  g. “‘Roses are worth more dried than alive’—such a you thing to say./ O! how I adore you when you reinvent a rosy cliché.” (The Tragically Hip, “Impossibilium”)  
  h. “You say to me-wards, your affection’s strong;/ Pray love me little, so you love me long.” (Robert Herrick, “Love me little, love me long”)  
  i. Mini-Me  
  j. the Me-Decade, the We-Decade  

We propose that pronouns in contexts such as those in (12) are inserted in N just as common nouns are, rather than spelling out grammatical features in ϕP. The semantic content they represent in these cases is thus a de-grammaticalized version of the features they ordinarily spell out in ϕP. Thus in (12a), she spells out the semantic property ‘female’ rather than the grammatical feature [Feminine]. This can be seen as a type of coercion, from featural to non-featural meaning.  

Evidence for this analysis of the syntactic position and de-grammaticalized status of pronouns used in this way comes from the fact that they can combine with determiners, and with the plural suffix (even when they are already plural, as with the they in (12e)), and from the fact that they do not enter into the usual patterns of case marking or agreement, as illustrated in (13).

(13)  
  a. “A ‘me’ is inconceivable without an ‘I’” (Mead 1913: 374).  
  b. *An “I” am inconceivable without a “me.”  

If we assume that pronouns can spell out degrammaticalized versions of ϕ-features, the structure of the examples in (12) is entirely unremarkable, as shown in (14).

(14)  
  a.  
     DP  
     / \  
    D ——— #P  
     / \  
    a ——— #  
     / \  
    N ——— N  
      /     \  
     she ——— wolf  
  b.  
     DP  
     / \  
    D ——— #P  
     / \  
    Specific ——— #  
     / \  
    Definite ——— >1  
      /     \  
     them ——— they

As expected under this view, pronouns used predicatively cannot be interpreted as bound variables, nor can the full DPs in which they appear, as shown in the examples in (15).
(15)  a. I was born in the Me-Decade, and you were, too.
    ✓ strict: I was born in the Me-Decade, and you were born in the Me-Decade.
    * sloppy: I was born in the Me-Decade, and you were born in the You-Decade.

  b. Nanny is a she-goat, and so is Billy.
    ✓ strict: Nanny is a she-goat, and Billy is a she-goat.
    * sloppy: Nanny is a she-goat, and Billy is a he-goat.

4.2  #P

We assume that a #P, like an NP, denotes a predicate, or equivalently a set, rather than an argument. A bare NP, lacking the feature [#], is interpreted as mass. For example, the denotation of [mud]NP would be the set of all subparts of the total mass of mud (Allan 1980; Higginbotham 1995). The addition of # creates a set of individuals rather than subparts. If [>1] appears, the members of the set are plural individuals. We assume that the English pronoun one(s) belongs to the category #. Because one(s) co-occurs with determiners, it cannot be a DP or a ϕP. This leads Déchaine & Wiltschko (2002) to assume that one(s) is an NP; however, the impossibility of a mass reading of one(s) indicates that in our system, one(s) should be treated as a #P.

Syntactic and semantic evidence for #P as a distinct projection in the syntax can be found in Ritter (1991) and Cowper & Hall (2000), inter alia.

4.3  The story so far

Déchaine & Wiltschko (2002) propose three syntactic projections within the nominal phrase, each of which is associated with a type of pronoun with characteristic behaviour. These are listed in (16).

(16)  a. DP argument, no bound readings
       (English first- and second-person pronouns)

       b. ϕP argument or predicate, potentially bound
          (English third-person pronouns)

       c. NP predicate
          (English one)

We have divided Déchaine & Wiltschko’s ϕ-head into two categories, one of which (ϕ) always heads an argument and is in complementary distribution with D. The other (#) always heads a predicate and may occur between either D or ϕ and NP. This gives four distinct types of nominal phrase, listed in (17).

13. Cf. Mathieu (this volume), who argues that Num derives predicates from NPs, which are of type ⟨e⟩.
There are thus two types of nominal predicates: mass predicates, which are NPs, and count predicates, which are #Ps. From these, four types of arguments can be built, as shown in (18).

(18)  a. DP
  argument: count
     D #P
        choice function predicate: count
        # NP
         individuator predicate: mass

  b. DP
  argument: mass
     D NP
        choice function predicate: mass

  c. φP
  indexed argument: count
     φ #P
        index predicate: count
        # NP
         individuator predicate: mass

  d. φP
  indexed argument: mass
     φ NP
        index predicate: mass
5. Halkomelem and Shuswap

We have shown that pronouns in English may be $\phi$Ps, #Ps, or Ns. Pronouns in Halkomelem and Shuswap, as shown by Déchaine & Wiltschko (2002), behave rather differently from those in English. We argue in this section that our approach can straightforwardly accommodate the Halkomelem and Shuswap systems.

5.1 Halkomelem

Déchaine & Wiltschko (2002) argue that independent pronouns in Halkomelem are DPs, with structures like that shown in (19).

(19)

\[
\text{DP} \quad \phi \quad \text{NP} \\
\text{D} \quad \text{thú} \quad \phi \\
\text{DET FEM} \quad t'l'ò \quad \emptyset \\
3^{\text{rd}} \text{SG}
\]

Halkomelem independent pronouns are thus morphologically complex phrasal elements, which pattern syntactically with full DPs. In fact, as Déchaine & Wiltschko show, a structure like (19) can contain an overt nominal head, as shown in (20).14

(20) **Halkomelem:**

Tl'ó-cha-l-su qwemciwe-t [thú-tl'ò q'ami].

then-fut-1sg-so hug-trans det.fem-3sg girl

‘Then I’m going to hug that girl.’

(Galloway 1993, cited in Déchaine & Wiltschko 2002: 412, Ex. 5)

14. The following abbreviations are used:

- 1 first person
- 2 second person
- 3 third person
- comp complementizer
- conj conjunction
- deic deictic
- det determiner
- emph emphatic
- fem feminine
- fut future
- obj object
- obl oblique
- past past tense
- pl plural
- redup reduplicative
- sg singular
- subj subject
- trans transitivizer
Further evidence for the phrasal structure of these pronouns comes from the fact that the ϕP portion of (19) can occur on its own, as shown in (21). In such cases, the pronoun must be interpreted as a predicate, not as an argument.15

(21) *Halkomelem:*

\[ Tl'ò-cha te Bill kw'e may-th-ôme. \]

3SG-FUT DET Bill COMP help-TRANS-2SG.OBJ

'It will be Bill that helps you.'

(Galloway 1993, cited in Déchaine & Wiltschko 2002: 413, Ex. 7a)

Since for Déchaine & Wiltschko, ϕPs can be either predicates or arguments, it must be explained why a bare ϕP such as the one in (21) cannot be an argument. Déchaine & Wiltschko claim that the insertion of ϕP in an argument position is blocked by the competing, more fully specified, DP.

Under our analysis, a ϕP can never be the complement to a D. Both ϕ and D are functions that turn predicates into arguments of type \( \langle e \rangle \), and D can thus never select ϕP as its complement. Instead, we propose that person and number features in Halkomelem are dependents of #, and that the structure of Halkomelem independent pronouns is as shown in (22).

(22) a. 

```
  DP
   /\   #P
  D   #P
  /\    #
 thù   NP
 /\    \
 DET FEM tlo  Ø
```

b. 

```
  DP
   /\   #P
  D   #P
  /\    #
 te    NP
 /\    \
 DET lhlímelh  Ø
```

15. As noted by Déchaine & Wiltschko (2002), there is ample language-internal evidence that tlo is a predicate in (21). Halkomelem is strictly predicate-initial; the future marker cha attaches only to predicates; and in this sentence, tlo is the only possible predicate in the matrix clause.
This is consistent with what we take to be the intent of Déchaine & Wiltschko’s proposal, in that they use \( \phi P \) as a “cover term for any intermediate functional projection that intervenes between N and D and that encodes \( \phi \)-features” (2002: 410). For us, then, \( #P \) is the instantiation of Déchaine & Wiltschko’s predicate-like \( \phi P \).

By distinguishing between \( \phi P \) and \( #P \) and calling \( \text{tl’ò} \) a \# head, we predict that it will always be predicative when it is used without a D, without having to resort to blocking.

5.2 Shuswap

Drawing on work by Lai (1998), Déchaine & Wiltschko (2002) argue that independent pronouns in Shuswap are \( \phi P \)s. They can be used either as predicates or as arguments, as shown in (23).16

(23) **Shuswap**:

a. Pronoun is a predicate:

\[
\begin{align*}
\text{[Newi7-s]}_{\text{PRED}} & \quad \text{[re wík-t-Ø-m-es]}_{\text{ARG}}. \\
\text{EMPH-3} & \quad \text{DET see-TRANS-3SG.OBJ-PAST-3SG.CONJ}
\end{align*}
\]

‘It’s him that saw him/her.’ (Déchaine & Wiltschko 2002: 416, Ex. 16)

b. Pronoun is an argument:

\[
\begin{align*}
\text{[Wi.w.k-t-Ø-en]}_{\text{PRED}} & \quad \text{[newi7-s]}_{\text{ARG}}. \\
\text{SEE(REDUP)-TRANS-3SG.OBJ-1SG.SBJ EMPH-3}
\end{align*}
\]

‘I saw him.’ (Déchaine & Wiltschko 2002: 416, Ex. 17a)

However, they cannot appear in contexts where a predicate of category N is required, as shown in (24).17

(24) **Shuswap**:

a. Yirí7 te \( \left[ \text{sqélemcw} \right]_{\text{ni}} \) \( \text{wi.w.k-t-sem-s.} \)

\( \text{DEIC OBL man COMP see(REDUP)-TRANS-1SG.OBJ-3SG.SBJ} \)

‘That’s the man that saw me.’ (Déchaine & Wiltschko 2002: 415, Ex. 13)

b. \*Yirí7 te \( \left[ \text{newi7-s} \right] \) \( \text{wi.w.k-t-sem-s.} \)

\( \text{DEIC OBL EMPH-3 see(REDUP)-TRANS-1SG.OBJ-3SG.SBJ} \)

*Intended: ‘That’s him that saw me.’ (Déchaine & Wiltschko 2002: 415, Ex. 14)

16. Like Halkomelem, Shuswap is strictly predicate-initial. \( \text{Newi7-s} \) is the predicate of a biclausal structure, which could also be rendered as ‘The one that saw him/her (is) him.’

17. Déchaine & Wiltschko (2002) cite Davis et al. (1997) for arguments that the position occupied by \( \text{sqélemcw} \) in (24a) must contain a noun.
From the ungrammaticality of (24b) it can be concluded that the pronoun is not an NP. Examples like (25a), where the pronoun appears as the complement of an overt determiner, show that it also cannot be a DP.

(25) **Shuswap:**

a. \([\text{Wí.w.k-t-Ø-en]}_{\text{PRED}} [\text{re n-tséts-we7}]_{\text{ARG}}\)

\[\text{see(REDUP)-TRANS-3SG.OBJ-1SG.SBJ}\ DET 1SG-EMPH-DEIC\]

‘I saw him.’ (Déchaine & Wiltchko 2002: 415, Ex. 15a)

b. \([\text{Wík-t-Ø-s]}_{\text{PRED}} [\text{re John}]_{\text{ARG}}\)

\[\text{see-TRANS-3SG.OBJ-3SG.SBJ}\ DET \text{John}\]

‘S/he saw John.’ (Déchaine & Wiltchko 2002: 415, Ex. 15b)

Under Déchaine & Wiltchko’s analysis, this leaves only one possibility: Shuswap independent pronouns must be \(\phi\)Ps. For us, the fact that they can behave both as predicates and as arguments means that they must be able to spell out both a predicate category (NP or \(#P\)) and an argumental category (\(\phi\)P or DP). Since NP and DP have been ruled out, we suggest that the pronouns spell out \(#P\), and that there is a null \(\phi\) head that can take \(#P\) as a complement. Shuswap independent pronouns may thus appear alone, as predicates; as the complement of an overt determiner, as in (25a); or as the complement of the null \(\phi\), in an argument position.

6. **English pronouns as pseudo-articles**

Having briefly explored some of the cross-linguistic consequences of our proposal, we return to English to deal with another phenomenon noted by Déchaine & Wiltchko (2002)—viz., the asymmetry illustrated in (26):

(26) a. √You linguists are an eccentric lot.

b. √They won’t have an easy time convincing us linguists.

c. *They linguists are an eccentric lot.

d. *They won’t have an easy time convincing him linguist.

For Déchaine & Wiltchko (2002: 421), the contrast between the grammatical (26a)–(26b) and the ungrammatical (26c)–(26d) can be made to follow from the categorial difference they posit between first- and second-person pro-DPs on the one hand and third-person pro-\(\phi\)Ps on the other.

In Section 3.3, we argued that all English personal pronouns should be treated as pro-\(\phi\)Ps; Déchaine & Wiltchko’s categorial contrast is thus not available in our system.

However, judging by the paradigm in Table 3, it seems that the primary contrast in English pronouns’ ability to be used as articles is between singular and plural
(which Déchaine & Wiltschko [2002: 421, Fn. 12] mention in a footnote), rather than between participants and third persons.

Table 3. English personal pronouns used prenominally

<table>
<thead>
<tr>
<th>SINGULAR</th>
<th>PLURAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOM.</strong></td>
<td><strong>ACC.</strong></td>
</tr>
<tr>
<td>*I linguist</td>
<td>*me linguist</td>
</tr>
<tr>
<td>*you linguist</td>
<td>*you linguist</td>
</tr>
<tr>
<td>*she linguist</td>
<td>*her linguist</td>
</tr>
<tr>
<td>*he linguist</td>
<td>*him linguist</td>
</tr>
<tr>
<td>*it language</td>
<td></td>
</tr>
</tbody>
</table>

For Déchaine & Wiltschko (2002), the structure of *we linguists* is as in (27). We propose instead that in such expressions the noun is a modifier, rather than a complement, of the pro-ϕP, as in (28a), much like the DP in *we the linguists* (28b).

(27)
```
DP
  D
  ϕP
  we
  φ
  NP
  linguists
```

(28) a. ϕP
```
  #P
  we
  linguisits
```

b. ϕP
```
  DP
  #P
  we
  D
  the
  linguisits
```

In a structure such as (28a), a plural pro-ϕP is modified by a #P, which is a predicate. This predicate serves to pick out a sub-individual of the plural individual that would be denoted by the ϕP on its own. For example, the meaning of (28a) is derived as in (29):

(29)
```
[we] = the salient plural individual x that includes the speaker
[we linguists] = the plural individual y including the speaker such that
    y ⊆ x & LINGUISTS(y)
    = 'those of us who are linguists'
```
With a singular pronoun, such restrictive modification will either be vacuous (if the individual identified by the $\phi P$ is a member of the set denoted by the $#P$) or reduce the referent to a null individual (otherwise). For example, the meaning of *she linguist would be as shown in (30):

\[
(30) \quad \begin{align*}
\llbracket \text{she} \rrbracket &= \text{the salient singular individual } x \text{ such that } x \text{ is animate and feminine} \\
\llbracket \text{she linguist} \rrbracket &= \text{the feminine singular individual } y \text{ such that } y \subseteq x \& \text{LINGUIST}(y) \\
&= \text{‘the one of her who is a linguist’}
\end{align*}
\]

If the person she refers to is a linguist, the restrictive modification is vacuous; if she is not a linguist, the restricted $\phi P$ fails to refer.

In a structure such as that in (28b), a $\phi P$ is modified by a DP, which is an argument rather than a predicate. The modification may be either appositive (as in we, the linguists) or restrictive (as in we the linguists). If the modification is appositive, the pro-$\phi P$ alone suffices to identify the plural individual being referred to, and the DP serves only to provide another characterization of the same group. With restrictive modification, the modifying DP provides an unambiguous alternative means of picking out the intended plural individual in a context where the $\phi P$ by itself would be potentially ambiguous.

When a singular $\phi P$ is modified by a DP, appositive modification is unproblematic. Restrictive modification of a singular pro-$\phi P$ by a DP is also possible, but it cannot play a role in determining the individual referent of the pro-$\phi P$; it can only identify the capacity in which the individual is being referred to, as illustrated in the examples in (31).

\[
(31) \quad \begin{align*}
a. \text{ Restrictive DP, capacity-restricting reading:} \\
& \checkmark \text{I was talking to you, the linguist, not you, the musician.} \\
& = \text{‘I was talking to you qua linguist, not qua musician.’} \\
b. \text{ Restrictive DP, referent-restricting reading:} \\
& *\text{I was talking to you, the linguist, not you, the musician.} \\
c. \text{ Appositive DP, changing addressees in mid-sentence:} \\
& \checkmark \text{I was talking to you, the linguist, not you, the musician.}
\end{align*}
\]

As Déchaine & Wiltshko (2007), point out, expressions such as us linguists can never receive bound variable interpretations, even when they occur within the scope of an overt potential binder, as illustrated in (32).

\[
(32) \quad \begin{align*}
& \text{We all think we linguists are smart.} \\
& = \text{We all have the property } [\lambda x \cdot x \text{ thinks we linguists are smart}.] \\
& \neq \text{We all have the property } [\lambda x \cdot x \text{ thinks } x \text{ (linguists) are smart}].
\end{align*}
\]
For Déchaine & Wiltschko (2007), this follows from the fact that the pronoun in a structure such as (27) is necessarily a D, and cannot be coerced into being a $\phi P$, which would be necessary to permit a bound interpretation. Under our view, the impossibility of a bound reading in (32) is semantic, not syntactic. Whereas an unbound $\phi P$ receives an interpretation that is built compositionally from the semantic content of its features, a bound variable $\phi P$, has no features of its own, and its interpretation depends entirely on the content of the operator that binds it. It is therefore incompatible with modification of any sort. We thus correctly predict that pronouns modified in any way cannot receive bound interpretations, in contexts such as those in (33) as well as in (32).

(33) a. Only I got a question that was comprehensible to little old me. (cf. (8))
   = No other person $x$ got a question that was comprehensible to little old me.
   $\neq$ No other person $x$ got a question that was comprehensible to (little old) $x$.

b. Only we got a question that those of us who are linguists could understand.
   = No other person($s$) $x$ got a question that those of us who are linguists could understand.
   $\neq$ No other person($s$) $x$ got a question that those of $x$ who are linguists could understand.

7. Conclusions

The differences among the various types of pronouns made available by universal grammar, which Déchaine & Wiltschko (2002, 2007) attribute to which syntactic projection dominates the pronoun, can be better understood through fine-grained attention to the features making up the syntactic projections and the semantic content of those features. The ambiguous behaviour of $\phi P$ in Déchaine & Wiltschko’s treatment can be eliminated by distinguishing between predicative #P and argumental $\phi P$. We now have four projections, with distinct and consistent properties derived from their featural content, as shown in Table 4.

18. An anonymous reviewer suggests that bound variable pronouns can be modified, pointing out the possibility of sentences such as (i):

   i. Every man tends to be proud of the qualities that are specifically his.
   In this instance, however, we believe that the proper interpretation of specifically is as a modifier of the possessive component of his, rather than of the pronominal component; (i) can be paraphrased as in (ii):
   ii. Every man tends to be proud of the qualities that pertain specifically to him.
Table 4. Properties of syntactic projections

<table>
<thead>
<tr>
<th></th>
<th>DP</th>
<th>ϕP</th>
<th>#P</th>
<th>NP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicates</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Arguments</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Can be bound</td>
<td>−</td>
<td>+</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Individuated</td>
<td>±</td>
<td>±</td>
<td>+</td>
<td>−</td>
</tr>
</tbody>
</table>

English argumental pronouns can all be treated as pro-ϕPs, while one is a #P. The differing availability of a bound-variable interpretation of first- and second-person pronouns, on the one hand, and third-person pronouns, on the other, is attributed to processing considerations in comprehension, with clashing ϕ-features impeding a bound-variable reading and overt operators facilitating it. This approach renders unnecessary any appeal to coercion in accounting for bound-variable readings of first- and second-person pronouns, while also correctly predicting a high degree of variability in the judgements of bound-variable readings, both between speakers and within speakers depending on the context.

We also proposed that English personal pronouns can be used as nouns, with their semantic content determined by the features they normally spell out. This approach correctly predicts that in such contexts, the normally inflectional features of these pronouns will have absolutely no consequences for agreement or any other syntactic process. Wiltschko (this volume) proposes another way in which inflectional features can be used non-inflectionally, as adjuncts to functional heads rather than as head features. These two proposals raise the question of whether there may be still other ways in which inflectional features can find their way into linguistic expressions.

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References


Déchaine, R.M. & Wiltschko, M. 2007. When and why can 1st and 2nd person pronouns be bound variables? Ms, University of British Columbia.


Ghosheshi, J. & Massam, D. this volume. The proper D connection.

Gillon, C. this volume. The semantic core of determiners: Evidence from Skwxwú7mesh.


Mathieu, E. this volume. From local blocking to cyclic agree: The role and meaning of determiners in the history of French.


Müller, G. 2004. A Distributed Morphology approach to syncretism in Russian noun inflection. In Formal Approaches to Slavic Linguistics 12: The Ottawa Meeting 2003, O. Arnaudova,


Wiltschko, M. this volume. What’s in a determiner and how did it get there?

PART II

The function of determiners
From local blocking to Cyclic Agree

The role and meaning of determiners in the history of French

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University of Ottawa

This paper shows that, rather than being necessary for argumenthood or referentiality, determiners in Old French were optional, but used in relation to discourse properties such as focus/emphasis on the one hand, and in relation to phonological/metric requirements on the other. The choice between the use of a bare noun and the use of a noun with a determiner was not free, but created a one-to-one mapping between form and function. This one-to-one mapping between form and function disappeared once the insertion of determiners became obligatory. It is shown that the compulsory insertion of determiners in modern French is connected to an alternation in the morphology of nominals and that it is driven by the operation Cyclic Agree.

1. Introduction

In this article, I show that bare nouns were common in Old French, but that determiners were also to a large extent optional in the language, and that consequently a Blocking Principle of the type proposed by Chierchia (1998) appears, in view of this fact, to be problematic. I argue, however, that the Blocking Principle can be saved if we localize blocking, making it sensitive to the context (in the same spirit, see Krikfa 2003 for data pertaining to English, and Grønn 2005 for data pertaining to Norwegian). My contribution to this volume addresses several key themes of the book: “optional” determiners, individuals versus predicates as basic types, and the idea that features of D are not universal.

My specific proposal regarding the issue of optionality is that the use of determiners in Old French was tied to discourse properties such as focus/emphasis on the one hand, and phonological/metric requirements on the other. The choice between the use of a bare noun and the use of a noun with a determiner was not free, but created a one-to-one mapping between form and function (Williams 1997). One consequence of my analysis is that Old French determiners were neither required
for argumenthood (i.e., not needed to turn a predicate into an argument, as in Longobardi 1994, among many others) nor for referentiality (Higginbotham 1985, 1987). In turn, this implies that the basic type of nouns is \( \langle e \rangle \) (as in Baker 2003; Borër 2005; Déprez 2005; Tonciulescu, this volume) and that nouns are inherently referential. Finally, I argue that determiners did not become obligatory in Modern French because of a putative semantic parameter switch à la Chierchia (e.g., from a [+pred, +arg] language to [+pred, –arg] language), but that the diachronic change is connected to an alternation in the morphology of nominals. Old French nominals lost their interpretable \( \varphi \)-features, a crucial feature for a language to have bare nouns (cf. Delfitto & Schroten 1991).

On the diachronic issue, I argue that the compulsory insertion of determiners in Modern French is driven by Cyclic Agree (see Rezac 2003 for the original conception of Cyclic Agree). Whereas Lyons (1999) correlates the obligatory insertion of French determiners to the earlier restructuring of the pronominal system of Latin, and while Giusti (2001, 2002) relates it to the loss of morphological case, my account relies instead on the idea that the obligatory insertion of determiners is tied to the change in agreement morphology on the Old French noun. In this sense, my account is closer to that of Harris (1977, 1980) who argues that Modern French determiners are the mere carrier of agreement (see also Krámsky 1972). My proposal regarding Cyclic Agree can thus be seen as one way of formalizing Harris’ claim according to which French determiners became obligatory because of their agreement property.

The article is organised as follows. Section 2 introduces the relevant distributional facts about Old French bare nouns. Section 3 concentrates on the use of determiners in Old French. Section 4 discusses the discourse and phonological properties associated with determiners in that language. Section 5 gives an analysis of the syntax and semantics of Old French bare nouns and determiners. Section 6 provides an account as to why determiners became obligatory in Modern French. Section 7 concludes.

2. Bare nouns in Old French

Old French is interesting in the context of the discussion initiated by Chierchia’s (1998) seminal work on bare nouns, since bare nouns were very common in this language. While many languages have recently been used to put Chierchia’s (1998) influential theory of bare nouns to the test (Brazilian Portuguese, Munn & Schmitt 2001; Edo and Mohawk, Baker 2003; Haitian Creole, Déprez 2005; Inuktitut, Compton 2004; Dëne Súliné, Wilhelm 2005), a careful assessment of how Old French fits in Chierchia’s typology has not yet been attempted. The present article aims to fill that gap.
Bare nouns were ubiquitous in Old French, especially in object positions, either on an existential (1)–(2), a generic (3), an abstract (4), or a kind interpretation (5).

(1) Donez moi armes por le besoing qu’ abonde.

Give y.2.p1 me weapons.p1 for the need that increase.p3.s

‘Give me weapons because the need is pressing.’

(2) S’il avient que j’aie freres et j’ai enfans et mi enfant ont enfans.

If it turns out that I have brothers and I have children and my children have children.

‘If it turns out that I have brothers and I have children and my children have children.’

(3) Dames en canbres fuit et het.

He hates ladies in their chambers and keeps away from them.

(4) Envie lor fait grant contraire

Envy is not good for them.

(5) Cocodrille est uns animaus a .iii. piez et de jaune color

The crocodile is a four-legged animal and is yellow.

---

1. By existential, I mean that the noun is interpreted as ‘there is some x’ or ‘there is an x’. The examples in (1) and (2) are narrow scope existentials.

   The following abbreviations are used:

   1 first person inf infinitive
   2 second person past past
   3 third person pl plural
   dat dative pres present
   fut future sg singular
   imp imperative subj subjunctive

2. Old French was a V2 language (Adams 1987); this is why dames en canbres ‘ladies in their chambers’ appears in the pre-verbal position.
The examples in (4) and (5) show that, in addition to bare plurals (1)–(3), bare
singulars were available in Old French. Example (6) shows another singular bare
noun; in this case, the bare singular receives a mass interpretation.

(6) Jo vos durrai or e argent asez.
I you give.FUT.1SG gold.SG and silver.SG enough
'I will give much gold and silver.'

*(La Chanson de Roland, year 1080, line 75)*

Old French bare singulars can also be interpreted as generics (7), existentials (8), or
even definites (9). In (9) *gardin* 'garden' is mentioned three times: the first time, with
an indefinite determiner; the second time, with a definite determiner; but, the third
time, it is determinerless. However, in the third instance, 'garden' is clearly unique,
familiar, and identifiable—the three properties I assume for definite determiners.

(7) Quant hom est viex, vet a bastons
when man.SG be.PRES.3SG old carry.3SG to cane
'When [a] man is old, it carries a cane.'

*(Le Roman de Thèbes, year 1150, line 2933)*

(8) Ele respont: 'Sire, mon pere Prist
she reply.PRES.3SG Sir, my father take.PAST.3SG
femme après la mort ma mere
wife.SG after the death my mother
'She replies: Sir, my father took [a] wife [i.e., married] after the death of my mother.'

*(L’être périlleux, roman de la Table Ronde, year 1268, lines 1189–1190)*

(9) Et li visquens […] avoit un rice palais par dvers un gardin. and the viscount have.PAST.3SG a rich palace by front a garden.SG
'The viscount owned a rich palace with a garden in front of it.'

[...]
Il i avoit une fenestre par devers le gardin
It there have.PAST.3SG a window by front the garden.SG
'There was a window overlooking the garden.'

[...]
Et si oï le lorseinol center en garding […]
and thus hear.PAST.3SG the nightingale sing in garden.SG
'And one could hear the nightingale sing in [the] garden.'


3. Here is the full excerpt:

Et li visquens estoit molt rices hom, si avoit un rice palais par devers un *gardin*. En une canbre la fist mettre Nicolette en un haut estage... Puis si fist l’uis seeler c’on n’i...
Finally, the following example shows that bare nouns in Old French are not restricted to argument positions; they can also appear in predicate positions. In (10), the bare singular *fame* ‘woman’ is selected by the predicative verb ‘be’.

(10) Bien i pert que vos estes fame.
    well there appear.pres.3sg that you be.pres.2pl woman.sg
    ‘One can tell very well that you are a woman.’
    (Yvain, Le Chevalier au Lion, year 1179, line 1654, in Joly 1998: 257)

In view of these facts, and since Old French has a count/mass contrast together with a singular/plural distinction, it appears that, on Chierchia’s (1998) well-known typological scale, Old French is a [+pred, +arg] type of language (like Russian).4

The details of Chierchia’s system are as follows. He asserts that NPs do not systematically denote predicates cross-linguistically, contrary to what has been suggested in the syntactic literature (Abney 1987; Higginbotham 1985, 1987; Longobardi 1994, 2000; Stowell 1989; Szabolcsi 1987; among many others). Rather, depending on the language, NPs start out as either arguments or predicates. This means that in some languages determiners are not essential for an NP to be or become an argument. In other languages, however, determiners are required for argumenthood. This is the case of Modern French, a [+pred, –arg] language, since bare nouns are not possible. This is illustrated in (11).5

---

peust de nule part entier ne iscir, fors tant qu’il i avoit une fenestre par devers le gardin assés petite dont il lor venoit un peu d’essor. Nicolette jut une nuit en son lit, si vit la lune luire cler par une fenestre et si oï le lorseilnol center en garding, se li sovint d’Aucassin sen ami qu’ele tant amoit.

The alternation between *gardin* and *garding* appears to be a matter of spelling variation in this text.

4. Example (i-a) shows that the singular for ‘horse’ is *cheval*, while the plural for ‘horses’ is *chevaux*. Example (i-b) shows that a count noun like *foiz* ‘times’ in Old French can be merged directly with a numeral such as *trois* ‘three’.

