Syntax-Information Structure Interactions in the Sentential, Verbal and Nominal Peripheries

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To my wife, Susana, and my girls, Jimena and Ángela, for supporting me so devotedly in my research.

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FOREWORD

In this book I am concerned with the interaction of different types of grammatical and discourse features to explain why languages may vary in their surface word order. It is my goal to address syntactic phenomena which are clearly motivated by issues pertaining to information structure. The framework adopted is the Minimalist Program as proposed by Chomsky (2008) and later work.

In Chapter 1 basic notions related with information structure (such as topic and focus) are discussed alongside a review of Miyagawa's (2005, 2010) typology of languages in order to show that languages differ from each other only minimally. This is the spirit of the Strong Uniformity Principle. Miyagawa's system is based on Chomsky's notion of feature inheritance. Chomsky claims that languages instantiate an array of grammatical features such as formal features (ϕ– features) which start in the Complementizer (C) and are inherited by Tense (T) via a lowering process. However, Miyagawa suggests that together with ϕ–features the derivation of a sentence involves the presence of discourse features (δ-features) which play a crucial role in syntax to obtain the adequate interpretation at the interfaces.

Languages are classified into two types depending on which kind of features lower onto T. English requires inheritance of ϕ-features but retains δ-features in C, whereas Japanese exhibits lowering of δ-features onto C but its ϕ-features remain in C. In this first chapter I show that Spanish patterns with English in that it requires ϕ-features to be inherited by T from C, but it also shares the Japanese property of lowering δ-features onto T. This is a novel approach which holds that the interaction between the two types of features in the left periphery is much stronger than what other formal approaches within generative grammar have previously argued for. I test its explanatory power by analyzing word order in the three types of language that this typology predicts.

The notion of phase is crucial to understand how the derivation of a sentence proceeds. Chapter 1 discusses the intricacies of C as a phase. In Chapter 2 I extend my approach to phases to the low periphery, namely the area which is around little *v*. I argue that, in strict parallelism with the C-T system, the *v*-V field also involves both ϕ-features and δ-features and that

the mechanism of feature inheritance also applies in this periphery. English is held to allow just ϕ-features to be lowered onto V from *v*, whereas Japanese requires the inheritance of δ–features by V from *v*. In connection with the feature lowering possibilities, I show that Spanish is an intriguing language in that it entails both ϕ-features and δ-features to be inherited by V from *v*. This is supported by the distinct word orders that small clauses exhibit in Spanish, which is claimed to be the result of different information structure partitions.

My analysis explains in a principled way why English shows a strict word order in small clauses whereas Spanish allows a flexible word order in these constructions, much in line with what happens in the CP. The role of feature inheritance in the two phases is extended to cover data from Turkish, Korean and other languages.

In Chapter 3 I turn to a kind of movement which involves a third type of phase, namely the Determiner Phrase (DP). To be more precise, I discuss cases of subextraction in the form of wh-movement from DPs in Spanish which are marked as dative. These DPs are introduced by the preposition-like element *a*. I call these objects *a*-DPs. They occur in ditransitive constructions and may be optionally doubled by a dative clitic. The puzzle arises when subextraction in the form of wh-movement is observed to be allowed only if the *a*-DP is doubled by the dative clitic; otherwise, subextraction is banned. To account for this contrast, I propose that *a* is just a functional preposition in doubled datives (an instantiation of Kase projecting a Kase Phrase (KP)), while it is a true preposition in non-doubled datives. KP is endowed with an Edge Feature which facilitates the extraction.

In addition, an analysis based on the cumulative approach suggested by Hageman et al. (2014) is put forth in which the degree of acceptability depends on the number of conditions that subextraction violates. In this view, the higher number of violations implies a higher degree of unacceptability. I discuss cases of wh-movement but extend the analysis to cases of focus fronting.

In Chapter 4 I deal with discourse-induced movement making a systematic contrast between English and Spanish. I introduce a typology of topics and foci, based on previous work by Frascarelli (2007), Frascarelli and Jiménez-Fernández (2019), Jiménez-Fernández and Miyagawa (2014), Camacho-Taboada *et al.* (2016), *etc*. More specifically, I discuss Aboutness-shift topics, Contrastive topics and given or Familiar Topics, on the one hand, and Information Focus, Contrastive Focus and Mirative Focus, on the other hand. I claim that these types of topics and foci are not always restricted to root or root-like contexts in all languages.

Whereas in English most of these discourse categories are Main Clause Phenomena (MCP), in other languages such as Spanish and Japanese some discourse categories are not MCP. Even within a single language we must observe a distinction between true MCP and fake MCP. This is the case of Spanish where I show that specific δ-features can either be inherited by T from C while other δ-features are retained in C. This explains why some topics and foci may occur in all syntactic contexts while others are banned in subordinate clauses.

