1

Grammaticalization and Parametric Variation

MONTSERRAT BATLLORI, MARIA-LLUÏSA HERNANZ, CARME PICALLO, AND FRANCESC ROCA

1.1 Introduction
The title of this volume, Grammaticalization and Parametric Variation, is intended to capture the continuation of a tradition in the field of historical linguistics as well as the theoretical assumptions that have guided the study of grammatical variation and change in recent decades under the generative framework. As is well known, the term grammatization was used in Meillet (1912) to refer to processes of apparent category shifting and semantic weakening that some lexical items may undergo in language evolution and change. Elements that had entered into thematic relations partially lose features and gradually become functional-like elements such as clitics or inflectional affixes. The phenomenon, however, has been differently understood and assessed, depending on the view adopted with respect to grammar and language.

Under a functionalist perspective, where language is viewed in terms of its use, grammaticalization is considered a semantically pragmatic driven process (see Hopper and Traugott 1993). Linguistic change is, then, conceived as being mainly determined by non-linguistic cognitive faculties, and it is suggested that the properties of grammatical constructs can be influenced by social factors. These correlate with morphosyntactic and (sometimes) phonological changes in the particular grammars. Under this line of thought, phenomena related to language evolution and grammaticalization are understood as somewhat external to the linguistic endowment of the mind-brain.

\footnote{Lehmann (1995, 2002) and Moreno Cabrera (1998) offer a full description concerning the role of grammaticalization within language evolution.}
From the point of view of generative grammar, the grammatical properties of the utterances provided by historical material serve to characterize the system internalized by the speaker. The perspective that generative studies offer on this issue is that of assuming that universal grammatical principles can be expressed within certain limited options for variation. The language faculty is viewed as a (relatively) autonomous system, which can be examined independently of other cognitive capacities. The nature of the cognitive linguistic capacity does not lie in its use, although the language capacity is, of course, what underlies communication and the expression of thought. The main objections that functionalists put down to this formal approach is that it only deals with reanalysis (a particular aspect of grammaticalization) and that it does not provide an explanation for graduality, the claim being that the generative perspective can only capture abrupt changes.

Generative work has, however, faced some of these objections. Whitman (2000) proposes a minimalist typology of syntactic change where reanalysis (i.e. significant structure changes) is claimed to be, in fact, only one of the mechanisms involved. The emphasis is placed on how and why grammars (i.e. these internal and autonomous systems) can change in the process of acquisition by new generations of individuals. Grammaticalization is not treated as a linguistic phenomenon related to language-external factors but as a regular case of parameter change (see Roberts and Roussou 2003). This theoretical approach is assumed in many of the chapters contained in this volume.

The opposition between graduality and abruptness has been solved by appealing to the concepts of I(nternal)-language, where change can only be abrupt, and E(xternal)-language, where change follows a gradually changing path (see, for instance, Andersen 1973 and Lightfoot 1979, 1991, 1999, 2002a, 2002b). The double-base hypothesis proposed in Kroch (1989, 1994, 2000) offers an account for variation at the same period of time and within individual speakers, both diachronically and synchronically. The hypothesis proposes that speakers may acquire more than one grammar. These grammars, in competition, can give rise to cases of internal diglossia explaining variation within the same period and texts. Following a similar line, Lightfoot (2002a) distinguishes grammatical change from grammar change. The first is a consequence of contingent factors of language use, whereas the second is directly concerned with the basis of language acquisition. Thus, it can be said that grammatical changes are related to E-language and grammar changes

2 The concepts of I-language versus E-language were introduced in Chomsky (1986). The first refers to a component of the mind-brain of the native speaker, whereas the latter understands language as independent of the internal properties of individuals.
affect I-language. Both aspects are taken to be two sides of the phenomenon of language evolution.

The questions that both language acquisition and language change from the internalist perspective pose as well as the theoretical and methodological assumptions that linguists adopt to face them, will briefly be explored in this introduction. Section 1.2 presents some basic concepts that are directly relevant for setting the theoretical frame of the papers included in the volume. Our aim is briefly to discuss some conceptual issues to a reader who may not be particularly familiar either with the Principles and Parameters framework, or with some recent developments of it. Section 1.3 is devoted to characterize the properties of the so-called functional categories, given the central role that these syntactic entities have in this theoretical framework, as well as their relation to grammaticalization processes. In section 1.4, the notion of grammaticalization is considered in light of the issues introduced in the preceding discussion. Finally, an overview of the chapters contained in this volume is given in section 1.5. To facilitate the presentation, this last section has been divided in two parts: in the first one, we outline the studies dealing with grammaticalization phenomena; in the second section, the studies devoted specifically to several cases of parametric variation induced by a variety of grammatical factors are overviewed.

1.2 The Theoretical Framework

Almost since its inception, generative grammar has aimed to accomplish the maximum theoretical restrictiveness in order to obtain a principled and explanatory account for the diversity of linguistic phenomena. As research was advancing, this goal was constantly being challenged by the need to introduce too many descriptive devices to account accurately for the available data. An approach to resolve the challenge to explanatory adequacy was offered by the Principles and Parameters hypothesis.

1.2.1 The theory of Principles and Parameters

This theory, first formulated in the late 1970s, puts forward the proposal of conceiving Universal Grammar (UG) as a system of principles and parameters. A principle is a condition or a restriction that all grammars obey without exception, independently of typological variation. A parameter is the set of limited options in which a principle of grammar can be expressed. For example, a principle of grammar requires that there must be a one-to-one correspondence between the thematic roles encoded in the lexical entry of a predicate and the arguments related to it (AGENT, THEME,
EXPERIENCER, etc.). A variety of factors allow, however, a variation in the linear sequence in which arguments and predicate can appear within a sentence. In some languages, like the Catalan example (1a) or its English equivalent, the object with the role of THEME follows the verb; whereas in others, like in the Basque (1b), the object precedes it:

(1)  

a. La dona ha llegit el llibre  
the woman has read the book  

b. Emakumeak liburuak irakurri du  
woman-the book-the read has

The parameter can be expressed in terms of the linearization of verb-object structures. As the glosses show, a similar parametric variation can also be observed in the above examples with respect to the order in which Determiner and Noun appear. Another much discussed cross-linguistic difference that was set in terms of parameter variability is that some languages, but not others, allow subjects of tensed sentences to be phonologically null. The phenomenon was known as the null subject (pro-drop) parameter. It is exemplified by the contrast between the Spanish sentence (2a) and its French equivalent (2b):

(2)  

a. Ha leído estos libros  
has read these books  

b. Il/elle a lu ces livres (cf. *A lu ces livres)  
he/she has read these books

The formulation of this parameter triggered a lot of theoretical interest, since it was claimed to correlate with a number of other syntactic phenomena such as: the impossibility of having phonologically realized expletive subjects of the types it or there, the possibility of having postverbal subjects, and the apparent violation of conditions related to the distribution of certain empty categories. The latter phenomenon was discussed under the observation that a subject in many null subject languages could be extracted from a position immediately following a conjunction (i.e. the that-trace filter). In Romance languages, the correlation between the null subject property and the possibility of having clitic climbing out of an infinitive clause has also been much discussed (see Rizzi 1982, Burzio 1986, or Kayne 1989). The correlations suggested that a single abstract grammatical property could account for a

complex array of phenomena that had previously been considered unrelated (see, for extensive discussion, Jaeggli and Safir 1989, and all references cited there). The study of this parametric difference propitiated, moreover, a lot of research focused on the study and characterization of the so-called empty categories (i.e. phonetically null but syntactically present entities).