(i) a. cheval → chevaux
   b. trois foiz l’apele par son nom
      three times him-call.pres.3sg by his name
      ‘He/she calls him by his name three times.’
      (Enéas, year 1150, line 2168)

In addition, it is clear that bare nouns in Old French are not number neutral. A bare singular can only be interpreted as singular—it cannot be interpreted as plural—and bare plurals cannot be interpreted as singular.

5. There are some notable exceptions, see Curat (1999) and Roodenburg (2004) for details.
Example (12) gives a schematic definition of the parameter proposed by Chierchia, while (13)–(15) introduce the different instantiations of the parameter ($\partial = \text{null determiner}$).\(^6\)

(12)  **The Nominal Mapping Parameter:** $N \Rightarrow [\pm \text{pred}, \pm \text{arg}]$

(13)  $[-\text{pred}, +\text{arg}]$ every (lexical) noun is mass $\Rightarrow$ Chinese Mass/count languages

(14)  $[+\text{pred}, +\text{arg}]$

bare arguments allowed

$\begin{cases} 
\text{no determiner} \Rightarrow \text{Slavic} \\
\text{determiners} \Rightarrow \text{Germanic}
\end{cases}$

(15)  $[+\text{pred}, -\text{arg}]$

bare arguments disallowed

$\begin{cases} 
\partial \Rightarrow \text{Italian} \\
\text{no} \partial \Rightarrow \text{(Modern) French}
\end{cases}$

Although it might have been tempting without further ado to group Old French with Romance $[+\text{pred}, -\text{arg}]$, it is clear that this option would be mistaken, since Old French appears to be more like (14) than (15). But this should not come as a surprise, because we know independently that Old French has properties that are no longer exhibited in Modern French and these properties are not always Romance, but Germanic (e.g., V2, Adams 1987; among many others; Stylistic Fronting, Cardinaletti & Roberts 2002; Dupuis 1989; Mathieu 2006a; Quirky subjects, Mathieu 2006b; transitive expletive constructions and object shift, Mathieu 2008).

There are three main differences between Old French and Modern Romance languages: (i) bare singulars are available in Old French, but are not possible in

---

\(^6\) The logical combination $[-\text{pred}, -\text{arg}]$ is not possible/attested, since a language with this alternative could not allow the insertion of NPs in a given derivation at all.
Modern Romance languages (with the notable exception of Brazilian Portuguese, Munn & Schmitt 2001); (ii) Old French bare nominals can combine with individual-level predicates (3) or with predicates that select kinds (5), but this is not possible in Modern Romance languages (Dobrovie-Sorin & Laca 2003); and (iii) bare nominals can not only be objects, but also subjects in Old French, whereas this is not an option in Modern Romance languages. Although object bare plurals in Old French are more frequent than subject bare plurals, it is not entirely impossible for bare plurals to be subjects. These can appear in post- or even pre-verbal positions. The examples in (16)–(18) illustrate the phenomenon.

(16) Ce fu en mai, el novel tens d’esté:
    it be.PAST.3SG in May the new time of-summer
    Fueillissent gaut, reverdissent li pré,
blossom.PAST.3PL wood.PL green.PAST.3PL the prairie.PL
    ‘It was in May, at the beginning of summer: [The] woods were in bloom, the fields were becoming green.’  
    (Charroi de Nîmes, 12th century, line 15)

(17) Chevalier viennent dis et dis.
    knights.PL come.PAST.3PL ten and ten
    ‘[The] knights came in groups of ten.’  
    (Le Chevalier à la Charrette, year c. 1180, line 5610)

From this point of view, Old French fits quite nicely with Chierchia’s (1998) typology. The fact that in Italian, Spanish, and Romanian, (unmodified) bare plurals appear not to be able to combine with predicates that select kinds or with i-individual predicates has been taken to be problematic for Chierchia’s theory. Because of this, Dobrovie-Sorin & Laca (2003) and Dobrovie-Sorin et al. (2005) have argued for an analysis according to which bare plurals denote a property. On this view, the kind or generic reading is not the basic interpretation from which others are derived, contrary to what Carlson (1977) and Chierchia (1998) have argued.

This generalization is based on a systematic search in Frantext and Base de français médiéval. I do not have, at this point, any statistical data, so my generalization is based purely on observation, nor is there any statistical evidence in the literature about whether Old French bare nouns are more often than not objects rather than subjects. I leave this for further research. As pointed out by a reviewer, asymmetries between subjects and objects in the context of bare nouns, but also in the context of other constructions (Negative Polarity Items, Noun incorporation, etc.) are well-known cross-linguistically. It is often recognized in the literature that there is a tighter connection between objects and verbs than between subjects and verbs. This is because while the object is introduced in the derivation as a sister of the verb, the subject is introduced not with the verb, but with a higher functional projection, namely v. Since the notion of government is no longer a core principle of generative syntax, the Empty Category Principle (ECP) cannot be appealed to in order to differentiate between bare nouns in subject positions versus bare nouns in object positions. A minimalist (government-free) analysis like that of Landau (2007) might be useful in explaining such a contrast.
(18) Il avint que homes armez alerent
it turn.out.PAST.3SG that men.PL armed go.PAST.3PL
a faire force contre autres
to do.INF force against others
‘[some] men with weapons came in order to commit violent acts.’
(JA chap. XLIX, in Carlier & Goyens 1998: 100)

While gaut ‘woods’ (16) and chevalier ‘knights’ (17) are interpreted as definites, homes ‘men’ in (18) is interpreted as an indefinite. ‘Woods’ is accommodated in (16), and ‘knights’ is mentioned previously in the discourse in (17). In (16), the predicate fueillir ‘blossom’ is unaccusative, but the theme appears post-verbally. In (17), the predicate venir ‘come’ is also unaccusative, but chevalier ‘knights’ appears in a pre-verbal position. Since V2 in Old French is possible only in matrix clauses, it is clear from example (18) that the subject occupies the subject position.

The facts in (16)–(18) show that Old French clearly differs from Modern Romance languages. In Spanish, it is possible for a bare plural to be a subject only on the condition that it surfaces post-verbally, as shown in (19a) (see Contreras 1986; Longobardi 1994 and Dobrovie-Sorin et al. 2005 for a summary of the facts). When a bare plural is a subject, it cannot appear in a pre-verbal position, as (19b) illustrates. In object positions, however, bare nouns are free to occur, as illustrated by (19c).

(19) Spanish:
   a. Merodeaban leones en la selva.
      prowl.PAST.3PL lions.PL in the jungle
      ‘Lions were prowling in the jungle.’
   b. *Niños llegaron.
      children.PL arrive.PAST.3PL
      ‘Children arrived.’
   c. Juan vió películas.
      Juan see.PAST.3SG movies
      ‘Juan saw movies.’

Now that we have established that Old French was a [+pred, +arg] language, the question that arises is whether Old French was more like Slavic, where no determiners can be found, or more like Germanic, where determiners are available. The problem, as we shall see, is that determiners appear to be optional in Old French.

To summarize, we have established the fact that nominals in Old French did not require a determiner to be an argument: bare nouns, whether plural or singular, could appear in argument positions while receiving all sorts of interpretations depending on the context. Old French thus appears to be a [+pred, +arg] language.
3. The use of determiners in Old French

It is generally claimed in the literature that determiners developed slowly in the history of French. Bare nouns were the norm/the default case (Latin did not have determiners, thus bare nouns were common), and determiners slowly emerged from the Latin demonstrative ille for the masculine and illa for the feminine. Because of their demonstrative status, these proto-determiners were said to have deictic force. The deictic force supposedly lasted until the end of the 13th century (Rickard 1989: 55). Fournier (2002) even argues that, although the definite determiner started to lose its deictic force from the 14th century onwards and was thus used more and more generally, the definite determiner had difficulties imposing itself. Apart from Maupas (1607), until La Grammaire de Port Royal (1660), no grammar regarded the definite determiner as an element in its own right.

I argue that there are many problems with this view: first, it turns out that the definite determiner surfaces much earlier than commonly believed and, second, when it surfaces it does not have deictic force of the distal kind (it is only deictic in that it can refer back to a nominal introduced in the discourse, a typical feature of definite determiners shared with demonstratives). My claim is thus that there is a mismatch between the prescriptive description of grammarians and actual use. To illustrate, I have looked at La Vie de Saint Alexis, a very early text, dated 1050. It provides an extreme, but interesting case: almost all nominals interpreted as definite are accompanied by a definite determiner, and none of these determiners have deictic properties in the distal sense described above.

The traditional view according to which bare nouns in Old French are felicitous only in non-individuated (i.e., abstract, non-referential, or non-specific) contexts is equally problematic. Indeed, it is not difficult to show that this generalization is not correct. The fact that bare singulars such as those illustrated in (9) are possible with a definite interpretation but without a determiner runs counter to the received wisdom. In (9) by the time en garding ‘in the garden’ is used, a rich context is available because ‘garden’ has been mentioned twice already. We would

9. According to Maupas, articles are required in these contexts:

(i) a. j’ai acheté **un** cheval
   ‘I bought a horse’
   b. * j’ai acheté cheval

(ii) a. prêtez-moi **une** épée
    ‘lend me a sword’
   b. * voilà épée

(Grammaire et syntaxe française, 1607, p. 111).
expect a definite determiner used anaphorically in this case, but instead the noun
is used without the support of a determiner. Whereas Old French favoured objects
of prepositions without a determiner for indefinites (as is still the case in Modern
French), there are clear cases where bare objects of prepositions can receive a defi-
nite interpretation.

Two further examples illustrate this phenomenon. In (20) it is clear from the
context that the violin and the bow belong to Nicolette. A determiner of some sort
would then be expected. Yet, both nominals are bare.

(20) Es vous Nichole au peron,
      and here Nichole at-the steps
trait  viel,   trait  arçon
take.out.pres.3sg  violin.sg  take.out.pres.3sg  bow.sg

‘There is Nicolette on the steps, she takes out [her] violin, takes out [her] bow.’

(Aucassin et Nicolette, early 13th century, XXXIX, lines 11–12)

Example (21) is a case of accommodation: the nominals are sufficiently identified
by the receiver as unique for the determiners to be dropped. However, on the view
that definite determiners are needed for elements that are unique, familiar, and
identifiable by both speaker and hearer, this example is problematic. Note that the
enumeration appears to facilitate the drop of the determiner. Bare nouns are com-
mon in such contexts (Brunot & Bruneau 1956).

(21) Deus, reis de glorie… Cel e terre fesis, e cele
     God king of glory this.one and earth.sg do.past.3sg and heaven.sg
mer, Soleil e lune, tut ço a comandé
sea.sg sun.sg and moon.sg all this have.3sg ordered

‘God, king of glory who has created the heavens, the earth, the sea,
the sun and the moon has ordered all this.’

(Le Charroi de Nîmes, 12th century, lines 804–805)

These examples show that bare nouns can be used in individuated/referential con-
texts, contrary to what has been claimed in the traditional literature.

Conversely, nominals that should not, according to the traditional view, appear
with a determiner often surface with one. In (22), a nominal interpreted generi-
cally, which would normally appear bare, surfaces with a determiner. The ‘deer’
has not been mentioned before in the text: it is a new discourse entity. In (23),
the abstract nominal ‘loyalty’ should be bare (since it is non-individuated). Yet, it
surfaces with a determiner. For example, in English abstract noun are used with-
out a determiner: *kindness is a virtue, not *the kindness is a virtue (a determiner is
possible only if a relative clause follows kindness: the kindness that he showed was
exceptional). In (23), the determiner is not used anaphorically, since it is the first time in the text that leauté ‘loyalty’ is used.

(22) Si cum li cerfs s’en vait devant les chiens…

thus as the deer.sg refl.of.it go.pres.3sg in.front.of the dogs

‘As the deer runs from the dogs.’

(23) Et dit li cuens: ‘Vos dites voir, beau niés;

and say.pres.3sg the count you say.pres.2pl true dear nephew

La leauté doit l’en toz jorz amers.’

the loyalty.sg must.pres.3sg it-one all days love.pres.3sg

‘The count replied: “You speak the truth, dear nephew, one must always love loyalty.”’

(Le Charroi de Nîmes, 12th century, lines 441–442, in Epstein 1995: 63)

This optionality is attested not only across texts,10 but also within the same texts. In La Cantilene de Sainte Eulalie, a text written around 878 (a date that precedes the aforementioned La Vie de Saint Alexis), the presence and absence of the definite determiner alternate quite freely. To illustrate, in (24) the young girl has been discussed at great length in the previous verses and a determiner is used. This looks like the prototypical use of definite determiners: a discourse referent has been introduced by a noun in the discourse, and the determiner picks up that discourse referent. However, if bare nouns in French were capable of being interpreted as definite with an ability to pick up discourse referents (e.g., (9), (17)), the question is: what is the purpose of determiners?

(24) Niule cose non la pouret omque pleier

no thing not her can.past.3sg never give.up.inf

La polle sempre non amast lo Deo menestier

the young.girl.sg always not love.past.3sg the God service

‘Nothing could make the young girl not appreciate the service of God.’

(La Cantilene de Sainte Eulalie, year 878, lines 8–10)

A bare noun interpreted as definite in fact surfaces in the same text, in the previous couple of verses, as shown in (25). Here, it is clear that the prayers are the king’s; they are not just anybody’s prayers.

10. I have controlled for the dates when the texts were written. Most of my examples involve texts written at the beginning of the 12th century and at the end of the 11th century, except those very early texts where I am making a point about the early appearance of determiners.
Neither for gold, silver, jewels, nor for the threat or the prayers of the king.

(‘La Cantilene de Sainte Eulalie, year 878, lines 7–8)

The optionality of determiners is not restricted to definite determiners. Indefinite determiners also appear to be optional in Old French. An indefinite determiner can accompany a nominal, as in (26), or it can be absent, as in (8). The case of (26) is particularly interesting, since *spede* ‘spear’ the use is not specific in this context. In addition, it is the object of a preposition (a typical environment for determiner drop, as mentioned above). *Spede* has not previously been mentioned in the text: the context is such that the spear can be any spear, as long as the head will be severed. Yet, a determiner accompanies the noun.

(26) *Ad une spede* li roveret tolir lo chieef.
with a spear.sg her order.past.3sg cut.inf the head
‘He ordered for her head to be cut with a spear.’

(‘La Cantilene de Sainte Eulalie, year 878, line 22)

Similarly, in (27) a determiner is used with *mort* ‘death’ when it is not necessary and thus not expected. It is not necessary because the nominal *mort* ‘death’ is not individuated (it is an abstract noun), and thus, on the traditional view, it should be used without a determiner.

(27) *Qued auuisset de nos Christus mercit Post la mort*
for have.subj.3sg of us Christ mercy after the death.sg
et a lui nos laist venir Par souue clementia.
and to him us let.pres.3sg come.inf by his clemency
‘In order for Christ to have mercy on us after death and for him to let us come to him thanks to his clemency.’

(‘La Cantilene de Sainte Eulalie, year 878, lines 27–29)

The relative freedom with which determiners are used in Old French has not escaped researchers or grammarians throughout the years. To quote just a few experts on the matter: “L’expression de l’article dans ce vers prouve qu’il n’y a guère de ‘règle’ absolument rigoureuse dans la syntaxe de l’ancienne langue” (Raynaud de Lage 1983: 46).11 “Il arrive que les poètes du moyen âge semblent employer indifféremment le nom sans article, le nom précédé de l’article et le nom précédé d’un démonstratif”

11. “The use of the article in this verse shows that there is in the syntax of Old French no rigorous rule as to whether or not the article is present.” (my translation)
(Brunot & Bruneau 1956: 218). The free variation between bare nouns and nominalss with a determiner is also reported by Carlier & Goyens (1998).

The facts I have described for Old French may appear to be problematic for Chierchia’s (1998) view that if a determiner is available in a given language, then the equivalent/corresponding covert type-shifting operation is blocked. His Blocking Principle is given in (28). In a language such as Russian, no determiners are available, therefore all kinds of covert type-shifting operations are free to operate: they are never blocked. Like Russian, Old French clearly shows that bare nouns can be arguments without the need of a determiner.13

(28) **Blocking Principle** (‘Type Shifting as last Resort’):

For any type shifting operation τ and any X: *τ(X), if there is a determiner D such that for any set X in its domain, D(X) = τ(X). (Chierchia 1998: 360)

The problem that Old French appears to create for Chierchia’s classification, however, is that it has lexicalised determiners, i.e., vocabulary items that correspond to the and a. But if Old French nominals can be arguments without the support of a determiner, the question that arises is thus: what is the need for determiners in Old French? In the next section, I argue that despite the initial problems that Old French poses for Chierchia’s Blocking Principle, this principle can be saved if we localise blocking, making it sensitive to the context. However, if this hypothesis is on the right track (and it appears to be), then we have to abandon the idea according to which determiners are needed for argumenthood (as in Longobardi 1994) or referentiality (Higginbotham 1985, 1987). This is because Old French nominals can clearly be arguments and have referential import without being accompanied by a determiner. There is simply no evidence for a null determiner, since bare nouns in subject or object positions do not show an asymmetry in their distribution.

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12. “There are cases where poets of the Middle Ages seem to freely use nouns without an article, nouns preceded by an article, or nouns preceded by a demonstrative.” (my translation)

13. A list of the type shifters available cross-linguistically is given in (i). Both ∩ and ∪ are automatic type shifters: they are not lexicalised (when ∩ is lexicalized, it is lexicalised as the same element that τ turns into, i.e., a definite determiner). The down operator ∩ shifts an NP from ⟨e,t⟩ to ⟨e⟩. The up operator ∪ shifts an NP from ⟨e⟩ to ⟨e,t⟩, giving us the property of being a specimen of the kind. τ is the maximization operator: when applied to a predicate P, it returns the greatest individual in P. ∃ is the standard Generalized Quantifier.

(i) a. ∩ ⟨e,t⟩ → ⟨e⟩
b. ∪ ⟨e⟩ → ⟨e,t⟩
c. τ ⟨e,t⟩ → ⟨e⟩
d. ∃ ⟨e,t⟩ → ⟨⟨e,t⟩, t⟩
4. On the functions of determiners

So far, we have seen that although it is sometimes claimed in the literature (e.g., Boucher 2003) that definite determiners in Old French are used to express referentiality, it is clear from some of the examples introduced in Sections 2 and 3 that this is not always the case. Although (9) shows that a determiner can be used anaphorically and denote definiteness (the second time gardin ‘garden’ is used), it is also possible for a bare noun to be interpreted as definite and refer back to an entity already introduced in the discourse without the support of a determiner (see (9), (16), (17), (20), (21), and (25)). On the other hand, a determiner may be used with a nominal as in (23) and (27) when the nominal is clearly non-referential (it is a non-individuated abstract noun).

In the present section, I argue that the optional cases introduced in Section 3 do not necessarily go against the Blocking Principle of Chierchia (1998). I show that this is because the choice between the use of a bare noun and the use of a noun with a determiner in Old French is not free, but tied to discourse properties, namely focus, on the one hand, and to phonological/metric requirements, on the other. First, I discuss a series of work by Richard Epstein (1993, 1994, 1995), who argues that determiners in Old French can be used to express point of view. Second, I add examples showing that metric requirements may favour the insertion of determiners.

Epstein (1993, 1994, 1995) works within a cognitive approach, but his idea of point of view can easily be translated as what is known as ‘focus’ in other frameworks. His proposal is that when the speaker wants to emphasize the importance of a particular referent, a determiner is added so that the nominal is no longer bare. I take focus here to be a cover term for ‘emphasis’ or ‘expressive value’. The notion of focus that I use encodes new or old information that is emphasized and that becomes important for the speaker and for the addressee. A clear example, from Epstein (1995), is given in (29). It shows that both ‘Christianity’ and ‘paganism’ are identifiable (both notions belonged to the common ground at the time the text was written). The use of the determiner with ‘Christianity’ is expressive in that it serves to highlight Christianity in relation to paganism. The determiner expresses the favourable evaluation of Christianity by the writer (Guillaume), who is a Christian (cf. Epstein 1995).

(29) La combati vers Corsolt l’amiré, Le plus fort home de la crestienté N’en paiennisme que l’en peüst trover.
There, I fought against the emir Corsolt, the strongest man of the Christianity not-of.it paganism that it-of.it can find
‘There, I fought against the emir Corsolt, the strongest man that one could find in Christianity or in the land of pagans.’

(Le Charroi de Nîmes, 12th century, lines 136–138, in Epstein 1995: 64)
I found a similar example in *La Vie de Saint Alexis*. The first time *cristienté* ‘Christianity’ is mentioned, it appears bare (30). This is because in this context the nominal is interpreted as part of the predicate. It simply means ‘to be baptized’ and thus involves a routine event (it is backgrounded). On the other hand, the second time ‘Christianity’ is used, emphasis is put on the fact that Christian tradition or laws require the young child under discussion to be christened; thus, a determiner is used (31).

(30) Nostra anceisur ourent *cristienté*
our ancestors have.PAST.3PL Christianity.SG
‘Our ancestors received Christianity.’

*La Vie de Saint Alexis*, year 1050, line 12

(31) Bel num li metent sur *la cristïentét*.
beautiful name to.him put on the Christianity.SG
‘and they gave him a fine name, as Christianity demands.’

*La Vie de Saint Alexis*, year 1050, line 30

Another example given by Epstein (1995) further illustrates this point. Example (23), repeated here as (32), belongs to a text where the hero, Guillaume, complains to his nephew that the king has not yet rewarded him for his exploits. Guillaume speaks of revenge, but Bertrand, his nephew, is not happy with his uncle’s behaviour. Guillaume, realising that he has made a mistake, speaks of the importance of loyalty (the first mention of ‘loyalty’ made in the text). This is why the nominal ‘loyalty’ appears with a determiner, while an abstract noun it should normally be bare.

(32) Et dit li cuens: ‘Vos dites voir, beau niés;
and say.PRES.3SG the count you say.PRES.2PL true dear nephew
La *leauté* doit l’en toz jorz amers.’
the loyalty.SG must.PRES.3SG it-one all days love.PRES.3SG
‘The count replied: “You speak the truth, dear nephew, one must always love loyalty.”’

*Le Charroi de Nîmes*, 12th century, lines 441–442, in Epstein 1995: 63

Epstein is not the first to have noticed the expressive role of determiners in Old French. Brunot & Bruneau (1956) note that: “l’article peut avoir une valeur expressive” (p. 218).14 They give the example in (33), in which determiners are used in an otherwise prototypical environment where determiners would be dropped, i.e., an enumeration context (this environment together with coordination are still possible contexts for determiner drop in Modern French; see Curat 1999 and Roodenburg 2004). The addition of determiners creates a certain emphasis that would be absent if the nominals had been bare.

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14. “The article can have an expressive value.” (my translation)
Quoi?...nostre avoir avés vous parti, dont nous avons souffert what our stock have.3PL you shared of-which we have.1PL suffered les grandes paines et les grans travaus, les fains et les sois the big pains.PL and the big works.PL the hungers.PL and the thirst et les frois et les caus, si l'avés parti sans nous? and the colds.PL and the hots.PL thus it-have.2PL shared without us 'What? you shared our goods, this stock for which we have suffered great pain, for which we have worked so much, for which we went through hunger and thirst, cold and heat, you shared it without us?'

(33) Quoi?...nostre avoir avés vous parti, dont nous avons souffert what our stock have.3PL you shared of-which we have.1PL suffered les grandes paines et les grans travaus, les fains et les sois the big pains.PL and the big works.PL the hungers.PL and the thirst et les frois et les caus, si l'avés parti sans nous? and the colds.PL and the hots.PL thus it-have.2PL shared without us 'What? you shared our goods, this stock for which we have suffered great pain, for which we have worked so much, for which we went through hunger and thirst, cold and heat, you shared it without us?'

(34) Et li visquens […] avoit un rice palais par divers un gardin. and the viscount have.PAST.3SG a rich palace by front a garden.SG 'The viscount owned a rich palace with a garden in front of it.' […]

Il i avoit une fenestre par devers le gardin It there have.PAST.3SG a window by front the garden.SG 'There was a window overlooking a garden. […]

Et si oï le lorseilnol center en garding […] and thus hear.PAST.3SG the nightingale sing in garden.SG 'And one could hear the nightingale in [the] garden.'

(35) Quoi?...nostre avoir avés vous parti, dont nous avons souffert what our stock have.3PL you shared of-which we have.1PL suffered les grandes paines et les grans travaus, les fains et les sois the big pains.PL and the big works.PL the hungers.PL and the thirst et les frois et les caus, si l'avés parti sans nous? and the colds.PL and the hots.PL thus it-have.2PL shared without us 'What? you shared our goods, this stock for which we have suffered great pain, for which we have worked so much, for which we went through hunger and thirst, cold and heat, you shared it without us?'

(34) Et li visquens […] avoit un rice palais par divers un gardin. and the viscount have.PAST.3SG a rich palace by front a garden.SG 'The viscount owned a rich palace with a garden in front of it.' […]

Il i avoit une fenestre par devers le gardin It there have.PAST.3SG a window by front the garden.SG 'There was a window overlooking a garden. […]

Et si oï le lorseilnol center en garding […] and thus hear.PAST.3SG the nightingale sing in garden.SG 'And one could hear the nightingale in [the] garden.'

I argue that competition between various forms to match particular meanings or functions occurs at a local level, i.e., it may depend on the context/construction. Depending on the language, apparent optional determiners may be correlated to different meanings or to different PF functions. In English, it has been proposed that the alternation between the use of the indefinite determiner *some* and a bare noun is possible because the definite determiner expresses specificity (cf. Krifka 2003): The contrast is between *Dogs are barking* and *Some dogs are barking*, or *I drank milk* and *I drank some milk*. If we do not account for these examples, they remain a real problem for Chierchia’s (1998) Blocking Principle. Luckily, the alternation can be accounted for if blocking is localised. On Krifka’s view, the difference that the determiner *some* makes in the structure is that it introduces a choice function, thus allowing for wide scope interpretations (the added meaning is specificity). While this works for English, Old French is different. We saw from example (26) that an indefinite determiner in Old French can accompany a noun without producing a specific reading.

In summary, I propose to save the Blocking Principle as envisaged by Chierchia and his followers by correlating the use of determiners to different functions, one of which is a discourse function (focus), the other a PF requirement. While the optional use of determiners in Old French has often been used as an indication that the grammar was simply undergoing change (cf. Carlier & Goyens 1998), a fact that I am certainly not denying, what is interesting is that the grammar appears to always make use of what it has at its disposal: each ‘free’ form is associated with one meaning. In other words, economy requires ‘competing grammars’ or ‘competing structures’ to be useful for communication (a kind of meta output condition). Beyond the case of determiners, further work is, of course, needed in order to test this hypothesis.

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16. Another area where this appears to be relevant is the case of WH in situ in French (Mathieu 2004).
5. Analysis

My aim in this section is to account for the distribution of Old French bare nouns (singulars and plurals) in a uniform and principled way as well as to give an account of the discourse properties with which determiners are associated in that language, formalizing some of the ideas introduced by Epstein (1993, 1994, 1995). My analysis of the Old French facts builds on Déprez (2005), and integrates elements of Delfitto & Schroten (1991) and Bouchard (2002, 2003). Although I integrate many aspects of Chierchia’s (1998) analysis, I do not adopt his semantic analysis en bloc. This is because it appears that whether or not determiners are available in a given language is irrelevant for argumenthood. Old French is a case in point: all bare nominals are arguments, and determiners are added for reasons other than core semantic characteristics such as argumenthood. There are two reasons why determiners are added to a noun in Old French: (i) because of focus; and (ii) because of a metric requirement. The situation in Modern French will be discussed in Section 6.

The hypothesis that I defend is as follows. Instead of relying on the presence or the absence of determiners to determine whether a nominal is a predicate or an argument, I argue that all nouns denote ⟨e⟩. Whereas the received wisdom in the literature on NP structure is that NPs are essentially predicative categories, and determiners are needed to make them into something that can function as an argument, a growing trend in the linguistic literature is instead to propose that bare nouns denote not ⟨e,t⟩, but ⟨e⟩ in all languages (Borer 2005; Tonciulescu, this volume). Treating all nouns with ⟨e⟩ as their default type allows us to completely do away with the idea according to which determiners are necessary for nominals to become full arguments. This is in the spirit of what Baker (2003) has recently proposed for the interpretation of nominals cross-linguistically. Baker goes further than Chierchia in explaining the ability of bare nouns to act as arguments in many languages, proposing that all “nouns are always inherently argumental as a matter of Universal Grammar” (p. 116). According to Baker, nouns are special in that they bear a referential index: they are always realized as entities. Determiners are present only to convey discourse properties.

My proposal nevertheless differs from Baker’s in that—although I follow his view according to which determiners are not necessary to encode argumenthood in any language—I assume that in order to act as predicates (i.e., of type ⟨e,t⟩), nouns do not have to combine with Pred, the special functional projection introducing predicates that Baker postulates. Once NumP is projected, nominals are ⟨e,t⟩: they can directly appear in predicate positions. The empirical evidence for a predicative head that turns entities into predicates is not overwhelming cross-linguistically. Instead,
number (a morphologically very visible and ubiquitous category) is responsible for the introduction of predicates. ¹⁷

More precisely, I propose a compositional account based on the idea that syntactic structure builds almost all relevant architecture for the interpretation of bare nouns. I say “almost” because I do retain the covert \( i \) operator, the covert Generalized Quantifier \( \exists \), and the covert choice function operation. These are necessary because their semantic function is often not overtly spelled out morpho-syntactically in Old French and in other languages. The basic projected structure, however, is always NP, as in (36a) (which corresponds to the type \( \langle e \rangle \), i.e., an argument), and NumP, as in (36b) (which corresponds to type \( \langle e,t \rangle \), i.e., a predicate). From the structure in (36b), the aforementioned covert type-shifting operations can apply.

(36)

\[
\begin{align*}
\text{a. } \quad & \text{NP } \langle e \rangle \\
\text{b. } \quad & \text{NumP } \langle e,t \rangle \\
& \text{N'} \\
& \text{N}^0 \\
& \text{Num}_\text{sing/rt} \\
& \text{NP } \langle e \rangle \\
& \text{N'} \\
& \text{N}^0
\end{align*}
\]

This proposal is the exact opposite of the dominant idea in the field, namely that D⁰ or even the overt realization of D⁰, is necessary to turn a predicate (an NP) into an argument (cf. Abney 1987; Longobardi 1994, 2000; Stowell 1989; Szabolcsi 1987) and to make a bare NP referential (Higginbotham 1985, 1987). On the view presented in this article, D⁰ is not necessary for the introduction of reference or argumenthood. The DP/CP parallelism on which much of the traditional work is based contains many arguments and data that have turned out to be problematic (see Bruening 2008 for a recent comprehensive critique).

