The development of the nominal domain in creole languages: A comparative-typological approach
Bobyleva, E.V.

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Chapter 4

Nominal expressions: functions, semantics, and structure

As stated in the Introduction, this research investigates the factors underlying creole structural formation by looking at the development of NEs. This chapter provides a general overview of the function, semantic properties, and the structure of NEs. Section 4.1 deals with the function and semantics. It starts with the discussion of the two major functions of NEs, denotation and reference (section 4.1.1), and introduces the ways in which nouns, which are stored in the lexicon as Kind or property-denoting terms, are converted in speech into referring NEs (sections 4.1.2-4.1.9).

While at the level of denotation such grammatical features as quantity, identifiability and, according to some theories (e.g., Borer 2005), even individuation are irrelevant, referring NEs are interpreted for these features. The ways in which these features are realized appear to depend on the lexico-semantic type of the noun (e.g. count vs. mass) and vary significantly across languages. For instance, in languages like English nouns that refer to bounded entities and are traditionally classified as count (e.g., ‘table’) are always overtly marked for individuation and quantity by means of the plural marker -(e)s or the indefinite determiner a(n). This is in contrast to mass nouns, which are never directly individuated or quantified. In many world languages, apparent semantic equivalents of English count nouns (i.e. nouns that are used to denote bounded entities) behave differently with regard to the expression of individuation and quantity. In some languages, including many creoles, the expression of these features is not categorical. There are also languages in which nouns may never be directly individuated or quantified. Based on these cross-linguistic differences in the morphosyntactic behavior of NEs Rijkhoff (2002) proposes a typological classification of lexical noun types. The discussion of different lexical noun types and the licensing properties of NEs headed by different lexical noun types is in section 4.1.2. Section 4.1.3 is devoted to Borer (2005), who denies the existence of lexical subcategories within the category of nouns. Sections 4.1.4 and 4.1.5 focus on markers of individuation and quantification, respectively.
The notion of identifiability is introduced in section 4.1.6. In languages like English all (referring) NEs are obligatorily marked for identifiability (definiteness). In English, this function is most commonly performed by means of the definite determiner *the*, which functions in opposition to the indefinite determiner *a(n)* and zero. Many world languages, including most known creoles, do not express identifiability categorically. In such languages, the distribution of determiners is based on other criteria instead of or in addition to definiteness. In sections 4.1.7-4.1.9, I consider semantic and pragmatic factors that may underlie the distribution of elements commonly identified in the literature as (in)definite determiners or articles and discuss the notions of definiteness, referentiality, and specificity.

Section 4.2 deals with the structural representation of NEs proposed within the generative framework. It discusses the DP-hypothesis and the related claims that the specifications of NEs with regard to individuation, quantity, and identifiability are encoded in the structure of NE. Since Abney (1987), it is commonly assumed within the generative framework that the lexical NP layer is dominated by a functional projection, identified as DP. Some researchers (Szabolcsi 1987; Ritter 1991; Aboh 2004a; Borer 2005, and others) have argued that the nominal functional domain has a layered structure, in which such features as individuation, quantity and identifiability head their own functional projections. Needless to say, not all layers of the nominal functional domain are always overtly expressed. The existence of non-overt functional categories, particularly the null D, represents the most serious challenge for the DP hypothesis. This issue is extremely relevant for the discussion of the structural representation of NEs in creoles, as these languages typically allow for bare NEs (i.e. NEs which occur without number markers or determiners and are, therefore, not overtly specified for either individuation or identifiability) in a large array of contexts.

4.1 Functions and semantics

4.1.1 Denotation and reference

Nouns are assumed to be stored in the lexicon as Kind or property-denoting terms. Kinds are classes of objects or individuals whose occurrence is regular enough to class them together based on a certain property. For instance, the Kind TABLE is the class of objects that have a property associated with being a table. Since objects are classed together based on a certain defining property, nouns are also assumed to denote the defining properties of classes (i.e. the property which all members of the class share and by virtue of which they are members of the class in question). Some researchers argue that the lexical semantics of nouns vary across languages. According to Chierchia (1998), there are languages with Kind-denoting nouns, languages with property-denoting nouns and languages with nouns that may denote both Kinds and properties (see section 4.1.1)
In speech, NEs are used not only to denote Kinds or their properties, but also to refer to their individual representatives. For instance, ‘a table’, ‘the table’, ‘this table’, ‘tables’, ‘the tables’ and ‘these tables’ all refer to one or multiple individual representatives of the Kind or property denoted by the noun ‘table’. As these examples show, the reference of an NE is specified by means of determiners, demonstratives and number markers. Together with the situational and discourse context, these elements make it possible to individuate and identify the referent(s) of the noun.

4.1.2 Lexical noun types

The lexical class of nouns is subdivided into count nouns and mass nouns. While count nouns denote bounded entities like ‘dog’, ‘table’ or ‘apple’, mass nouns denote unbounded stuff such as ‘water’, ‘butter’ or ‘furniture’. Many languages treat count and mass nouns differently in their grammar. For instance, in English, count nouns are overtly individuated either by means of the indefinite determiner *a(n)* or by means of the plural marker *-(e)s*. Mass nouns cannot be individuated and they therefore cannot occur with either of these markers. Also, unlike count nouns, mass nouns in English do not occur in a direct construction with numerals.

Rijkhoff (2002) elaborates the traditional lexical classification of nouns. Based on the analysis of the semantics and morphosyntactic behavior of NEs in a sample of typologically diverse languages, Rijkhoff (2002) distinguishes six noun types: mass nouns, collective nouns, singular object nouns, set nouns, sort nouns, and general nouns. In contrast to mass nouns, which are used to refer to unbounded, non-discrete spatial entities, and collective nouns, which are used to refer to several discrete entities that are conceived as a unit, singular object nouns, set nouns, sort nouns and general nouns are all used to refer to singular discrete spatial entities. In terms of the traditional lexical semantics, such nouns typically pertain to the class of count nouns. The term ‘count noun’ is only accurate in application to nouns in languages like English, which are identified by Rijkhoff as singular object noun languages. While sort nouns and general nouns are used to refer to the same kind of entities as a typical count noun, they show considerably different morphosyntactic properties. Rijkhoff focuses on the following aspects of the morphosyntactic behavior of nouns: (i) whether or not nouns appear in the plural form when modified by a numeral higher than one, and (ii) whether or not nouns are in direct construction with a numeral or whether the numeral must first combine with a classifier. He gives four logical possibilities:

1. numeral + noun + plural (no classifier)
2. numeral + noun (no plural, no classifier)
3. numeral + classifier + noun (no plural)
4. numeral + classifier + noun + plural
While the first three types are all represented among the languages of the world, with regard to the fourth type Rijkhoff reports that 'previous research has indicated that there are very few (possibly no) languages' of this type (2002: 29). Type 1 is represented by languages like English and Dutch. In these languages, nouns that are used to refer to singular discrete entities are always marked for plural when modified by a plural numeral or when reference is made to more than one individual object. In the absence of plural marking, only the singular interpretation is possible. That is why languages like English and Dutch are referred to as singular object noun languages. Like singular object nouns, nouns of type 2 languages may also be in a direct construction with a numeral. However, plural marking is variable in these languages. It is not consistently seen in semantically plural nouns without a numeral and is normally absent when the noun is modified by a numeral. Rijkhoff identifies nouns in type 2 languages as set nouns. Set nouns are nouns which are not associated with either singularity or plurality. In their unmarked form, they may be used to refer to a set which may consist of singular or plural individuals, a singleton set or a collective set, respectively. Because of the transnumeral semantics of set nouns number marking in set noun languages is optional. As will be discussed in section 4.1.5, the nature of number marking in these languages is also different from the nature of number marking in languages like English. Type 3 is represented by sort noun languages and general noun languages. Like set nouns, sort nouns and general nouns are transnumeral. However, unlike set nouns, they cannot be directly quantified by means of a numeral. In order to be quantified, they first need to be overtly individuated by means of a classifier. Rijkhoff observes that two types of classifiers are used cross-linguistically: mensural classifiers, which indicate measures such as size, volume, or weight and typically occur in combination with nouns denoting non-discrete spatial entities (masses), and sortal classifiers, which are used in combination with nouns that denote discrete objects and whose semantics may involve various notions, often related to shape (e.g., a long, pointed object). Nouns that combine with mensural classifiers are referred to by Rijkhoff with the traditional term 'mass nouns'. Nouns that are used with sort classifiers are identified by Rijkhoff as sort nouns. Based on the morphosyntactic behavior of sort nouns he argues that these nouns have the semantics of a conceptual label. Further, Rijkhoff observes that in some languages the distinction between mensural classifiers and sort classifiers is blurry. He concludes that these languages make no distinction between sort nouns and mass nouns and calls nouns in such languages general nouns.

With regard to the semantic properties of the noun types, which he alternatively defines as nominal subcategories, Rijkhoff (2002: 28) argues that “each nominal subcategory defines a different Seinsart of a spatial property, i.e. an alternative way in which a nominal property is specified for the features Shape and Homogeneity”. According to Rijkhoff, the feature Shape, which stands for spatial boundedness, distinguishes singular object nouns and set nouns from sort nouns and general nouns. The morphosyntactic behavior of the former two noun types, namely, the fact that they can be directly quantified, suggests that they designate properties that are characterized
as having a definite outline (Shape) in the spatial dimension. In contrast, the fact that sort nouns and general nouns require a classifier in order to be quantified suggests that they designate properties that are not characterized as having Shape. The feature Homogeneity, which stands for “likepartedness” and “dissectiveness”, distinguishes singular object nouns and sort nouns from set nouns and general nouns. Rijkhoff argues that, in contrast to mass nouns that represent a classic example of [+homogenous] nouns, singular object nouns and sort nouns are [-homogenous] as they designate properties that are not disective. General nouns and set nouns are considered by Rijkhoff to be neutral with regard to Homogeneity. In general noun languages, there is no distinction between sort nouns and mass nouns. As for set nouns, they are considered [±homogenous] as “a set entity may be homogenous, when it is a collective set which can be divided into as many singleton sets as there are individuals” (Rijkhoff 2002: 52) or non-homogenous if it is a singleton set which cannot be further divided. According to Rijkhoff, unless they are coded by overt morphology, the features Shape and Homogeneity are part of the lexical semantics of the noun. This suggests that nouns across languages possess different lexico-semantic properties.

Rijkhoff’s classification has been applied in the study of creole nouns. For instance, Stewart (2006) characterizes nouns in Jamaican Creole as set nouns. As I will show in chapter 7 of this book, Stewart’s claim may be in principle extended to the majority of the creoles under study as well as to some of their important substrates. However, as I argue in Bobyleva (2011b) and in chapter 7 of this book, the superstrate-like behavior of plural markers found in some creoles, including Jamaican, does not fit the pattern observed in set noun languages. Phenomena observed in these creoles not only pose problems for Stewart’s claim but also question the universality of Rijkhoff’s lexical noun type classification.

4.1.3 Borer’s universalist approach to the nominal lexical semantics

An alternative to the traditional lexical semantics and to Rijkhoff’s classification would be to assume that the lexical semantics of nouns are universal, and that languages differ in the ways they map these universal lexical semantics onto different types of referents. This possibility is pursued by Borer (2005). According to Borer, “word knowledge is grammatically inert” (107); that is, nouns are stored in the lexicon without any grammatical specifications and the exact interpretation of a noun as a mass or as a singular or plural individual is assigned in a corresponding grammatical structure. Borer defines the lexical semantics of a noun as unstructured stuff, which is akin to a mass denotation. A similar definition of the lexical semantics of nouns is proposed by Bouchard (2002:41): “The property of a common noun is not atomized < . . . > and is thus seen as a mass: it applies in an undifferentiated way to all individuals of the set, to the set itself and to all its subsets < . . . > So a signifiant for TOMATO at this level of grammaticalization does not distinguish between a tomato, the tomato, some tomatoes, the tomatoes or tomato as a mass”. This proposal eliminates the classic opposition
between count nouns and mass nouns, as well as the opposition between singular object nouns, set nouns, sort nouns and general nouns.

Some specific claims in Borer’s study are in direct contradiction to the analysis proposed by Rijkhoff. Recall, for instance, Rijkhoff’s claim that singular object nouns and set nouns designate properties that are characterized as [+Shape] as these noun types may be used in a direct construction with quantifying elements (numerals) as opposed to sort nouns and general nouns, which designate properties that are [-Shape] as these noun types require a classifier in order to be quantified. According to Rijkhoff, classifiers in sort noun and general noun languages function “as a kind of individualizer” (50). According to Borer, nouns in singular object noun languages like English are also [-Shape]. She argues that the English plural marker -(e)s, which is required when nouns in this language combine with numerals, instantiates the same function as classifiers in languages identified by Rijkhoff as sort noun and general noun languages, namely partitioning out or dividing stuff into atomic, countable parts.

Borer’s analysis proposes an alternative way of looking at the lexical semantics of nouns and at the processes of individuation and quantification. While Borer’s analysis is not unquestionable, as I will argue in chapter 7, it provides an interesting insight into the analysis of creole nouns. Interestingly, long before the appearance of Borer’s work, similar views were expressed by Allan (1980), who observed that while nouns do seem to have “countability preferences”, they receive count (individuated) or mass (non-individuated) interpretation in the actual use (which in Borer’s analysis translates as syntax). Mufwene (1981) further develops this idea based on the analysis of NEs in Jamaican Creole, English, French and Lingala. Like Borer, Mufwene concludes that the ability to be counted is a characteristic of NEs and not of lexical semantics of nouns. Mufwene perceives individuation as a scalar category. He proposes that while bare nouns convey the non-individuated, mass-like interpretation, the use of determiners and plural marking in various degrees contributes to the individuation of reference. In chapter 7, I will further discuss Borer’s and Mufwene’s claims in application to the data considered here.