The Principles and Parameters model was initially designed to explain synchronic differences among languages, but it proved to be a powerful theoretical tool to account for different stages of language acquisition. Empty categories posed the question of how the child can interpret them, and deduce their syntactic presence, if they are absent from the speech signal. Empty categories have also been brought to the fore in the context of diachronic change. Thus, unlike Modern French, twelfth- and thirteenth-century Old French could have null subjects in certain environments. This was also the case of existential sentences in Early Middle English and Old English (see Adams 1987 for French and Williams 2000 for English). This fact triggers the obvious question of which factors could be at work to explain the loss of the pro-drop property.

The last twenty years has seen substantial developments in the Principles and Parameters model. The emphasis has gradually been shifting from the typology and characterization of empty categories and the study of movement operations with the abstract conditions applying to them, to a more parsimonious view of the syntactic objects that constitute the building blocks of sentential structures.

1.2.2 The Minimalist Programme

Earlier formulations of the Principles and Parameters framework assumed that syntactic movement can be applied freely, provided that principles of grammar are satisfied in a particular derivation. As research was advancing, it was observed that strong economy conditions appear to be at work to restrict the application of grammatical operations. The locality conditions on movement were observed to obey a 'least effort' requirement as well as being a 'last resort' option, applying only in those cases where no other grammatical mechanism is possible. 'Least effort’ and ‘last resort’ are at work in the contrast observed between the construction (3a) and their ungrammatical counterparts (3b) and (3c), which show that the argument a fly cannot be raised to the subject position of the infinitive clause or cross-over expletive there:

(3)  
   a. There seems to be a fly in the soup  
   b. *There seems a fly to be in the soup  
   c. *A fly seems there to be in the soup
The more recent development of the Principles and Parameters model (the Minimalist Programme; see Chomsky 1995 and subsequent work) emphasizes the pivotal role of economy conditions in evaluating all the possible derivations of a given construction. Basically, economy consists of saving grammatical and computational resources as much as possible. When an expletive like *there is selected to appear in a construction, it must be included in the computation (i.e. united or merged with another syntactic object) as early as possible, since the Merge operation is argued to be less costly than Move. Conditions of economy on cyclic operations account for the ungrammaticality of (3b) and (3c). In (3a) the selected expletive is first merged in the lower cycle (the subject position of the infinitive subordinate clause) and then moved to the main subject position, since Merge has priority over Move. In (3b) this computational priority (Merge over Move) has not been satisfied. In (3c) the argument has violated locality, crossing over the expletive that is in argument position:

\[ a. \text{There}_i \text{ seems } [t_i \text{ to be a fly in the soup}] \] (cf. (3a))

\[ b. \text{*there seems } [a \text{fly}_{ij} \text{ to be } t_j \text{ in the soup}] \] (cf. (3b))

\[ c. \text{*A fly}_{ij} \text{ seems } [\text{there to be } t_i \text{ in the soup}] \] (cf. (3c))

In addition to these constraints, a principle on grammatical constructs (Full Interpretation - FI) states that every element at the interface levels PF and LF (Phonetic Form and Logical Form, respectively) must receive an appropriate interpretation. The principle requires eliminating all the syntactic material that could have intervened in a syntactic computation but has no effect on the ‘borders’ of the linguistic system, the LF or the PF levels that connect with the other non-linguistic systems. An element that has no effect at LF is, for example, an expletive element like *there in the example (3a) above, since it occupies a syntactic position (that of formal subject) but has no thematic role, because it is not an argument of predication. *There is phonetically realized but it is non-interpretable at LF. Its Catalan, Italian, or Spanish counterparts (known as expletive pro) are also syntactically active, but phonologically null. Thus, in addition to its non-interpretability at LF, a null expletive subject is of course non-interpretable at PF.4

As said, LF and PF are the levels of representation that interact with the other systems of the mind or the body. The thesis that the Minimalist Programme puts forth is that grammar applies specific mechanisms

4 The Spanish equivalent to (3a) is parece haber una mosca en la sopa 'lit.: seems to have a fly in the soup.'
(i.e. computational operations) in order to be able coherently to link to the conceptual/intentional and the sensory/motor systems. In other words, the language faculty has to adapt in the best possible way to the conditions and restrictions imposed by external factors, in order to be usable for human interaction. This fact raises the question of the degree of ‘optimality’ that the linguistic system must meet. It allows one to consider the hypothesis of whether or not grammatical operations are, perhaps, the best possible adaptation to the restrictions imposed by the systems external to the linguistic cognitive module. Under this perspective, theoretical linguistics intends to characterize the minimal specifications that must be satisfied to fit the language faculty with non-linguistic systems. Making explicit those specifications would presumably improve the explanatory capacity of the model and account for the fact that computational complexity must also be minimal for the grammar to be learnable.

1.2.3 Properties of features

Lexical items consist of bundles of features that are chosen, for each language, from a universal pool of features. These grammatical units combine to form ‘major’ categories such as nouns and verbs—as well as adjectives in many languages—together with the functional elements that constitute their extensions (see section 1.3). The Minimalist Programme framework has focused closely on the properties of features and explicitly adopts very strict notions of economy to drive the relations between grammatical objects in terms of them. The characterization of feature properties (i.e. whether they are interpretable or not) together with strict economy have allowed further unification of all instances of movement (no longer an optional operation as in the early PP model) by assuming that Move only applies for the purposes of checking (and deleting/erasing) the non-interpretable features of syntactic objects. Thus, the checking procedure constitutes the motor of movement. One of the non-interpretable features that may trigger movement is the so-called EPP feature, which is present in at least one of the functional projections that constitute Inflection (i.e. the functional extensions of VP). The EPP feature can either be checked and erased by raising an argument from a thematic position, as in the Spanish sentence (5a), or by merging with INFL an expletive element (overt or null, depending on the