The overall parameter that I put forward is closely related to the work of Déprez (2005), Delfitto & Schroten (1991), and Bouchard (2002, 2003) in that it states that if nouns have agreement morphology, determiners are not necessary and bare nouns denoting objects are possible (an insight which is already present in many traditional grammars since Port-Royal, see for example Brunot & Bruneau 1956).

¹⁷. It may in fact be the case that number is simply a stuff divider as in Borer (2005). On this view, all nouns start out as \( \langle e \rangle \) and need to be divided before they can be counted. If the role of number is simply to divide a mass term, then the role of \( \# \) the category that is above NumP in Borer (2005) will be the category introducing object-level entities rather than NumP. In this article, I assume NumP is the level at which object-denoting elements are introduced, but nothing hinges on this matter.
Let me now go through some concrete examples and give a derivation for each. I propose that in Old French, a bare noun—i.e., an NP—starts out as an element denoting \( \langle e \rangle \) (a kind). No DP structure is projected. I provide some examples of bare nouns interpreted as kinds in (37). Example (37a) is repeated from (5).

(37) a. Cocodrille est uns animaus a .iiij. piez
crocodile.sg be.pres.3sg a animal at four feet
et et de jaune color
and of yellow colour
‘The crocodile is a four-legged animal and is yellow.’
(Li livres dou tresor, year 1260–1267, V, Dou cocodrille, p. 184)

b. Taupe est une diverse beste
mole.sg be.pres.3sg a diverse animal
‘The mole is a diverse animal.’
(Li livres dou tresor, year 1260–1267, CC, De la Taupe, p. 252)

On the assumption that this NP is interpreted as mass (cf. Chierchia 1998), it is underspecified for (morphological) number, which means that NumP does not project and that the nominal does not carry any \( \varphi \)-features, giving us the structure in (38).¹⁸

(38) NP \( \langle e \rangle \)
\[ \begin{array}{c}
| \\
N \\
| \\
N^0
\end{array} \]

For all other cases, NumP projects, spelling out the configuration in (39). Num is associated with uninterpretable \( \varphi \)-features, and an Agree relation is established with the interpretable \( \varphi \)-features of the nominal.¹⁹ As mentioned already, the role of NumP is to retrieve instantiations of a kind (objects or sub-kinds). The type of NumP corresponds to \( \langle e,t \rangle \).

¹⁸. It is also possible for plurals to be interpreted as kinds, as (i) shows :

(i) Et sachiez que ostour sont de .iiij. manieres : petit, grant, meien.
and know that vultures be.pres.3pl of three kinds small big average
‘Know that vultures come in three kinds: small, big, average.’
(Li livres dou tresor, year 1260–1267, CXLVIII De toutes manieres de Ostours. p. 197)

In this case, I assume that NumP is projected, but that the NP is semantically turned back into a kind.

¹⁹. I use the terms ‘interpretable’ and ‘uninterpretable’ instead of more recent (and perhaps more appropriate) terms such as ‘valued’ and ‘unvalued’, but nothing hinges on this matter.
Evidence that nominals in Old French bear interpretable features comes from the fact that the morphology necessary to distinguish between singularity and plurality appeared on the noun. In (40a), the ‘s’ on *chevalier* ‘knight’ indicates singular, while the absence of that ‘s’ denotes plurality (40b). In Old French, the ‘s’ for the singular was actually pronounced (we know this from rhyming effects).

(40) **Nominative paradigm:**
   a. li chevaliers ‘the knight’
   b. li chevalier ‘the knights’

Since in the nominative paradigm, *li* could mean either ‘the*_{s}_{ingular}’ or ‘the*_{p}_{l}_{u}_{r}_{a}_{l}_{u}_{r}_{i}_{t}’ (its number morphology was not transparent), the only way to tell whether the noun was singular or plural was through the morphology on the noun. The accusative paradigm was more transparent, since *le* was used for singular and *les* for plural. The noun also contains overt φ-features. Plurals were marked with ‘s’. The fact that ‘s’ marked both singularity in the nominative paradigm and plurality in the accusative paradigm must have led to great confusion.

(41) **Accusative paradigm:**
   a. le chevalier ‘the knight’
   b. les chevaliers ‘the knights’

I now turn to generics. If the sentence is habitual, as in (7) (see also (4)), the habitual aspect of the sentence functions as the modal operator *Gn* together with the accommodation of a contextual variable C. This is as in Chierchia (1998). Here again, the property that is quantified over is the property of being an instance of the kind that is number-neutral.

When the nominal is interpreted existentially, as in (8), I assume existential quantification over the instantiations of the kind via the introduction of the covert Generalized Quantifier ∃. This is basically the only source of existential quantification in bare nouns (Chierchia 1998). This explains why bare nouns always receive narrow scope and can never achieve wide scope over other operators. Existential closure over object-level properties allows us to account for interrogative (42), hypothetical (43), and comparative environments (44), since the bare nouns in these cases are automatically interpreted in the scope of the operator.
Avés vous dont borse trovée?
'So have you found [any] purse?' (Foulet 1928: 58)

Se vos volez ne chastel ne cité Ne tor ne vile,
'If you want [a] castle or [a] city or [a] tower or [a] town, [a] dungeon or [a] fortress, this will be granted and given to you.'

(Le Charroi de Nîmes, 12th century, lines 471–473)

Plus est isnels que n’oisel ki volet
'He is faster than [a] bird that flies.'

(La Chanson de Rolland, year 1080, line 1616)

The example in (45) shows that bare nouns such as palie ‘tapestry’ and ornement ‘ornament’ cannot take wide scope over negation; this is clear from the context. This is typical of bare nouns, as is well documented in the literature (Carlson 1977, and many others).

When an indefinite is interpreted specifically, I assume that a choice function is introduced (the choice function is not correlated with the presence of a determiner, i.e., as in Krifka 2003 for the case of English described above; in (26) the indefinite determiner does not introduce a choice function, since the nominal is not interpreted specifically). When the nominal is interpreted as definite (without a determiner), the ι covert operation can be performed, shifting the property \langle e,t \rangle back into an entity \langle e \rangle.

Finally, when a nominal is interpreted as a predicate as in (10), NumP is projected and the predicate (i.e., estes ‘be’ in (10)) takes a NumP directly (no type-shifting operation applies). No PredP need be projected as in Baker (2003).

Let us now turn to the cases where determiners are projected in Old French. So far, existential, definite, and specific interpretations denoted by bare nouns in Old French are accounted for via the introduction of covert operators like ∃ and ι, as well as choice functions.

The main discourse property that determiners embody in the early stages of Old French, as we have seen, is their capacity to encode focus. When the speaker wants
to emphasize a particular nominal, he/she adds a determiner. In this case, an outer specifier for NumP is created. This specifier is created only if it has an effect on output (in the sense of Chomsky 1995 and subsequent work). The position in which the demonstrative finds itself determines its final interpretation (in the spirit of Chomsky 2006). An alternative account that would capture exactly the same properties of le/li in Old French involves the introduction of a Focus Projection. Instead of an extra specifier, a Focus Phrase would be projected. The reason why I favour the first alternative (outer specifier) is that we do not need to postulate an empty focus head (46) (there is no morphological evidence for such a head in Old French).

Diachronically, we have evidence that French determiners like le and li came from Latin’s demonstratives ille and illi (Harris 1978, 1980; Lyons 1999; Vincent 1997) and that they were adjectives (it is very common cross-linguistically for determiners to originate from adjectives, cf. Greenberg 1978; Haspelmath 1995). As adjectives, demonstratives sit in a position below D0 (Giusti 1997, 2002; Lyons 1999; Panagiotidis 2000; Brugè 2002; Shlonsky 2004).20 It is my claim that this position in Old French corresponds to the outer specifier of Num0 which was taken to be a focus position where le/li was generated. Although they were originally demonstratives, le/li lost their +deictic feature very early (recall the above discussion regarding the text La Cantilene de Sainte Eulalie). They nevertheless retained their definiteness feature: they denoted uniqueness, familiarity, and identifiability. This explains why le/li can be used anaphorically (cf. (24)). However, in this example, the nominal

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20. For example, it is possible in Spanish to have la casa esta ‘this house’ (literally the house this) alongside esta casa ‘this house’, and in Greek afto to vovlio ‘this book’ (literally this the book) alongside to vovlio afto ‘this book’. Reinforcers in French such as ce livre-ci ‘this book’ (literally this book-this) have also been taken to indicate that there is a low position for demonstratives in the DP (cf. Bernstein 1997).
is nevertheless focused, since a determiner was in no way obligatory. Crucially, the Agree relation between N and Num⁰ remains the same as before (i.e., (39)).

Before I conclude this section, it is worth mentioning that the focus/emphatic contexts in which the insertion of le/li is felicitous are exactly the same as the contexts that were felicitous for the insertion of ipse in Vulgar Latin. Ipse was a Latin demonstrative which was for a long time in competition with ille. As argued by Vincent (1997: 154–155), in the classical Latin the difference between ipse and ille is clear: ille has both a distal and anaphoric role, while ipse is used for singling out the topic of a discourse—it emphasizes and contrasts the relevant items in the discourse. Although ille and ipse were in competition, ipse fell into disuse to the advantage of ille. It is ille which was retained in all Romance languages. However, it is tempting to speculate that the emphatic function of ipse was retained in the use of ille over a long period of time. This would explain why the optional Old French determiner was tied to focus/emphasis rather than another arbitrary discourse function.

To summarize, I have argued that there is a partial correlation between semantic type and syntactic structure. All nouns start out by denoting (ε), and when NumP is projected, nouns denote (ε,t). The maximization operator ι is used when a nominal is interpreted as definite and refers back to an entity already introduced in the discourse, while the Generalized Quantifier ∃ corresponds to indefinite interpretations of nominals. An Agree relation is instantiated between the noun, which carries interpretable features, and the Num head, which carries uninterpretable features, while determiners are added only if needed, i.e., when denoting discourse functions.

6. Cyclic agree and the emergence of obligatory determiners in Modern French

The question that remains to be addressed is why bare nouns disappeared from the grammar of Old French and why determiners became obligatory in the modern variety of the language. I argue that the diachronic change is not due to a semantic parameter switch à la Chierchia, but that the change is correlated to the fact that definite determiners became obligatory once plural morphology disappeared from the morphological make-up of French nominals. Once a structure or a vocabulary item is obligatory, the dual interpretation (one meaning available when the determiner is present, another when it is absent) is lost. This is in accordance with many other phenomena, cf. Williams (1997). The use of determiners as focus markers fell into disuse as a direct consequence of the loss of rich agreement and the compulsory use of determiners as agreement markers (on the parametric variation between agreement and focus, see Miyagawa 2005, 2007). Since determiners became obligatory, they could no longer encode focus within the nominal domain. They became grammaticalized and lost their initial semantico-pragmatic function, which was tied to focus.
To illustrate what I have in mind, suppose that Norwegian loses its ability to shift its objects. Since object shift is correlated with a specific interpretation, the contrast between non-specificity and no movement, on the one hand, and specificity and movement, on the other, would be lost (see Holmberg 1999 and Chomsky 2001 on object shift). The need for the outer specifier of \( v \), which is needed for moving the shifted object, would disappear. For the same reasons, the outer specifier position in the Old French nominal domain became unneeded because there were no longer two forms available that could mark two functions.

The technical details of my analysis involve ingredients from Lyons (1999), Giusti (2001), and Roberts & Roussou (2003). I argue that the change from demonstrative to definite determiner is the result of an interaction between lexical specification and syntactic structure. As already mentioned, \( le/li \) lost its deictic feature very early on, but it also gradually lost its definiteness feature. This, I argue, was a direct consequence of the change in morphology on the noun. The key fact is that while in Old French number could appear on the noun and sometimes on the determiner (as discussed in Section 5), in Modern French number appears only on the determiner: ‘le’ [la] versus ‘les’ [le]. In \( les \) \( pommes \) ‘the apples’, the ‘s’ on \( pommes \) cannot be pronounced.\(^2\) The disappearance of this final ‘s’ dates back to around 1300 (Fouché 1961; Joly 1995) and is part of a larger loss of final consonants in the language.

Formally, I propose that this chain of events correlates with \( N \) no longer being associated with \( \phi \)-features. However, on this assumption, the question that immediately arises is how the uninterpretable \( \phi \)-features of Num in (39) and (46) are satisfied. Since they are uninterpretable, they cannot survive at LF. I propose that determiners became obligatory through time because these were the elements that were capable of satisfying the uninterpretable \( \phi \)-features of Num. The determiners from the accusative paradigm, \( le/les \), were chosen rather than \( li_{\text{singular}} \) and \( li_{\text{plural}} \) since the latter were opaque (i.e., they did not mark the singular/plural distinction). This explains the disappearance of \( li/li \). As a last resort, \( le/les \) was inserted in order to avoid crashing. I further argue that the obligatory insertion of determiners in Modern French follows from Cyclic Agree, an operation which is independently needed (Rezac 2003).

I propose that the introduction of the relevant determiners in order to satisfy the uninterpretable \( \phi \)-features of Num was made possible because the operation Agree is cyclic. Cyclic Agree is an operation independently needed in the grammar: it has been used to explain Georgian and Basque recalcitrant agreement data (for the idea that Agree is cyclic and for the relevant data, see Rezac 2003). In the case at hand, the search space of the \( \phi \)-features on Num starts with the complement of Num, but

\( ^2 \) Several authors who have noticed this before have argued against Cinque's (1994) idea that the features of Num\(^0 \) are strong in Romance, thus attracting the noun to a position higher than adjectives. See Lamarche (1991), Bouchard (1998), Laenzlinger (2005), and Knittel (2005).
because there is no match in the complement (no $\varphi$-features are introduced by the nominal in Modern French), the structure grows to include a higher specifier. The structure in (47a) becomes impossible, while (47b) becomes obligatory. Suppose then that the determiners are merged in the outer specifier of Spec-Num$P$ as before. Because the *le/la/les* series carry the relevant interpretable features, the derivation converges.

(47)  
\[
\begin{align*}
    &a. \quad \text{Num}^0_{\text{sing/pt}} \rightarrow \text{Num}^0_{\text{sing/pt}} \\
    &b. \quad \text{Num}^0_{\text{sing/pt}} \rightarrow \text{Num}^0_{\text{sing/pt}} \\
\end{align*}
\]

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th>NumP $\langle e, t \rangle$</th>
<th>NumP $\langle e \rangle$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Num$^0_{\text{sing/pt}}$</td>
<td>NP $\langle e \rangle$</td>
<td>outerSpec</td>
<td>le/la/les</td>
<td>innerSpec</td>
</tr>
<tr>
<td>N$^0_{\text{sing/pt}}$</td>
<td>N$^0_{\text{sing/pt}}$</td>
<td>N$^0_{\text{sing/pt}}$</td>
<td>N$^0_{\text{sing/pt}}$</td>
<td>N$^0_{\text{sing/pt}}$</td>
</tr>
</tbody>
</table>

Leads to crash-No $\varphi$-features

The shift in agreement from nominals to determiners in Modern French created a situation where determiners became expletives everywhere, that is, the mere repository of interpretable $\varphi$-features (Lyons 1999). This explains why in Modern French, determiners are ubiquitous. They are used with generics (48a), alienable possession (48b) (Vergnaud & Zubizarreta 1992), proper names in some dialects (48c), in constructions such as (48d'), and in newly created lexicalised light verb constructions such as (48e') (these constructions typically had bare nouns in Old French; some remnants in Modern French are *avoir faim* ‘to be hungry’ and *avoir envie* ‘to feel like’).

(48)  
\[
\begin{align*}
    &a. \quad \text{J'adore les chats.} \\
    &b. \quad \text{J'ai mal à la tête.} \\
    &c. \quad \text{Ah, v'la le Paul.} \\
    &d. \quad \text{La plus grande maison.} \Rightarrow \text{d'. La maison la plus grande.} \\
    &e. \quad \text{J'ai honte.} \\
\end{align*}
\]

I-love the cats
'I love cats.'
'I have ache at the head
'I have a headache.'
'Here comes Paul.'
'The biggest house.'
'The biggest house.'
'I am ashamed.'
'I am ashamed.'
I argue that as a consequence of this, French determiners lost their inherent definiteness feature. When they needed to be associated to definiteness, however, a DP needed to be projected and definiteness was acquired structurally. $D^0$ is the locus of definiteness (hence, the feature $+\text{def}$ under $D^0$). Thus, the determiner raised from the outer specifier of NumP to the specifier of DP. Following Lyons (1999), I assume that determiners appear in the specifier of DP. There are languages where double determination is encoded: a determiner and an affix are possible (e.g., Danish and written Icelandic). It is thus reasonable to assume that the determiner sits in the specifier of DP, while the affix is on the head $D^0$. Since French does not have affixal determiners, however, the head $D^0$ remains empty. Through time, the movement from Spec-NumP to Spec-DP became obligatory. Once the definiteness feature associated with French determiners was completely lost, the only way to obtain a definiteness reading for them was to be merged in Spec-DP.

To quote Roberts & Roussou (1999: 1020):

[...] following a standard paradigm for work on language change in generative grammar starting with Lightfoot (1979), [...] change is initiated when (a population of) learners converge on a grammatical system that differs in at least one parameter value from the system internalized by the speakers whose linguistic behavior provides the input to the learners. As the younger generation replaces

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22. This can be viewed as a shorthand for $[+\text{identifiable}]$ and $[+\text{unique}]$. Identifiability implies that the speaker signals that the hearer is able to locate the referent for a particular DP (the concept is similar to familiarity; Heim 1982; Christophersen 1939). Not all languages have definite determiners that share these two features (Gillon, this volume) and not all optional determiners denote focus (Paul, this volume). Uniqueness implies there is only one referent for a particular DP (Russell 1905).

23. A reviewer questions the motivation behind the treatment of determiners in Modern French as XPs sitting in specifiers, on the assumption that Modern French determiners are clitics. I think the assumption that Modern French determiners are clitics is mistaken. Although it appears that French determiners are weak elements, it is far from obvious, as pointed out by Lyons (1999), whether a weak item like a determiner is a clitic or whether its weakness follows merely from its being a ‘function word’ (in the sense of Selkirk 1984). Although French determiners can be reduced with certain nouns or adjectives (e.g., l’argent ‘the money’, l’autre personne ‘the other person’), a fact pointing to the conclusion that they are weak, this process is idiosyncratic to the items in question; it is not instantiating general phonological rules. The fact that determiners can be stressed in French also shows that it is not the case that determiners in that language are even always weak elements:

(i) Tous nos produits alimentaires sont importés : la viande, les légumes, les fruits, le blé, les produits laitiers – enfin tout.

‘All our food products are imported: meat, vegetables, fruit, wheat, dairy products – in fact everything.’

(Lyons 1999: 66)
the older one, the change is carried through the speech community (subject to the vicissitudes of history).

The change from (49a) to (49b) thus involves a typical change from Move to Merge (a simplification), in the sense of Roberts & Roussou (1999, 2003).\textsuperscript{24}

\begin{itemize}
  \item[(49) a.]
  \begin{itemize}
    \item DP \langle e \rangle
    \item le/la/les
    \item D'
    \item MOVE
    \item D\textsuperscript{0}
    \item NumP \langle e \rangle
    \item +DEF
    \item outer Spec
    \item le/la/les
    \item i[\varphi]
    \item inner Spec
    \item (adj)
    \item Num'
    \item Num\textsubscript{sing/pl}
    \item NP \langle e \rangle
    \item AGREE
    \item N'
    \item N
    \item i[\varphi]
  \end{itemize}

  \item[(49) b.]
  \begin{itemize}
    \item DP \langle e \rangle
    \item le/la/les
    \item i[\varphi]
    \item D'
    \item MERGE
    \item D\textsuperscript{0}
    \item NumP \langle e \rangle
    \item +DEF
    \item Spec
    \item (adj)
    \item Num'
    \item Num\textsubscript{sing/pl}
    \item NP \langle e \rangle
    \item AGREE
    \item N'
    \item N
  \end{itemize}
\end{itemize}

\textsuperscript{24} My proposal is in line with Greenberg’s (1978) hypothesis about the development of the definite determiner, which involves four basic stages: zero stage—no definite determiner available to express definiteness; stage 1—the definite determiner emerges out of a demonstrative; stage 2—the use of the definite determiner becomes more general; and stage 3—the demonstrative becomes grammaticalized.
Whereas Lyons (1999) correlates the obligatory insertion of French determiners to the earlier restructuring of the pronominal system of Latin, and Giusti (2001, 2002) relates it to the loss of morphological case, my account relies instead on the idea that the loss of the definite feature carried by demonstratives and the obligatory insertion of determiners is tied to the change in agreement morphology on the Old French noun. In this sense, my account is closer to that of Harris (1977, 1980), who argues that Modern French determiners are the mere carrier of agreement (see also Krámsky 1972).  

My idea about Cyclic Agree is thus one way of formalizing Harris’ claim according to which French determiners became obligatory because of their agreement property. Despite the technical differences, my accounts shares many ideas with Giusti’s (2001, 2002) account. She claims:

The definite article is neither sufficient nor necessary to trigger referential interpretation on the noun phrase. This implies that the article is not the element which carries the referential index of the noun phrase at all.’ (Giusti 2002: 65).

As in Baker (2003), I take nominals to be referential because they carry referentiality as an intrinsic feature. This can be seen in the fact that even when they are used as predicates, nominals can be referred to (Baker 2003: 163). This means that referentiality is not the same as argumenthood. These are two notions that must be set apart (see Stowell 1991 and Longobardi 1994, who both explicitly claim that argumenthood should be related to referentiality).

As for indefinite determiners, I assume that they project CardP (Lyons 1999). The indefinite determiner *un* ‘a’ is the same word as the cardinal *un* ‘one’. This takes care of examples such as (26). We may replace CardP with Borer’s (2005) #P without, I think, any loss of content. No type-shifting covert ∃ operation is possible in Modern French, since an indefinite determiner is present, and since that determiner is no longer tied to focus, but to cardinality. As in the case of definite determiners, the obligatory insertion of indefinite determiners in Old French and the obligatory correlation between their use and indefinites was triggered by the change in morphology on the noun.

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25. “Essentially, the definite article has come in French to have a second purely grammatical, function—as the bearer of number and gender marking—in addition to its original, semantically motivated function of specifying a particular noun.” (Harris 1978: 74)

“*The article in French is not precisely the same as the article in other languages. This can lie in an insignificant semantic difference but also in the fact that the article in French has, besides its principle function, also some secondary functions: it indicates gender and number; the article in French is often the only distinction between two numbers, e.g., *une maison, des maisons, la maison, les maisons.*” (Krámsky 1972: 29)
To summarize, it was argued that because nominals in Old French lost their (overt) interpretable $\varphi$-features and because determiners like *le/la/les* happened to have such features, the uninterpretable $\varphi$-features associated with Num were no longer satisfied by the noun, but by the determiner. Determiners thus became obligatory, since they were the sole repository of the relevant $\varphi$-features. The operation Cyclic Agree made this possible, because the search for matching features involves not only the complement of a given head, but may include (as a kind of last resort) the search to a (higher) specifier. The direct consequence that the obligatory insertion of determiners had in the grammar is that definite determiners lost their definite feature (they became expletives). Thus, determiners had to raise to the D domain where definiteness is encoded structurally. This was grammaticalized through time and the movement operation mutated into simple merge. Since the presence of overt determiners in Modern French precludes the use of covert type-shifting operations, each syntactic maximal node corresponds to a well-defined type. This is summarized in Table 1. The basic type is $\langle e \rangle$ at the NP level. NumP introduces a predicate and denotes $\langle e, t \rangle$. CardP corresponds to $\langle \langle e, t \rangle, t \rangle$ (an Existential Quantifier). Finally, DP denotes an entity, albeit of a special kind, since it corresponds to identifiability, familiarity, and uniqueness. DP thus corresponds to the definite operator $\iota$.

**Table 1. Summary of types for the nominal domain**

<table>
<thead>
<tr>
<th>Projection</th>
<th>semantic type</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP</td>
<td>$\langle e \rangle$</td>
<td>Definite operator</td>
</tr>
<tr>
<td>CardP</td>
<td>$\langle \langle e, t \rangle, t \rangle$</td>
<td>Existential quantifier</td>
</tr>
<tr>
<td>NumP</td>
<td>$\langle e, t \rangle$</td>
<td>Predicate</td>
</tr>
<tr>
<td>NP</td>
<td>$\langle e \rangle$</td>
<td>Entity</td>
</tr>
</tbody>
</table>
7. Conclusion

I have argued that all nouns in Old French started out as $\langle e \rangle$, but that certain covert type-shifting operations—e.g., $\iota$ and $\exists$—could be performed such that nominals were either interpreted as definite or indefinite. I further argued that the use of determiners in Old French was peripheral to the core semantic make-up of the nominal architecture, i.e., argumenthood and referentiality. I suggested that the use of determiners was related to either the encoding of focus or the satisfaction of a PF constraint, in addition to definiteness. Blocking of determiners was therefore not global, but local. Finally, the parametric change that took place between Old French and Modern French, namely the disappearance of bare nouns in the modern version of the language, was argued to follow from Cyclic Agree, an operation independently needed in the grammar. Once nominals lost their interpretable $\varphi$-features, a determiner with the relevant interpretable $\varphi$-features needed to be inserted in the structure so that the uninterpretable $\varphi$-features of Num$^0$ could be satisfied.

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Texts cited

La Prise d’Orange (end of 12th century)
Charroi de Nîmes (12th century)
Le Chevalier à la Charrette (c. 1180)
Lai de Narcisse (1170)
Li livres dou tresor (1260–1267)
La vie de Saint Alexis (1050)
Aucassin et Nicolette (early 13th century)
L’Atre périlleux, roman de la Table Ronde (1268)
La Chanson de Rolland (1080)


**References**


Bruening, B. 2008. Selectional asymmetries between CP and DP suggest that the DP hypothesis is wrong. Paper presented at the 32nd Annual Penn Linguistics Colloquium, University of Pennsylvania.


Gillon, C. This volume. The semantic core of determiners: Evidence from Skwxwú7mesh.


Munn, A. & Schmitt, C. 2001. Bare nouns and the morphosyntax of number. In *Current issues in Romance Languages: Selected Papers from the 29th Linguistic Symposium on Romance*


Paul, I. This volume. On the presence versus absence of determiners in Malagasy.


Tonciulescu, K. This volume. Kinds of predicates and reference to kinds in Hebrew.


Wilhelm, A. 2005. Bare nouns and number in Dëne Sųliné. Ms, University of Alberta.

Kinds of predicates and reference to kinds in Hebrew

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University of Ottawa

This article focuses on the optionality of the definite determiner and its effects on the range of interpretations available for singular noun phrases in Hebrew. Three factors contribute to the interpretation of singular nouns in this language: (i) predicate type: kind- and/or object-selecting; (ii) context: episodic or generic; and (iii) syntactic position. I argue that bare singulars in Hebrew can be both kind-referring and indefinites. As kind-referring, they are interpretable through a system of type-shifting operators (Chierchia 1998); as indefinites, they are interpretable via choice functions. The definite determiner is shown to introduce a massifying function or a singularity presupposition, depending on context.

1. Introduction

This article looks into the relation between the optionality of the definite determiner in Hebrew and the interpretations available for singular nouns in this language, from a syntactic-semantic point of view. Bare nouns have been discussed extensively for a variety of languages in relation to Chierchia’s (1998) system (to be outlined in Section 3.1). Chierchia mentions Hebrew as one of the languages that need further scrutiny, since it lacks an indefinite determiner while having a definite one, and as such it is not obvious how the proposed system would account for the Hebrew data.

Here I study the interaction between type of predicate—kind- versus object-selecting—and the presence versus absence of the definite determiner with singular nouns. I show that this interaction gives the right results in accounting for the interpretations available for singular nouns in Hebrew.

This article is organised as follows: Section 2 presents the puzzle; Section 3 summarizes the main theoretical approaches that form the basis of the analysis proposed here—Chierchia (1998) and Doron (2003); Section 4 looks at the distribution of singular nouns in Hebrew; Section 5 outlines a syntax-semantics analysis for the Hebrew data; and Section 6 concludes.
2. The puzzle

In Hebrew, reference to kinds can be expressed (i) via a bare singular, and (ii) via the lexicalized definite determiner *ha-* ‘the’.¹ The fact that this determiner seems to be optional when referring to kinds is problematic for the Blocking Principle proposed in Chierchia (1998), which predicts that in (1) the definite determiner should be obligatory for kind-reference. This prediction is not borne out in Hebrew (as shown also by Doron 2003).²

(1)  
(\text{ha-})namer hitpate'ax me-\text{(ha-)}xatul  
\text{(the-)}tiger developed from-\text{(the-)}cat  
'The tiger evolved from the cat.'  
(adapted from Doron 2003: 3, Ex. 6c)

I propose that nouns in Hebrew are kind-denoting and that they start out as type (e).³ In episodic contexts, the existential reading of bare NPs can be obtained through Chierchia’s Derived Kind Predication rule (to be explained below);⁴ as specific indefinites, bare singulars are interpretable via choice functions, with wide scope relative to the VP. The definite determiner *ha-* ‘the’ plays two roles in relation to kind-reference in this language: first, in generic contexts, it introduces a massifying function (discussed further in Section 5) which is responsible for the group reading of a singular noun; second, in episodic contexts, it introduces a singularity (uniqueness) presupposition.⁵

3. Previous studies

This article takes as a premise Carlson’s (1977) approach in which bare nouns uniformly refer to kinds. For our purposes, the most relevant follow-up on this approach is Chierchia (1998), who focuses on cross-linguistic variation between English and Italian, while generalizing the findings to variation patterns in Germanic and Romance languages. Also of immediate relevance is Doron’s (2003) account of kind-reference in Hebrew. I begin by introducing Chierchia’s system.

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¹ As will be shown later on, there are also external factors that affect the interpretation of these noun phrases, such as predicate type and syntactic position.