### 4.1.4 Individuation

Individuation has already received considerable attention in sections 4.1.2 and 4.1.3. As observed in these sections, while the issue of whether or not individuation (i.e. “boundedness”) represents part of the lexical semantics of the noun is subject to debate, it is obvious that NEs may be treated differently in syntax depending on whether they are used to refer to an individuated, bounded entity or to a non-individuated, unbounded mass. Languages employ different means to distinguish individuated and non-individuated NEs. While English and other Germanic and Romance languages use plural marking and indefinite determiners, languages like Chinese employ classifiers for this function, and in creole languages specification with regard to individuation may not be expressed overtly.
4.1.5 Quantification and other ways to express number

In addition to individuation, plural markers and indefinite determiners also encode the quantity feature. For instance, while -(e)s marks a noun as plural, a(n) also gives a singular reading. The quantity feature may be also realized lexically, by means of numerals and quantifiers.

Not all languages express number by means of quantification. For instance, Rijkhoff (2002) observes that in set noun languages, number is conveyed by means of nominal aspect markers. According to Rijkhoff, the semantic function of plural marking in singular object noun languages can be identified as multiplication of the referent of the singular unmarked form. When a plural marker attaches to the unmarked form of a singular object noun, it indicates that the number of individual referents is more than one. As for nominal aspect markers, they specify not a quantitative but a qualitative property of the referent, namely, the kind of set the speaker is referring to. Two kinds of nominal aspect markers are found in set noun languages: singulative aspect markers and collective aspect markers. These grammatical elements indicate that the noun designates a property of a set which consists of one individual (singleton set) or multiple individual entities which together form a collective (collective set). From this description, it appears that conceptually number marking in set noun languages is fundamentally different from number marking in singular object noun languages like English. Whereas in singular object noun languages number marking is based on the opposition between singular and plural individuals, in set noun languages, it is based on the opposition between singleton and collective sets. In addition to the way they conceptualize number, nominal aspect markers differ from number markers in singular object noun languages with regard to their distribution. For instance, while plural markers should always be used to convey plural meaning, collective aspect markers are optional as “the property designated by a set nouns also applies to multiple objects without this marker” (Rijkhoff 2002: 105).

As we shall see in chapter 7, in some of the creoles under study, elements which seem to perform the plural marking function fit Rijkhoff’s definition of collective aspect markers with regard to their semantic properties and distribution.

4.1.6 Identifiability

In addition to individuation, nouns are also cross-linguistically marked for identifiability. In the literature on the semantics of definiteness (e.g. Lyons 1999), identifiability is conceived of as the speaker’s assumption about whether or not the referent of a noun is identifiable to the hearer. Here I adopt a broader definition of identifiability as the status of a referent in the universe of discourse. This definition embraces the identifiability of the referent to the hearer and the speaker or only to the speaker. The semantic feature of
Identifiability can be grammaticalized in languages as definiteness, referentiality, specificity and topicality. The following three sections discuss these notions.

4.1.7 Definiteness

Definitions of the semantic category of definiteness are typically based on the function of definite articles in languages like English. The function of English the is identified based on the analysis of the distribution of NEs marked by the as opposed to NEs marked by a(n) and the zero article. While a(n) and the zero article occur with NEs that introduce new referents into discourse which are not yet familiar to the speaker, the use of the signals that the referent of the NE is already familiar or in any case identifiable to both the speaker and the hearer.

The idea that the use of the definite determiner presupposes shared familiarity on the part of the speaker and the hearer has given rise to the view on definiteness known as familiarity theory (Christophersen 1939). Familiarity theory is the most prominent theory of definiteness, and it has been expanded and elaborated over time. An important point in the development of the theory is the identification of ‘Stages of Familiarity’. The notion of ‘Stages of Familiarity’ was first introduced by Jespersen (1933), who identified several ‘Stages of Familiarity’ ranging from complete unfamiliarity, which corresponds to indefiniteness, to complete familiarity, manifested by proper names. Building up on Jespersen (1933), Hawkins (1978) identifies 7 usage types of the definite article:

(i) direct anaphora
(ii) associative anaphora
(iii) visible situation use
(iv) immediate situation use
(v) larger situation use, relying on specific knowledge about the referent
(vi) larger situation use, relying on general knowledge
(vii) unfamiliarity uses

I will use examples from English to illustrate these various uses. Example (9) illustrates the strictly anaphoric use of the definite article. The referents of the cat and the dog are familiar to the hearer by virtue of having been previously introduced into discourse by means of the indefinite nominal expressions a cat and a dog.

(9) I’ve got a cat and a dog. The cat is grey and the dog is brown.

Example (10) illustrates a case of an associative anaphora. The use of the definite determiner in this case is justified by the fact that the referent of the the driver can be associated with the referent of the previously introduced nominal expression a taxi so that he is understood to be the driver of this taxi.
Unlike the anaphoric uses of the definite determiner, the situational uses do not rely on the presence of a discourse antecedent. (11) and (12) exemplify the cases of visible and immediate situational uses, respectively. In these examples, the shared familiarity of the referents of the chair and the kitchen is due to the fact that the speaker and the hearer are located in the same physical context, where these nominal expressions have unique referents.

(11) Could you pass me the chair?

(12) Mike is in the kitchen.

With larger situational uses, the principle of the identification of the referent is the same, only the context is larger. Examples (13) and (14) below illustrate usage types (v) and (vi). Sentences similar to that in (13) are normally understood without further clarifications among the residents of the same country as the NE the president is most naturally understood to refer to the president of this country. The referents of such NEs like the sun or the moon are assumed to be familiar to the speaker as they are uniquely identified within the context of our galaxy.

(13) The president is on TV.

(14) The sun is shining.

The uses of the with an NE whose reference is identified by means of a modifier, a relative clause, a prepositional phrase, or an adjective such as only, same, first or next illustrated in examples (15) through (17) are all grouped together by Hawkins (1978) as unfamiliarity uses. As is pointed out by Lyons (1999), examples (15) and (16) resemble the associative use of the definite determiner exemplified in (10). The only difference between (10) and (15) and (16) is that in (15) and (16) the information required for the identification of the referent does not precede but follows the NEs. Therefore, Lyons (1999) identifies such uses of the definite determiner as cataphoric. Examples like (17), on the other hand, indeed appear to involve completely unfamiliar referents. For the use of the definite determiner to be licensed here, the hearer does not need to know to which school Mike and John go.

(15) The conductor who works on that train is my grandfather’s old friend.

(16) The conductor of that train is my grandfather’s old friend.
(17) John and Mike go to the same school.