---

5 The label EPP to refer to a feature is probably a misnomer, but it is being used for convenience. The acronym stands for Extended Projection Principle. It was initially formulated as a well-formedness condition that requires clauses to have a formal subject, either an argument or an expletive (see Chomsky 1981 and Rothstein 1983).
language) that was previously selected from the lexicon to form a derivation, as in (5b):\(^6\)

\begin{equation}
5.5 \begin{array}{c}
\text{a. } [\text{IP } \text{Tu padre} [\text{EPP} [\text{VP } \text{ha llegado } t_i]] \\
\text{your father has arrived} \\
\text{b. } [\text{IP } \text{pro} [\text{EPP} [\text{VP } \text{ha llegado tu padre}}]] \]
\end{array}
\end{equation}

Formal specification of person (gender) and number on the verbs in tensed sentences (in agreement with the argumental subject) are also considered non-interpretable. These morphemes do not add any semantic information that is not already provided by the interpretable person (gender) and number features of the DP with which the verb agrees. Such features of the verb are also checked and erased by mechanisms taking place at the syntactic component. Although it is not LF interpretable, verbal inflection is spelled at PF in the Romance languages. The procedure is represented in the following Spanish sentence:

\begin{equation}
6.5 \begin{array}{c}
\text{a. } \text{Han florecido muchos rosales} \\
\text{have[3PL] bloomed many rosebushes-3PL} \\
\text{AGREEMENT}
\end{array}
\end{equation}

Non-interpretable features in arguments are structural case and grammatical gender specification in determiner phrases (DPs). The following examples in Catalan show that any combination of structural case (nominative or accusative) and gender (masculine or feminine) in DPs can be associated with any thematic role, a fact that suggests that case and gender are not present at the LF component and are erased at some point in the derivation:

\begin{equation}
7.5 \begin{array}{c}
\text{a. } \text{La cadira està trencada} \\
\text{the chair-nom.fem is broken-fem} \\
\text{b. } \text{Ha arreglat el sofà} \\
\text{have-3sg fixed the sofà-acc.masc} \\
\text{‘S/he has fixed the sofà.’} \\
\text{c. } \text{Aquest quadre ha guanyat el primer premi} \\
\text{this painting-nom.masc have-3sg won the first prize-acc.masc}
\end{array}
\end{equation}

\(^6\) The constructions in (5) exemplify sentences with an unaccusative verb, a predicate that cannot assign accusative case to its internal argument. The subject of these verbs is syntactically akin to the direct object of transitive verbs (see, among many others, Burzio 1986 and references cited therein). The VP structure of a sentence with an unaccusative verb is represented in (i):

\begin{equation}
\text{(i) } [\text{IP } \ldots [\text{VP } V_{\text{unaccusative}} \text{ DP}]]
\end{equation}
Differences within grammars (i.e. different parameter settings) are conceived as stemming from the properties of the features that constitute the lexical items, the building blocks of phrases. Some grammatical changes are thought to be encoded in the properties of the formal features of the functional categories (see Borer 1984), to which we now turn.

1.3 Functional Categories

Functional categories are grammatical objects that can express morphosyntactic or semantic information. They constitute the syntactic extension of the thematically related major categories (nouns, verbs, adjectives, and some prepositions) and serve to connect in various ways the syntactic relations that take place within a sentential structure. Functional categories consist of bunches of features, some of which are non-interpretable (like the EPP feature alluded to above, for example). Some other features are interpretable and, although they do not encode thematic relations, they may contribute to the interpretation of a sentence in several aspects.

The articulated representation of a sentence contains three types of structural layers, VP, IP, and CP. The VP level encodes thematic information and is the locus where the assignment of thematic roles takes place. The inflectional level (IP) contains the functional elements corresponding to the inflectional morphological markers related to V. The complementizer level (CP) encodes the illocutionary force of the sentence. Like IP, the CP layer hosts a variety of categories, ranging from topics to operator-like elements, as we will see. The hierarchical organization of these three basic layers is represented in (8):

\[ \text{CP} \ldots [\text{IP} \ldots [\text{VP} \ldots]] \]

The elements contained in the CP and IP layers are not theta related but play a crucial role as they interact with lexical categories in a double way: they can bear morphological information related to lexical elements and they provide landing sites for movement rules. The representation (8) above is a rough schematized approach that cannot capture the vast array of syntactic phenomena taking place in the sentential structure. A more detailed look at functional elements follows in the next subsections.

1.3.1 The functional projections of nouns and the IP-VP layers

We will first briefly characterize the types of minimal functional categories that can be assumed to constitute the immediate extensions of thematically related categories such as nouns and verbs. The determiner (D) constitutes
the extended projection of NPs. With the label D we can refer to definite and indefinite articles, demonstratives, and quantifiers. This category can confer on a nominal construction the status of argument and can contribute to its interpretation by expressing some properties like (non-)specificity. Its semantic contribution can also be that of restricting the range of referents denoted by the nominal with which it occurs.

Determiners can be overt or non-overt. The distribution of empty or phonologically realized determiners depends on several syntactic factors and on the types of nouns with which they co-occur. Examples of overt determiners are shown in (9a). Null determiners are realized in the bare NP object constructions like (9b):

(9)  
- a. I have seen [DP the/a/every[NP unicorn]]
- b. I want [DP D[NP water/flowers]]

Let us mention in this context, without elaborating the discussion in any way, that pronouns have been considered an expression of the category D in many languages. This fact is particularly clear when considering the morphology of articles and pronouns in the Western Romance Languages, which all involve the reanalysis and several degrees of grammaticalization of the Latin demonstratives ille–illa–illud (see Batllori and Roca 2000, and all references cited there).

Inflection (INFL) is also a cover term that serves a diversity of functional categories above VP. Pollock’s (1989) analysis of the position of the verb in English and in French led to the conclusion that an articulated structure of INFL had to be postulated. It has been proposed that INFL can split into Agreement nodes (AgrP), hosting non-interpretable agreement features related to the subject and the object (person, gender, and number) with an intervening Tense Phrase (TP), which expresses the eventive structure of the sentence. Pollock’s influential proposal has given rise to further developments in the functional domain immediately dominating the VP. The category Aspect (Asp) has been proposed to express semantic notions such as ongoing or completed states of affairs, whereas verb (v) encodes the notion of causality. The hierarchy of these INFL projections is represented in (10):

(10)  
\[ \text{CP} C[\text{AgrP AgrS[TP T[AspP Asp[AspO[\text{(subject)} v[\text{V(object)}]]]]]]}] \]

Other functional projections have been postulated besides the ones just mentioned. The expression of (negative) polarity is instantiated by means of a separate node NegP (see Pollock 1989 and Zanuttini 1997) or ΣP (Laka 1990).