² In this example there is no difference in meaning in the presence versus absence of the definite determiner.

³ One consequence of this approach (that I do not explore in this article) is that NPs can be arguments in Hebrew (i.e., there are no null determiners). See Section 5 and Danon (2002).

⁴ By existential, I mean that the noun is interpreted as ‘there is some x’ or ‘there is an x’.

⁵ For example, *the dog = 1 DOG = the only dog (if there is one) (Chierchia 1998: 346).*
3.1 Chierchia’s Neocarlsonian approach

Chierchia (1998) develops a Neocarlsonian\(^6\) account in which nouns are kind-referring, and which distinguishes object- vs. kind-selecting predicates. Chierchia proposes a Nominal Mapping Parameter (NMP) which classifies languages according to their flexibility in allowing bare nouns as arguments, by using a set of binary features \([±argument, ±predicate]\). This results in three typologically distinct sets of languages reflecting differences between mass versus count nouns. Chinese and Japanese, for example, are \([-arg, +pred]\), Romance languages are \([-arg, +pred]\), and Germanic and Slavic languages are \([+arg, +pred]\). Applied to Hebrew, where bare nouns are allowed as arguments, the NMP maps this language to \([+arg, +pred]\). The predictions of the NMP are summarized in Table 1.

<table>
<thead>
<tr>
<th>Properties / Language type</th>
<th>[+arg, –pred]</th>
<th>[–arg, +pred]</th>
<th>[+arg, +pred]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chinese</td>
<td>Romance</td>
<td>Germanic, Slavic, Hindi</td>
</tr>
<tr>
<td>Mass/count distinction</td>
<td>x</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Allow bare sg. subject NPs</td>
<td>n/a</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Allow bare sg. object NPs</td>
<td>n/a</td>
<td>x*</td>
<td>x</td>
</tr>
<tr>
<td>Noun type</td>
<td>⟨e⟩</td>
<td>⟨e,t⟩</td>
<td>⟨e⟩ or ⟨e,t⟩</td>
</tr>
</tbody>
</table>

* Unless licensed by a lexical head.
** See Mathieu, this volume.

This places Hebrew in the same group, in this typology, as Germanic and Slavic languages. NPs in these languages denote either kinds or predicates, and their phrasal projections can shift between argumental and predicative \((NP_{pred} ⇔ DP_{kind})\). This is achieved through a system of type-shifting operators, as follows: if a noun is argumental, it can be predicativized via the ‘up’ operator \(∪ [⟨e⟩ → ⟨e,t⟩]\); as predicates, count nouns are type-shifted via the ‘down’ operator \(∩ [⟨e,t⟩ → ⟨e⟩]\). In turn, type shifting is constrained by a Blocking Principle as defined in (2):

\[(2) \quad \text{Blocking Principle (‘Type Shifting as Last Resort’):} \]

For any type shifting operation \(τ\) and any \(X\): \(*τ(X)\), if there is a determiner \(D\) such that for any set \(X\) in its domain, \(D(X) = τ(X)\). (Chierchia 1998: 360)

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Hebrew seems to pose a problem for this principle. According to Chierchia, if a language has a definite determiner that can be used to refer to kinds, then it must be used with bare singulars when referring to kinds. This prediction does not appear to extend to Hebrew, where the definite marker is usually optional for kind-reference, as seen in (1), repeated in (3).

(3) (ha-)namer hitpate’ax me-(ha-)xatul
    (the-)tiger developed from-(the-)cat
    ‘The tiger evolved from the cat.’
    (adapted from Doron 2003: 3, Ex. 6c)

In view of the apparent problem that these data pose for the Blocking Principle, Doron (2003) proposes a semantic solution (discussed in Section 3.2).

3.2 Derived kind predication or semantic incorporation?

Chierchia (1998) distinguishes object- vs. kind-selecting predicates. This distinction is needed when trying to interpret kind-denoting NPs in episodic sentences. When a kind-referring argument (e.g., that kind of animal in (4a)) appears with an object-selecting predicate (e.g., ruin my garden in (4a)), this gives rise to a type-mismatch. To resolve this type-mismatch, Chierchia introduces the Derived Kind Predication (DKP) rule in (5):

(4) a. That kind of animal is ruining my garden.
    b. ∃x[¬that kind of animal(x) & ruin my garden(x)]

(5) Derived Kind Predication:
    If P applies to objects and k denotes a kind, then P(k) = ∃x[¬k(x) ∧ P (x)]
    (Chierchia 1998: 364)

This means that when an object-selecting verb encounters a 'kind' instead of an 'object', the kind-referring NP is type-shifted to an object-referring interpretation, and this NP is existentially quantified over by the verb. If bare arguments refer to kinds, then the DKP extends to them as well, as in (6).

(6) a. Lions are ruining my garden.
    b. ruining my garden(‘lions)
       ⇔ (via DKP) ∃x[¬‘lions(x) ∧ ruining my garden(x)]
       i.e., it's not that generally this species tends to ruin my garden but rather
       that there are some lions now that happened by my garden and are making
       a mess.

Doron (2003) proposes that the problem regarding the optionality of the definite determiner for kind-reference in Hebrew can find a semantic solution within
Chierchia’s system, with some adjustments, such as resorting to semantic incorporation\(^7\) instead of the DKP. According to Doron, in order to derive the existential reading of a noun phrase, there is no need to use the DKP in addition to semantic incorporation. In Hebrew a bare singular can have both a group- and a kind-interpretation, while the main motivation for the distinction between kinds and groups is that the DKP does not apply to groups: “[s]ince a group is an ordinary object, not a set, there is no type-mismatch to be adjusted in sentences containing predicates of ordinary objects” (Doron 2003: 5–6). In the analysis to be proposed here, I show that for the existential reading of bare singulars, Hebrew uses a covert type shift (the \(\cup\) operator), and that we do need to apply the DKP.

Doron also suggests that kind-reference in Hebrew is dependent on the bare noun being either plural, or a categorical subject\(^8\)—marked in Hebrew by movement to the left-periphery, or by contrastive focus intonation, and interpreted as definite. The author argues that in (7a), the bare NP \textit{maxšev} ‘computer’ cannot refer to kinds from the object position; however, if the bare NP moves to the subject position, as in (7b), the kind-interpretation becomes available.

(7) a. \textit{babej himci maxšev}  
\begin{align*} &\text{Babbage invented computer} \\ &\text{Babbage invented the computer.}' \end{align*}  

b. \textit{maxšev babej himci}  
\begin{align*} &\text{computer Babbage invented} \\ &\text{‘The computer Babbage invented.'} \end{align*}  

(Doron 2003: 12, Ex. 43b&45a)

Judgments vary with respect to these data. For many speakers (7a) is the unmarked variant. I propose that in both (7a) and (7b), the bare NP \textit{maxšev} ‘computer’ can receive a kind-interpretation. First, preposing the bare NP in (7) adds emphasis but does not change the inherent meaning of the noun. The noun is kind-referring in both the unmarked (7a) and the marked (7b) utterances. Second, the predicate \textit{to invent} is kind-selecting (Krifka et al. 1995: 10), meaning that by default its internal argument will be a kind. Finally, the conditions on kind-reference in Hebrew proposed by Doron do not seem to take into account the interpretation of bare nominals in object position (although Doron’s data show this as possible).

\(^7\) Chierchia’s (1998) DKP rule and van Geenhoven’s (1998) semantic incorporation proposal as sources of existential quantification differ in that, while the former does not depend on the lexical semantics of the verb, the latter, crucially derives existential quantification from the verb.

\(^8\) By “categorical subject”, Doron means the topic of the proposition, which may or may not be the grammatical subject.
Therefore, my aim is to formulate an account that includes only one mechanism for the interpretation of bare singulars (following Chierchia 1998), without conditioning their interpretation on phrasal movement or focus. I propose that the kind-interpretation depends first of all on predicate type and context. A semantic incorporation mechanism (as implemented by Doron, following van Geenhoven 1998) is undesirable since it posits lexical ambiguity for verbs depending on the interpretation of the noun. Thus, a solution that explains the Hebrew data can be found by working entirely within Chierchia's system, without resorting to an additional mechanism (such as semantic incorporation).

In what follows, I focus on bare singulars and I consider factors such as syntactic position and their interpretation in episodic vs. generic contexts, according to the type of predicate (kind- vs. object-selecting). This latter distinction follows Krifka et al.'s (1995) diagnostics for kind-reference. One of the tests they propose determines which type of NPs can be used as kind-referring. Some predicates only allow kind-referring NPs to fill their arguments slots, for example, the subject argument of die out or be extinct and the object argument of invent or exterminate. The subjects of other verbs, such as be a mammal, be domesticated, or be protected by law, can have two interpretations—a kind-referring one, and an object-referring one (when a general term is used as subject NP). In this latter case, the kind-referring reading has priority over the object-referring one. Examples (8a) and (8b) pass this test, while (8c) does not.

(8) a. The lion/Lions will become extinct soon.
    b. A (certain) lion (namely the Berber lion) will become extinct soon.
    c. #A lion will become extinct soon. (Krifka et al. 1995: 10, Ex. 23)

This test will be taken into account when looking at the interpretation of bare singulars in Hebrew.

4. The distribution of singular nouns in Hebrew

Cross-linguistically, bare reference to kinds is restricted. Some languages (e.g., English) allow kind-reference only for bare plurals, while in other languages (e.g., Romance) bare singulars are either disallowed or restricted to the object position. In contrast, in Hebrew, bare singulars can refer to kinds without being definite, from both the subject and the object positions. In order to describe the distribution of singular nouns in Hebrew, we need to take into consideration the following factors: (i) predicate

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9. Two exceptions will be discussed in Sections 4.1 and 4.2, respectively: (i) the definite determiner is obligatory for kind-reference in the subject-position of object-selecting verbs (e.g., The rat
Kinds of predicates and reference to kinds in Hebrew

1. type: kind- vs. object-selecting; (ii) syntactic position: subject vs. object; and (iii) the interpretation of the NP/DP: kind-denoting, indefinite—specific and non-specific, etc. The next examples illustrate the point in (i) and show that while some verbs select only for the kind-interpretation of their arguments, as in (9), other verbs are less restrictive and allow for both a kind- and an object-reading of their arguments (10).

(9) \text{katul} \, \text{nir’a} \, \text{kmo} \, \text{namer}. \quad \sqrt{\text{kind}}; \#\text{obj}

- a. ‘The cat resembles the tiger.’
  \textit{kind-interpretation}: Species A resembles species B.
- b. No indefinite or definite interpretation available.

(10) \text{katul} \, \text{čad} \, \text{axbar}. \quad \sqrt{\text{kind}}; \sqrt{\text{obj}}

- a. ‘The cat hunts the mouse.’
  \textit{kind-interpretation}: it is a property of the ‘cat’ species/kind that they hunt the ‘mouse’ species/kind.
- b. ‘A cat is hunting a mouse.’
  \textit{object-interpretation} (non-specific indefinite): there is some cat that is hunting some mouse.

In (9), a predicate such as \textit{to resemble/look like} requires a \textit{kind} argument, and accordingly, both the subject and the object nouns are kind-referring. In contrast, a predicate such as \textit{to hunt} in (10) is more flexible\(^{10}\) in that it allows for both kind- and object-readings of its arguments.

4.1 Bare vs. definite kind-referring nouns in subject position

In Hebrew, both bare and definite singulars can refer to kinds in the subject position. The data presented here show under which conditions kind-reference is allowed and its relation to the type of predicate. With kind-selecting predicates, such as \textit{be rare} and \textit{be common}, singular nouns can only receive a kind-interpretation:

(11) \text{(ha-)}\text{namer} \, \text{hu} \, \text{haya} \, \text{nedira}. \quad \sqrt{\text{kind}}; \#\text{obj}

- (the-)tiger he animal rare
  ‘The tiger is a rare animal.’

\(^{10}\) ‘Flexible verb/predicate’ refers to verbs that fall somewhere in between in terms of their argument selection, as distinct from verbs that have been noted to select only for kinds (\textit{be extinct, invent}), or only for object-readings of their arguments (\textit{ruin my garden}).
(12)  (ha-)dvora (ha-)xuma nefoča mi kav √kind; #obj
    (the-)bee (the-)brown common from line
    ha-roxav šel yam ha-melax daroma.
    the-latitude of sea the-salt southwards
    ‘The brown bee is common from the Dead Sea southwards.’
    (Doron 2003: 2, Ex. 5d)

With predicates that can select for either kinds or objects, we find both readings. For example, the bare noun kelev ‘dog’ in (13) can be interpreted either as referring to the ‘dog kind’ (13a), or as a non-specific indefinite (13b).

(13)  kelev noveax. √kind; √obj
    dog barks
    a. ‘A dog barks.’
    kind-reading: it is a characteristic of the ‘dog’ species that they bark.
    b. ‘A dog is barking.’
    object-reading (non-specific indefinite): there is some dog barking now.

Similarly, in (14), the definite noun can be interpreted as referring to the ‘dog kind’, as in (14a), or as referring to a particular dog (14b).

(14)  ha-kelev noveax. √kind; √obj
    the-dog barks
    a. ‘The dog barks.’
    kind-reading: it is a characteristic of the ‘dog’ species that they bark.
    b. ‘The dog is barking.’
    object-reading: there is a specific dog barking now.

Bare singulars in Hebrew can also be used with verbs which inherently enforce a group reading of their arguments; for example, in (15) the selected argument has to denote in the kind-domain.

(15)  (ha-)namer mit’asef leyad mekorot mayim b-a-erev. √kind; #obj
    (the-)tiger gathers near sources water in-the-evening
    ‘The tiger gathers near water sources in the evening.’ (Doron 2003: 10, Ex. 36b)
    a. kind-reading: this kind of animal, as a group/species, has this particular habit.
    b. No object-reading.

This brings us to an exception with respect to the optionality of the definite determiner in the subject position. As illustrated in (16) and (17), when the verb is strictly object-selecting (e.g., reached Australia), the definite determiner is obligatory for kind-reference.

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11. In Hebrew, the present and the progressive are morphologically the same.
Kinds of predicates and reference to kinds in Hebrew

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(16) **ha-axbar** higiya le-ostralia be-1770. \(\sqrt{\text{kind}}; \sqrt{\text{obj}}\)
the-rat reached to-Australia in-1770
'The rat reached Australia in 1770.'

a. **kind-reading:** the 'rat' species reached Australia in 1770.

b. **object-reading:** a specific rat arrived.

(17) **axbar** higiya le-ostralia be-1770. \#kind; \(\sqrt{\text{obj}}\)
rat reached to-Australia in-1770
'A rat reached Australia in 1770.'

a. No kind-reading.

b. **Object-reading** (non-specific indefinite): some rat arrived.

Unlike predicates that are strictly kind-selecting (e.g., *be extinct, be rare*), the predicate *reached Australia* selects only for objects, but not for kinds. Therefore, an explanation in terms of the selectional properties of different verbs can provide an answer for these data.

### 4.2 Bare vs. definite kind-referring nouns in object position

In the object position of object-selecting verbs, bare singulars can refer to kinds, as in (18), while definite singulars, in (19), cannot refer to kinds. In (19) we have another exception to the optionality of the definite determiner, in that the definite determiner has to be absent in order to obtain the kind-interpretation. Thus in Hebrew we find that although the language has a lexicalized determiner, when in the object position of an object-selecting verb, the noun has to be bare in order to ensure the kind-interpretation.

(18) Raiti **namer**\(^{12}\) saw.1sg tiger
'I saw a tiger.'

a. **Kind-reading:** I have seen this type of animal.

b. **Object-reading** (non-specific indefinite): there is some tiger that I saw yesterday.

(19) Raiti et **ha-namer** saw.1sg ACC the-tiger
'I saw the tiger.'

a. No kind-reading.

b. **Object-reading:** I saw a specific tiger.

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12. The following abbreviations are used:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>first person</td>
</tr>
<tr>
<td>3</td>
<td>third person</td>
</tr>
<tr>
<td>ACC</td>
<td>accusative</td>
</tr>
<tr>
<td>SG</td>
<td>singular</td>
</tr>
</tbody>
</table>
These facts are unexpected under the requirements of the Blocking Principle, which leads us to the question of how to explain the Hebrew data. Once again, it seems that kind-reference in Hebrew can be accounted for if we assume that it is determined by the selectional properties of the verb. I return to these data in the analysis (Section 5).

If we look at kind-selecting predicates such as create and invent, they show that both bare and definite singulars can refer to kinds, regardless of the presence or absence of the definite determiner.

(20) Bell himči (et ha-)telefon. √kind; #obj
    Bell invented (acc the-)telephone
    'Bell invented the telephone.'

a. Kind-reading: it is this type of x that was invented.
b. No object-reading.

This strengthens the hypothesis that the type of predicate ranks higher, so to speak, in terms of its weight in ‘deciding’ the range of interpretations for singular noun phrases in this language.

To summarize, while in Chierchia’s (1998) system singular nouns cannot refer to kinds without being definite, bare singular nouns in Hebrew can be kind-referring without being (marked as) definite. The data show that bare singulars in this language are interpretable as kind-referring and as non-specific or specific indefinites, depending on the type of predicate. Furthermore, the presence or absence of the definite determiner also plays a role in the distribution of kind-referring singular nouns in Hebrew. The pattern is summarized in Table 2:

<table>
<thead>
<tr>
<th>Kind-selecting verbs (be rare, be extinct)</th>
<th>Flexible* verbs (bark, see)</th>
<th>Object-selecting verbs (ruin my garden, reached Australia)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject position</td>
<td>optional</td>
<td>optional</td>
</tr>
<tr>
<td>Object position</td>
<td>optional</td>
<td>no determiner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>obligatory</td>
</tr>
</tbody>
</table>

* Verbs that can select for kind- or object-readings of their arguments.

5. The syntax-semantics of singulars nouns in Hebrew

Hebrew differs from languages discussed in Chierchia (1998) (e.g., Italian, French), in that its bare singulars can refer to kinds. I argue that a syntax-semantics analysis of bare NPs in Hebrew is possible within Chierchia’s system. The assumption is that bare singulars in Hebrew are kind-referring NPs (type 〈e〉).
The system can be applied to Hebrew as follows. If a bare singular is kind-referring, then with kind-selecting verbs (*be extinct*) or verbs that can select for either kinds or objects (e.g., *bark*), there will be no type-mismatch. In (21a) and (22a), the verb selects for and receives a kind-referring NP for its subject position. In the case of *bark*, the bare singular can be sort-shifted to a property type and can thus receive an existential interpretation via the DKP (22b). Furthermore, the kind-interpretation is often associated with generic contexts.\(^{13}\) The habitual aspect of these utterances introduces a generic (Gn) operator which scopes over the sentence, as in (22a-ii) (Chierchia 1998: 366).

(21) \textit{namer} nadir ba-ezor ha-ze. \[\text{kind}; \#\text{obj}\]
\begin{align*}
\text{tiger} & \quad \text{rare} \quad \text{in-the-area} \quad \text{the-this} \\
\text{‘The tiger is rare in this area.’}
\end{align*}
\begin{enumerate}
\item \textit{Kind-reading:} rare(tiger); i.e., this kind of animal is rare.
\item \textit{No object-reading.}
\end{enumerate}

(22) \textit{kelev} noveax. \[\text{kind}; \sqrt{\text{obj}}\]
\begin{align*}
\text{dog} & \quad \text{bark.3sg} \\
\text{‘A dog barks.’}
\end{align*}
\begin{enumerate}
\item \textit{Kind-reading:} bark(dog); it is a property of the ‘dog’ species that they bark.
\item \textit{Generic reading:} Gn[¬dog(x) ∧ bark(x)]; it is generally the case that if x is a dog, then x barks.
\item \textit{‘A dog is barking.’}
\item \textit{Existential reading} (non-specific indefinite) via DKP: \(∃x[¬\text{dog}(x) ∧ \text{bark}(x)]; i.e., there is something which is a dog and barks.\)
\end{enumerate}

If, however, a noun is marked for definiteness (*the* + NP), it will have to shift via the ‘up’ operator to a property type. This property then combines with the definite determiner, resulting in the kind-reading. The role of the definite determiner in this case is similar to the singular generic ‘the’ in English—it introduces a massifying function \textsc{mass} which neutralizes the singular-plural distinction, meaning that the noun will refer to a totality of x (the group containing all x). This function is defined by Chierchia as in (23), and it is applied to the Hebrew example in (24).

(23) \[\text{the tiger} \Rightarrow \text{THE(MASS(tiger))} = g(\text{I MASS(tiger)})\] \quad (Chierchia 1998: 381–382).

(24) \textit{ha-namer} nadir ba-ezor ha-ze. \[\text{kind}; \#\text{obj}\]
\begin{align*}
\text{the-tiger} & \quad \text{rare} \quad \text{in-the-area} \quad \text{the-this} \\
\text{‘The tiger is rare in this area.’}
\end{align*}
\begin{enumerate}
\item \textit{Kind-reading:} rare(g(\text{I MASS(tiger)}))
\item \textit{No object-reading.}
\end{enumerate}

\(^{13}\) Kind readings differ from generic readings in that generic readings are possible for things that cannot be kinds, e.g., \textit{Green bottles} have funny designs.
With predicates that can also select for object-readings of their arguments, the definite determiner introduces a singularity presupposition (25b).

(25) **ha-kelev** novex.  
the-dog bark.3sg  
a. ‘The-dog barks.’  
i. **Kind-reading:**  
barks(ι \text{MASS(dog)}));  
ii. **Generic-reading:** Gn x, s [member-of(x, g(ι \text{MASS(dog)}) \land C(x,s))]  
barks(x, s)]; it is generally the case that this group/species bark.

b. ‘The dog is barking.’ – bark(ι \text{dog})  
i.e., there is a specific dog barking now.

Recall the problematic data involving the optionality of the definite determiner, repeated below in (26) and (27). In the subject position of an object-selecting verb such as *reach Australia* in (26), the bare singular cannot refer to kinds, while in (27), for the kind-reference, the noun has to be marked for definiteness by the overt definite determiner. According to the present approach, and following Krifka et al.'s (1995) tests for kind-selecting vs. object-selecting verbs, the predicate *reached Australia* requires an object-denoting argument (type $\langle e,t \rangle$), yet it receives a kind argument (type $\langle e \rangle$). The type-mismatch is resolved through covert type-shift via the ‘up’ operator; the noun is type-shifted from an argument to a property ($\langle e \rangle$ to $\langle e,t \rangle$). The existential reading is derived via the DKP.

(26) **axbar** higiya le-ostralia be-1770.  
rat reached to-Australia in-1770  
‘A rat reached Australia in 1770.’  
a. No kind-reading.  
b. **Existential reading** (non-specific indefinite) via DKP:  
$\exists x[\neg \text{rat}(x) \land \text{reached-Australia}(x)]$

For the kind-reading in (27a), the definite determiner introduces a massifying function which shifts the noun to argumental, while for the object-reading in (27b) the definite determiner introduces a singularity presupposition.

(27) **ha-axbar** higiya le-ostralia be-1770.  
the-rat reached to-Australia in-1770  
‘The rat reached Australia in 1770.’  
a. **Kind-reading:**  
reached-Australia(ι \text{MASS(rat)}))  
i.e., this group/species arrived in 1770.
b. **Object-reading:**

\[ \text{reached-Australia(1 rat)} \]

i.e., a specific rat arrived in 1770.

Finally, in the object position of kind-selecting verbs, since bare singulars are of type \( \langle e \rangle \), there is no type-mismatch. We can derive the kind-reading for the bare singular and the definite singular as in (28a) and (28b), respectively.

(28) Bell himči (et ha-) telefon. √kind; #obj

Bell invented (ACC the-) telephone

'a. **Kind-reading** of the bare singular: invented(telephone)

b. **Kind-reading** of the definite singular:

invented(g(1 MASS(telephone)))

With verbs that can also select for objects as their arguments, the definite determiner introduces a massifying function, as in (29b).

(29) raiti et ha-namer #kind; √obj

saw.1sg ACC the-tiger

'I saw the tiger.'

a. No kind-reading.

b. **Object-reading:** see(1 tiger); i.e., I saw a specific tiger.

To sum up, the role of the definite determiner ha- ‘the’ is to introduce a massifying function or a singularity presupposition, depending on the type of predicate and syntactic position. With kind-selecting verbs, the definite determiner always introduces a massifying function. In contrast, with verbs that can select for either kinds or objects, and with object-selecting verbs, in the subject position, the definite determiner can introduce a massifying function or a singularity presupposition, while in the object position it can only introduce a singularity presupposition.

Bare singulars in Hebrew are also interpretable as specific indefinites with wide scope. For specificity in indefinites in other languages, choice functions have been proposed before (Reinhart 1997; Winter 1997; Kratzer 1998, 2003; Matthewson 1999, among others). I suggest that bare nouns in Hebrew also receive their wide scope interpretation via a choice function. This function picks an individual out of a set and existentially closes at the sentence level thus giving us the desired reading. Some examples are given below.

(30) Dani mexapes kelev.

Dani is-looking-for dog

a. ‘Dani is looking for a (specific) dog.’

\[ \exists > \text{VP} \text{ via CH(f)} \]

b. ‘Dani is looking for a/any dog.’

\[ \text{VP} > \exists \text{ derived via DKP} \]
(31)  Dani mexapes ish še-mekasex et ha-deshe kol yom.
       Dani is-looking-for man that-mows the-lawn every day.

a. ‘Dani is looking for a (specific) guy that mows the lawn every day.’

b. ‘Dani is looking for a/any guy that mows the lawn (preferably) every day.’

In (30) and (31), the bare singular NPs kelev ‘dog’ and ish ‘man’, respectively, can take both wide scope (as specific indefinites) and narrow scope (as non-specific indefinites) relative to the VP.

In the case of Hebrew, a solution involving choice functions is also motivated by the assumption that bare nouns in Hebrew are NPs, rather than DPs (which would generally be the case in languages that have an indefinite determiner). Since only DPs can usually be moved through existential quantification to receive the wide scope reading, a choice function would derive the wide scope interpretation while the NP remains in situ, as desired.

6. Conclusion

I have looked at the way in which singular nouns in Hebrew are interpreted depending on the type of predicate (kind vs. object-selecting) and in relation to the presence or absence of the definite determiner. With respect to Chierchia’s (1998) typology, Hebrew can be characterized as [+argument, +predicate]. The issue concerning the Blocking Principle, and the fact that it does not straightforwardly apply to Hebrew, can be explained as follows. The Blocking Principle takes effect when a language has an overt type-shifter, meaning that covert type-shift is then disallowed. In Hebrew, however, there seem to be two (non-overlapping) options that are used for expressing kind-reference: the language either uses a covert operator for type-shifting nouns from argumental to predicative, or it can use the overt definite determiner for type-shifting nouns from predicative to argumental. This type-shifting is restricted by predicate type. When the verb is kind-selecting, the bare singular does not need to type-shift since the verb selects and receives an 〈e〉 type argument. In this case, the definite determiner is always optional. This is summarized in (32).

(32)  The definite determiner, kind-reference, and kind-selecting verbs:
       a. Optional definite determiner in subject position
          (ha-)dinozaur nikxad √kind-reading
          (the-)dinosaur extinct
          ‘The dinosaur is extinct.’
b. Optional definite determiner in object position

Bell himči (et ha-)tefon √kind-reading
Bell invented (ACC the-)telephone
‘Bell invented the telephone.’

In contrast, a subject-object asymmetry can be observed—(i) with verbs that can select for either kinds or objects as their arguments, for example bark, and (ii) with object-selecting verbs such as reached Australia or ruin my garden. This asymmetry was summarized in Table 2 (Section 4).

With respect to object-selecting verbs, it was shown that in the subject position, a bare noun can only receive an object-interpretation. This is expected if the noun type-shifts to a property type to satisfy the requirement of the predicate (33a-i). In the object position (33b), a bare singular can either have a kind-reading, or it is covertly sort-shifted to a property type for the non-specific indefinite reading (33b-i).

If we look at examples (33a-ii) and (33b-ii), they show that the definite determiner does play a role in determining whether these nominals can receive a kind- or an object-reading, depending on syntactic position. In the subject position of object-selecting verbs, the definite determiner can introduce a massifying function or a singularity presupposition (33a-i). In contrast, in the object position of object-selecting verbs, the definite determiner can only introduce a singularity presupposition (33b-ii).

(33) The definite determiner, kind-reference, and object-selecting verbs:

a. Obligatory definite determiner in subject position
   i. axbar higiya le-ostralia be-1770. #kind; √obj.reading
      rat reached to-Australia in-1770
      ‘A/Some rat reached Australia in 1770.’
   ii. ha-axbar higiya le-ostralia be-1770. √kind; √obj.reading
       the-rat reached to-Australia in-1770
       ‘The rat reached Australia in 1770.’

b. No definite determiner for kind-reference in object position
   i. raiti namer √kind; √obj.reading
      saw. 1sg tiger
      ‘I saw a tiger.’
   ii. raiti et ha-namer #kind; √obj.reading
      saw. 1sg ACC the-tiger
      ‘I saw the tiger.’

To conclude, bare singulars in Hebrew start out as kind-referring. As such, they can be automatically interpreted when in the argument position of kind-selecting verbs (be rare, be extinct, invent). As non-specific indefinites, bare singulars receive their existential interpretation via the application of the Derived Kind Predication rule (as proposed in Chierchia 1998). As specific indefinites, their meaning is
selected via a choice function. In the case of definite singulars, the role of the definite
determiner ha- ‘the’ is to introduce a massifying function or a singularity presup-
position, depending on the type of predicate (kind- and/or object-selecting), context
(episodic, generic), and syntactic position.