Another important development in the familiarity theory of definiteness is the substitution of the notion of familiarity with the notion of identifiability (Lyons 1999). Lyons points out that the term familiarity is inaccurate in application to some uses of the definite determiner identified by Hawkins (1978). For instance, while in the case of strict anaphora the referent is truly familiar to the hearer, as it has been previously introduced into the discourse, in the case of associative uses the hearer needs to make an inference in order to be able to identify the referent. The same can be said about many situational uses of the definite determiner. Consider for instance example (18):

(18) A: Pass me the salt, please.
    B: Sorry, I don’t see it.
    A: It’s right behind the salad bowl.

In this example, the use of the definite determiner does not rely on the prior familiarity of the hearer with the referent of the salt. Instead, the speaker expects that the hearer will be in a position to identify the referent by searching in the immediate surroundings. As the example shows, such an expectation might not always be met.

Based on such examples, Lyons (1999) concludes that the definite determiner indicates that the hearer is considered to be in a position to identify the referent rather than that the referent is assumed to be familiar to the hearer. Therefore, he proposes to replace the notion of familiarity with the notion of identifiability. In doing so, Lyons does not reject familiarity but subsumes it under the notion of identifiability.

Uniqueness has been proposed as another semantic feature strongly associated with definiteness. Since Russel (1905), some scholars have argued that uniqueness is the basic requirement for the correct use of the definite article. Indeed, the use of the definite article the is in most cases only appropriate when the referent is unique in the context of the speaker’s and hearer’s shared situational or discourse knowledge. For instance, consider again example (11). In this example, the may only be used in a situation where there is only one chair identifiable to the hearer. If there is more than one chair, the use of the (followed by a singular NE) would be inappropriate. In such a situation, the speaker may either use a demonstrative if s/he wants a particular chair out of the chairs present in a situation or the indefinite determiner if any chair would do. However, uniqueness does not seem relevant for all the uses of the. For instance, the referent of the definite NEs the bank of the river in the following example is not unique as a river always has two banks.

(19) John sat on the bank of the river waiting for Mike.

The same, however, also holds for identifiability. As already observed above, the notion of identifiability cannot account for the use of the with NEs modified by such adjectives
as first, last, same or next whose referents are unidentifiable to the hearer. Also, identifiability cannot account for the use of the with non-referential NEs (see section 4.1.8). In both these cases, the use of the appears to rely solely on uniqueness.

Lyons (1999) concludes that only the combination of the criteria of uniqueness and identifiability may account for the whole range of the distribution of the definite article. Although both criteria do not seem to apply universally, in the vast majority of cases, NEs are treated as definite when the speaker assumes that there exists a unique referent (or group of referents) identifiable to the speaker that satisfies the nominal description.

4.1.8 Specificity and referentiality

As stated in section 4.1.1, NEs may be used in order to denote Kinds and properties and in order to refer to individuals. These two uses of NEs are also identified in the literature as non-referential or non-specific and as referential or specific, respectively. Here, I will use the term “specific”. Examples (20) and (21) illustrate specific and non-specific nominal expressions NEs in English. While the italicized NEs a suit and the winner in (20a) and (21) are specific as they refer to specific individuals, their counterparts in (20) and (21b) are non-specific as the context provided in the sentences suggests that no specific referent satisfying the nominal description is assumed to exist.

English (Lyons 1999: 168-67)

(20) a. I’m going to buy a suit tomorrow – you’ll be horrified by the color.
   b. I’m going to buy a suit tomorrow – even if I can’t find one I really like.

(21) a. Joan wants to present the prize to the winner – but he doesn’t want to receive it from her.
   b. Joan wants to present the prize to the winner – so she’ll have to wait around till the race finishes.

While both indefinite and definite NEs may be used specifically and non-specifically, in the literature, the notion of specificity (and referentiality) has been primarily discussed in application to indefinite NEs. Following this tradition, I will continue the discussion of specificity based on the analysis of the distribution of indefinites.

4.1.8.1 Semantic specificity

In the literature, one finds several views on specificity. Some authors define specificity semantically. Under this approach, an NE is considered specific when it refers to a specific individual, object or event that is asserted to exist and non-specific when the NE describes a type without referring to any of its representatives in particular.
Semantic specificity is analyzed in terms of scope. The contrast such as the one between (20a) and (20b) and (21a) and (21b) is not available in all grammatical environments. As has been repeatedly demonstrated in the literature, the availability of specific and non-specific interpretation of an NE depends on the propositional modality of an utterance. Whereas in an irrealis environment (e.g., intentional verbs, modals) NEs may be ambiguous with regard to specificity, in a factitive environment, they can only be interpreted as specific. For instance, a museum in example (22) below may only be interpreted as specific: there exists a specific museum, that is, the one the speaker visited the day before uttering the sentence.

(22) I went to a museum yesterday.

In addition to the propositional semantics, the interpretation of indefinite NEs with regard to specificity may depend on their interaction with other quantified expressions. Consider the following classic example:

(23) Every student read a book.

The sentence in (23) can mean either that there is a specific book that every student that there was read, or that every student that there was s/he read a book, but not necessarily the same one. In the first case the referent of a book is specific and in the second case it is not.

As the examples demonstrate, under the semantic approach, the ambiguity with regard to specificity may only occur in so-called opaque contexts. The analysis proposed to account for the availability of specific and non-specific interpretations in opaque contexts is in terms of scope ambiguity. The opacity may be created by various operators such as negation, modal operators or intentional operators. NEs have an existential entailment as part of their meaning, expressed as the existential quantification of predicate logic. The ambiguity with regard to specificity is thus a matter of whether the existential quantifier is in the scope of the operator or vice versa. The NE is interpreted as specific when the existential quantifier has a wide scope and as non-specific when it has a narrow scope.

4.1.8.2 Pragmatic specificity

In addition to semantic, or scopal specificity, research into the semantics of indefinites distinguishes epistemic, or pragmatic, specificity (cf. Farkas 2002). The significance of the pragmatic dimension of specificity in the interpretation of indefinite NEs has been highlighted by Fodor and Sag (1982) (who use the term “referentiality”). According to Fodor and Sag, ambiguity with regard to referentiality is not always a matter of scope. A sentence like that shown in example (24) contains no intentional verbs, no modals, no negation and no quantifiers with which the indefinite noun could interact. Nevertheless,
as is pointed out by Fodor and Sag (1982), such sentences are ambiguous. The author of
(24) “might be intending to assert merely that the set of students in the syntax class who
cheated on the final exam is not empty; or he might be intending to assert of some
particular student, [...] that this student cheated” (256). This observation has led them to
formulate a pragmatic definition of specificity in terms of speaker referential intent.

English (Fodor and Sag 1982: 355)

(24) **A student** in the syntax class cheated on the final exam.