---

7 See, however, the alternative put forward by Boucher’s chapter in this volume.
In addition, it has been suggested that a MoodP should also be postulated to encode mood (Rivero and Terzi 1995, Pollock 1997), and that different classes of adverbs fill the specifier positions of distinct maximal projections, as proposed in Cinque (1999) (see Haegeman 1997a for a more detailed account of these issues).

Several chapters in this volume discuss particular properties of the above mentioned functional categories for a variety of diachronic stages of several languages. For reasons of space, our purpose here is that of offering only a very general background for their proposals. The next section is devoted to discussing the general properties and the distribution of the functional projections above INFL.

1.3.2 The CP layer

Rizzi (1997) proposes that the complementizer layer must be decomposed the same way as the IP layer, in order to capture a variety of phenomena in the left periphery of the sentence. He argues that the complementizer system, which minimally consists of a specification of force besides a specification of (non-)finiteness for IP, may also consist of a Topic and a Focus field, expressing the topic-comment and focus-presupposition articulation, respectively. The CP node splits into four separate projections, as represented in (11):

(11) \[
\text{ForceP F \{TopicP Top \{FocusP Foc \{FinitenessP Fin \ldots \}\}\}\}
\]

The CP system may be seen as the interface between two kinds of information, one facing ‘outside’ the sentence and the other oriented to the lower sentential structure. The external boundary of the CP field instantiates the illocutionary value or the force of the sentence (declarative, interrogative, exclamative, relative, etc.). Thus, English complementizers like that and whether clearly determine the type of clause (declarative and interrogative, respectively) that they introduce, as well as its articulation to a higher clause. The downward boundary encodes the properties of the embedded IP, namely its finiteness. This analysis captures the traditional assumption that complementizers are sensitive to certain characteristics of the verb, a fact that has usually been formalized by postulating agreement between C and I: in English, that selects finite clauses, whereas for takes infinitival clauses. Between these two boundaries, Rizzi proposes that two nodes related to the informational structure may project Topic and Focus, as shown in (11).

---

8 In the absence of Topic and Focus, the force-finiteness system can be expressed on a single head. When the topic-focus system is activated, Force and Finiteness must be represented as two distinct projections. See Rizzi (1997, 2001) for further discussion.
As opposed to the force-finiteness system, Topic and Focus are independent from selectional constraints. The Topic projection (TopP) is activated to host topicalized constituents, expressing old information. The Focus projection (FocP) is the locus of focalized elements, which introduce new information. They are clearly distinguished in Italian and in other Romance languages. Topicalization is expressed by the construction usually labelled Clitic Left Dislocation (CLLD), as in (12a). Focalization is obtained by preposing the focal constituent, which receives contrastive intonation, as in (12b). Rizzi (1997) assumes that topicalized and focalized elements are located in the specifier position of the functional projections TopP and FocP, respectively. The following Italian examples are from Rizzi (1997: 286):

(12)  
\( a. \) Il tuo libro, lo ho letto
the your book it have-1SG read
‘Your book, I have read it.’

\( b. \) il tuo libro ho letto (non il suo)
the your book have-1SG read not the his
‘Your book I have read (not his).’

The proposal sketched in (11) accounts for a vast array of empirical data, both diachronic and synchronic, whose analysis suggests that the CP layer is not as simple as previously assumed. For example, it is widely known that dialectal, colloquial, and standard varieties in a number of languages provide evidence showing that the specifier and the CP head can be simultaneously realized, which appears to be violating the so-called ‘Doubly-filled Comp’ filter. The constructions include both a wh-phrase and a subordination particle, the former targeting the Spec,CP position, and the latter located in the head of CP, as in the following examples:

(13)  
Où que tu vas?
where that you go
‘Where are you going?’
(Radford 1988: 501)

(14)  
¡Qué guapa que es Julia!
what beautiful that is Julia
‘How beautiful Julia is!’

9 In contrast with Colloquial French (among other languages), interrogatives with ‘Doubly-filled-COMP’ are banned in Spanish:

(i)  
¿Qué (*que) ha dicho Julia?
what that have-3SG said Julia
‘What has Julia said?’
It has also been noted by many authors that the classical analysis for the CP level as consisting of a single functional projection is inadequate to account for some cases of preposing. For example, English negative inversion shows movement of both the preposed negative constituent and the auxiliary, as illustrated in (15):

(15) Lee said that *at no time would* she agree to visit Robin

Haegeman (2000: 47) notes that in (15) two constituents appear between the complementizer *that* and the specifier of IP: a maximal projection (the preposed negative constituent *at no time*) and a head (the auxiliary *would*). Assuming that complementizer *that* is base generated in Force0, it is clear that the landing site for the moved elements in (15) must be a lower projection, i.e. Focus Phrase. More precisely, the preposed negative constituent targets the Spec,FocP position, and the auxiliary moves to Foc0:

(16) Lee said[[ForceP that [FocP at no time [Foc would[IP she agree to visit Robin]]]]]

Finally, a theory involving a single CP projection cannot account for the distribution of a variety of elements that have usually been located in the left periphery of the sentence: (i) interrogative (and exclamative) phrases, (ii) relative pronouns, (iii) topicalized elements, (iv) focalized elements, etc. As is well known, most of these elements have been argued to occupy the specifier position of a functional projection. Furthermore, there is evidence that many of them obey strict ordering constraints, rather than being in complementary distribution. In Italian, and in other Romance Languages, CLLD normally precedes focalized elements, as in (17). Analogously, interrogative phrases must follow topics in main questions, as shown by the contrasts in (18):11

---

10 The example (17a) shows that CLLD may involve various constituents, a possibility that is banned for focused elements (see Rizzi 1997: 290). On the basis of this asymmetry and further distributional evidence, the representation in (11) may be reformulated as in (i):

(i) ForceP (TopicP) (FocusP) (TopicP) FinP IP

See Rizzi (1997: 289 ff.) for a detailed discussion of some differences between Topic and Focus.