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References

Carlson, G. 1977. Reference to Kinds in English. Ph.D. dissertation, University of Massachusetts,
Amherst.
linguistics.huji.ac.il/IATL/19/Doron.pdf>.
Kratzer, A. 1998. Scope or pseudoscope? Are there wide scope indefinites? In *Events and Grammar,
Kratzer, A. 2003. A note on choice functions in context. Ms, University of Massachusetts,
Amherst.<http://semanticsarchive.net/Archive/zLyNTMxZ/Choice%20Functions%20
in%20Context.pdf>.
University of Chicago Press.
Mathieu, E. This volume. From local blocking to cyclic agree: The role and meaning of determiners
in the history of French.
7: 79–134.
Reinhart, T. 1997. Quantifier scope: How labor is divided between QR and choice functions.
*Linguistics and Philosophy* 20: 335–397.
20: 399–467.
PART III

Definiteness and beyond
The semantic core of determiners
Evidence from Skwxwú7mesh

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In this article, I argue that definiteness is not found in all languages, based on the different behaviour of determiners in English and Skwxwú7mesh (Salish). However, I also argue that, despite overt differences between the determiner systems of English and Skwxwú7mesh, determiners in both languages share one property in common: domain restriction. Further, I argue that the behaviour of English the can be explained in terms of its uniqueness requirement and domain restriction. Definiteness is thus a result of the interaction of domain restriction and uniqueness and is not itself a feature of any grammar. I also argue that the determiners in Skwxwú7mesh lack a uniqueness requirement, and this is the sole reason that they behave differently from English the.

1. Introduction

Cross-linguistically, determiners are associated with very different properties. As is well known, the English determiner the is associated with definiteness (Frege [1892] 1997; Russell [1905] 1998; Christophersen 1939; Hawkins 1978, 1991; Heim 1988; Abbott 1999; Kadmon 1992; Prince 1981, 1992, among many others). Samoan determiners have been argued to be associated with (non-)specificity (Mosel & Hovdhaugen 1992). Salish determiners are associated with (non-)deixis (Matthewson 1998; Gillon 2006). Determiners clearly can vary quite a bit in their meaning, and can be associated with many different meanings. The question then is: do they have any common semantic core?

There are three main claims in this paper: (i) determiners do have a common semantic core—domain restriction (cf. Westerståhl 1984; von Fintel 1994; Stanley 2002; Martí 2003; Giannakidou 2004, among many others); (ii) the position D must be associated with domain restriction; and (iii) the interaction of domain restriction and uniqueness results in definiteness in languages like English. These
claims allow us to address a problem in Skwxwú7mesh;¹ that is, why any determiner can be used in both indefinite and definite contexts.

1.1 The problem

Determiners in English and Skwxwú7mesh do not behave like a homogenous class. The English definite determiner the is associated with definiteness. Singular indefinite nominals are introduced by a and definite DPs are introduced by the.²

(1) a. I saw a magnolia tree. (indefinite)
   b. I saw the magnolia tree. (definite)

However, in Skwxwú7mesh, determiners are not associated with definiteness. Any determiner can be used for the equivalent of indefinite or definite interpretations.³

(2) Chen kw’ách-nexw ta/ti/kwa/kwi stséḵ.⁴
   1sg.s. look-TR(lc) DET tree⁵
   ’I saw a/the tree.’

¹ Skwxwú7mesh, also known as Squamish, is a Coast Salish language spoken in the Burrard Inlet area of British Columbia, Canada. Fewer than 20 speakers remain, and the language is extremely endangered.

² I do not address the status of a here. See Gillon (2006) for evidence that a does not occupy the same position as the and also does not share the same semantics as the.

³ All data is from original fieldwork, unless otherwise noted.

⁴ For all the Skwxwú7mesh data gathered, I use Squamish orthography. The Squamish symbols have the same values as IPA symbols, with the following exceptions: ch = tʃ, ch’ = tʃ’, e = ə, i = i, e, or e, k = q, k’ = q’, kw = qʷ, kw’ = qʷ’, lh = l, sh = j, tl’ = tl’, u = u, o, or ə, xw = xʷ, x = χ, xw = χʷ, y = j, and ʔ = ?. For examples from Kuipers (1967), I have changed the orthography into the Squamish orthography for consistency.

⁵ I use the following abbreviations:

1 first person LC limited control
2 second person LOC locative predicate
3 third person NEG negative

ACC accusative NOM nominalizer

ACT.INTR active intransitivizer O object

APPL applicative OBL oblique

CAUS causative PASS passive

COMP complementizer PL plural

CONJ conjunction POSS possessive morphology

DET determiner PROX proximal

DEM demonstrative PST past

DIR directed towards Q yes/no question
Determiners cannot belong to a completely homogeneous class. They cannot be universally used to mark definiteness (contra Lyons 1999). Despite this, I argue that determiners are unified by their introduction of domain restriction. This will allow us to understand the behaviour of both English and Skwxwú7mesh determiners.

In this article, I provide Skwxwú7mesh data to shed light on the problem of English definiteness, as well as the problem of the lack of (in)definiteness in Skwxwú7mesh.

1.2 Definition of determiner

I propose a semantic definition of a determiner, which I crucially link to the syntax. In the traditional semantics literature, “determiner” refers to anything that creates a generalized quantifier from a predicate (see, for example, Barwise & Cooper 1981). That analysis makes no reference to the syntax of determiners. For example, *more than one* is treated as a determiner. This is unexpected if all determiners occupy the same head (since *more, than, and one* are all themselves heads).

I argue that there is a link between the syntax and the semantics of determiners: if an element has a particular semantics, it occupies D, and if an element occupies D, it will have that particular semantics. For example, *all* cannot be a determiner because it does not occupy D. We can see this in (3). Assuming that *the* occupies D, *all* may not also occupy D.

(3) All the men walked.

I argue that the position D is strictly tied to one particular meaning.

(4) Domain restriction (in the nominal domain) is only introduced by determiners.

I thus argue that determiners have a semantic “core.” Some researchers have claimed that the syntactic position D is associated with certain distinctions (definiteness, specificity, etc.), but do not share a particular core semantics (see Matthewson 1998, for example). Unlike English determiners, Salish determiners (including Skwxwú7mesh determiners) do not encode definiteness (Matthewson 1998; Gillon 2003, 2006; see also Section 3.2). This led Matthewson to conclude that the

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position D does not have the same semantics across all languages. Here I argue against this and instead argue that all determiners share something in common. That is, even though determiners may not have exactly the same semantics (as they can vary with respect to assertion of uniqueness, for example), they share a core semantics.

I provide my two-part definition of determiners in (5).

(5) a. A lexical item is a determiner iff it introduces domain restriction.
   b. Determiners and only determiners occupy D.

1.3 Core semantics of determiners

I argue that the position D can be associated with (at least) the following configurations:

(6) a. determiner = {assertion of uniqueness + domain restriction} = definiteness
    b. determiner = {deictic features + domain restriction} = no definiteness, ability to take wide scope
    c. determiner = {domain restriction} = no definiteness, obligatory narrow scope

I also argue that the core semantics of determiners is domain restriction; much of the rest of the semantics may vary. In (7), I give the denotations for English *the*, and Skwxwú7mesh deictic determiners and the non-deictic determiner.7 (The denotations all relate to their respective entries in (6).) All contain domain restriction (represented by C(x)). (Domain restriction is the set of elements in the context; see Section 2.4 for more discussion.)

(7) a. \[ \text{[[the]]} = \lambda P \max(\lambda x [P(x) \land C(x)]) \] (definite determiner)
    b. \[ \text{[[ta]]} = \lambda P f(\lambda x [P(x) \land C(x)]) \] (deictic determiner)
    c. \[ \text{[[kwi]]} = \lambda P \lambda x [P(x) \land C(x)] \] (non-deictic determiner)

While it is difficult to distinguish between the theories of definiteness on purely English grounds, Skwxwú7mesh provides us with evidence that domain restriction is part of the denotation of *the*.

6. While deictic items are often assumed to be inherently definite, they are not in Skwxwú7mesh. Neither deictic determiners nor the demonstratives are definite (see Gillon 2006 for evidence for the behaviour of the demonstratives). Even in English, deictic items need not be definite. *This*, generally considered to be deictic, is often used in novel contexts (Prince 1981).

7. Deictic determiners are used for referents that the speaker can locate. Non-deictic determiners are used for referents that the speaker cannot locate or, at least, is not forced to locate. For further discussion on the difference between deictic and non-deictic determiners, see Gillon (2006, 2009).
1.4 Outline of the article

The structure of this article is as follows. In Section 2, I discuss the problem of definiteness in English and the behaviour of determiners in Skwxwú7mesh. In Section 3, I present my analysis of determiners in English and Skwxwú7mesh. In Section 4, I present some implications of my analysis for English. Section 5 concludes.

2. Background assumptions

In this section, I provide the background assumptions necessary to understand the analysis provided in this article. I discuss theories of definiteness in English (familiarity and uniqueness); familiarity, uniqueness and deictic features in Skwxwú7mesh DPs; modes of semantic composition, and domain restriction.

2.1 Definiteness in English

The source of definiteness in English has been in dispute for over a century. Many argue that familiarity is the defining feature of definiteness (Christophersen 1939; Heim 1988; Prince 1981, to name a few). Others argue that the defining feature is uniqueness (Frege [1892] 1997; Russell [1905] 1998; Kadmon 1992, and many others). Still others claim that other features, or combinations of features, are to blame (Hawkins 1978; de Jong 1987). Here I will only address theories of familiarity and uniqueness.

2.1.1 Novel/familiar distinction in English

In most cases, the can only be used in familiar contexts, contexts where both the speaker and the hearer are aware of the referent of the DP. In most novel contexts, contexts where the hearer is not aware of the referent, a must be used instead (8) (Heim 1988).

(8) A: I saw a cat lurking around my garden last night. (novel)  
   B: Where is the cat now? (familiar)

If a DP does not have an antecedent in the discourse, the is usually illicit (9).

(9) # I saw the cat lurking around my garden last night. (novel)

If a DP does have an antecedent in the discourse, the must be used (10).

(10) A: I saw a cat lurking around my garden last night. (novel)  
    B: #Where is a cat now? (familiar)

There are well-known exceptions to the claim that definites must always be familiar. Not every definite has a referent that is familiar.
(11) Watch out, the dog will bite you. (Heim 1988)

The sentence in (11) can be used in a context where there was no previous mention of a dog, even if the dog is not in sight, or the hearer does not know that the dog exists. Heim argues that in this case, the hearer accommodates the presupposition of familiarity (following work by Lewis 1979). The speaker assumes that the hearer will be able to accommodate the new information provided by the dog. The definition of accommodation is given in (12).

(12) Accommodation:
If at time $t$ something is said that requires presupposition $p$ to be acceptable, and if $p$ is not presupposed just before $t$ then—ceteris paribus—presupposition $p$ comes into existence. (Lewis 1979: 172)

If accommodation is available to the hearer in some cases, how do we decide when it is not available? Accommodation obviously does not happen in all cases, or the speaker should be able to use (9) out of the blue. My analysis avoids this issue, as I do not appeal to accommodation.

2.1.2 Assertion of uniqueness in English

In the philosophical literature, both of the original analyses of definiteness (Frege [1892] 1997; Russell [1998] 1905) viewed uniqueness as being relevant to the interpretation of any definite description. In Russell’s case, the uniqueness of the referent was asserted, and in Frege’s case, it was presupposed (in modern terms). Here I assume that uniqueness is asserted, following Link (1983) and von Fintel and Heim (2001).

The fact that uniqueness is relevant to definiteness in English can be seen in examples such as (13).

(13) a. The king visited me.
   b. A king visited me.

In (13a), there can only be one king in the context; in (13b), there can be many different kings. It would be infelicitous to use (13b) in a context where there is only one king. This same effect can also be seen in negative contexts.

8. The DP the cat in (9) can be accommodated if the hearer has reason to believe the speaker has a cat (that perhaps ran away). However, if the hearer knows of no cat that could be part of the discourse context, the hearer has a right to ask “which cat?”

9. The analysis is not changed in any significant way if presupposition of uniqueness is assumed instead. I assume assertion of uniqueness, rather than presupposition of uniqueness, as presupposition is unnecessary to obtain the facts in English. The presence of domain restriction in the denotation of the has the same effect as a presuppositionaanalysis.
In (14a), there must be a unique king; in (14b), there does not. In fact, there may not even be any kings.

This effect can also be seen with plural and mass definite DPs (15).

In (15a), the DP the children must refer to the entire set of children, and in (15b), the DP the milk must refer to the entire mass of milk.

To capture this uniqueness effect, I adopt the analysis by von Fintel and Heim (2001). In the formula in (16a), anything before the period is presupposed, and anything following is asserted (following the notation in Heim & Kratzer 1998).

Max(P) is the maximal individual (i.e., the supremum) that P is true of; it is undefined if there is no unique individual.

I adapt this formula by adding domain restriction (C) to the representation. I do not assume that the presupposes existence; instead, I only adopt the assertion of uniqueness.

While there may be a slight difference in the meaning of the in (17) and (18), the facts discussed in this article do not allow us to distinguish between the two analyses.

Further, C is itself presuppositional. As we will see below, C is never empty. In out of the blue cases, C will be equivalent to the domain of all individuals. This means that there will always be individuals that match the NP description. This guarantees the existence of referents; it does not, however, guarantee the existence of a unique referent. If uniqueness were presupposed by the, we might expect accommodation of a unique referent to be more widespread in English in out of the blue cases. In English, the domain must be narrowed in some way in order for the to be interpreted. See Section 3.1 for further discussion of the nature of C.
2.2 Skwxwú7mesh determiners

Unlike English *the*, Skwxwú7mesh determiners do not distinguish between novel and familiar contexts, nor do they assert uniqueness. The distinction between non-deictic and deictic determiners is not related to either of these potential analyses.

2.2.1 No novel/familiar distinction in Skwxwú7mesh

All determiners can be used in novel or familiar contexts, regardless of whether they are deictic or non-deictic. In (19a), the DP occurs in a novel context, where the referent has not been previously mentioned. This same effect is found in (19b), where the DP is used in an existential context. The sentence in (19c) can be used following either of (19a) or (19b). Here the hearer is familiar with the referent, as it has already been introduced. The use of the DPs in novel or familiar contexts is not affected by the choice of determiner.

(19)  

   1sg.s look-tr(lc) det man
   ‘I saw a man.’ (novel context)

b. Tsíʔ ti/ta/kwa/kwi swíʔka náʔ ta lám.
   exist det man loc det house
   ‘There’s a man in my house.’ (novel context)

c. Na kwáʔ’ ti/ta/kwa/kwi swíʔka.
   rl hungry det man
   ‘The man is hungry.’ (familiar context)

This effect can also be seen in texts. The deictic determiner *ta* can be used to introduce both novel and familiar referents. In the example below, *ta kék’iʔas* ‘the barrel (full of molasses)’ and *ta mlášhis* ‘molasses’ are first introduced in the story using the determiner *ta*.

(20) Úyulh-shit-em-wit ta kék’iʔas síʔich’ ta mlášhis.
    canoe-appl-pass-3pl det barrel full det molasses
    ‘A barrel of molasses was put aboard for them.’ (novel) (Kuipers 1967: 238)

In the next example, the referent ‘the big basket’ is introduced using demonstrative *kwétsi*. Later in the text, the deictic determiner *ta* is used to refer back to the now-familiar basket.

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10. All of the deictic determiners in Skwxwú7mesh can be used in these same contexts; see Gillon (2006) for details.
The semantic core of determiners

(21) Na mi úys kwelhi hiyí slhánay’, chem-chem’a7s-t-as
     RL come inside DEM.F big woman REDUP-carry.on.back-tr-3ERG
     kwetsi hiyí sitn.
     dem big basket
     ‘A big woman came in, carrying a large basket on her back.’
     … s-e-s men tsexws-t-as ta stá7uxwlh txwta7
     NOM- RL-3POSS just throw-tr-3ERG DET child into
     t-ta sitn.
     OBL- DET basket
     ‘...and she threw the children in the basket...’ (familiar)
     (Kuipers 1967: 219–220)

The non-deictic determiners *kwí* and *kwes* may also be used in both novel and familiar contexts.

(22) Ná7-kw hem’í syétsm kwí-s-e-s hem’í kwí stl’álkm
     RL-already come report COMP-NOM- RL-3POSS come DET monster
     wa nán-t-em Sinúlhkay’.
     IMPF name-tr- pass Sinulhkay’
     ‘News was received that a monster named Sinulhkay’ was coming.’ (novel)
     (Kuipers 1967: 230)

(23) N-s-na men k’ánatsut-nit-an kwétsi snexwílh-chet
     1SG.POSS-NOM-RL just return-appl-1SG.ERG DEM canoe-1PL.POSS
     s-men tsún-t-an kwes n-skw’ú7-t: ...
     NOM-just tell-tr-1SG.ERG DET.F 1SG.POSS-wife-pst
     ‘Then I returned to our canoe and told my wife: …’
     … N-s-na men k’ánatsut nám’ t-ta n-snexwílh,
     1SG.POSS-NOM- RL just return go OBL- DET 1SG.POSS-canoe
     n-s-na men wilk’-t-an kwes n-skw’ú7-t: ...
     1SG.POSS-NOM-RL just ask-tr-1SG.ERG DET 1SG.POSS-wife-pst
     ‘I returned to my canoe and asked my wife: …’ (familiar) (Kuipers 1967: 241)

The determiners do not distinguish between novel and familiar contexts.11

2.2.2 No assertion of uniqueness in Skwxwú7mesh

Unlike English *the*, Skwxwú7mesh determiners do not assert the uniqueness of their referent, regardless of whether they are deictic or non-deictic. For example, the deictic determiner *ta* can be used in a context where the DP is *not* the unique referent, as in (24): There were two cups, equidistant from the speaker. They were exactly the same shape, size and colour. Neither was more salient than the other. In this context, (24) is perfectly felicitous. (It should be noted that the speaker is *not* asking for both of the cups.)

(24) Mi7-shit-[t]s chexw *ta* lapát.
    come-sg-1sg.o 2sg.s det cup
    'Bring me one of the cups.'
    (Translated as, 'Bring me the cup.')\(^{12}\)
    Comment: “You're not asking for a specific one.”

The lack of assertion of uniqueness can also be seen with mass nouns and plurals. In (25), the DP *ta slhum’* ‘the/some soup’ does not have to refer to the entire mass of contextually relevant soup.

(25) Chen húy’-s *ta* slhúm’. Tsi7-xw *ta* slhúm’ ná7
    1sg.s finish-caus det soup exist-still det soup loc
    *ta* nḵwí7stn.
    det pot
    'I ate some soup. There’s still some soup in the pot.’
    (Translated as, ‘I ate the soup and there’s still some soup in the pot.)

In (26), the DP *ta skwelkwelam* ‘the/some berries’ also does not have to refer to all of the contextually relevant berries.

(26) Chen húy’-s *ta* skwel-kwelám, welh ná7 *ta* na púkw-i7.
    1sg.s finish-caus det redup-berry conj loc det rl mould-inch
    S-en men háw k’-an i húy’-s *ta*
    nom-1sg.poss just neg irr-1sg.sbj prox finish-caus det
    na púkw-i7.
    rl mould-inch
    'I ate some of the berries, but some of them were mouldy, so I didn’t eat the mouldy ones.'
    (Translated as, ‘I ate the berries…’)

\(^{12}\) The translations given by the speakers are illicit in the contexts provided. I provide more accurate translations of each sentence that reflect the assertion of uniqueness associated with *the*. As the speakers learned English at a relatively late age, they presumably did not acquire the assertion of uniqueness of *the*. 
The other deictic determiners behave the same as *ta* with respect to the lack of uniqueness (Gillon 2006).

The non-deictic determiner *kwi* also does not assert the uniqueness of its referent. For example, in (27), there may be many cups in the cupboard; the speaker is only asking for any one of the cups.

(27) Mí7-shit-[t]s chexw kwi lapát.
    come-APPL-1SG.O 2SG.S DET cup
    ‘Bring me a cup.’

Similarly, in (28), *kwi slhum’* ‘soup’ does not have to refer to the entire mass of soup, and in (29), *kwi skwelkwelam* ‘berries’ does not have to refer to all of the berries.

(28) Chen húy’-s kwi slhúm’.
    1SG.S finish-CAUS DET soup
    Tsí7-xw ta slhúm’ ná7 ta nkwí7stn.
    exist-still DET soup LOC DET pot
    ‘I ate some soup. There’s still some soup in the pot.’

(29) Chen húy’-s kwi skwel-kwelám, welh ná7 ta na púkw-i7.
    1SG.S finish-CAUS DET REDUP-berry conj LOC DET RL mould-INCH
    S-en men háw k-‘an i húy’-s
    nom-1SG.POSS just NEG IRR-1SG.SBJ PROX finish-CAUS
    ta na púkw-i7.
    DET RL mould- INCH
    ‘I ate some of the berries, but some of them were mouldy, so I didn’t eat the mouldy ones.’
    (Translated as, ‘I ate the berries…’)

None of the Skwxwú7mesh determiners assert uniqueness, unlike *the*. This is a problem for any analysis of D as Definiteness (as in Lyons 1999). Determiners are not universally associated with definiteness, and the position they occupy cannot be a Definiteness head.13

---

13. From an English perspective, Lyons’s idea makes sense: *a* appears not to occupy the same position as *the* (Epstein 1999). One possible difference is that *the* occupies a Definiteness head, whereas *a* does not. However, many languages do not have definite determiners. What Lyons is sensing is the difference between the elements that occupy D (and therefore introduce domain restriction) and those that occupy a lower position (and therefore do not introduce domain restriction).
2.2.3 Skwxwú7mesh determiners are deictic
Most of the Skwxwú7mesh determiners have deictic features, as shown in Table 1. See Gillon (2006, 2009) for evidence of these features. (See also Wiltschko, this volume, who uses the term ‘location’ for deixis.)

Table 1. The determiner system of Skwxwú7mesh

<table>
<thead>
<tr>
<th></th>
<th>Deictic</th>
<th>Non-deictic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Neutral</td>
<td>Proximal</td>
</tr>
<tr>
<td>gender neutral</td>
<td>ta</td>
<td>ti</td>
</tr>
<tr>
<td>feminine</td>
<td>lha</td>
<td>lhi</td>
</tr>
</tbody>
</table>

Deictic determiners (ta/lha, ti/lhi, kwa/kwelha) are associated with both deictic features and domain restriction: the features allow them to take wide scope, and the lack of assertion of uniqueness prevents them from behaving like definite determiners like the. Non-deictic determiners (kwi/kwes) are only associated with domain restriction, and the lack of deictic features forces them to take narrow scope.

3. The analysis

Domain restriction plays an important role in both English and Skwxwú7mesh. The behaviour of the determiners is different in each language because domain restriction interacts with other parts of the grammar: specifically, assertion of uniqueness in English and deictic features in Skwxwú7mesh.

3.1 Introduction to the analysis

As we saw in Sections 2.1 and 2.2, English the and the Skwxwú7mesh determiners appear to belong to a very heterogeneous class. While Skwxwú7mesh and English determiners appear to have nothing in common, I argue that they are both associated with domain restriction. In this section, I provide background on domain restriction, and why it was posited in the first place.

It has long been argued that the interpretation of DPs is sensitive to the context in which they are uttered (Westerståhl 1984; von Fintel 1994, 1998, 1999; Martí 2003; Giannikidou 2004; Etxeberria 2005, among others). This is because DPs (usually) cannot refer to all individuals in the world that match the NP description. For example, in (30a), the men does not (normally) refer to all men in the world. Instead, it refers to the set of contextually salient men. Similarly, in (30b),
The semantic core of determiners

The man cannot refer to the only man in the world; it can only refer to a man who is unique in the context.\footnote{Attempts to make uniqueness more “realistic” (Kadmon 1992) involve contextual dependence.}

(30)  
\begin{enumerate}
\item a. The men were laughing.
\item b. The man was laughing.
\end{enumerate}

Westerståhl (1984) claims that the is itself domain restriction, and nothing more. I do not adopt this view, as uniqueness (in English) also plays a role.

Quantifiers have been argued to introduce unpronounced domain restriction variables ranging over properties of individuals (Westerståhl 1984; von Fintel 1994, 1998, 1999; Martí 2003).\footnote{I claim that determiners are (at least in some languages) the pronunciation of this domain restriction. I also do not assume that quantifiers themselves introduce domain restriction, as discussed below.} Moreover, von Fintel claims that strong quantifiers\footnote{A reviewer suggests that I call quantifiers “quantifying determiners.” However, I do not assume that quantifiers occupy the same position as determiners, and so they cannot be called determiners. See Giusti (1991) for more arguments that quantifiers are syntactically distinct from determiners.} restrict the domain of the NP that is quantified over. In this way, strong quantifiers are context-dependent.

(31) The dinner guests had rhubarb pie for dessert. Everyone developed a rash. (von Fintel 1998: 2)

In (31), everyone does not quantify over all the individuals in the world; in fact, it cannot quantify over all the individuals in the world. Instead, it is restricted to the dinner guests who had rhubarb pie for dessert.

Formally, the domain of the quantifier is restricted to those dinner guests by an unpronounced element (C) that is introduced by the quantifier. In (32), the domain of the quantifier every is restricted to the freshmen in the context.

(32) Every freshman is from out of state.
\[
\text{every } [C \& \text{freshman}] \ [\text{out of state}]
\]
\[
\text{every } \lambda x \ [C(x) \& \text{freshman } (x)] \ [\lambda x \ [\text{out of state}(x)]]
\] (von Fintel 1999: 3)

This unpronounced element C is of type $\langle e,t \rangle$ and is interpreted via intersective predicate modification with the NP predicate (which is also of type $\langle e,t \rangle$). C is the characteristic function of the set of individuals that are under discussion: in this context, this set might include all the participants in the relevant undergraduate semantics class.
Here, my characterization of C is somewhat different from von Fintel’s characterization. Von Fintel proposes C to be a free variable ranging over predicates. In the absence of a salient predicate, the use of C is infelicitous. I propose that C is felicitous in the absence of a salient predicate. It is the assertion of uniqueness in English that makes it appear that C can only be used in the appropriate context. Skwxwú7mesh allows us to see how C works in the absence of a uniqueness requirement, as we shall see in the remainder of Section 3.

3.2 The analysis of English

I have assumed that English definite DPs assert the uniqueness of their referent. This assertion interacts with domain restriction to create the familiarity effects we see in English. This is reminiscent of analyses of contextually evaluated uniqueness (see, for example, Kadmon 1992). If a DP must be unique, as with English definite DPs, then the referent will be restricted to the intersection of the domain restriction, C, and the set denoted by the NP.

I argue that the definite determiner the has domain restriction in its representation, although I do not assume it occupies a separate syntactic node (cf. Martí 2003). This domain restriction must contain the unique element that matches the descriptive content of the NP. If it does not contain a unique element that matches the description, the DP is infelicitous. This is because the domain restriction must contain all the domain of entities (De). Until the context has been narrowed, C must contain the entire set of individuals in the world. There can be no unique individual that satisfies the NP description.

In what follows, I consider a number of different cases: novel examples of singular and plural definite DPs, examples with singular and plural definite DPs where C contains one individual, and examples with singular and plural definite DPs where C contains more than one individual.

17. DPs in English are by definition definite, in that indefinite nominals have a different structure (Gillon 2006).

18. I assume that it includes all of De, and not, say, all entities that exist right now, because it is always possible to talk about deceased entities:

(i) The cat liked to walk around. (now deceased cat)

Nothing in the sentence gives us the information that the cat is no longer alive; the only way that the DP could refer to the right cat is if C included deceased entities.
I begin with a novel use of a singular DP (33). Here, *the* cannot be used. I assume that the domain restriction includes the entire domain of entities (D_e), because the domain has not been narrowed by anything in the discourse.

(33)  

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<tbody>
<tr>
<td>a.</td>
<td># I saw <em>the</em> bear. (novel)</td>
<td>C_{the bear} = D_e^{19}</td>
</tr>
<tr>
<td>b.</td>
<td>[the bear] = max(\lambda x [bear'(x) \land C(x)]) = undefined</td>
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</table>

Because C contains all bears in the domain D_e, the intersection of bear and C contains the same individuals as bear. There is no maximal individual that belongs to both bear and C.

Plural definites are slightly different. *The* cannot be used in a novel context for plural DPs either, but the result is different (34).

(34)  

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<tbody>
<tr>
<td>a.</td>
<td># I saw <em>the</em> bears. (novel)</td>
<td>C_{the bears} = D_e</td>
</tr>
<tr>
<td>b.</td>
<td>[the bears] = max(\lambda x [#bear'(x) \land C(x)]) = D_e</td>
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</table>

Here, the context set again contains all bears in the domain D_e; the intersection of bears and C is the sum of all bears. The sentence *I saw the bears* then can only be true if I saw all of the bears in the world, which is extremely unlikely. People do not normally have the opportunity to see all the bears in the world, especially at one time. Pragmatically, hearers know that the domain should be narrowed, but without any other information, they do not know how to narrow the domain.

In cases where the domain includes one bear, the DP will refer to that bear. The intersection of C and the set provided by bear is the bear in the domain (35).

(35)  

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<tbody>
<tr>
<td>a.</td>
<td><em>I saw</em> <em>the</em> bear.</td>
<td>C_{the bear} = {bear_i}</td>
</tr>
<tr>
<td>b.</td>
<td>[the bear] = max(\lambda x [bear'(x) \land C(x)]) = bear_i</td>
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</table>

If the DP is plural, but the domain only includes one bear, the DP cannot refer to that bear. This is because the predicate \#bear only provides individual sums of members of bear. There are no atomic individuals in \#bear. There are also no individual sums in C. The intersection of C and \#bear is null (36).

(36)  

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<tbody>
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<td># I saw <em>the</em> bears.</td>
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</tr>
<tr>
<td>b.</td>
<td>[the bear] = max(\lambda x [#bear'(x) \land C(x)]) = undefined</td>
<td></td>
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</table>

In cases where the domain includes more than one bear, a singular DP cannot be used (37). This is because the predicate bear only includes atomic individuals. There is no maximal individual in the intersection of C and bear.

---

19. Westerståhl (1984) argues that domain restriction must be different for each DP; for the sake of simplicity I provide the domain restriction for the relevant DP.
(37)  a. # I saw the bear.  \( C_{\text{the bear}} = \{\text{bear}_i, \text{bear}_j, \text{bear}_k\} \)
    b. \( \llbracket \text{the bear} \rrbracket = \max(\lambda x [\text{bear}'(x) \land C(x)]) = \text{undefined} \)

If the DP is plural, and the domain includes more than one bear, the DP will be felicitous (38). This is because the intersection of \( C \) and \( \@\text{bear} \) will be individual sums of the predicate \( \text{bear} \). \( \max \) will choose the maximal individual sum of that set.