The relevance of speaker referential intent has been also pointed out by Givón
(1981, 1984). Givón demonstrates that there are languages where speaker referential
intent determines the marking of indefinite NEs. One of such languages is Hebrew. In
his work, Givón introduces a distinction between semantic and pragmatic referentiality.
While the former stands for the supposed existence of the referent in the universe of
discourse, the latter stands for speaker referential intent. Speaker referential intent
depends on the importance of the specific identity of the referent for the point at issue.
Givón observes that while pragmatic referentiality usually corresponds to semantic
referentiality, it is ultimately pragmatic referentiality that determines whether an NE will
have an overt determiner or not in languages like Hebrew. According to Givón,
pragmatic referentiality usually implies topicality: NEs that are marked as pragmatically
referential when they are introduced for the first time typically become the topic of the
following discourse. The following examples from Hebrew illustrate the role of
pragmatic referentiality versus semantic referentiality:

Hebrew (Givón 1981: 38-39)

(25) a. *Axarey she-gamarti la-avod, yara dti la-xanut ba-tsad ha-sheni shel ha-rexov, ve-kaniti sefer-xad, ve-az halaxti ha-bayta ve-karati oto ve-hu haya metsuyan…*

‘After I finished working I went down to the shop across the street and I bought a book, and then I went home and read it and it was excellent…’
b. Axarey she-gamarti la-avod, yaradti la-xanut ba-tsad after that-finished.1SG to-work descended.1SG to-shop in-side
ha-sheni shel ha-rexov, ve-kaniti sefer-xad, ve-az the-other of DEF-street and-bought.1SG book-IND and-then
halaxti ha-bayta ve-axalti ve-halaxti l-ishon went.1SG to-home and-ate.1SG and-went.1SG to-sleep
‘After I finished working I went down to the shop across the street and I
bought a book, and then I went home and ate and went to sleep.’

While both examples represent a story that took place in the past (factive environment)
and ‘book’ in (25b) is semantically just as specific as in (25a), the specific indefinite
determiner xad is only appropriate in (25a). According to Givón, this has to do with
pragmatic referentiality. While in (25a) the specific identity of the book is relevant in the
following discourse, in the contexts of the story cited under (25b) the specific identity of
the book is not at issue: the rest of the story never mentions the book again.

Ionin (2006, and other work) proposes an account of specificity in terms of
noteworthiness, which is intended as an elaboration of the vague notion of referential
intent. Ionin uses the notion of noteworthiness in her account of the specific indefinite
determiner this in English and claims that it can also account for the behavior of specific
indefinite determiners in a number of other languages. Ionin argues that the crucial
factor determining the appropriateness of specific indefinite determiners is the presence
of a noteworthy property, which makes the referent uniquely identifiable to the speaker
and motivates his/her intent to refer to it. She illustrates this with the following examples:

English (Ionin 2006: 185)

(26) a. I found this blue apple on my plate!
b. *I found this apple on my plate!

Like Givón in his definition of pragmatic referentiality, Ionin observes that
specific indefinite NEs commonly introduce a new topic, which means that the referent
of these NEs is expected to recur in the subsequent discourse.

English (Maclaran 1982: 88, cited from Ionin 2006: 180)

(27) a. He put on a/this 31 cent stamp on the envelope, so he must want it to go
airmail.
b. He put on a/this 31 cent stamp on the envelope, and only realized later that it
was worth a fortune because it was unperforated.

Pragmatic specificity markers have been attested in a number of world
languages. It has been argued in the literature that indefinite determiners in creoles also
mark pragmatic specificity (e.g., Givón 1979, 1981, 1984; Bickerton 1981). Bickerton’s definition of specificity corresponds to Givón’s definition of pragmatic referentiality. According to Bickerton, grammatical rules related to specificity are sensitive to semantic as well as to pragmatic aspects of the notion. He states that NEs that do have a specific referent, whose exact identity is either unknown to the speaker or irrelevant to the point at issue, are also treated as non-specific and occur with a zero-determiner.

While Givón and Bickerton attribute the importance of specificity in the distribution of indefinite determiners in creoles to the fact that it represents a universally prominent linguistic category, Aboh (2004c, 2006, and subsequent work) argues that specificity marking in Atlantic creoles represents a result of substrate influence. He observes that the distribution of indefinite determiners in a number of Atlantic Creoles (Haitian, Saramaccan, and Sranan) replicates the specificity-based pattern found in Gbe languages. Example (28) below illustrates specificity marking in Ewegbe. As it shows, in Ewe áñé is only used when the speaker has a particular referent in mind. When the referent is unknown or irrelevant, the NE occurs without a determiner.

Ewegbe (Essegbey 1999: 43)

(28) a. Avu áñé le áñé-á me.
   dog IND LOC house-DEF in
   ‘A certain dog is in the house’

   b. Avu le áñé-á me.
      dog LOC house-DEF in
      ‘There is a dog in the house’

The role of specificity in the distribution of indefinite NEs in creoles will be further discussed in chapter 8.

4.1.8.3 Specificity of definite NEs and topicality

In the beginning of section 4.1.8, I observe that specificity as defined in this section is mainly discussed in application to indefinites. Aboh (2004b,c, 2006, and subsequent work) proposes an alternative definition of specificity, which also applies to definite NEs. According to Aboh (2006: 224), “[S]pecificity and definiteness combine in some languages (e.g., Gungbe) leading to the following characterization:

(i) A specific definite noun phrase is strongly D(iscourse)-linked and represents a unique referent assumed to be known to both speaker and hearer, and which the speaker intends to refer to.
(ii) A specific indefinite noun phrase need not be D-linked. It represents an existing referent that the hearer may not know about, but which the speaker has in mind and intends to refer to.”

According to Aboh’s definition of specificity, both specific and non-specific indefinites are sensitive to the pragmatic factor of speaker referential intent. What distinguishes specific definite NEs is the fact that they are always D(iscourse)-linked and represent part of the speaker/hearer specific knowledge. In what follows, I will elaborate on Aboh’s definition of specificity of definite NEs highlighting the contrast between definiteness and specificity.

Unlike definiteness, specificity of definite NEs does not just presuppose that a particular referent is identifiable to the speaker and the hearer, but requires a particular type of shared identifiability, namely identifiability via a link with a discourse antecedent. According to this definition of specificity, only strictly anaphoric definites are [+specific]. All other uses of the definite determiner in languages like English, including associative anaphoric use, situational uses, and general knowledge based use (cf. Hawkins 1978), which do not involve a link with a discourse antecedent, are [-specific]. Thus, here we observe again that specificity is strongly associated with topicality.

The studies by Aboh (2004a and subsequent work) and Aboh and Essegbey (2010) demonstrate that some Niger-Congo languages possess grammatical markers of specific definite NEs. These elements, which may appear to be functionally parallel to definite articles in Germanic and Romance languages, are only used to mark specific definite NEs, while non-specific definites surface with a zero determiner. Such a specificity-based system of marking definite NEs can be, for instance, found in Gbe languages. The examples below are from Gungbe.