11 The ill-formedness of the examples in (17b) and (18b) seems to suggest that both focused elements and interrogative phrases behave alike, due to their quantificational nature. Additional support for this claim comes from the fact that they are mutually incompatible:

(i) a. *a chi il premio Nobel dovrebbero dare?
   to whom the prize Nobel should-3pl give
b. *il premio Nobel a chi dovrebbero dare?
   the prize Nobel to whom should-3pl give

(Rizzi 1997: 298)
(17)  a. A Giorgio, un posticino, il dottor Piva può trovareglielo!
   ‘To Giorgio, a job, doctor Piva can find it to him!’

   b. *Il dottor Piva, a Giorgio, un posticino può trovareglielo!
   *(Benincà 2001: 46)

(18)  a. Il premio Nobel, a chi lo daranno?
   ‘The Nobel prize, to whom will they give it?’

   b. *A chi, il premio Nobel, lo daranno?
   *(Rizzi 1997: 289)

With respect to the distribution of relative operators and topics, the former have to precede the latter in Italian, as well as in other Romance languages, as shown in (19) below. A similar situation arises with the finite complementizers (that in English, che in Italian, que in Spanish and Catalan) encoding the force value of a sentence, as in (20). The examples are from Rizzi (1997: 289):

(19)  a. Un uomo, a cui, il premio Nobel, lo daranno senz’altro
   ‘A man, to whom, the Nobel prize, they will give it undoubtedly.’

   b. *Un uomo, il premio Nobel, a cui lo daranno senz’altro
   *(Rizzi 1997: 289)

(20)  a. Credo che il tuo libro, loro lo apprezzerebbero molto
   ‘I believe that your book, they would appreciate it a lot’

   b. *Credo, il tuo libro, che loro lo apprezzerebbero molto
   *(Rizzi 1997: 288)

The data provide empirical evidence that both relative operators and the finite complementizer occupy a higher position in Force, while elements located in the Topic/Focus field appear in a lower position.

Rizzi’s (1997) seminal work has triggered a vast amount of research. Some of the chapters in this volume rely on Rizzi’s split-CP proposal and suggest further extensions of it (see the chapters by Martineau and Vinet, Poletto, Labelle and Hirschbühler, and Munaro in this volume). It is worth emphasizing that a number of issues in this domain have received a lot of attention assuming that interrogative phrases target Spec,Focus in main questions, the ungrammaticality of the examples in (i) can be traced back to the assumption that the interrogative phrase a chi and the focused constituent il premio Nobel compete for the same position and hence cannot co-occur.
since the late 1990s. They are concerned with the nature of topics, the status of interrogative complementizers, and the functional representation of the sentential force, among others. Some questions remain open and different refinements or modifications of the structure represented in (11) have been proposed in recent literature.

1.4 Syntactic Change and the Minimalist Programme

The gradual shift from the properties of categories to the properties of features from the early Principles and Parameters model to the Minimalist Programme framework that we have been discussing has affected the characterization of what may constitute a possible parameter. Although in the earlier stages of the model it was already understood that each and every observed difference between one language and another could not be stated in terms of a parametric change, there was no formal characterization of the notion of parameter. A parameter was conceived as an independent property of a language that could trigger a cascade of consequences. The properties with respect to which languages vary were supposed to organize themselves in clusters, allowing researchers to propose a typology of languages with respect to the co-occurrences of phenomena associated with a given parameter. Within the set of general assumptions that we have summarized in the previous sections, parameters cannot be conceived the same way in the Minimalist Programme model. In this framework, language change has to be accounted for (at least in part) by taking into consideration the properties of individual features. Moreover, how non-interpretable units locally affect, or are affected by, the feature content of other syntactic objects through a checking procedure must be explained. Diachronic change can then be viewed as small differences in how features, with given values, relate to each other. Assuming economy guidelines and focusing the domain of inquiry on smaller and less observable grammatical entities require more fine-grained analyses of syntactic constructs.

---

12 See Benincà (2001), who argues that, in addition to TopP, a higher position (DiscourseP) for ‘hanging topics’ (HT) must be postulated. See also Rizzi (2002) for a detailed discussion of interpretive and distributional differences between topics and preposed adverbs.

13 As for interrogative complementizers, Rizzi (2001) suggests that in Italian and other Romance languages, interrogative ‘if’ is located in a lower position (IntP) than declarative ‘that’.

14 This issue is addressed in Zanuttini and Portner (2002). These authors claim that the label illocutionary force, as it is based on the speaker’s intention, must be kept separate from the notion of clausal type, which refers to syntactic information such as the fact that a sentence is a declarative, a question, an exclamative, a relative, etc. This gives rise to the question of whether sentence typing and the illocutionary value of an utterance can be instantiated by different specific functional projections in the CP domain.
1.4.1 Learnability and variation within the generative framework

Within the theoretical viewpoint we have just sketched, the always puzzling question of why grammars should keep evolving instead of remaining invariant takes a renewed interest and can be considered from different perspectives. Change occurs even in the absence of social or historical events able to interfere abruptly in the normal transmission of input data. Bearing in mind that change takes place as each new language learner constructs the I-grammar, the process could be sketched as follows (from Andersen 1973):

\[\begin{array}{c}
\text{Grammar I} \\
\downarrow \\
\text{output I}
\end{array} \quad \begin{array}{c}
\text{Grammar II} \\
\downarrow \\
\text{output II}
\end{array} \quad \text{(I-Language)}
\]

\[\begin{array}{c}
\text{Grammar I} \\
\downarrow \\
\text{output I}
\end{array} \quad \begin{array}{c}
\text{Grammar II} \\
\downarrow \\
\text{output II}
\end{array} \quad \text{(E-Language)}
\]

Given the relevance attributed to the language environment, linguists have focused on the nature of the input in the acquisition process. Two different hypotheses have been built to explain the process of learnability: the ‘overall input matching’ hypothesis and the ‘partial matching’ hypothesis. The first one is highly UG driven and assumes that the learner seeks to match the input in full and all the potential values of UG for each parameter. Then, the diachronic change is triggered when the input is regarded as inconclusive by the learner (see Clark and Roberts 1993). This amounts to saying that change in grammars is endogenous. The ‘partial matching’ hypothesis considers that only a partial structural analysis of sentences is relevant for the setting of parameters. Lightfoot (1991, 1999) has pointed out that there is a tension between the facts (i.e. language evolution) and models of acquisition/change that assume that language learners analyse sets of sentences as input, to further proceed to select the grammars successfully matching such input. These models predict that grammars should be stable under normal conditions and do not successfully explain diachronic language change. Lightfoot suggests that the only two aspects that learners pay attention to are root clauses and, following the proposals put forth by Dresher (1999), claims that the trigger for variability across time cannot be sets of sentences. The triggers are partially analysed structures that have undergone slight changes and which act as cues that the learner derives from the input. A working methodology along these lines is being applied to the study of dialectal/linguistic variation (see the introductory remarks in Kayne 2000a). This issue is specifically addressed in Guardiano and Longobardi’s chapter in the present volume.
1.4.2 Grammaticalization and parametric change

The theoretical constraints we have been discussing in previous sections delimit the set of hypotheses one can reasonably formulate within the Minimalist Programme framework. The cascade of consequences that a single modification in the properties of features can trigger can be more difficult to assess, and even more reduced in scope than previously thought. Given that the framework allows us to formulate questions concerning the most basic items of syntactic variation, the notion of possible parameter and our understanding of issues concerning acquisition/learnability and evolution of the syntax of languages are being continuously re-evaluated.