(38)  a. I saw the bears.  \( C_{\text{the bears}} = \{\text{bear}_i, \text{bear}_j, \text{bear}_k\} \)
    b. \( \llbracket \text{the bears} \rrbracket = \max(\lambda x [\text{bear}'(x) \land C(x)]) = \text{bear}_i, \text{bear}_j, \text{bear}_k \)

If the hearer is given enough information to decide that the referent is unique, it is no longer necessary that the referent be familiar (cf. Hawkins 1991; Kadmon 1992).

(39)  a. Mary went out with the man she met yesterday.  \( C_{\text{the man}} = \{\text{Mary}\} \)
    b. \( \llbracket \text{the man she met yesterday} \rrbracket = \max(\lambda x [\text{man-she-met-yesterday}'(x) \land C(x)]) = \text{mani} \)
    \( C_{\text{the man}} = \{\text{Mary}, \text{mani}\} \)

Hearers can narrow the domain \( C \); but they can only do so if they have enough information. Under most circumstances, they will not be able to tell how to narrow the domain enough for the DP refer to a unique individual. They will not normally accept a definite DP in a novel context, because they feel uncertain as to the contextual domain.

Hearers can also narrow the domain in so-called accommodation cases, as in (40), repeated here from (11).

(40)  Watch out, the dog will bite you.  \hspace{1cm} (Heim 1988)

In this case, the hearer knows that many people have dogs to protect their houses; the hearer can narrow the domain down to one (unknown) dog.

(41)  The dog will bite you.  \( C_{\text{the dog}} = \{\text{dog}_i\} \)

\( C \) can therefore be determined by any previous discourse, immediate linguistic context (such as a relative clause), or hearer knowledge about the state of the world.

The familiarity effects seen in English derive from domain restriction and the assertion of uniqueness. It is therefore possible that only one feature of \( \text{the} \) (domain restriction or uniqueness) is relevant to other languages. I address such a language in Section 3.3. I show that Skwxwú7mesh determiners are associated with domain restriction, but do not assert the uniqueness of their referent.

Under the analysis provided here, the fact that definites are (usually) used in familiar contexts is no longer part of the lexical entry of \( \text{the} \). Instead, it falls out from the fact that \( \text{the} \) provides domain restriction over its NP and that it asserts the uniqueness of its referent. The domain \( C \) must intersect with the set of the NP. The lexical entry for \( \text{the} \) must include assertion of uniqueness, since any definite DP refers to the unique individual/maximal set matching the description denoted by the NP.
3.3 The analysis of Skwxwú7mesh deictic determiners

Recall that Skwxwú7mesh determiners can be used in novel and familiar contexts.

(42) Chen kw’ách-nexw ta/ti/kwa/kwi míxalh.

1sg.s look-tr(lc) det bear

‘I saw a/the bear.’

Crucially, when deictic determiners are used in a familiar context, they must refer to the same individual as previously introduced.


1sg.s go hunt/track det yesterday nom-1sg.poss just shoot-tr bear

‘I went hunting. I saw a bear. I shot the bear.’

b. Sen men kw’áchnexw ta míxalh. C_{ta míxalh} = D_e

c. [[ta míxalh]] = {bear_i}

d. Sen men kwélasht ta míxalh. C_{ta míxalh} = {bear_j}

e. [[ta míxalh]] = {bear_i}

Domain restriction is therefore a necessary part of the denotation of Skwxwú7mesh determiners.

Similarly, in (44), the DP tsi mexmíxalh ‘the bears’ refers to the set of bears already under discussion, not a wholly new set of bears, or the entire set of bears in the world. In (44b), the DP tsi xa7utsn míxalh ‘four bears’ is used in a novel context. The domain restriction is the entire domain. However, in (44d), the DP tsi mexmíxalh ‘the bears’ is used in a familiar context, and the domain is restricted to the previously introduced bears. The DP refers to all four of those bears, as shown in (44e).

(44) a. Chen nam ch’áatl’am kwi chel’á k lh. Chen kw’ách-nexw tsi xa7ýutsn míxalh. S-en men kwélash-t tsi mex-míxalh. four bear nom-1sg.poss just shoot-tr redup-bear

1sg.s go hunt/track det yesterday 1sg.s look-tr(lc) det.f four bear nom-1sg.poss just shoot-tr det.f redup-bear

‘I went hunting yesterday. I saw four bears. I shot all the/*some of the bears.’

b. Chen kw’áchnexw tsi xa7útsn míxalh. C_{tsi xa7tsn míxalh} = D_e

c. [[tsi xa7útsn míxalh]] = bear_i, bear_j, bear_k, bear_l

d. Sen men kwélasht tsi mexmíxalh. C_{ta míxalh} = {bear_i, bear_j, bear_k, bear_l}

e. [[tsi mexmíxalh]] = bear_i, bear_j, bear_k, bear_l

20. Unless the implicature of uniqueness is cancelled, in which case the partitive reading arises.
Domain restriction normally forces the DP to refer to the set of elements already under discussion. In a context where a bear has been introduced, the DP *ta mixalh* 'the bear' will refer to that same bear.

\[(45)\] a. S-en men kwēlash-t ta mixalh.
   nom-1sg.poss just shoot-tr det bear
   'I went hunting. I saw a bear. I shot the bear.'
   \[C_{ta mixalh} = \{\text{bear}_i\}\]

   b. \(\left[\text{ta mixalh}\right] = f(\lambda x [\#\text{bear}'(x) \land C(x)]) = \text{bear}_i\)

In a context where more than one bear has been introduced, the DP *ta mexmixalh* refers to the maximal individual sum of bears.

   nom-1sg.poss just shoot-tr det redup-bear
   'I shot all the bears.'
   \[C_{ta mexmixalh} = \{\text{bear}_i, \text{bear}_j, \text{bear}_k, \text{bear}_l\}\]

   b. \(\left[\text{ta mexmixalh}\right] = f(\lambda x [\#\text{bear}'(x) \land C(x)]) = \text{bear}_i, \text{bear}_j, \text{bear}_k, \text{bear}_l\)

In a context where more than one bear has been introduced, the DP *ta mixalh* will also usually refer to the maximal individual sum of bears.\(^{21}\)

\[(47)\] a. S-en men kwēlash-t ta mixalh.
   nom-1sg.poss just shoot-tr det bear
   'I shot all the bears.'
   \[C_{ta mixalh} = \{\text{bear}_i, \text{bear}_j, \text{bear}_k, \text{bear}_l\}\]

\(^{21}\) *Skwxwú7mesh* 'singular' nouns are not really singular. While plurality is marked on the noun via a CeC- reduplicant (Kuipers 1967) (ii)–(iii), reduplication is not necessary to induce a plural interpretation (iv). (See also Wiltschko, this volume, for discussion of this in a related Salish language.)

(i) mixalh
   bear
   'bear'

(ii) mex-mixalh
    redup-bear
    'bears'

(iii) Chen kwʼách-nexw ta pesh-púsh.
    1sg.s look-tr(lc) det redup-cat
    'I saw (the) cats.'

(iv) Chen kwʼách-nexw ta púsh.
    1sg.s look-tr(lc) det cat
    'I saw a cat/the cat/cats/the cats.'
The semantic core of determiners

b. \[[ta \text{míxalh}]\] = \(f(\lambda x \text{[}^{*}\text{bear}'(x) \land \text{C}(x)\text{]}))
= \text{bear}_i, \text{bear}_j, \text{bear}_k, \text{bear}_l

If a determiner does not assert uniqueness, the hearer does not need to be familiar with the referent. The hearer does not need to narrow the domain to ensure that the DP is unique. In novel contexts, \(\text{C}\) includes \(\text{D}_e\), and the function variable assigns an individual to the property supplied by the NP.

(48) a. Chen kwélash-t ta \text{míxalh}. (novel)
\hspace{1em}1sg.s shoot-tr det bear
\hspace{1em}‘I shot a bear.’
\hspace{1em}C_{ta \text{míxalh}} = \text{D}_e

b. \[[ta \text{míxalh}] = f(\lambda x \text{[}^{*}\text{bear}'(x) \land \text{C}(x)\text{]})) = \text{bear}_i
\hspace{1em}C_{ta \text{míxalh}} = \{\text{bear}_i\}

In Skwxwú7mesh, none of the determiners assert the uniqueness of their referents. However, sentences containing deictic determiners carry an implicature of uniqueness. In (49), \(ta \text{míxalh}\) refers to one bear. This sentence carries the implicature that it is the only bear in the context.

(49) Chen kwélash-t ta \text{míxalh kwi cheláklh}.
\hspace{1em}1sg.s shoot-tr det bear det yesterday
\hspace{1em}‘I shot a bear yesterday.’

This implicature of uniqueness can be cancelled, as in (50) and (51).22

(50) Chen kwélash-t ta/tsi \text{míxalh kwi cheláklh}. Chen
\hspace{1em}1sg.s shoot-tr det/det.f bear det yesterday 1sg.s
kw’ách-nexw ta/tsi chánat míxalh, welh na tliw’-numut-wit.
look-tr(lc) det/det.f three bears conj rl escape-refl-3pl
‘I shot a bear yesterday. I saw three bears, but some escaped.’

(51) Chen múkwts kwa si-wí7ka welh háw k’an i
\hspace{1em}1sg.s kiss det redup-man conj neg irr-1sg.sbj prox
múkwts kwa John.
kiss det John
‘I kissed some of the men, but I didn’t kiss John.’
(Translated as, ‘I kissed the men, but I didn’t kiss John.’)

I argue that this follows from domain restriction. If the determiner is associated with domain restriction, then the hearer is obligated to compute the intersection

22. An anonymous reviewer suggests that this may be a scalar implicature. I am unsure as to what other lexical items would be on this scale. Certainly the use of a plain noun would carry an implicature of singularity (as the reduplicated form is not used), but it is unclear whether this is relevant to the question of uniqueness.
of the NP and C before applying the choice function. Therefore, the DP will refer to an entity (or group) which is in the context. If a speaker chooses to use a singular NP, the hearer will assume that the speaker did not use the plural NP because there was only one individual matching the NP description in the context.

In cases where an implicature of uniqueness does not even arise, as in (52a), the function variable also assigns an individual to the property supplied by the NP.

\[(52) \quad \begin{align*}
\text{a.} & \quad \text{Mí7-shit-[t]s \ chexw \ ta \ lapát.} \\
& \quad \text{come-APPL-1SG.O} \quad \text{2SG.S} \quad \text{DETR} \quad \text{cup} \\
& \quad \text{‘Bring me one of the cups.’} \\
& \quad C_{\text{ta lapát}} = \{\text{cup}_1, \text{cup}_2\}
\end{align*}
\]

I claim that the pragmatics force the speaker to use ta to refer to a single cup (but neither one in particular), because it would be strange to ask for more than one cup in the context where I am asking for a cup to use to drink out of.\(^{23}\)

My analysis is similar to those of Matthewson (1999) and Giannakidou (2004) in that they both appeal to choice functions. However, they both argue that domain is narrowed by the choice function itself. I argue instead that the choice function does not always narrow the domain. The choice function can narrow the domain as well, as in (52); however, it will not further narrow the domain unless there is a reason to do so.

Matthewson (1999) and Giannakidou (2004) also do not address the question of how the choice function narrows the domain. Without C, the choice function could theoretically choose any individual, or set of individuals. Having C in the representation of the determiners allows us to predict that the DP will refer to the individual already in the discourse to the property supplied by the NP.

DPs are not definites in Skwxwú7mesh, as I argue above, but in familiar contexts, they do behave more like definites, in that they usually refer to a previously introduced discourse referent. However, I do not adopt Giannakidou’s (2004) analysis of St’át’imcets, where she argues that the DPs are definite. DPs in Skwxwú7mesh do not behave like definites. However, they do behave like some intermediate category, with definite-like behaviour in familiar contexts. Giannakidou’s intuition that DPs in St’át’imcets are definite-like in familiar contexts is explained by the presence of domain restriction.

3.4 The analysis of Skwxwú7mesh non-deictic determiners

Non-deictic DPs behave like other DPs in Skwxwú7mesh in that they can refer back to a previously introduced referent.

\(^{23}\) Under the right circumstances, this sentence can be used to refer to both cups (e.g., when I am washing dishes, and want to collect all dirty cups, plates, etc.).
(53) Chen kwách-nexw kwi mǐxalh.
1sg.s look-tr(lc) det bear
Chen kwélash-t kwi mǐxalh.
1sg.s shoot-tr det bear
'I saw a bear. I shot the bear.'

However, unlike the deictic determiner ta, kwi can easily refer to a part of the set already introduced in the discourse. That is, kwi can have a partitive reading, as shown in (54a) and (55), without having to resort to cancellation of any uniqueness implicature (unlike the deictic determiners).

(54) a. Xa7útsn slhánay' na mi úys. Chen kwéykwey-s kwi slhánay'.
four woman rl come inside 1sg.s talk-caus det woman
‘Four women came in. I talked to one of the women.’

b. Xa7útsn slhánay' na mi úys. ?? Chen kwéykwey-s lha
four woman rl come inside 1sg.s talk-caus det.f
slhánay'.
woman
‘Four women came in. I talked to all of the women.’

(55) a. Chen wa lhém-n ta schí7i. Chen húy-s kwí schí7i.
1sg.s impf pick-tr det strawberry 1sg.s finish-caus det strawberry
‘I picked strawberries. I ate one strawberry.’

b. Chen teh-ím’ ta slhúm’. Chen húy-s kwí slhúm’.
1sg.s make-act. intr det soup 1sg.s finish-caus det soup
‘I made some soup. I ate some of the soup.’

Crucially, the non-deictic DPs are context-dependent, just as the other determiners in Skwxwú7mesh are. The DP kwi slhanay' does not introduce a new referent to the discourse; instead, it refers to one member of a set of people who have already been introduced.

(56) a. Xa7útsn slhánay’ na mi úys. Chen kwéykwey-s
four woman rl come inside 1sg.s talk-caus
kwi slhánay’.
det woman
‘Four women came in. I talked to one of the women.’

b. Xa7útsn slhánay’ na mi úys. C_{Xa7útsn slhanay'} = D_e

c. \{Xa7útsn slhanay’\} = \{woman_1, woman_j, woman_k, woman_l\}

d. Chen kwéykweys kwi slhanay’.
C_{kwi slhanay'} = \{woman_1, woman_j, woman_k, and woman_l\}

e. \{kwi slhanay’\} = woman_1 or woman_j or woman_k or woman_l
Despite being able to be used in partitive contexts, *kwi* is by no means obligatorily partitive.

(57) \[\text{Tsi7 kwi shá7yu ná7 ta-n lám' .}\]

exist DET ghost LOC DET-1SG.POSS house

‘There’s a ghost in my house.’

The DP *kwi sha7yu* does not refer to one ghost out of many, but is instead introducing a new referent.

The ability for *kwi* to be interpreted partitively, unlike the deictic determiners, arises from its lack of deictic features. Non-deictic determiners can only be used in contexts where the speaker cannot locate the referent (Gillon 2006, 2009).\(^24\)

Partitive contexts allow the use of *kwi* because the speaker does not locate the individual within the group. The speaker is behaving as if he or she cannot locate the referent; the referent can be any member of the group. If the speaker wishes to provide information about the location, then he or she must use a demonstrative (see Gillon 2006 for details). The use of *kwi* in the cases above is only acceptable because the speaker is not providing information about the location. *Kwi* does not refer to a particular object that the hearer will also likely be able to locate.

### 3.5 Quantifiers in Skwxwú7mesh

Like the determiners, quantifiers in Skwxwú7mesh provide us with evidence about domain restriction. Giannakidou (2004) argues that domain restriction can be either be located on D or on Q, depending on the language. In Greek, for example, she argues that Q is associated with domain restriction.\(^25\)

(58) Greek:

\[\begin{align*}
&\text{a. o kathe fititis} \\
&\text{DET every student} \\
&\text{‘each student’}
\end{align*}\]

\[\begin{align*}
&\text{b.} \\
&\text{QP} \\
&\text{Q-DET} \\
&\text{NP} \\
&\text{D} \\
&\text{Q} \\
&\text{o kathe fititis student} \\
&\text{the every}
\end{align*}\]

\(^24\) The lack of deictic features may give rise to an implicature of non-locatability. In that case, we expect the implicature to be cancellable. I have not tested this, and leave it for further research.

\(^25\) Giannakidou also appeals to type-shifting, which is irrelevant for the purposes here.
However, I claim that only D can be associated with domain restriction. Note that the structure above is still compatible with my analysis that D (and nothing else) is associated with domain restriction. (See also Etxeberria 2005, who argues that the determiner is associated with domain restriction in Basque.)

In Skwxwú7mesh, quantifiers and determiners can also co-occur.26

(59) a. Chen kw’ách-nexw i7xw ta púsh.
   1sg.s look-tr(lc) all det cat
   ‘I saw all the cats.’

   b. Chen kw’ách-nexw kéx ta púsh.
   1sg.s look-tr(lc) many det cat
   ‘I saw many cats.’

In these cases, I argue that the domain restriction is provided by the determiner.

(60) a. S-en men kwélash-t i7xw ta mex-míxalh.
   nom-1sg.poss just shoot-tr all det redup-bear
   ‘I shot all of the bears.’ $C_{tamelxalh} = \{bear_i, bear_j, bear_k, bear_l\}$

   b. $[\text{ta mexmíxalh}] = \int(\lambda x \left[ ^{\text{\textbf{b}}} \text{bear}(x) \wedge C(x) \right])$
      = bear_i+bear_j+bear_k+bear_l.

The quantifier does not provide domain restriction because that is already provided by the determiner itself. I extend this analysis to Greek as well.

4. Implications for English

The analysis presented here has implications for other aspects of English. It also has implications for the nature of definiteness itself, as well as raising some interesting questions as to what counts as a determiner. The term “determiner” is often used as a catch-all for articles, demonstratives, and quantifiers, especially in English.27 In this section, I question whether quantifiers occupy the same position as determiners (D), and whether they have the same semantics as determiners.28

26. The determiner is not obligatory, but it is preferred.

27. While I do not address demonstratives or indefinite articles here, in Gillon (2006) I treat them as semantically and syntactically different from determiners.

28. Westerståhl (1984) also argues that the should be treated differently from the rest of the determiners (i.e., quantifiers) in that it should be treated simply as domain restriction. In this work, I show that the must be more than simply domain restriction; some reference to uniqueness is required. Moreover, I argue that the is a determiner, and that quantifiers belong to a different domain.
I have argued that determiners in Skwxwú7mesh have domain restriction in their representations. I also argued that they share this property with English the and extended this to all languages with overt determiners. But what about quantifiers? Do they also have domain restriction in their representations?

In Section 3.5, I argued that Skwxwú7mesh quantifiers do not have domain restriction in their denotation. This is because quantifiers and determiners can co-occur. What does this tell us about English?

There are three possible analyses of English. First, English could be significantly different from Skwxwú7mesh (and other languages) in that it conflates the D and Q positions into one head (as argued by Szabolcsi 1994). Secondly, English could have the same structure as Skwxwú7mesh; that is, it could have both Q and D heads, and the D head could introduce domain restriction. The third potential analysis is somewhere in between: some quantifiers could be conflated, while others could not.

I provide data below that suggests that the first analysis is unlikely. There is indirect evidence that some English quantifiers co-occur with a null determiner in some contexts (see Matthewson 2004 for this argument). However, it is difficult to determine if all quantifiers must behave this way.

In a very gross sense, quantifiers and determiners behave semantically similarly, in that they create arguments out of predicate NPs (at least on the surface) in English. However, on a much more subtle level, they do something quite different. The goal of this article is to elucidate the special semantics of the determiners. Here I show that quantifiers do not share the same position or the same semantics as determiners, even in English.

In many languages, quantifiers do not create arguments out of predicates (Matthewson 2001, 2004). Determiners, quantifiers, and demonstratives (or some subset) can co-occur with each other. If determiners create arguments out of predicates, then surely quantifiers cannot be doing this as well in these languages. Once the determiner has created an argument, the quantifier will not apply to a predicate.

Even in English, determiners and quantifiers behave semantically quite differently. Although Barwise & Cooper (1981) and others treat them as a unified category of functions of type $\langle\langle e, t \rangle, \langle\langle e, t \rangle, t \rangle \rangle$ (from sets to sets of sets), I make the distinction between quantifiers, which are functions of type $\langle e, \langle\langle e, t \rangle, t \rangle \rangle$ (from individuals to sets of sets), and determiners, which are functions of type $\langle\langle e, t \rangle, e \rangle$ (from sets to entities), or do not change the type at all (such as kwí).

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29. While most researchers treat quantifiers as being of type $\langle\langle e, t \rangle, \langle\langle e, t \rangle, t \rangle \rangle$, Matthewson (2001) argues that they are of type $\langle e, \langle\langle e, t \rangle, t \rangle \rangle$. See (68) for an example of how this would work.
In much of the traditional syntactic and semantic literature on English, what has been considered to be a determiner includes the set of all functional elements that can precede the NP within the nominal domain.

(61) a. I watched the/a/one/each/every/that swan swim across the lake.
    b. I watched the/two/those swans swim across the lake.

For example, Abney (1987) analyzes all of these elements (cardinal numerals, quantifiers, demonstratives, and articles) as occupying the same position: D.

(62) \[
\begin{array}{c}
  \text{DP} \\
  \text{D'} \\
  \text{D} \quad \text{NP} \\
  \{a, some, the, each, that\}
\end{array}
\]

However, I have shown that this cannot capture the data in Skwxwú7mesh. Here I extend to English the claim that determiners occupy a different syntactic position than quantifiers.

4.1 Evidence from the cardinal/proportional readings of weak quantifiers

I suggest that proportional quantifiers occupy a higher position than determiners do, as shown in (63a), and that cardinal quantifiers occupy an adjective position (63b)–(63c), following Partee (1987), who argues that unambiguously weak quantifiers are adjectival. (See also Giusti 1997 for more arguments that quantifiers occupy different positions.)

(63) a. \[
\begin{array}{c}
  \text{QP} \\
  \text{Q} \quad \text{DP} \\
  many \quad \text{D} \quad \text{NP} \\
  \emptyset \quad \text{children}
\end{array}
\]
    b. \[
\begin{array}{c}
  \text{NP} \\
  \text{AP} \quad \text{N} \\
  many \quad \text{children}
\end{array}
\]

\[
\begin{array}{c}
  \text{DP} \\
  \text{D} \quad \text{NP} \\
  the \quad \text{AP} \quad \text{N} \\
  many \quad \text{children}
\end{array}
\]

30. One reviewer rightly points out that the structure in (63a) predicts *many the children should be grammatical, contrary to fact. I assume that of is needed for some syntactic reason (see Matthewson 2004 for one potential syntactic reason). The need for of is not found in all dialects.
This analysis can account for two facts: (i) that (some) weak quantifiers can co-occur with determiners, and (ii) that cardinal quantifiers can occur in existential sentences, and proportional quantifiers cannot.

Most weak quantifiers can co-occur with the determiner *the*, demonstratives, possessors, and pronouns.\(^{31}\)

\[\begin{align*}
(64) & \quad \text{a. } D \quad Q \\
& \quad \text{Fred's many} \\
& \quad \text{the few dwarfs} \\
& \quad \text{those several} \\
& \quad \text{which} \\
& \quad \text{(Jackendoff 1977: 104)} \\
& \quad \text{b. } \textbf{We few} \text{ linguists have a lot of work to do.}
\end{align*}\]

Crucially, the determiner can co-occur with most weak quantifiers. This can be captured by the analysis in (65).

\[\begin{align*}
(65) & \quad \text{a. } DP \quad b. \quad DP \\
& \quad D \quad \text{NP} \\
& \quad \text{the} \quad \text{NP} \\
& \quad \text{AP} \quad \text{AP} \\
& \quad \text{few} \quad \text{several} \\
& \quad \text{dwarfs} \quad \text{dwarfs}
\end{align*}\]

When a weak quantifier occurs with a determiner, the determiner (as always) introduces domain restriction.

\[\begin{align*}
(66) & \quad \text{There were many giants, some dwarfs and a unicorn in the garden. The few dwarfs were trying to get my attention.}
\end{align*}\]

In the second sentence of (69), the dwarfs must be the same group of dwarfs introduced in the first sentence.

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of English; even in standard English, *most the time* is acceptable (Arthur Sullivan, p.c.). This suggests that the syntactic requirement is being lost.

\(^{31}\) There is at least one case where a strong quantifier can co-occur with a determiner:

\[\begin{align*}
(69) & \quad \text{a. } \text{The genie granted his every wish.}
\end{align*}\]

Not all weak quantifiers can co-occur with determiners or demonstratives:

\[\begin{align*}
(69) & \quad \text{b. } \textbf* \text{ The some elves left. (Jackendoff 1977: 104)}
\end{align*}\]
When a weak quantifier occurs without a determiner, demonstrative, possessor or pronoun, the weak quantifier is ambiguous between a proportional reading (translated into a partitive in (67ii)) and a cardinal reading (Milsark 1979).

(67) Many children ran around.
   i. There were many children who ran around. (cardinal)
   ii. Many of the (contextually salient) children ran around. (proportional)

Under the proportional reading, the quantifier quantifies over a contextually salient set of individuals; I argue that the contextual set is introduced not by the quantifier, but by D. This raises a problem of composition: the quantifier takes an element of type \( \langle e \rangle \) rather than the expected \( \langle e, t \rangle \). In (68), for expositional clarity I abstract away from the types and treat the DP as type \( \langle e, t \rangle \). Max has the same denotation as before, but here it returns a set instead of an individual. (However, see Matthewson 2001 for an analysis of quantifiers as elements of type \( \langle e, \langle (e), t \rangle \rangle \).) I continue to treat domain restriction as part of the denotation of the (null) determiner.

(68) \[
\begin{align*}
\text{Q}\text{P} & \lambda P \lambda Q \lambda y \left[|\text{child}'(y) \land C(y) \land Q(y)| > n\right] \\
& \lambda P \lambda Q \lambda y \left[|P(y) \land Q(y)| > n\right] Q \\
& \text{max}(\lambda x [P(x) \land C(x)]) \\
\text{D} & \ 	ext{NP} \lambda y \left[|\text{child}'(y)|\right] \\
\emptyset & \text{children}
\end{align*}
\]

In familiar contexts, only the proportional reading is available:

(69) There were many giants, some dwarfs and a unicorn in the garden.
    Few dwarfs were trying to get my attention. (proportional; *cardinal)

This can be explained if cardinal quantifiers lack the D position (and consequently domain restriction). Few dwarfs (cardinal) would be introducing a new referent. Similar to the bare noun facts, cardinal weak quantifiers cannot be used in familiar contexts.

The structure in (68) also allows us to understand why the proportional reading of weak quantifiers cannot be used in existential sentences. The null D position is associated with domain restriction and assertion of uniqueness. The existential sentence appears to be incompatible with the assertion of uniqueness.\(^{32}\)

\(^{32}\) I claim that the existential is incompatible with the assertion of uniqueness of the D position, rather than with the domain restriction, because in Skwxwú7mesh, the determiners (which I have already argued are associated with domain restriction) are licit in existential contexts:

(i) Tsí7 ta/kwa/ti/kwi shá7yu ná7 ta-n lám’.
  exist DET ghost be.there DET-1SG.POSS house
  ‘There’s a ghost in my house.’
(70)  a. There were **many** children in the garden. (cardinal)  
    b. # There were the **many** children in the garden.  
    c. # There were **MANY** children in the garden (proportional)  
    d. # There were **many of the** children in the garden.

*Many children* is ambiguous between a cardinal reading (which is licit in existential readings) and a proportional reading (which is not) (Milsark 1979). The proportional reading is semantically equivalent to a partitive construction, which is also illicit (70d). The proportional reading is, however, not equivalent to *the many X*, as can be seen in familiar contexts.

(71)  a. I saw children wandering in the halls. **The many** children were chewing gum.  
    b. I saw children wandering in the halls. **Many** children were chewing gum.

In example (71a), *the many children* refers to all of the children introduced in the previous sentence. However, in (71b), *many children* refers to a subset of the set of children introduced in the previous sentence. We therefore must distinguish between weak quantifiers in adjectival position, and those that are higher.

This is not evidence that the weak quantifier (when it has a strong reading) occupies a different position than a determiner, however. The weak quantifier, when it is not adjectival, could be in the head of D. This would be a conflated analysis of the Q and D heads. In the next section, I address the possibility of a conflated analysis, and show that it cannot be correct.

I argue that quantifiers in English can occupy a position above D (in which case they receive a proportional reading), or below D (in which case they receive a cardinal/adjectival reading).

(72)  a.  

   \[
   \begin{array}{c}
   \text{QP} \\
   \text{Q} \\
   \text{many} \\
   \text{DP} \\
   \text{D} \\
   \text{Ø} \\
   \text{NP} \\
   \text{children} \\
   \text{NP} \\
   \text{AP} \\
   \text{many} \\
   \text{N} \\
   \text{children}
   \end{array}
   \]

   b.  

   \[
   \begin{array}{c}
   \text{QP} \\
   \text{Q} \\
   \text{many} \\
   \text{DP} \\
   \text{D} \\
   \text{the} \\
   \text{NP} \\
   \text{children} \\
   \text{NP} \\
   \text{AP} \\
   \text{many} \\
   \text{N} \\
   \text{children}
   \end{array}
   \]

   c.  

   \[
   \begin{array}{c}
   \text{NP} \\
   \text{AP} \\
   \text{many} \\
   \text{N} \\
   \text{children}
   \end{array}
   \]

I argue that weak quantifiers can only be associated with a proportional reading if they take a DP complement.

There may be a confounding factor here (i.e., existential contexts in English may be different from existential contexts in Skwxwú7mesh). I leave this for further research.
The fact that weak quantifiers have two different meanings cannot be explained by claiming that quantifiers are associated with domain restriction. Weak quantifiers would have to be optionally associated with domain restriction. The analysis presented here allows us to understand this optionality: it is the optionality of the (covert) determiner, not the optionality of a covert semantic feature. The determiner position is already associated with domain restriction; no extra assumptions are required.

4.2 Evidence from domain restriction

I argue against a conflation analysis (cf. Szabolsci 1994) of quantifiers. Quantifiers, in the system developed here, do not occupy a D/Q position, but rather a Q position, separate from D. I claim that strong or proportional quantifiers attach above D.