Gungbe (Aboh 2004a: 76; p.c.)

**Strict anaphora**

(29) Kókú mën távò cè bò dʒò će ćm ná xò távò ćd.
Koku see.PFV table 1SG.POSS and say.PFV 3SG FUT buy table DEF
‘Koku saw my table and then said he would buy the/that table.’
As examples (29)-(33) demonstrate, in contrast to English, in Gungbe only strictly anaphoric definite NEs are introduced by an overt determiner; all other types of semantically definite NEs (associative anaphora, situational definite NEs, general knowledge-based definite NEs, and NEs containing definiteness-inducing modifiers) surface without a determiner.

While definite determiners in languages like English are used indiscriminately with both specific and non-specific definite NEs, specific definite interpretation can be unambiguously realized in these languages by means of demonstratives. Diessel (1999) lists the following uses of demonstratives: (i) situational use (pointing to objects in situational context); (ii) anaphoric use (tracking referents in the ongoing discourse); recognitional use (activating referents that belong to specific shared speaker/hearer knowledge); (iii) discourse deictic use (referring back to propositions); and (iv) recognitional use (activating specific speaker-hearer shared knowledge). Anaphoric and recognitional uses of demonstratives correspond to the distribution of specific definite
markers in languages like Gungbe. Below, I will illustrate and discuss these two functions.

As shown in examples (34) and (34), the anaphoric function of demonstratives is restricted to strictly anaphoric cases. Unlike definite determiners, demonstratives may not mark associative anaphora. According to Hawkins (1978), in contrast to definite determiners, demonstratives are characterized by a “matching constraint”: they instruct the hearer “to match the linguistic referent with some identifiable object” (154), which in case of the anaphoric use corresponds to the discourse antecedent.

English (my data)

(34) a. He bought a car in Germany. The/that car was very expensive.

b. He bought a car just a year ago and the/that engine broke down already.

Unlike anaphoric demonstratives, recognitional demonstratives do not have a referent in the surrounding context, but instruct the hearer to match the referent of the NE with an object or individual present in the speaker and hearer shared knowledge. Thus, while anaphoric demonstratives mark the referent of the NE as discourse-old, recognitional demonstratives mark information that is discourse-new but hearer-old. Using the terminology from Chafe (1987, 1994) and Dryer (1996), Diessel (1999) observed that such information is unactivated but pragmatically presupposed. Diessel emphasizes that the recognitional use of demonstratives may only concern private or specific (cf. Himmelman 1996) information that the speaker and the hearer share due to common experience in the past, and not general cultural information shared by all members of the speech community. An example of the recognitional use of demonstratives is given below.

English (Gundel et al. 1993: 278)

(35) I could not sleep last night. That dog (next door) kept me awake.

The use of that in (35) is only felicitous when the interlocutors have shared private knowledge about a specific dog.

Similar examples may be found in Gungbe. The use of lɔ in the question utterance is only felicitous if the interlocutors have previously agreed that one of them would make a certain soup.
In addition to Gungbe and other Gbe languages, specificity markers similar to \( l \), may be found in other Niger-Congo languages, including Fula, Eastern Ijo, Mandinka and Yoruba (Bobyleva 2009). Some creolists (e.g., Aboh 2006; Stewart 2006; Guillemin 2009) argue that elements identified as definite determiners in creoles are also used to mark specificity. According to Aboh, the specificity-based use of the definite determiners he observed in such Atlantic creoles as Haitian, Sranan and Saramaccan results from the Gbe influence. These claims will be addressed in chapter 9.

As already observed above, Aboh’s definition of specific definite NEs correlates with the pragmatic definition of specific indefinite NEs that suggests that the latter denote referents that are considered by the speaker to be important for the subsequent discourse. Both pragmatically specific indefinite determiners and specific definite determiners, the way they are defined by Aboh, typically mark discourse topics. While pragmatically indefinite NEs serve to introduce new discourse participants which are likely to play an important role in the subsequent discourse, specific definite determiners serve as anchoring devices, which establish the topical role of new discourse participants. It is, therefore, not accidental that some languages use determiners to mark pragmatically specific indefinite NEs and specific definite NEs as they are defined by Aboh. As examples (28)-(33) demonstrate, Gbe languages belong to this type.

4.2 Structure

As stated in the Introduction, I will discuss the structure of NEs using the terminology and analytic tools proposed within the generative framework. In this section, I will discuss the structural representation of NEs, paying special attention to the DP hypothesis (Abney 1987) and proposals concerning the organization of the functional domain dominating the lexical NP projection.

4.2.1 Morphosyntactic features and their structural representation

In Section 4.1, I discussed the notions of individuation, quantity, definiteness and specificity and the way they affect the interpretation and the licensing properties of NEs.
Semantic properties that affect the licensing of a constituent are identified in the generative grammar as syntactic features. Syntactic features are atoms of linguistic structure, properties of the presumably universal syntactic structure. They determine the morphological shape of words and the way words are assembled into a syntactic structure, which is then interpreted for meaning by the discourse-semantic component of language (see Introduction). From this description, it follows that the primary function of morphosyntactic features is to relate form and meaning.

Assuming that individuation, quantity, definiteness and specificity are syntactic features implies that they are universally present in the structure of NEs. However, in the previous sections we have observed that these features are not cross-linguistically realized in the same way. For instance, while determiner use in Gbe languages is sensitive to specificity, in Germanic and Romance languages specificity is irrelevant to determiner use (see sections 4.1.8.2 and 4.1.8.3). This, however, does not imply that Romance and Germanic languages cannot encode specificity at all. Although the expression of specificity in Germanic and Romance languages is not grammaticalized, they may employ demonstratives and periphrastic means to express specificity. Thus, the same feature may be encoded morphologically in one language and lexically in the other. Morphosyntactic features may also have different morphological realizations across languages. For instance, in Germanic and Romance languages nominal plurality is expressed by means of suffixes, many Kwa languages employ free morphemes as plural markers, and in Bantu plurality is expressed within the system of nominal classes by means of class prefixes. Thus, while the features themselves are universal, languages have different means to express them. Languages differ with regard to the sets of features they grammaticalize and the morphosyntactic means used to realize the same feature vary cross-linguistically.

The set of features that the grammar of a language is sensitive to as well as the formal licensing of the features are defined in terms of principles and parameters. Principles are universal, i.e., common to all languages. They determine the universal properties of linguistic structure. For instance, they determine the ultimate set of features the syntax of natural languages can be sensitive to, blocking nonsensical grammatical rules such as, for instance, a special rule for all words that begin with t- or words uttered on a Friday, at ten thirty five. Also, principles delimit the range of the possible formal licensing of features, preventing languages from having two elements to express an exactly identical set of features in free variation.