Roberts and Roussou (1999, 2002, 2003) concentrate on several questions raised by syntactic change in the context of the Minimalist Programme. They suggest that postulating the proliferation of features that have no syntactic-external existence (i.e. non-interpretable features) should be avoided, since it can lead to redundancies and circularity in the system and can affect the accuracy of the characterization of grammatical processes. These authors attribute variation among languages to the way functional categories are phonetically realized cross-linguistically; that is, languages vary with respect to the visible exponents of functional categories. Their work is specially relevant because it simplifies the specification of features, since, according to them, cross-linguistic variation results from differences regarding the features that have PF interpretation. This should reduce parametric variation to the presence at PF of a feature $F^*$ (a strong feature because it is phonologically realized). They describe the lexicon as containing the elements listed in (22):

\[(22)\]

\(a.\) Specified lexical categories [$\pm N, \pm V$], with their corresponding PF and LF properties.

\(b.\) Substantive universal sets of features of functional heads.

\(c.\) The diacritic $^\ast$, assigned to features of functional heads in different ways depending on the language.

Roberts and Roussou consider that PF realization is achieved either by movement (Move), by lexical insertion (Merge), or by lexical insertion and movement (Merge and Move), the favoured procedure being the most economical one (Merge preferred to Move).\(^{15}\) Their proposal is innovative

\(^{15}\) They introduce a notion of markedness into the parametric system so as to solve the conflict between a descriptively adequate analysis of grammaticalization and an explanatory adequate account of syntactic change as parametric change. The markedness of parameter values is defined in terms of a simplicity metric which enables the language learner to consider Merge less marked than Move (see Roberts and Roussou 2003: 201).
because it eliminates the circularity caused by having two coexisting primitives: feature checking and movement. Moreover, the model they put forth offers a comprehensive approach to grammaticalization, which is seen as a regular case of parameter change involving structural simplification (i.e. loss of movement) and a reanalysis of a lexical head as a functional head.\textsuperscript{16} Grammatization is defined as the consequence of an upward reanalysis to avoid feature syncretism and to favor structural simplification. Reanalysis generates a categorial change in a subset of linguistic items that share certain properties and undergo semantic bleaching and phonological reduction. The procedure gives rise to a new exponent for a higher functional head. According to them, grammaticalization is a natural form of endogenous change and is consistent with the fact that it is the most common parameter setting mechanism. In view of this approach, parametric change will take place whenever language learners converge on a type of parameter setting which differs from the one adopted by adult grammars. Hence the phenomenon of grammaticalization highlights the relationship between parameter setting and syntactic change.

1.5 An Overview of this Volume

1.5.1 Grammaticalization

This part contains eight chapters devoted to the study of a series of linguistic facts concerned with grammaticalization processes.

Munaro (Chapter 2) focuses on the grammaticalization of \textit{cosa/cossa} in Italian. Originally, this lexical item was a noun, but it gradually became a \textit{wh}-element that ended up in sentence initial position (as the specifier of a functional projection within the CP domain) where \textit{wh}-phrases usually appear. He proposes that \textit{cossa} was a head N that moved up to a head Q within the extended projection of NP and adds that the change that took place would consist of the reanalysis of \textit{cossa} as the head Q (i.e. \textit{cossa} is directly merged as the head Q). This grammatical change can be seen as an instance of ‘F\textit{*}Move > F\textit{*Merge}’ consistent with Roberts and Roussou’s view of grammaticalization and syntactic change. In addition, the analysis and the development put forward take into account the connection with the \textit{wh}-phrase \textit{che cossa}, the uses of interrogative \textit{che} and \textit{cosa/cossa} in several dialects and in successive stages of Italian, and the properties of the functional elements that

\textsuperscript{16} They argue that only a change from F\textit{*}\textit{Move} to F\textit{*Deep} gives rise to grammaticalization and that not all cases of loss of movement are instances of grammaticalization. See Roberts and Roussou (2003: 208) for a discussion related to loss of movement and downward reanalysis in English verbs, which cannot be considered a case of grammaticalization.
head the clause structure. In this sense, it is also noticed that in present stages of Italian, the use of interrogative *cossa* is linked to pragmatic factors (like speaker’s attitude). This suggests that *cossa* evolved from a nominal use to a ‘*wh*-interrogative’ element, and from this to a ‘*wh*-pragmatic’ element.

Pires (Chapter 3) studies several patterns of verb movement and clitic placement in Portuguese (especially in Brazilian Portuguese), and how verb movement is crucial for the final placement of clitics. He claims that verb raising to a functional head F higher than IP (Uriagereka 1995’s analysis) was lost in Brazilian Portuguese at the beginning of the twentieth century. This change, which can be formalized by considering that the head F became inactive in Brazilian Portuguese, is supported by the loss of the possibility of ‘verb-subject’ inversion (V-to-C movement) in cases where it had been possible during the eighteenth and nineteenth centuries, and by the increment of proclisis. The triggers for the acquisition of a grammar with no verb movement to F/C would be the fact that a high percentage of declarative sentences up to the eighteenth century displayed the order S-V because the subject also moved to a position higher than IP, and the fact that clitics appear optionally as enclitics or proclitics to the main verb. With these sentences on the language learner would not be provided with strong enough evidence and the sequence could be interpreted without movement of the verb. In other words, primary linguistic data do not contain clear evidence for verb movement to F (or to a functional head higher that IP) and this absence triggers the acquisition of grammars without verbal movement. This approach relies on the view of UG, language acquisition, and parameters in terms of cues put forward by Lightfoot (1991, 1999) and leaves aside the role that Roberts and Roussou (1999) attribute to markedness as a general tendency to structural simplification, but it seems consistent with Roberts and Roussou’s (2003) claim that marked parametric values need robust cues.

Labelle and Hirschbühler (Chapter 4) examine the position of the verb and pronominal clitics from Early Old French to twelfth-century Old French and propose that the change follows from the grammaticalization of illocutionary force features within the CP layer of the clause. According to them, in the early stages of the language the relevant feature that triggers syntactic order in the clause is [+D] (discursive), but in later stages the features that acquire an active syntactic role are [+DECL] (for declarative sentences), [+WH] (in interrogative yes/no sentences), and [+IMP] (in imperative sentences). These features are checked, respectively, at T, in Fin, which is reanalysed as Focus, and in the highest functional position, which probably corresponds to Rizzi (1997)’s Force. The empirical facts discussed cover V2 phenomena and the...
Tobler-Mussafia generalization concerning the position of clitics. The V₁ or V₂ orders in Early Old French are attributed to the need to satisfy a Topic/Focus feature in the highest functional projection. Checking of this feature can be achieved through V movement to its head, resulting in a V₁ clause with a postverbal clitic, if it is the case, or through an XP moved to or merged in its specifier, yielding a V₂ clause with, if it is the case, a preverbal clitic. From a strictly theoretical point of view, it is important to note that the grammaticalization process put forward differs from Roberts and Roussou’s (2003) approach in the fact that the grammaticalized element is not any lexical element but a (illocutionary) feature associated to a specific functional head.