Indirect evidence that (most) quantifiers cannot occupy a conflated Q/D position comes from Stanley & Szabó (2000). The evidence they present shows that the quantifier itself cannot be associated with domain restriction, and that the domain restriction must be located somewhere lower than the quantifier. They further argue that their evidence shows that the NPs themselves are associated with domain restriction.

Stanley & Szabó’s evidence that quantifiers themselves cannot be associated with domain restriction is given in (73).

(73) Most people regularly scream. They are crazy. (Stanley & Szabó 2000: 257)

There are two readings associated with the second sentence in (73): one where the pronoun they refers to all of the people in the domain (a certain village, for example), and one where it refers to those people in the village who regularly scream. Stanley & Szabó claim that this is evidence that people is associated with the domain restriction.

For the first reading, Stanley & Szabó claim that “there is no single node in the logical form whose associated semantic value is the set of people in the village” (2000: 257), if the domain variable is associated with most. If the nominal is associated with the domain restriction, however, there is a single node (the NP).

(74) a. QP b. QP
   Q   NP Q   NP
   most+C people most people+C

Stanley & Szabó also claim that the second reading cannot be captured by having domain restriction associated with most. They appeal to Neale’s (1990) analysis of they, where it is proxy for a description which is reconstructable from the logical form of the first sentence.
If \( x \) is a pronoun that is anaphoric on, but not \( c \)-commanded by a non-maximal quantifier \([Dx:Fx]\) that occurs in an antecedent clause \([Dx:Fx](Gx)\), then \( x \) is interpreted as \([\text{the } x: Fx\&Gx]\).

(Neale 1990: 266)

According to Stanley & Szabó, if the domain restriction is associated with \textit{most, they} should be interpreted as \([\text{the } x: \text{person}(x) \& \text{regularly-scream (x)}]\), which should mean everyone in the universe who regularly screams (rather than everyone in the village who regularly screams). They argue that the domain restriction must be associated with the NP instead.

However, if NPs themselves were to introduce domain restriction, we would expect bare nouns to also introduce domain restriction. Bare nouns do not seem to show the same sensitivity to the context as other nominals do. In the following example, the bare noun \textit{bears} does not refer back to the set introduced by \textit{some bears}. In the generic case in (76a), \textit{bears} must refer to all the bears in the world. In (76b) and (76c), \textit{bears} must introduce a new group of bears, which sounds strange following a discussion of the first group of bears without some notification of the change in topic.

(76) a. I saw some bears last night. They were wandering around Stanley Park. Bears like to hang around the park.
   b. I saw some bears last night. They were wandering around Stanley Park. # I shot bears.
   c. I saw some bears last night. They were wandering around Stanley Park. # Bears were eating garbage.

If I want to refer back to the original set of bears, I must use a determiner or demonstrative, as in (77).

(77) a. I saw some bears last night. They were wandering around Stanley Park. The/those bears like to hang around the park.
   b. I saw some bears last night. They were wandering around Stanley Park. I shot the/those bears.
   c. I saw some bears last night. They were wandering around Stanley Park. The/those bears were eating garbage.

If I want to introduce a new set of bears, I must notify the hearer by using a partitive (78b).

(78) a. I saw some bears last night. They were wandering around Stanley Park. I shot some other bears.
   b. I saw some bears last night. They were wandering around Stanley Park. Some other bears were eating garbage.

Breheny (2003) also argues on independent grounds that nouns cannot introduce domain restriction.
(79) Every fake philosopher is from Idaho. (Breheny 2003, cited in Kratzer 2004)

Let the domain for the DP every fake philosopher be the set of Americans. The sentence in (79) may only get the interpretation in (80a). However, if the domain restriction is associated with the noun itself, the sentence should get the interpretation in (80b). This is an impossible interpretation.

(80) a. Every American fake philosopher is from Idaho.
    b. Every fake American philosopher is from Idaho.

Stanley & Szabó’s (2000) analysis cannot be correct. The contextual restriction must be introduced by some higher functional projection than the NP. I argue that this position is D.33

The intersection of the sets fake and philosopher will give the set of all fake philosophers; only then can domain restriction apply, giving the set of all fake philosophers in the domain (here, American). Thus, only the (correct) interpretation of ‘every American fake philosopher’ can be obtained.

My analysis of Skwxwú7mesh determiners and quantifiers can also be used to solve the problem introduced by Stanley & Szabó (2000). For the first reading of (73) (Most people regularly scream. They are crazy., where they refers to all of the villagers), we need a single node whose associated semantic value is the set of villagers.

33. Kratzer (2004) argues that quantifiers could not be associated with domain restriction since languages never appear to have overt domain restriction. However, in Skwxwú7mesh the determiners are overt domain restrictors.
This single node must be DP: I have already shown that the D position is associated with domain restriction in both English and Skwxwú7mesh.

\[(83)\]

\[
\text{QP} \quad \text{Q} \quad \text{most} \quad \text{DP} (= \text{the set of people in the village/in C}) \quad \text{D} \quad \text{NP} \quad \text{people}
\]

Similarly, the second reading (where *they* refers to the villagers who regularly scream) can be solved by the presence of a D position. The (as in \([\text{x: Fx&Gx}]\)) is precisely the element which contains domain restriction under the approach presented here. The structure provided in (83) accounts for this second reading, assuming that *they* is determined as in (75).

This argument also applies to weak quantifiers, such as *many*:

\[(84)\] Many people regularly scream. They are crazy.

The second sentence in (84) is ambiguous in the same way that (73) is. Stanley & Szabó (2000), then, provide us with evidence that domain restriction involves a lower head than Q, but not necessarily the noun itself. Since the nominal can independently be shown not to be associated with domain restriction, we are forced to assume a null D position, which is itself associated with domain restriction. In the case of strong quantifiers, this null D must be obligatory; however, with weak quantifiers, only the proportional reading would be associated with a D position.

\[(85)\]

\[
\text{a.} \quad \text{QP} \quad \text{Q} \quad \text{most} \quad \text{DP} \quad \text{D} \quad \text{NP} \quad \text{people} \\
\text{b.} \quad \text{QP} \quad \text{Q} \quad \text{many} \quad \text{DP} \quad \text{D} \quad \text{NP} \quad \text{people} \\
\text{c.} \quad \text{NP} \quad \text{AP} \quad \text{many} \quad \text{N} \quad \text{children}
\]

This is contra von Fintel (1994), who claims that no weak quantifiers introduce C.\(^{34}\) The analysis of strong quantifiers in (85a) explains why quantifiers and determiners co-occur in some languages; the position is always available.

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\(^{34}\) Strictly speaking, I agree with this. However, I claim that *no* quantifiers restrict the domain by themselves.
Matthewson (1998) argues that only a subset of quantifiers occupy D, and it is those quantifiers which also introduce domain restriction. Here I argue that no quantifiers introduce domain restriction, because none of them occupy D.

4.3 The (lack of) evidence for every

I have argued above that weak quantifiers (like many) take DP complements when they are interpreted proportionately. I have also argued that at least strong quantifiers (like most) also (obligatorily) take DP complements. However, there is a lack of evidence for some strong quantifiers that they occupy a different position from D (like every). Some languages do distinguish between the equivalent of every and the D position:

(86) Greek:
\[
\begin{array}{c}
\text{D} \\
\text{Q} \\
\text{to} \\
\text{kathe} \\
\text{pedhi} \\
\text{DET.ACC} \\
\text{every child} \\
\text{‘every child’}
\end{array}
\quad (\text{Szabolcsi 1994: 213})
\]

It is therefore possible that English does this as well, covertly.

Matthewson (2001) argues that every in English is not itself quantificational and occupies D. In Matthewson (1998), she argues instead that every conflates D and Q. I argue for the strongest hypothesis, that every does not occupy D, and co-occurs with a D position.

5. Conclusion

In this article, I have addressed the myth that determiners are always markers of definiteness (Lyons 1999). I have argued that definiteness is not a universal feature of determiners, based on the different behaviour of determiners in English and Skwxwú7mesh. I have also shown that, despite overt differences between the determiner systems of English and Skwxwú7mesh, determiners in both languages share one property in common: domain restriction. Further, I have argued that the

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35. I treat of as meaningless, introduced for syntactic reasons. However, Giannakidou (2004) argues that of is meaningful.

36. The only way to maintain the claim that determiners are definiteness markers is to claim that Skwxwú7mesh determiners are in fact something else. This seems to be an undesirable result, as they perform similar functions to determiners in English.
behaviour of English *the* can be explained in terms of its uniqueness requirement and domain restriction, and that the behaviour of the determiners in Skwxwú7mesh is due to a lack of uniqueness requirement. That is, definiteness is not a feature at all, but merely the result of the interplay between other factors. On the basis of the behaviour of determiners in these two languages, I speculate that all determiners cross-linguistically are associated with domain restriction.

Another way to look at domain restriction is to say that determiners universally anchor their referents to the discourse. In this way, they do have a universal “feature”: domain restriction or discourse anchoring.

I argue that only elements which occupy D and have domain restriction in their denotations are determiners. I provided indirect evidence that quantifiers do not occupy D, even in English. I claim that only elements which are constrained by the context in a very particular way can be called determiners. I make the strong claim that D is sensitive to the context and that nothing else is:

\[(87)\]

1. If a nominal is introduced by a determiner (overtly or covertly), it will be restricted by C.
2. If a nominal lacks a (covert or overt) determiner, it will not be restricted by C.

Bare nouns are not restricted by the domain because they lack a determiner. Only quantifiers under a cardinal reading, indefinite nominals, and bare nouns lack a determiner, which in turn means they lack domain restriction. Weak quantifiers under a proportional reading, strong quantifiers, and full DPs include a D position.\[37\]

\[37.\] I have not addressed demonstratives here; however, they too require a separate D position:

\[(i)\]

This position is null in English and Skwxwú7mesh, but pronounced in many other languages, including Romanian (Giusti 1993), St’át’imcets (Matthewson 1998), and Colloquial Norwegian (Cheng & Sybesma 1999). I follow Bernstein (1997) and Rosen (2003) in assuming the structure in (i).
(88) a. Strong/proportional Q:    b. Cardinal Q/indefinite:

\[
\begin{array}{ll}
\text{QP} & \text{QP} \\
\text{Q} & \text{Q} \\
\text{DP} & \text{NP} \\
\text{D} & \text{NP}
\end{array}
\]

c. Full DP:    d. Bare noun:

\[
\begin{array}{ll}
\text{DP} & \text{NP} \\
\text{D} & \text{NP}
\end{array}
\]

I therefore argue for the special status of the D position, not only in Skwxwú7mesh, but in English as well. I argue that determiners occupy a different position from quantifiers and demonstratives and that a vocabulary item is a determiner if and only if it occupies D.

It is clear that definiteness, as it is known in English, is not a universal feature. Skwxwú7mesh determiners behave quite differently from those in English. The data in Skwxwú7mesh also provide us with evidence for a third category: definite, indefinite, and non-definite. Non-definites can be used in both novel and familiar cases, but behave much like definites in familiar contexts.

As I have defined definiteness in this article, if the denotation of a determiner asserts uniqueness, it is a definite determiner. This, and only this, gives a truly definite interpretation. Other languages that have “definite” determiners need to be examined more carefully to determine whether they truly involve uniqueness.

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References


On the presence versus absence of determiners in Malagasy

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This article explores definiteness as expressed by the determiner system of Malagasy. In particular, noun phrases with and without an overt determiner are compared in terms of familiarity, uniqueness, and other semantic notions commonly associated with definiteness. It is shown that the determiner does not uniformly signal definiteness (as typically understood) and that bare noun phrases can be interpreted as either definite or indefinite. The determiner instead signals the familiarity of the discourse referent of the DP and the absence of a determiner signals a non-familiar DP. In certain syntactic positions, however, where the determiner is either required or banned, the interpretation of DPs is undetermined.

1. Introduction

Much of the literature on determiners assumes that they encode (in)definiteness. Lyons (1999) goes so far as to claim that what has been called Determiner Phrase in the literature is in fact a Definiteness Phrase. In this article, however, I examine the distribution and interpretation of one determiner in Malagasy, a Western Austronesian language, and show that these data call into question the connection between determiners and definiteness.1 This language has what appears to be a dedicated definite determiner (ny) and also licenses bare arguments (noun phrases with no overt determiner). Although traditional descriptions claim the determiner encodes definiteness and that the lack of a determiner encodes indefiniteness, it is possible to show that the standard notions of definiteness (familiarity and uniqueness) cannot account for the full range of data. Instead, the so-called definite determiner only signals the familiarity of the discourse referent, but even this

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1. I am by no means the first linguist to question this connection. See for example Matthewson (1998) and Gillon (2006, this volume).
semantic property can be overridden in certain syntactic contexts. In particular, if the determiner is required in a particular position (e.g., the subject position), then the noun phrase can be interpreted as familiar or non-familiar. Similarly, if the determiner is not permitted in a position (e.g., the object of certain prepositions), then the noun phrase can be interpreted as familiar or non-familiar.

2. Background

Malagasy is well known for its rather rigid VOS word order and also for the definiteness restriction in the subject position. In particular, traditional grammars and linguistic descriptions claim that the subject must be definite (i.e., it must be a pronoun, a proper name, or a noun phrase headed by a determiner or demonstrative). Hence the contrast in (1):2

(1) a. Lasa ny mpianatra.
    gone det student
    ‘The student(s) left.’

b. *Lasa mpianatra.
    gone student
    ‘Some students left.’ (Keenan 1976: 252–253)

2. Unless otherwise indicated, all Malagasy data are from my own notes.

Nouns in Malagasy are number neutral—plural marking is only overt in the demonstrative system.

The following abbreviations are used:

1 first person   FOC focus
2 second person  GEN genitive
3 third person   NOM nominative
ACC accusative   NUM numeral
ADJ adjective    P preposition
AT actor topic   PL plural
CT circumstantial topic POSS possessor
DEF definite determiner Q quantifier
DEM demonstrative SG singular
DET determiner   TOP topic

Throughout I use standard Malagasy orthography—note that the apostrophe and the hyphen are orthographic conventions that occur, for example, in instances of genitive case.
More recently, however, Law (2006) points out that it is possible to find examples where the subject is not definite, despite the presence of the determiner *ny*. The examples in (2) and (3) illustrate noun phrases that are headed by the determiner *ny*, but from the translations, the noun phrases are not definite (see Section 5 for more conclusive evidence against definiteness).4

(2) Ka nandrositra sady nokapohiko ny hazo…
then AT.run-away and TT.hit. 1SG(GEN) DET tree
‘Then I ran away and hit a tree…’ (Fugier 1999: 17)

(3) Tonga teto ny ankizy anakiray izay.
arrive here DET child one DEM
‘A (certain) child arrived here.’ (Dez 1990: 254)

Objects, on the other hand, can either be “bare” (4a) or have a determiner (4b).5

(4) a. Tia boky frantsay aho.
like book French 1SG(NOM)
‘I like French books.’

b. Tia ny boky frantsay aho.
like DET book French 1SG(NOM)
‘I like French books.’ (Rajaona 1972: 432)

Note that in this example, the difference in meaning is not obvious, which again calls into question the labelling of *ny* as a definite determiner—I will return to the difference between (4a) and (4b) in Section 7.

Based on these examples, the questions that arise are: first, what is the semantic content of *ny*? And second, what happens when *ny* is absent? Traditional grammars

3. It is important to note that *ny* is compatible with definiteness (speakers often translate examples of *ny* with a definite determiner in French or English), but it does not always encode definiteness, as will be shown in detail throughout this article.

4. Note that in the second clause of (2) the subject is a thematic object—promoted to subject via voice alternations. As has been long noted in the literature, however, so-called voice in Malagasy is not the same as English passive and therefore the translations remain active. Keenan & Manorohanta (2001) show that in text counts, active and passive are equally prevalent. Pearson (2005) argues that the subject position is an A-bar position. Rasolofo (2006) claims that the passive is an inverse construction and is used to signal the increased topicality of the thematic object. In (2), however, it is not clear in what sense *ny hazo* ‘a tree’ is topical.

5. Zribi-Hertz & Mbolatianavalona (1999: 186) claim that the definite determiner *ny* is barred from the object position (unless required to license a modifier). They propose that there is a null determiner that is in complementary distribution with *ny*. I have never worked with a speaker with this restriction; nevertheless I, too, will argue for null determiners.
and generative linguists (myself included) have assumed that *ny* marks definiteness or specificity and that its absence indicates indefiniteness. Based on data such as (2)–(4), the present article questions these assumptions and attempts to find the semantic correlates of determiners in Malagasy.

The organization of this article is as follows. In Section 3, I first provide a basic description of the determiners and demonstratives in Malagasy. Section 4 presents a discussion of definiteness and some of the definitions that have been proposed in the literature. Sections 5 and 6 illustrate the distribution and interpretation of noun phrases with and without a determiner, respectively, and I show the standard definitions of definiteness fail to account for the Malagasy data. Section 7 provides an analysis and Section 8 concludes.

3. Determiners and their kin in Malagasy

Before turning to the issue at hand, I provide an overview of the various kinds of determiners and demonstratives found in Malagasy. Traditional grammars list the following determiners:

(5) a. *ra, i, andria, ry* – for proper names  
   b. *ilay* – determiner for previously mentioned entities (usually singular)  
   c. *ny* – definite/specific determiner (unmarked for number)

(6) Tonga i Koto / ry Rakoto.  
   arrive *det* Koto / *det* Rakoto  
   ‘Koto/The Rakoto family arrived.’ (Dez 1990: Ex. 21, 29)

Given the head-initial nature of Malagasy, determiners all occur pre-nominally. The head noun immediately follows the determiner, and other modifiers follow, as schematized in (7) (see Ntelitheos 2006).

(7) *NP-internal order:*

   *det*/*dem* + *N* + *poss* + *adj* + *poss* + *num* + *q* + relative clause + *dem*

(8) a. *ny satroka fostin’ny lehilahy*  
    *det* hat *white* *det* man  
    ‘the man’s white hat’

b. *ny alika kely fotsy tsara tarehy anankiray*  
    *det* dog small white good face one  
    ‘one small white pretty dog’ (Dez 1990: 105)

As well as occurring with nouns, determiners can also combine with other categories to create a noun phrase. In (9a), we see the determiner with an adjective, and in (9b) a verb.
On the presence versus absence of determiners in Malagasy

(9) a. Nahalala ny tsara sy ny ratsy i Adama sy Eva
cause.know DET good and DET bad DET Adam and Eve
‘Adam and Eve knew good and evil.’

b. Tsara ny nataony.
good DET TT.do.3(gen)
‘What he did was good’ (Rahajarizafy 1960: 101)

Ntelitheos (2006) argues that examples such as these are relative clauses, headed by a null N.

Although the focus of this article is determiners, I will briefly mention the demonstrative system. We can see in Table 1, based on Rajemisa-Raolison (1971: 53), that this system is highly complex, encoding six degrees of distance and invisible versus visible.

Table 1. The demonstrative system of Malagasy

<table>
<thead>
<tr>
<th>Visible</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>No distance</td>
<td>ito/ity</td>
<td>ireto</td>
</tr>
<tr>
<td>Very close</td>
<td>io</td>
<td>ireo</td>
</tr>
<tr>
<td>Small distance</td>
<td>itsy</td>
<td>iretsy</td>
</tr>
<tr>
<td>Big distance</td>
<td>iroa</td>
<td>irooa</td>
</tr>
<tr>
<td>Very big distance</td>
<td>iry</td>
<td>iery</td>
</tr>
<tr>
<td>Extreme distance</td>
<td>iny</td>
<td>ireny</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Invisible</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>No distance</td>
<td>izato/izaty</td>
<td>izareto</td>
</tr>
<tr>
<td>Very close</td>
<td>izao/izay</td>
<td>izareo</td>
</tr>
<tr>
<td>Small distance</td>
<td>izatsy</td>
<td>izaret sy</td>
</tr>
<tr>
<td>Big distance</td>
<td>izaroa</td>
<td>izareroa</td>
</tr>
<tr>
<td>Very big distance</td>
<td>izary</td>
<td>izarery</td>
</tr>
<tr>
<td>Extreme distance</td>
<td>izany</td>
<td>izareny</td>
</tr>
</tbody>
</table>

In terms of distribution, demonstratives “frame” the NP—in other words, they appear at the beginning and at the end, much like a phrasal circumfix.

(10) Ento any io olona ratsy fanahy io.
take-away.IMP there DEM person bad spirit DEM
‘Take over there this mean person.’

(Rajemisa-Raolison 1971: 54)

Certain demonstratives can take on the role of determiners. For example, ireo [visible, plural, undefined distance] acts like the plural counterpart of ilay (the determiner for previously mentioned entities) when it appears on its own (ii). Thus ilay, although traditionally unmarked for number, has come to indicate singular.

(11) Tokony hitandrina ireo zaza milalao amin’ny arabe…
should AT.be-careful DEM child AT.play P DET street
‘The children playing in the street should be careful…’

(Rajemisa-Raolison 1971: 54)
Dahl (1951: 256) claims that the determiner *ny* is historically related to the proximal demonstrative *ini* that is found in related languages such as Malay. This historical connection between a determiner and demonstratives is very common cross-linguistically—Lyons (1999: 105) claims that definite articles almost always arise from demonstratives. I therefore consider a demonstrative to be a plausible historical source for *ny*.

Before concluding this brief survey of the noun phrase in Malagasy, I note that all quantifier-like elements in Malagasy are positioned after the head noun and after a genitive possessor or adjective. Thus they pattern distributionally with modifiers rather than determiners. In (12), I show the position of *rehetra* ‘all’ and *sasany* ‘some’.

(12) a. Hitako ny tranon-dRabe rehetra
TT.see.1sg(gen) det house.gen.Rabe all
‘I saw all Rabe’s houses.’

b. Novangiako ny zazakely marary rehetra
TT.visit.1sg(gen) det child sick all
‘I visited all the sick children.’

c. Efa lasa ny mpianatra sasany.
already gone det student some
‘Some of the students have already left.’

The above data show that Malagasy has dedicated determiner-like elements that appear in a fixed position (prenominal) within the noun phrase. In the next section, I provide an overview of determiners in general, and their semantic and syntactic roles. In Sections 5 and 6, I return to the Malagasy determiner *ny* and discuss it in more detail (I will focus on this determiner and leave the other determiners and the demonstratives for future research).

4. **What are determiners?**

Determiners are commonly assumed to play two key syntactic and semantic roles: as the head of a noun phrase and as the indicator of definiteness. The goal of this section is to describe some of the definitions of definiteness that have been proposed in the literature. In subsequent sections, I explore how Malagasy fits with the standard definitions.

As noted in the introduction to this volume, many syntacticians analyze nominal arguments as DPs rather than NPs. That is, noun phrases are in fact projections of the head D (for determiner), whose complement is NP. This line of thinking typically assumes that the determiner turns an NP into an argument, in other words, into
something that the syntax can manipulate. Along with this syntactic analysis is a semantic parallel: nouns (and noun phrases) are considered to be predicates, type \( (e, t) \), and the addition of a determiner creates an entity, type \( (e) \).

As also noted in the introduction, determiners are typically taken to encode (in)definiteness. Definiteness has long been discussed in both the linguistic and philosophical literature and remains the subject of much debate. I limit myself here to a very brief overview of some of the recurring themes that arise in analyses of definiteness, following closely the description in Lyons (1999: 1–13). Simplifying his discussion, definiteness can be seen to indicate either familiarity or uniqueness (or both). Lyons uses “identifiability” rather than familiarity, but the two notions are similar, and he defines it as follows:

(13)  *Familiarity/Identifiability:*

The use of the definite article directs the hearer to the referent of the noun phrase by signaling that he [the hearer] is in a position to identify it.

(Lyons 1999: 5–6)

Uniqueness (“inclusiveness” for Lyons) can be described as:

(14)  *Uniqueness/Inclusiveness:*

The reference is to the totality of the objects or mass in the context which satisfy the description.

(Lyons 1999: 11)

As Lyons points out, some uses of the definite determiner in English show familiarity (and not uniqueness), while others show uniqueness (but not familiarity). He nevertheless proposes that definiteness is the grammaticalization of familiarity and can develop other uses (as is typical with grammatical categories).  

A third notion that has been connected to definiteness and determiners is domain restriction (Westerståhl 1984; von Fintel 1999, inter alia). It is well known that quantifiers typically do not quantify over the entire domain (the world), but rather are sensitive to the context. For example, in (15), *every freshman* is not used to refer to all the freshmen in the world, but instead to the freshmen in a contextually relevant domain.

(15)  *Every freshman is from out of state.*  

(von Fintel 1999: 3)

This is also true for other DPs, such as *the freshmen*, and Westerståhl (1984) claims that the determiner *the* is itself domain restriction. Gillon (2006, this volume) develops this line of analysis and argues that determiners in Salish introduce

6.  Kehler and Ward (2006) look at the English data from a slightly different perspective and claim that the failure to use a definite noun phrase (e.g., the use of *a dog over the dog*) conversationally implicates nonfamiliarity.
domain restriction and that they are associated with implicature of uniqueness; in English, on the other hand, *the* introduces domain restriction, but in addition, it asserts uniqueness. Moreover, she claims that familiarity can be derived from domain restriction plus the uniqueness assertion (in English). In fact, one of Gillon's central claims is that cross-linguistically determiners always introduce domain restriction.

Taking the above discussion as our guide, we can ask whether determiners in Malagasy play a key role in creating arguments from predicates, whether they encode definiteness (familiarity, uniqueness, domain restriction), and whether their absence signals indefiniteness. I should point out here that Massam, Gorrie & Kelner (2006) explore the Niuean determiner system and show that no one group of morphemes in this language plays the role of determiner, as we understand it. Instead, the case+article particles are the top-level category within noun phrase that ensures referentiality or argumenthood, while the quantifiers encode notions such as backgrounding and focus, rather than definiteness. Thus any study of determiner-like elements in a particular language must be open to the presence of novel meanings and uses, as well as language-specific division of labour.

I show in the next section that the Malagasy determiner *ny* does not encode uniqueness but it does presuppose familiarity.

5. Malagasy determiners

This section explores the Malagasy determiner *ny*, in particular its semantics. The properties of the other determiners (in particular, the determiner *ilay*) and the demonstratives await further research. To avoid confusion, I will refer to noun phrases that have the determiner as DPs and those without as bare nominals. Whether bare nominals are headed by a null D⁰ or are in fact D-less (i.e., NPs) is an issue I turn to directly.

5.1 Syntax

Is the determiner required for argumenthood in Malagasy? We have already seen that arguments do not need to have a determiner, and I provide more examples in (16), where the complements of the verbs are bare nominals.

(16) a. Manolotra penina izy.
   at.offer pen 3(nom)
   ‘She offers a pen.’

b. Rakofana kopy ny tsaramaso.
   tt.cover cup det bean
   ‘The beans are covered with a cup.’
I argue that bare nominals are headed by a null determiner; in other words, Malagasy does not permit NP arguments.

In the syntactic literature, null heads are often analyzed as elements that need to be licensed in some particular way. For example, null complementizers have a limited distribution and therefore are argued to have special licensing requirements. As is well known, the complementizer in English is obligatory in sentential subjects.

(17)  
\begin{enumerate}
  \item People widely assume (that) politics is corrupting.
  \item *(That) politics is corrupting is widely assumed.
\end{enumerate}

Whether this licensing is via government or some other means (e.g., Landau 2007 claims that the Extended Projection Principle (EPP) is a PF constraint that requires the head—here C⁰—to be overtly realised), the generalization appears to be true. Similarly, the restricted distribution of so-called bare nouns in Romance languages has been linked to the licensing requirements of the null determiner (Contreras 1986). With this background in mind, I now turn to the Malagasy data.

First recall that bare nominals in Malagasy (DPs without a determiner or demonstrative) are rather limited in distribution in Malagasy. As discussed by Keenan (1976: 253), they are barred from the subject position and, moreover, they are usually absent in positions marked by genitive case (e.g., the non-active agent and the complement to certain prepositions). They are therefore acceptable in three positions: direct object (18a), predicate (18b), accusative object of a preposition (18c).⁷

(18)  
\begin{enumerate}
  \item Mividy boky aho.
    \text{at.buy book 1sg(nom)}
    \text{‘I am buying a book/books.’}
  \item Vorona ny goaika
    \text{bird det crow}
    \text{‘The crow is a bird.’}
  \item Ampirimo ao an'efitra ny kitaponao.
    \text{put-away there p.room det bag.2sg}
    \text{‘Put your bag away in the room.’}
\end{enumerate}

As a second restriction, bare nominals (unlike DPs) are not permitted in displaced positions. For example, bare nominal objects cannot scramble: in (19) the DP \text{ny ankizy ‘the children’} can scramble rightwards past the adverb \text{matetika ‘often’}, while in (20), scrambling of the bare nominal \text{ankizy ‘children’} is impossible (Rackowski 1998; Rackowski & Travis 2000).

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⁷. It might be possible to conflate (18a) and (18c) as both being instances of a bare nominal in an accusative case position.
This restriction on movement also rules out bare nominals from appearing in the topic position, as in (21a):

(21) a. * Bibilava dia mikisaka.
    snake TOP at.crawl
    ‘Snakes crawl.’

b. Bibilava no mikisaka.
    snake FOC at.crawl
    ‘It is snakes that crawl.’

Bare nominals can appear in the focus position (21b), but it has been argued that this is not an instance of focus movement—the bare nominal is in fact the matrix predicate (Paul 2001). And we have already seen that predicates (not surprisingly) can be bare (see (18b)).

Thus the distribution of bare nominals is not free, much like the distribution of sentential subjects without the complementizer. Generalizing from this restricted distribution, I conclude that bare nominals are not truly bare: there is a null determiner, and it is this null determiner that limits the distribution of the DP. Moreover, determiners are not permitted in the predicate position (with some minor exceptions). Therefore the data suggest that in Malagasy, truly bare nominals are predicates (and therefore are NPs). In order to act as an argument, a noun must combine with a determiner (null or overt). We now turn to the semantics of the overt determiner—I will discuss the null determiner in Section 6.

Note that this conclusion conflicts with Gillon (2006, this volume). As we will see, bare nominals do not introduce domain restriction, therefore, according to Gillon, they lack D. The existence of a null determiner is not crucial to the present analysis and perhaps more evidence could be found for or against such an element.
5.2 Ny

This section focuses on the determiner *ny* and its interpretation. I present data from DPs in different syntactic positions: subject, object of preposition, and direct object. We will see that the interpretation of *ny* appears to depend on its position in the clause.