While principles delimit the ultimate range of morphosyntactic variability, parameters determine the variants of morphosyntactic organization that are possible across languages. The set of features the grammar of a language is sensitive to as well as the kind of formal licensing the features receive in that language is all a matter of the particular parameter setting. For instance, different parameter settings determine the fact that some languages use determiners to express definiteness and others to express specificity.
4.2.2 NP and DP

The idea that syntactic structures are hierarchical in their nature is essential in generative grammar. Smaller structures are assumed to combine into larger structures, which can further combine into yet larger structures, and so on. This phenomenon of structure embedding is considered to be distinctive of human language only and is referred to as recursion. The hierarchical structures are organized into phrases. X-bar theory is the part of the grammar that regulates the structure of phrases. According to this theory, all phrases are headed by one head. The head is the most important element of the phrase as it projects its features to the phrasal level, thus determining the morphosyntactic behaviour of the phrase. As heads project their features to their phrases, phrases are said to be projections of their heads. In relation to the architecture of the phrase, the head is a zero-level projection, which is usually notated as \( X^0 \) or just X. X-bar theory distinguishes two further levels of projection. When a head combines with a complement, they form an intermediate \( X' \) projection. The latter can combine with a specifier to form XP, the maximal projection of a phrase. The structure of a phrase is represented in (37).

Note that the complement and the specifier are both maximal projections:

(37) \[
\begin{array}{c}
\text{XP} \\
\text{Spec} \quad \text{X'} \\
\text{ZP} \\
\text{X} \quad \text{YP}
\end{array}
\]

The hierarchical relations between the projections are defined in terms of c-command.

A node X c-commands a node Y iff:
(i) X does not dominate Y;
(ii) Y does not dominate X;
(iii) The first branching node Z dominating X dominates Y.

In early generative grammar, it was assumed that only lexical categories were able to project phrases. Initially, X-bar theory, the part of the grammar that regulates the structure of phrases, was developed for verbs, nouns, adjectives and prepositions. Later on, it was proposed that functional items, including inflection, are also able to project syntactic structures that conform to the X-bar scheme. In particular, the studies in the clausal (cf. Chomsky 1986) and nominal (cf. Abney 1987, Szabolcsi 1987) domains contributed to the development of this proposal.

Abney’s and Szabolcsi’s work, where they propose and advocate the DP hypothesis, changed the way in which the structure of NEs was analyzed. In traditional X-bar theory, NEs are analyzed as projections of the lexical category N(oun) and they are therefore structurally represented as NPs. Under this approach, determiners are
considered to be modifiers of the head noun, just like adjectives, numerals and demonstratives. The DP hypothesis (Abney 1987; Szabolcsi 1987), which is part of a more general theory of functional head discussed here in section 4.2.2, proposes that determiners head their own projection, DP, in which the determiner generated under D takes the NP as its complement.

4.2.3 The structure of the nominal functional domain

The extension of the X-bar theory to the non-lexical categories gave an impetus to the investigation of the functional domain, which led to further proliferation of functional projections. Projections, which were traditionally treated as unitary, were claimed to exhibit an articulated functional domain (cf. Cinque 1994, 1999; Pollock 1989; Ritter 1991, 1992; Rizzi 1997, 2001, 2004a,b, among others). Functional heads that make up such an articulated functional domain do not always strictly correspond to a certain lexical category. They represent morphosyntactic features and can thus be realized by a set of functional or lexical elements which express these features.

The assumption that the set of morphosyntactic features used in the languages of the world is universal (see section 4.2.1) and that the cross-linguistic variation is mainly due to the differences in the exhaustiveness of the overt morphological inventories which spell out these features gave rise to a hypothesis that “the distinct hierarchies of functional projections may be universal in the inventory of the heads they involve, in their number, and in their relative order” (Cinque 2002: 3). Given this assumption, the goal of the research into the functional domain is the systematic mapping of the presumably universal hierarchies of functional projections. The branch of generative grammar that takes on this enterprise is referred to as cartography (cf. in particular Rizzi 2004b; Cinque 2002; Belletti 2004).

After the introduction of the DP-hypothesis, much work has been done in the study of the organization of the functional domain dominating NP. It has been shown that the structure of DP parallels the layered structure of the sentence (CP). Szabolcsi (1987) argues that the structure of DP includes three layers. These are (a) the core predicate layer (the layer of the lexical noun head and its arguments), (b) the functional layer that consists of a number of functional projections that host agreement features and whose specifier positions are occupied by nominal modifiers (adjectives, numerals and demonstratives) and (c) the nominal left periphery that hosts the features expressed by nominal determiners. Following the analogy between DP and CP, some scholars have further suggested that the nominal left periphery, like the sentential left periphery, possesses an articulated structure, where each morphosyntactic feature is realized as an independent projection. These include, for example, the Number Phrase (NumP), which projects between D and NP and is the locus of number specification (Ritter 1992). Borer (2005) further proposes that one can distinguish two layers within NumP itself. These are Classifier Phrase (ClP), which encodes Individuation, and Quantity Phrase (QP), which encodes Quantity (i.e. singular vs. plural). ClP is realized by means of classifiers
in languages like Chinese, but it may also be realized by means of the plural marker or the indefinite determiner in languages like English. The quantity feature is also expressed by means of the plural marker and the indefinite determiner which are thus assumed to raise from CIP, where they are base-generated, to QP.

Following Rizzi’s (1997) analysis of the left periphery of the clause, Ihsane and Puskás (2001) make a structural distinction between a functional projection in which specificity is realized and another one which hosts definiteness. They argue that “[t]he projection hosting the [+/- definite] feature syntactically corresponds to the clausal Finiteness Phrase, the lowest projection of the left periphery, whereas the [+specific] feature characterizes a projection parallel to the clausal Topic Phrase in that it hosts information which has already been introduced in the discourse” (Ihsane and Puskás 2001: 39). In section 4.1.8, I already articulated the relationship between specificity and topicality. The relevant functional projections in the nominal domain are referred to by Ihsane and Puskás as Topic Phrase (TopP) and Definite Phrase (DefP). Based on the assumption that the highest projections of the left periphery are linked to discourse, Ihsane and Puskás propose a structure of the nominal left periphery in which TopP is higher than the DefP:

(38) TopP
    Spec → Top’
    Top → DefP
        Spec → Def’
        Def → NP

As do Ihsane and Puskás (2001), Aboh (2004a) argues that the features specificity and definiteness are associated with two distinct functional projections. According to Aboh’s Split-D hypothesis, specificity and definiteness are realized in DP and NumP, respectively:
Aboh (2004b, 2010) modifies this proposal along the lines proposed by Ihsane and Puskás, arguing that specificity marking corresponds to topic marking inside the nominal domain and that specificity markers are realized under TopP. Following the parallel between the nominal and the sentential domains, he argues that TopP is projected below DP. In Aboh’s proposal, D corresponds to C. D is solely viewed as a subordinator which turns the predicate NP into an argument and is not associated with the realization of definiteness, which is realized lower in the DP. In the present work, which focuses on the semantics of creole determiners, I follow Ihsane and Puskás (2001) in the assumption that the D-layer, which is responsible for the realization of the definiteness feature, is located under TopP, which is oriented towards discourse.