Salles (Chapter 5) studies completive subordination patterns in Brazilian Portuguese compared with European Portuguese and with Archaic and Classical Portuguese. The general issue addressed is the way in which modality is expressed in Brazilian Portuguese. This leads to the study of three particular points that are specially taken into account: the loss of indicative/subjunctive morphology in verbs, the loss of ‘Aux-subject’ inversion configurations, and the reanalysis of para ‘for’ as a complementizer. Salles considers that modality can be realized through merging of a lexical item in C or through movement to C. The first option corresponds to infinitive constructions introduced by the preposition para, which is reanalysed as a functional head C that encodes irrealis modality. Then, infinitival clauses with para would have substituted subjunctive subordinate clauses as a consequence of the fact that in Brazilian Portuguese verbs do not express morphologically the distinction subjunctive/indicative. The second option is found in constructions with ‘Aux-subject’ inversion, which involve T-to-C movement and are in complementary distribution with ‘para + infinitive’ clauses. The approach outlined constitutes another piece of evidence for the idea that a change in the feature specification (and overt realization) of a functional head is the trigger for the syntactic change (or for syntactic differences between two grammatical systems). The proposal is also in accordance with the idea that merge of any particle is preferred to movement of any element (cf. Roberts and Roussou 2003). The grammaticalization of para as C instead of T-to-C movement would exemplify it.

Whitman and Paul (Chapter 6) offer an analysis for the evolution of the particle ba in Chinese and argue against the idea that Chinese languages have moved from a basic order OV to VO and, then, back to OV. The authors show that the evolution of the particle ba (originally a verb meaning ‘take, seize’) can not be seen as an instance of relabelling of this verbal form as a preposition, a kind of diachronic change widely attested in Chinese, and that, instead, it should be considered a case of grammaticalization into a functional head. The change can be described as the step from a lexical V ba that can
assign a thematic role to its object, to a functional element *ba* directly merged above VP and below a higher *vP*. The relation between this functional head and a lexical head *V* can be seen as the typical head movement process in which *V* moves to a higher functional head. Clearly, this approach preserves the order OV within VP in every stage of the language, and it is fully consistent with the claims that syntactic change preserves structural relations (Whitman 2000) and that movement ‘up-to-the-tree’ is related to grammaticalization and to the possibility of having direct merge of a grammaticalized element.

Boucher (Chapter 7) addresses the problem of the emergence of D heads in Romance and the interpretation and syntactic distribution of bare noun phrases. One of the main claims of the chapter is that there is no need to postulate the existence of a DP when no overt determiner is present. This statement applies to languages that lack overt determiners, like Turkish, Russian, Classical Latin, or Old German, and to bare NP constructions in languages with overt determiners like English or Romance languages. In order to provide an explanation for the existence of referential bare NPs and for the presence of these NPs in argument positions, Boucher modifies Delitto and Schroten’s (1991) Restricted Quantification Condition and confers a central role to number and case morphology. In this sense, it is considered that a strong specification of the head Num would do the work usually attributed to empty Ds. With respect to the expression of definiteness, it is proposed that it follows from the interaction of three functional projections: KP, NumP, and DP. Under this view, the appearance of overt determiners is a consequence of the erosion of case and number morphology and consists of the grammaticalization of functional heads that lose their original values: the loss of the deictic feature in the case of the definite article, and the loss of the strong quantificational feature in the case of the indefinite.

Tremblay, Dupuis, and Dufresne (Chapter 8) compare Old and Modern French, explore the changes in transitivity that took place in certain prepositions, and analyse the split of the older prepositional system into two subsystems. They propose that both the changes in transitivity and the splitting of the system follow from one single difference between the two stages of the language: the loss of verbal prepositional particles. The Modern French distinction between simple prepositions (*dans*), which appear with overt objects, and morphologically complex prepositions (*dedans*), which take an implicit object, did not exist in Old French. The main difference between them at this period was that only simple prepositions were used as intransitive particles attached to verbs (*issir hors* ‘to go out/to exit’). The loss of the productive particle verbal system (at the end of Middle French) led to no difference at all between the two types of prepositions and, as a consequence,
complex prepositions were reanalysed as non-derived prepositions and a system with competing lexical doublets was created. Later on, these doublets were reanalysed as two subsystems of prepositions differing in transitivity, in accordance with a general ban on doublets (Kroch 1994). The authors also point out that the grammaticalization process affected the ability of complex prepositions to assign case and that it involved structural simplification (Roberts and Roussou 2003).

Bartra (Chapter 9) investigates the evolution of the argument structure of (psychological) transfer verbs from Latin to Romance. She proposes that the original Latin structure, a construction labelled as accusative alternation in parallelism with the locative alternation or the dative alternation, consists of a small clause selected by the verb and headed by a final coincidence abstract preposition that relates two NP arguments. The Latin abstract preposition would be replaced by a lexical preposition in Romance as a consequence of the loss of case noun morphology and the extension of the use of prepositions. This change would yield in Old Romance two alternating structures that semantically differ in the SOURCE or GOAL meaning of the preposition. This semantic difference becomes crucial to the development of the argument structure in Modern Romance. If the preposition means SOURCE and the aspectual value of the predicate is [+telic], the preposition gets grammaticalized as a verbal prefix and the simple transitive structure is obtained. However, if the meaning of the preposition is GOAL, the two arguments must be expressed overtly and the result is a ditransitive structure. This work takes into account general aspects of the evolution from Latin to Romance, such as the loss of the case system and the increasing use of the preposition system, and offers a comparative picture of some Romance languages (Catalan, Spanish, French, Occitan) and several diachronic stages with respect to verbal argumental structure.

1.5.2 Parametric variation
The seven chapters of this section focus on many aspects of parametric variation including references not only to variation and phylogenetic relatedness among languages, but also to microvariation within the same language.

Guardiano and Longobardi (Chapter 10) provide the reader with a research model that applies historical considerations—such as phylogenetic taxonomy, grammatical typology, and population genetics—to abstract cognitive structures characteristic of parametric linguistics (parameters and parameter values). This model allows us to look into the identification of phylogenetic relatedness among languages and the definition of language families in greater
depth than ever before. After a systematic investigation of the facts, they supply
data concerning the phylogenetic relation and the chance probability of different
relationships among 105 pairs of Indoeuropean languages. A crucial step in
this research strategy is the choice of the parameters to be used in the compar-
isons. The authors consider that the best option is trying to be exhaustive in a
limited subdomain well defined within syntactic theory itself (for example, the
Parameter Grid for nominal syntax). From this standpoint they can undertake a
qualitative evaluation of the different classes of parameters according to differ-
ent degrees of historical stability: Deep or Genetic Parameters (which are most
often stable through time and deeply rooted in a language family); Areal
Parameters (whose values tend to be borrowed from surrounding languages);
and Shallow Parameters (the ones readiest to historical resetting).