5.2.1 Subjects

As mentioned earlier, *ny* is usually described as a specific or definite determiner, one that can also appear with generics, as in (22).

(22) Biby *ny* alika.
    animal det dog
    ‘The dog is an animal.’  (Domenichini-Ramiaramanana 1977: 67)

Many examples show familiar and unique readings (i.e., “definite”) for DP subjects. For example, the following sentence comes immediately after a context where the travellers are putting their bags into a canoe. Thus the DP *ny lakana* ‘the canoe’ in (23) is both familiar (previously mentioned) and unique (there is only one canoe in the context).

(23) Nisosa mora teny ambony rano *ny* lakana.
    at go-forward easy there on water det canoe
    ‘The canoe went gently forward on the water.’  (Ravololomanga 1996: 14)

But we have already seen that the determiner doesn’t always mark uniqueness or familiarity. Let us consider the following textual example, repeated from (2):

(24) Ka nandrositra sady nokapohiko *ny* hazo…
    then at run-away and tt hit.1sg(gen) det tree
    ‘Then I ran away and hit a tree…’  (Fugier 1999: 17)

Fugier claims that the referent of *ny hazo* ‘the tree’ is neither familiar (it need not be a tree that is salient in the discourse or context) nor is it unique (there could have been several trees). In other words, in (24) we have an example of a discourse-new argument headed by *ny*. Similarly, in the following example, the response in (25b) has a determiner, but the DP can be interpreted as indefinite (it doesn’t necessarily mean ‘I sold the five’).

(25) a. Firy *ny* vorom-bazaha lafonao?
    how many det bird-foreigner sold.2(gen)
    ‘How many ducks did you sell?’

b. Lafo *ny* dimy.
    sold det five
    ‘I sold five.’  (Dez 1980: 183)
    (lit. ‘The five were sold.’)

9. Bare verbs in Malagasy typically take the theme as an external argument (i.e., they are like Theme Topic marked verbs but without the voice morphology).
The response in (25b) is possible in a context where the person had ten ducks and sold an unspecified group of five (it is also possible in a context where there were only five ducks in total). Thus the referent of *ny dimy* ‘the five’ is not necessarily unique, but it does appear to be familiar (it refers to a subset of the ducks previously introduced). As we see in (25) and will see in several subsequent examples, if a referent is introduced into the discourse, a DP must refer to that referent (often giving rise to a partitive reading).

### 5.2.2 Objects of prepositions

Let us now look at DPs that are the object of a preposition—in particular, the preposition *amin*, which typically occurs with a DP.10 Once again, we see that the interpretation may be familiar and unique. The following sentence comes from a story called “The blue lake”, and the lake in question has already been mentioned in the text:

(26) *… tonga teo amin’ny farihy manga.*

‘… (they) arrived at the blue lake.’ (Ravololomanga 1996: 56)

But as with subjects, a DP in this position may also be interpreted as indefinite. This effect is illustrated in the following example, where the DP *ny sotro mahamay* ‘the hot spoon’ is the complement of the preposition *amin*.

(27) *…misy mpampiasa karany iray nandoro ny tava sy exist employer Pakistani one at.burn det face and ny fen’ny mpiasany tamin’ny sotro mahamay det thigh det worker.3(gen) with det spoon hot ‘… there is an Indo-Pakistani employer who burned his servant’s face and thigh with a hot spoon.*’ (Jedele & Randrianarivelo 1998: 20)

Again, the referent of this DP is neither familiar nor unique—the spoon has not been mentioned previously nor is it referred to again in the text. If there is a previously introduced DP in the discourse, however, the DP must refer back to it. Thus in (28), the DP in the second sentence is interpreted as partitive.

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10. There are some exceptions to this, but overwhelmingly the complement of *amin* occurs with a determiner/demonstrative. This is likely related to case: the complement of *amin* is in the genitive case and, as Keenan (2008a: 336) points out, text counts show that 94% of genitives are formally definite.

The reader will also note that the preposition *amin* is preceded by the locative element *teo* ‘there’. Most instances of locatives in Malagasy involve both a locative element and a preposition—we will see further examples in (36)–(38).
(28) Niditra ny vehivavy telo. Niresaka tamin’ny vehivavy iray aho.
  at.enter det woman three at.talk with det woman one 1sg(nom)
  ‘Three women entered. I talked with one of the women.’

Thus we see that DPs (when the grammatical subject or the object of a preposition) need not be familiar nor unique. But if a referent is in the discourse, the DP must be interpreted as part or all of that referent, that is, as familiar.

5.2.3 Direct objects

Turning to the object position, all of the textual examples I have found of DPs are both familiar and unique. For example, ny lefona ‘the spears’ in the following sentence was introduced in a previous paragraph.

(29) ... nitoraka ny lefona avy lavitra.
  at.throw det spear come far
  ‘... (they) threw the spears from afar.’ (Ravololomanga 1996: 38)

I have not been able to find textual examples of discourse-initial, non-familiar arguments that are headed by ny.11 When I construct such examples and ask speakers if they are acceptable at the beginning of a story or discourse, they reject them.

(30) a. Nisy mpanjaka nanorina ny lapa.
  exist king build det palace
  ‘There was a king who built the palace.’

b. Inona no vaovao? Nividy ny trano aho.
  what foc new buy det house 1sg(nom)
  ‘What’s new? I bought the house.’

Thus (30a) is only appropriate when the palace has been introduced, and the discourse in (30b) is only acceptable in a context where the house has already been discussed. In other words, DP objects must be familiar. On the other hand, it is easy to create situations that show that DPs in object position are not always unique. For example, in (31) ny akondro does not mean ‘the bananas’, but rather ‘some of the bananas’, a partitive reading.12

11. Rasolofo’s (2006) text-count analysis of narratives shows that 36% of DP objects are of low topicality: the antecedent to the referent occurs four or more clauses back in the text. I do not know if she found any truly non-familiar uses of DP objects, however, nor do I have examples that illustrate her “low topical” DPs. A complicating factor is the use of non-active verbal forms and hence the low numbers of object DPs overall.

12. The DP in (31) is interpreted as partitive without being overtly partitive. To express partitivities, Malagasy uses a complex structure with a preposition (much like English):

(i) iray amin’ny akondro
  one p det banana
  ‘one of the bananas’
(31) Nandeha tany an-tsena aho omaly ary nividy at.go there acc-market 1sg(nom) yesterday and at.buy voankazo. Nihinana ny akondro ny zanako fruit at.eat det banana det child.1sg(gen)
   (fa tsy nohaniny ny rehetra).
   (but neg tt.eat.3(gen) det all
   ‘I went to the market yesterday and bought fruit. My child ate (some of) the bananas (but not all of them).’

Thus DP objects must be familiar, as seen in (30), but they are not always associated with uniqueness, as we see in (31). I now turn to the scopal properties of DPs.

5.2.4 Scope

In a recent discussion of the so-called definiteness restriction on subjects, Keenan (2008b: 250) claims that subjects are only “definite” in that they presuppose existence and therefore always scope over negation.

(32) Tsy nandeha tany an-tsekoly ny mpianatra telo.
    neg at.go there acc-school det student three
    ‘Three students didn’t go to school.’
    * ‘It is not the case that three students went to school.’

Keenan shows that subjects take wide scope even when apparently indefinite (not previously mentioned, not an identified group). In (32), for example, the judgment is that the speaker is merely making a claim about some three students; these students need not be under discussion (see also Keenan 2008a).

I should point out here that ny doesn’t uniquely mark wide scope—the wide scope likely comes from the high structural position of the subject. As shown in (33), DP objects can take narrow scope.

(33) Izao aza aho mbola tsy nahazo ny akanjo now even 1sg(nom) still neg at.get det clothes
    mafana ho an-janako.
    hot for acc-child.1sg(gen)
    ‘Even now I still haven’t gotten (any) warm clothing for my child.’
    (Jedele & Randrianarivelo 1988: 132)

From the context (and from native-speaker judgments), it is clear in (33) that negation scopes over the object.13 Wide scope is of course possible, as seen in (34), where the object scopes over the adverb.

13. Example (33) may in fact be an instance of a non-familiar DP object. Given the context of the utterance, however (a discussion about money concerns), this could be an example of a “bridging definite”.

On the presence versus absence of determiners in Malagasy

Summing up, the determiner *ny* in Malagasy does not always indicate definiteness—in particular, DPs are not always unique nor familiar. The interpretation appears to depend on the syntactic position—subjects and objects of prepositions (where *ny* is obligatory) allow non-familiar, non-unique readings, while DP objects are familiar (but not necessarily unique). Moreover, although subjects take wide scope, wide scope is more likely a result of the position of subjects, rather than a property of the determiner. Outside of the subject position, DPs can take either wide or narrow scope.

5.3 Demonstratives

I return to demonstratives briefly, only because there are some demonstratives in Malagasy that can be used as determiners. Demonstratives are typically definite and also encode deixis (spatio-temporal context). As mentioned earlier, Malagasy demonstratives normally frame the NP, but certain ones can also be used in a determiner-like fashion (no framing). In these cases, even demonstratives can receive an indefinite interpretation, as seen in (35).

(35) … mahasarika azy kokoa ny maka sary *ireo*
    cause.attract 3(acc) most det take picture dem
    olona eo amin’ny fianinana andavan’andro.
    person there P det life everyday
‘… he is most interested in photographing people in daily life.’
    (Jedele & Randrianarivelo 1998: 14)

As is clear from the translation and from native speaker judgements, the meaning is simply ‘people’, not ‘these people’ or even ‘the people’. The indefinite reading of demonstratives appears to be limited to uses of *ireo* as a plural determiner.

A related use of demonstratives as indefinites can be seen in the following example, where the clausal subject is framed by the demonstrative *ity* ‘this’:

(36) …zary fidiram-bola ho an’ny olo-marobe teny
    become source-money for acc det person-many there
    amin’iny faritr’ i Manandriana-Avaradrano iny
    p dem area det Manandriana-Avaradrano dem
    ity fakana tany hosivanina any anaty rano ity
    dem taking earth tt.sieve there in water dem
‘… taking soil to sieve it in water has become a source of income for a great many people in the Manandriana-Avaradrano area…’
    (Jedele & Randrianarivelo 1998: 53)
This example is from the first sentence of a newspaper article about people looking for gold, so it provides the first mention of stealing dirt. This use of *ity* is cataphoric—it introduces a new entity that will be important in the remainder of the article. Note that colloquial English *this* has a similar use (Prince 1981). I set the study and analysis of demonstratives aside for future research.

6. The absence of determiners

In the preceding section, we saw that the presence of the determiner *ny* does not consistently signal a definite interpretation. We can now ask the opposite question: does the absence of *ny* consistently mark indefiniteness? In other words, is the null determiner indefinite? What I show in this section is that a bare nominal can be interpreted as definite or indefinite. Thus neither the presence nor the absence of determiners is strictly correlated with definiteness. As I did above, I begin by looking at the two positions where bare nominals occur: as the object of certain prepositions and direct object.

6.1 Object of preposition

In looking through texts, I have found many examples of a bare nominal that is the object of a preposition referring to a previously identified or contextually salient entity. One example is from a newspaper article about people sieving for gold. In the first clause, locked houses are mentioned (with a determiner); in the second clause the author refers to the same houses with a bare nominal.

(37) Lalina aza fa *ny tranon’olona mihidy* mihitsy no nisy
deepeven c DEThouseperson AT.lockindeed FOCexist
namoha, ka alaindry zalahy ny tany ao anaty *trano*
AT.openand TT.take.DET 2PL DETearththereinhouse
‘Even more seriously, locked houses had people breaking in; the scoundrels took the soil from inside the houses…’

(Jedele & Randrianarivelo 1998: 53)

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14. I call *anaty* ‘in’ a preposition, but it is in fact morphologically complex, made up of the preposition *an* and the noun *aty* ‘the interior’. The category of *an* is also not clear. It surfaces between locative elements like *eny* ‘there’, *co* ‘here’ and their complement and also productively creates locatives (e.g., *havia* ‘left’ → *ankavia* ‘to/on the left’). Abinal & Malzac (1988) list it as a preposition and compare it with *amin*, another all-purpose preposition; Dez (1980) follows this classification and claims that there are only two prepositions in Malagasy: *amin* and *an*. Given that *an* creates manner adverbs (e.g., *tselika* ‘nimble’ → *antselika* ‘nimbly’), it seems reasonable to classify it as a preposition.
In fact, looking through texts, it appears that the complement of the preposition *anaty* ‘in’ is typically a bare nominal, even if the referent of that noun is familiar or unique.\(^\text{15}\) The following sentence is from a story about two brothers who arrive at a lake, go up to the edge of the water and make a lot of noise.

(38) Voatabataba ny lalomena mpiandry farihy ka pass.noise det lalomena\(^\text{16}\) guardian lake and nisafaoka avy tany anaty rano lalina tany. rise.up come there in water deep there

‘The lalomena, guardian of the lake, was disturbed and rose up from the deep water.’ (Rajaobelina 1960, page numbers unavailable)

Here *anaty* ‘in’ is followed by *rano* ‘water’, a bare nominal despite being familiar (the previous sentences have mentioned the lake and the water) and unique.\(^\text{17}\) Of course, a bare nominal can also be indefinite (unfamiliar, not unique)—the following sentence is from the beginning of a story about four friends: Vo, Vy, Tro, and Lalo.

(39) Nitoetra tao anaty farihy avara-tanàna kosa i Tro. at.live there in lake north-town as.for i Tro.
‘Tro lived in a lake north of the town.’ (Rajaobelina 1960)

Here the lake is new in the discourse.

Elicited examples show the same effect: the object of *anaty* is typically bare and can be interpreted as familiar:

(40) Nandeha tany an-tsena aho ary nividy harona telo. at.go there acc-market 1sg(nom) and at.buy basket three Nametraka boky tao anaty harona aho. at.put book there in basket 1sg(nom)
‘I went to the market and bought three baskets. I put books in the baskets.’

The bare nominal *harona* ‘basket’ in the second sentence of (40) can be understood as referring to the baskets that I bought at the market.

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15. Here we have the reverse image of the preposition *amin: anaty* is overwhelmingly followed by a bare nominal, but a DP complement is also possible.

16. In the context of the story, *lalomena* means a large beast. In my dictionary (Abinal & Malzac 1888), the definition is “extinct pygmy hippopotamus”.

17. An anonymous reviewer asks if these examples of bare nominals are similar to the English bare definites (e.g., *in hospital*) (see Section 7.1). The textual examples I have found show a range of nouns (‘house’, ‘water’, ‘forest’, ‘bridge’, ‘car’), which suggests that the Malagasy examples are different. Moreover, elicited data show that any noun that is the complement of *anaty* can be interpreted as familiar (see for example (40)).
Thus Malagasy has two types of prepositions: ones that almost always select a DP (e.g., *amin*) and ones that almost always select a bare nominal (e.g., *anaty*). (In this way, the prepositions differ from the subject position, where bare nominals are prohibited.) In both cases, the noun phrase in question can be interpreted as familiar or non-familiar. As we will see in the next section, the familiar interpretation of bare nominals is not available in direct object position.

### 6.2 Direct objects

As mentioned in Section 2, direct objects in Malagasy can appear either with or without a determiner. Example (41), repeated from (4), shows the direct object as a bare nominal in (a) and a DP in (b).

\[(41) \quad \begin{array}{ll}
\text{a.} & \text{Tia } \text{boky frantsay } \text{aho.} \\
& \text{like book French 1sg(nom)} \\
& \text{‘I like French books.’} \\
\text{b.} & \text{Tia } \text{ny boky frantsay } \text{aho.} \\
& \text{like det book French 1sg(nom)} \\
& \text{‘I like French books.’} \\
\end{array} \quad (\text{Rajaona 1972: 432})
\]

Rajaona’s discussion of these examples does not immediately make clear what the difference in interpretation is. Looking at bare nominal objects in context, however, we see they are consistently non-familiar.

One potential counter-example comes from a newspaper article about cyclones: from the context (and the translation provided) it was all the streets that were blocked, but *arabe* ‘street’ is bare.

\[(42) \quad \begin{array}{ll}
\text{… sy nanapaka } \text{arabe mihitsy tany amin’io toerana io …} \\
& \text{and at.cut street absolutely there p dem place dem} \\
& \text{‘… and completely blocked the streets there in that area…’} \\
\end{array} \quad (\text{Jedele & Randrianarivelo 1998: 33})
\]

The apparently definite interpretation of *arabe* ‘street’ may, however, be a result of *mihitsy* ‘completely’ acting like an adverbial quantifier, binding the bare noun.

Working with speakers, however, it is clear that bare nouns cannot be used to refer to entities that have been mentioned in the preceding discourse.\(^\text{18}\) For

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\(^{18}\) Rasolofo (2006) examines the topic continuity of arguments in Malagasy folk tales and in elicited texts, and shows that in sentences where the object is a bare nominal, the referent has been previously mentioned (i.e., is familiar) in 18% of the instances. While much lower than newly introduced (non-familiar) uses of bare nominals, these results appear to show that bare nominals can be familiar. I found the following passage from one of the stories analyzed by Rasolofo:
example, the bare nominal *mananasy* ‘pineapple’ in (43b) cannot be used refer back to the previously mentioned pineapple in (43a).

(43)  a. Nahita *mananasy* naniry tery an-tsefatsefa-bato ilay zazavavy.
find pineapple grow there p-broken-rock def girl
‘The girl found a pineapple growing in the talus.’

                b. # Nandeha nanapaka *mananasy* izy.
go take pineapple 3(nom)
‘She went to get a pineapple.’

Similarly in (44b), the second mention of *sifaka* (a kind of lemur) is to a new group, not the four mentioned in (44a)—a partitive reading is not possible.

(44)  a. Nandeha tany an-ala aho omaly ary
at.go pst.there p-forest 1sg(nom) yesterday and
nahita sifaka efatra.
at.see lemur our
‘I went to the forest yesterday and saw four lemurs.’

             b. # Nanaraka *sifaka* aho.
at.follow lemur 1sg(nom)
‘I followed lemurs.’

If the noun itself is not mentioned, but is contextually salient, it is still not appropriate to use a bare nominal. For example, consider a context where I have lost my chicken and my neighbour knows this and utters the sentence in (45):

(45) Nahita *akoho* aho tamin’ny alina.
at.see chicken 1sg(nom) p det night
‘I saw a chicken last night.’

(i) Rehefa tonga teo amin’io *anana* maitso mavana sy
when arrive there p this plant green splendid and
maha te-hihinana io ny lakana, niteny tamin’ny
cause want-eat this det canoe pst.at.say pst.p det
mpivoy i Damo hijanona kely hitsongo *anana.*
paddler det Damo fut.at.stop little fut.at.gather plant
‘When the canoe arrived close to this green and appetizing edible plant, Damo ordered the paddlers to stop a minute to gather some.’ (Ravololomanga 1996: 18)

Here the second mention of *anana* ‘plant’ is a bare nominal, but is clearly familiar and receives a partitive reading—they will gather some of the plant. On the other hand, native speaker consultants routinely reject bare nominals in familiar contexts. I therefore take (i) to be an exception. Clearly more research is required.
The sentence in (45) is interpreted just like the English translation: my neighbour is simply telling me that she saw a chicken. It may turn out to be mine, but she is not in a position to say that it is. Summing up, the data show bare nominal direct objects to be non-familiar.

6.3 Body parts

I now mention some instances of bare nominals that are clearly interpreted as unique, but we will see that these are a special case. Keenan & Ralalaoheryivony (2000) discuss possessor raising in Malagasy, a very productive phenomenon where a body part (or other inalienable possession) surfaces as a bare nominal, such as nify ‘tooth’ in (46a) and kibo ‘belly’ in (46b).

(46) a. Fotsy nify Rabe.
white tooth Rabe
(lit. ‘Rabe is white tooth.’)
‘Rabe has white teeth.’

b. Marary kibo aho.
sick belly 1sg(nom)
(lit. ‘I am sick belly.’)
‘I am sick in the stomach.’ (Keenan & Ralalaoheryivony 2000: Ex, 4a)

As is clear from these examples, the bare noun is semantically definite—in particular these examples show uniqueness. The sentence in (46a) means that all of Rabe’s teeth are white, not one or some (it would be false if he had some teeth that were not white). Not surprisingly, these bare nouns can scope over negation:

(47) Tsy maty filoha ny firenana. Sitrana izy.
neg dead president det country cured 3(nom)
‘The country’s president didn’t die. She is cured.’

I set aside possessor raising here, given that the semantics of the bare nouns in this context arises from semantics of the construction as a whole (see Paul 2009 for some discussion).

6.4 Scope

When looking at examples with scope-bearing elements, bare nominals in Malagasy can take either narrow or wide scope, unlike (for example) bare plurals in English. We can see this variable scope in (48), where the bare noun alika ‘dog’ can either scope under the verb mitady ‘to look for’, as in (48a) or it can take wide scope, as in (48b).
\text{at:look-for dog 1sg(nom) or dog what or dog what} 
\text{‘I’m looking for a dog – any dog.’} 

b. Mitady alika aho – kely sy mainty ilay izy. 
\text{at:look-for dog 1sg(nom) small and black def 3(nom)} 
\text{‘I’m looking for a dog – it’s small and black.’} 

Similarly, in (49), we can see the variable scope of the bare noun boky ‘book’ with respect to the modal tokony ‘should’.

(49) a. Tokony hamaky boky ianao – na boky inona na boky inona. 
\text{should fut.at.read book 2sg(nom) – or book what or book what} 
\text{‘You should read a book—any book.’} 

b. Tokony hamaky boky ianao – “farihy manga” 
\text{should fut.at.read book 2sg(nom) – lake blue} 
\text{ny anarany. det name.3(gen)} 
\text{‘You should read a book—“Blue Lake” is its title.’} 

Bare nominals can also scope over negation: in (50a), we see that a bare nominal in the scope of negation introduces a discourse referent that can be referred to later by a pronoun (cf. (47)); (50b) shows a similar effect with a [+human] noun.

(50) a. Tsy namaky boky Rasoa. Sarotra loatra ilay izy. 
\text{neg at:read book Rasoa difficult too def 3(nom)} 
\text{‘Rasoa didn’t read a book. It was too difficult.’} 

b. Tsy nanam-bady dokotera aho satria nipetraka 
\text{neg at:have spouse doctor 1sg(nom) c at:live} 
\text{lavitra ahy izy. far 1sg(acc) 3(nom)} 
\text{‘I didn’t marry a doctor because he lived too far from me.’} 

Thus as far as scope is concerned, bare nominal direct objects in Malagasy behave like indefinites.

6.5 Summary

This section has provided an overview of the distribution and interpretation of the lack of the determiner, and it appears that the absence of a determiner does not always signal indefiniteness. Instead, bare nominals can be interpreted as either
definite or indefinite. But such flexible interpretation is limited to positions where the bare nominal is required (e.g., the complement of anaty ‘in’) — otherwise bare nominals are interpreted as non-familiar. These results fit with what we saw in Section 5, where nouns headed by determiners can also be interpreted as either definite or indefinite.

7. Discussion and conclusion

In this section, I consider the Malagasy data from a broader perspective and look at mismatches between form and meaning in other languages.

7.1 Comparisons with English

At first glance, the Malagasy facts look similar to the English data discussed by Stvan (1998) and Carlson & Sussman (2005). In particular, Stvan analyses bare singular count nouns that show up in “unexpected” positions, such as those in (51).

(51) a. School is not in session.
   b. I’ve left town.
   c. She spent time in prison.

In these cases, the bare noun can be interpreted as definite, much like we have seen with certain examples in Malagasy. Carlson & Sussman (2005) examine so-called indefinite definites:

(52) a. Sandy went to the store.
   b. I’ll read the newspaper.

They show that these apparent definites can have a weak/indefinite reading, again similar to what we saw for subjects in Malagasy.

It would nevertheless be a mistake to draw too close a connection between the English and Malagasy data. In particular, the English examples are well known to be limited in distribution. Only certain nouns are permitted in the bare singular count noun cases, and only certain verbs and prepositions license bare nouns. Indefinite definites are similarly lexically and positionally restricted. In Malagasy, on the other hand, any noun can be bare and any noun can be in a DP in the subject position. Moreover, unlike the English bare singular nouns in (51), bare nominals in Malagasy may be modified freely.

There are, however, Malagasy examples that are similar to the English bare singulars; that is, bare nominals in direct object position that get a familiar interpretation. Like the English data, these appear to be lexically restricted: while kintana ‘star’ (53a) and volana ‘moon’ (53b) are possible, filoha ‘president’ can only receive a non-familiar interpretation (53c).
Recall the possessor raising data, which also are lexically restricted. Thus the English data and the Malagasy data in (53) appear to merit a construction-specific analysis, while the Malagasy data that have been the focus of this article are more systematic and require a different analysis.

### 7.2 Effability

The analysis of the Malagasy determiner *ny* that I propose is that it uniformly encodes familiarity. Familiarity accounts for the fact that if there is a relevant discourse referent present, then the DP must refer back to that referent, typically giving rise to a partitive reading. The zero determiner, however, is not associated with familiarity. Hence, in cases where a relevant discourse referent is accessible, coreference is not possible. Instead, a bare nominal in such a context is interpreted as non-familiar (new).

We have seen, however, that not all DPs are interpreted as familiar and that not all bare nominals are non-familiar. What I suggest here is that in cases where the overt determiner is required (e.g., the subject position), other factors influence the interpretation. And similar effects occur when the zero determiner is required (e.g., the object of *anaty*). In particular, I adapt an analysis proposed by Adger (1996) that draws on notions of economy and effability. His analysis can be implemented as follows: given that there is no convergent derivation where a bare nominal surfaces in the subject position, a DP subject can be interpreted as either familiar or non-familiar. Alternatively, the Malagasy data could be an instance of blocking (Williams 1997): If there are two forms, they must have different meanings; if there is only one form, it is permitted to be ambiguous.19

19. David Heap (p.c.) points out that Martinet (1968) discusses similar effects on the meaning of the French subjunctive—what is called “la servitude grammaticale.” Roughly, when the subjunctive is selected (e.g., by a matrix verb), there is no special meaning associated with it. But when it
Although familiarity is most clearly seen in sentences where there is a clear linguistic context, the familiarity of *ny* also shows up when speakers try to express the difference between sentences with and without this determiner in “out of the blue” contexts. Consider again Rajaona’s (1972) examples, repeated from (4):

(54) a. Tia boky frantsay aho.
    like book French 1sg(nom)
    ‘I like French books.’
    Rajaona’s comment: “valeur généralisante” (generalizing value – my translation)

b. Tia ny boky frantsay aho.
    like det book French 1sg(nom)
    ‘I like French books.’
    Rajaona’s comment: “valeur catégorisante (la catégorie de livres qui sont écrits en français—par opposition implicite aux livres non écrits en français)” (categorizing value (the category of books written in French—as implicitly opposed to books not written in French) – my translation)

(Rajaona 1972: 432)

In his translation, Rajaona notes that when the determiner is present there is an implicit opposition with other kinds of books, non-French books. In other words, the determiner signals the presence of a familiar entity (the set of books). I have found a similar effect in the following pair:

(55) a. Fotsy ny volon’akoho.
    white det hair chicken
    ‘Chicken feathers are white.’
    = Generic statement about chicken feathers

b. Fotsy ny volon’ny akoho.
    white det hair det chicken
    (i) ‘Chicken feathers are white.’
    = Generic, but in context of talking about the coats of various animals
    (ii) ‘The chicken’s feathers are white.’
    = Statement about a particular chicken

is optional (e.g., in relative clauses), the choice between the subjunctive and the indicative has interpretative consequences.

(i) Je cherche quelqu’un qui *saït* le français. (indicative = referential)
(ii) Je cherche quelqu’un qui *sache* le français (subjunctive = non-referential)
    ‘I’m looking for someone who speaks French.’
In (56b–i), the determiner signals that chicken feathers are being discussed, not the feathers (or coat) of any other animal. Again, there is a familiar set (all animals) that is presupposed.

7.3 Conclusion

In sum, according to traditional descriptions the Malagasy determiner *ny* is a definite determiner, and the absence of *ny* signals indefiniteness. Looking at a range of examples, however, we have seen there is no apparent correlation between the presence of *ny* and definiteness as traditionally understood. For example, we have seen several examples of subject DPs that are indefinite (not unique, not familiar). At this point, one might be tempted to conclude that there is no systematic semantic interpretation associated with *ny*. Looking closely at texts and at the interpretation of DPs in context, however, I have shown that *ny* is always used for familiar DPs and that bare nominals are always non-familiar. The exceptions can be explained by blocking: where a determiner is obligatory or prohibited, both familiar and non-familiar readings are permitted.

The Malagasy facts bear some similarity to the Skwxwú7mesh data discussed by Gillon (2006, this volume). The crucial difference is that in Malagasy DPs are not felicitous in novel contexts, unlike Skwxwú7mesh DPs. Thus, unlike Skwxwú7mesh determiners, Malagasy *ny* presupposes familiarity. One consequence of this difference is that while for Gillon familiarity is a derived notion (arising from uniqueness plus domain restriction in English), for me it is a primitive. On the other hand, the Malagasy data are not amenable to the analysis proposed by Mathieu (this volume) for Old French, where determiners do not encode any aspect of definiteness (e.g., familiarity, uniqueness), but instead mark focus (or are used for prosodic purposes). As mentioned above, although the data initially suggest that determiners in Malagasy are not related to the traditional notion of definiteness at all, a more careful study of their distribution and interpretation indicates that once certain position facts are taken into account, *ny* can be shown to correlate with familiarity (and its absence with non-familiarity). Thus definiteness, understood as combining uniqueness and familiarity, is not a universal feature of determiners. As a final note, Lyons (1999) suggests that the core of definiteness is familiarity; the data in this article support his claim.

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References

Librairie Ambozontany.


reproduction des thèses).


von Fintel, K. 1999. Quantifier domains and pseudo-scope. Ms., Massachusetts Institute of
Technology.


dissertation, University of British Columbia.

Gillon, C. This volume. The semantic core of determiners: Evidence from Skwxwú7mesh.

Press.


Keenan, E. 2008b. The definiteness of subjects and objects in Malagasy. In *Case and Grammatical


 Mathieu, E. This volume. From local blocking to cyclic agree: The role and meaning of determiners in the history of French.
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