Building up on the work discussed above, I view the nominal structure as follows:
4.2.4 Non-overt features and the issue of the null D

The next question is, of course, whether all the layers in articulated DP always project. Here, I adhere to the general assumption that if a surface form is unspecified for a certain feature, the relevant functional head projects, if this form may nevertheless be interpreted for this feature. For instance, while definite NEs in English are not overtly specified for specificity, TopP still projects as they always receive specific or non-specific interpretation in discourse. Also, specificity in English may be expressed lexically, by means of adnominal demonstratives. The only condition under which the functional head does not project is when the NE is underspecified for the feature that heads this projection. For instance, according to Borer (2005), ClP projects only with nouns that refer to bouded entities, which always must check their individuation feature. When a noun refers to a mass and, therefore, cannot be individuated, ClP is absent from the structure.

In the context of the discussion of non-overt functional heads, the issue of the universality of D is particularly important. The central argument underlying the DP-hypothesis is that NP is predicative and may therefore only denote but not refer; D assigns reference and argumental status to NP. Under the assumption that only DPs can be arguments, the occurrence of determinerless NPs in argument positions is problematic. As mentioned in section 4.1.8.3, there are many world languages that either do not have definite determiners at all or have determiners but allow for determinerless nouns under certain syntactico-semantic conditions. Since creoles generally belong to the latter type of languages, the issue of the universality of D is extremely relevant for the present study.

The most wellknown solutions to the problem of determinerless NEs have been put forward by Longobardi (1994) and Chierchia (1998). According to Longobardi (1994), NEs always project a full DP regardless of whether they occur with an overt determiner or not. If a determinerless NE occurs in an argument position, N is assumed to have raised into the D position (overtly or covertly), or the NE is assumed to comprise a null D + N. According to Longobardi, the first scenario is applicable to proper names and generics, and the second to determinerless common nouns. Longobardi maintains that determinerless common nouns may only occur in lexically governed positions. Typically, a null D is lexically governed by V. While this observation is true for the Romance languages analyzed by Longobardi, it is not valid for many other languages of the world, including creoles.

Chierchia (1998) approaches the issue of the universality of D from the cross-linguistic perspective and proposes the Nominal Mapping Parameter, which allows for cross-linguistic variation in the denotations of NEs. The Nominal Mapping Parameter presumes that denotation of nouns varies across languages. According to Chierchia, languages vary as to whether nouns are stored in the lexicons as Kind-denoting terms, predicate-denoting terms or both. Kind-denoting nouns possess the status of arguments and, according to Chierchia, they are specified as [+arg]. Nouns that are [+arg] do not
need D to be used as arguments. Kind-denoting nouns can be found in languages like Chinese that have a generalized classifier system and no plural morphology. The fact that nouns in Chinese are inherently argumen tal accounts for the fact that determinerless NEs in this language may freely occur in argumental positions. In contrast to Chinese, in Romance languages NEs are predicates, and cannot function as arguments unless the category D is projected. D is thus considered to contain a semantic operator which triggers a shift from Predicate to Kind. Finally, there is another language type represented by Germanic and Slavic languages. They behave like Romance languages with regard to some NEs such as singular count nouns, and like Chinese with others such as mass and plural nouns. In these languages, NEs may be both predicative and argumental.

The crucial question in Chierchia’s proposal is how definite interpretation is obtained. He proposes that determinerless languages have a non-overt iota operator which is semantically equivalent to the definite determiner. In languages that do have a definite determiner, the iota operator is made unavailable by virtue of the following principle: “If there is a determiner D whose meaning is a particular type shifting, then use of that operation as an automatic type-changing factor is blocked” (Chierchia 1998: 15). Creole languages, in which determiners appear optional in certain semantico-syntactic contexts, present an interesting challenge to Chierchia’s Blocking Principle (see Chapters 7-9).

4.2.5 Word order and movement

In the empirical chapters of this book, we will observe that creole languages show significant word order variation in the nominal domain, often combining word order properties from their superstrate and their substrate languages.

It has traditionally been assumed that the phrase structure rules only determine the hierarchical relations between a head and its complement and a head and its specifier, but not their linear ordering. Under this assumption, the cross-linguistic variation in the ordering in complement-head and specifier-head sequences is considered to be a matter of fixing the so-called directionality parameter. A significant drawback of this analysis is that it allows for word order options that are not attested in natural languages. Therefore, a more restricted account of constituent ordering has been proposed. This alternative account is known under the name of antisymmetry theory (e.g., Kayne 1994). According to this theory, UG determines the base order of constituents; and divergent orders are generated by additional movement. This base order is derived from the hierarchical relationship of constituents. Precedence reproduces asymmetric c-command, which only works rightwards. The base order is thus always specifier-head-complement. An example of the base order is SVO order in the sentence. In the nominal domain, in the base order all determiners and modifiers precede the NP (Cinque 1996 and much related work). This is illustrated in the structural representation provided under (41) below.
If the surface word order deviates from the local hierarchical relations between a head and its complement or a head and its specifier, as defined in terms of c-command, then movement is assumed to have taken place. The moved element is assumed to have left a trace in the position it has vacated (its extraction site). The trace is an empty category, which preserves the thematic relations between the moved element and other constituents in a sentence. The moved element and its trace are linked: they form a chain. The presence of this chain allows us to interpret the moved element.

There are different types of movement which are distinguished on the basis of the type of element which is moved and on the basis of the landing site. Based on the first criterion, we can distinguish between head movement, when only the head of a projection moves, and phrasal movement, when the whole maximal projection

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7 This part of the tree is adopted from Aboh (2010: 25) where he remains ambivalent as to whether modifiers are always maximal projections or whether they could also be heads (see Cinque 1994, 1996 and Panagiotidis 2000 for discussion).
undergoes movement. Based on the second criterion, we can distinguish between $A$-movement, a movement to an argument position and $A'$-movement, a movement to a non-argument position.

Movement is constrained by the structure-preserving principle. According to this principle, phrases can only move to positions which are also labeled as phrases, and heads must only move into other head positions. Also, movement has to respect syntactic categories: NPs can only move to NP-positions, or to positions that are not specified for a syntactic category.

Movement may affect either the surface representation of a linguistic structure, identified as a phonetic form (PF) or a spell-out or the interpretation, the so-called logical form (LF). The former type of movement produces word orders different from the underlying base order and is characterized as overt movement. The latter type of movement has no bearing on the surface ordering of constituents and is referred to as covert movement.

In generative studies, the idea of movement is invoked to account for word order variations across languages, particularly for the deviations from the alleged base order cross-linguistically observed in word order patterns.