Martins (Chapter 11) puts forward an analysis that derives synchronic and
diachronic variation with respect to clitic placement, VP ellipsis, and scram-
bling in Romance from the features of the functional heads Σ and AgrS (that
is, the interplay between the ‘strength’ property of Σ and the EPP of AgrS).
She shows that minimal answers to yes/no questions consisting of a bare verb
can be attested in languages where the polarity encoding functional head Σ
has strong features, as is the case of Latin, Portuguese, Galician, and several
Old Romance languages. Verbal answers to yes/no questions are taken as a
property of languages where strong Σ induces merging of this head with the V
head. Enclisis is seen as the outcome of the merger between V and Σ in
declarative affirmative main clauses, where C and Neg do not project, and VP
ellipsis is licensed by the Agree relation between strong Σ and V. The author
also studies the correlations between clitic placement, IP scrambling, and
interpolation structures in Old Romance. She gives a minimalist analysis
according to which the nature of the EPP feature (which can attract one or
more features), the subsequent possibility of projecting multiple specifiers,
and the strong specification of Σ become crucial to capturing the differences
among old and modern stages of several languages and between a language
like Modern Spanish, which does not allow enclisis with finite verbs, and
Modern Portuguese, where this kind of enclisis is possible.

Martineau and Vinet (Chapter 12) argue that, from a diachronic perspec-
tive, the realization of French negation has never been a homogeneous
phenomenon and it can be studied as a case of microvariation. Along
these lines, the presence or the absence of the particle ne follows from
semantic and syntactic factors. From this standpoint, they undertake the
discussion of certain facts connected to negation markers and to the left
periphery of the sentence. They notice that interrogative clauses seem to
display alternation between the presence of ne and its absence. In
direct interrogatives and, more rarely, in indirect interrogatives of Old and Middle French and also Classical French, *pas* (or *point*) is commonly used with a presuppositional reading without *ne*. Furthermore, the comparison with Quebec French provides clear evidence for the claim that interrogative questions and presuppositional interrogatives must be overtly checked in a special position of the left periphery. The presence of two different patterns in the use of either *pas* alone or *ne . . . pas* in yes/no interrogatives with discursive effects is attributed to the existence of microvariation systems within yes/no questions. The regularity observed suggests that the source of this microvariation is due to the semantic features involved and to a type of clause bearing discursive effects, such as presuppositional question forms and expressive structures.

Poletto (Chapter 13) explores the process of grammaticalization of two elements related to CP in Old Italian: the adverb *sì*, which is absent in Modern Italian, and the conjunction *e*. These elements are analysed, respectively, as an expletive merged in the specifier position of Focus and as a topic marker. She offers a detailed comparison between Old Italian and Modern Rhaeto-romance concerning the syntactic behaviour of left periphery elements and examines several V2, V3, and V4 structures. This leads to one of the most relevant points in the chapter: the correlation established between the V2 phenomenon present in several languages and the existence of a fully articulated CP structure along the lines of Rizzi (1997). Such a correlation gives an answer to the disappearance of the expletive particle *sì* once Italian turned into a non-V2 language, and serves to illustrate how reanalysis of an element as a functional marker (Focus or Topic) follows from the fact that it meets the appropriate structural conditions.

Matthieu and Sitaridou (Chapter 14) offer a comparison between Classical Greek, where split *wh*-constructions are generally allowed, and Modern Greek, where *wh*-splitting is impossible with the exception of genitive interrogative elements. The parametric variation between the two stages of the language is attributed to the bundle of *ϕ*-features present in the lexical item to be extracted and to its ‘determiner’ or ‘non-determiner’ status. The authors point out that in Modern Greek elements that show rich agreement and are not determiners (adjectives, quantifiers, and demonstratives in their analysis), can be extracted without need to pied-pipe the nominal. The crucial change from Classical to Modern Greek in this respect involved reanalysis of the *wh*-element as a determiner (seen as relabelling from modifier to determiner in terms of Whitman 2000), a process that is also consistent with the general view that determiners evolve from adjective-like elements. This approach is in
accordance with Minimalist Programme claims according to which parametric variation can be reduced to the feature specification of lexical items. The availability of split constructions is also related to the possibility of having null head modifiers (Greek and Romance languages versus English) and to the co-occurrence of demonstratives with the definite article. This enriches the comparison between Old and Modern Greek with parallel constructions in Romance languages and in English.

Pintzuk (Chapter 15) addresses the question whether Old English should be considered as a head initial or a head final language. She studies several contexts where there is clear variation in the linear order of verbs and their objects, paying special attention to the type of clause (main, conjoined, subordinate), the positive, negative, or quantified nature of the object, and finite or non-finite verbs. The conclusion is that the only way to account for all the variation exhibited concerning word order is to consider that there is grammatical competition between head final and head initial structures both in the IP and in the VP. Consequently, this work is claimed to constitute strong evidence against the idea that Old English can be analysed as a head initial language (with subsequent leftward movement of several constituents), as proposed by Roberts (1997) and Nunes (2002).

Haeberli (Chapter 16) offers an account for Old English clause type asymmetries that relies on the presence of a feature subject to parametric variation in Fin. The author provides us with a quantitative description of the asymmetries concerning the position of finite verbs in main clauses (generally V₂) and in subordinate and conjoined clauses (generally verb final). He argues that in Old English main clauses the finite verb moves higher than in subordinate clauses. The trigger for this movement is the presence of a feature in Fin that has to be checked by V (through movement to Agr, in terms of Bobaljik and Thráinsson's 1998 analysis). In subordinate clauses, Fin has a different status because it hosts the complementizer. Hence, the verb does not have to check any feature in Fin and moves only to T. The frequent verb final word orders in subordinate clauses result from the frequent use of head final TP (cf. Pintzuk’s 1999 double-based hypothesis according to which TP can be head initial or head final). Furthermore, Old English conjoined main clauses usually exhibit subordinate clause word order because they are conjoined at the AgrP level and the finite verb moves to Agr in the first conjunct while it remains in T in the second conjunct. The fact that verb final is not as frequent in conjoined main clauses as in subordinate clauses is explained in terms of variation concerning the categorial status of the conjoined constituents (AgrP/CP variation). This proposal has consequences with respect to the loss of verb movement in English.