To account for this cross-linguistic and language internal distinction, I propose that δ-features remain in C in languages such as English and hence all discourse-induced movements target the CP area. If some subordinate sentences contain an event operator which competes for the same position, unacceptability is produced due to intervention effects. However, in Spanish (and Japanese) the availability of some discourse categories in subordinate environments is explained by the inheritance of the δ-feature by T. If a given discourse category undergoes movement to the TP area there is no intervention with the event operator in embedded sentences, thereby yielding a grammatical output.

Finally, in Chapter 5 I offer the main conclusions from the previous chapters.

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The research here has been partially funded by research project PGC2018-093774-B-I00 of Spain's Ministry of Science, Innovation, and Universities (MICINN), and by the grant 2014/15/B/HS2/00588 from National Science Centre, Poland. I am grateful to Shigeru Miyagawa, Andrew Radford, Linda Badan, Andrés Saab, Alain Rouveret and Christos Vlachos for their comments, which have contributed to produce a more solid discussion of the topics I deal with in this work. Finally, I am most thankful to my colleague Jane Arnold for revising the English and to Paloma Ojeda-Fernández for her help in the formatting of the References.

CHAPTER 1

INTRODUCTION: WORD ORDER, INFORMATION STRUCTURE AND THE CP PHASE

1.1. Introduction

In this chapter I am concerned with the interaction of different types of grammatical features in order to explain why languages may vary in their surface word order. In current generative grammar it is assumed that all languages are uniform and their differences may be reduced to specific traits of utterances. This is what Chomsky (2001, 2) states in his Uniformity Principle. This principle has led many linguists to explore the possibility of explaining parametric differences in terms of grammatical features (Miyagawa 2005, 2009, 2017; Sigurðsson 2004).

These linguists have claimed that all languages contain the same kind of featural system. However, variation in the nature of grammatical features has received different explanations. Sigurðsson (2004) holds that although all languages share the same type of features, some of these features are not pronounced[1], while Miyagawa (2005) presents evidence that all features are present in all languages, but some of them are given a special prominence at the expense of other features. Miyagawa concentrates on agreement and focus features and establishes a classification of languages according to whether they put a special emphasis on agreement features or on focus features.[2]

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[1] Sigurðsson (2004, 242) actually holds that the fact that a language does not overtly instantiate a feature does not mean that this grammatical feature is absent from its narrow syntax. For example, Finnish does not contain articles, but this does not imply that this language does not express definiteness. This is exactly how 'pronunciation' should be understood in this work. However, one pending issue, which is not addressed by Sigurðsson, is when a feature can be left unpronounced.

[2] As Rouveret (p.c.) suggests, another possibility is that Universal Grammar (UG) provides a universal set of features and languages differ in the number and type of

This chapter is divided in three parts. The second section discusses basic notions about information structure and the role of syntax in word order and its interface with discourse.

The third section introduces Miyagawa's initial classification, whose main shortcoming is that it does not account for a third type of language which is based on both types of features: agreement and discourse features.[3] Miyagawa's analysis lies on the mechanism of feature inheritance, which I basically adopt here, and which holds that grammatical features work in conjunction with an EPP (Extended Projection Principle) feature to attract the constituent that a phasal head agrees with.[4]

In the fourth section I extend the strategy of feature inheritance to languages in which both agreement features and discourse features. An example of this type of languages is Spanish, where I will show that all

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features that they select (Marantz and Halle 2008). Chomsky (2001, 10) observes that languages vary in their featural inventories, making different choices upon a common set of features. This is clearly in contrast with the Uniformity Principle, which states that languages are uniform, suggesting that UG features will be attested in all languages, albeit some grammatical features are rather blurred in some languages (See Sigurðsson 2004 for a similar position).

[3] That agreement features and discourse features are closely related should not come as a surprise. Simpson and Wu (2001) argue that in their evolution some languages show that agreement is a consequence of a focus structure. Branigan (2005) also posits that in Algonquian languages the verb inflects for object agreement when the object is a topic or a focus. The same pattern is found in Tsez by Polinsky and Potsdam (2001). This interconnection justifies the position I am taking that agreement and discourse features are two values of a single parameter.

In some languages (Italian or Spanish) Topic structures require an agreement marker (clitic) on the verb (Alexopoulou and Kolliakou 2002). This suggests that movement to the periphery goes along with the realization of agreement features. However, focus constructions exclude the presence of a clitic, which might be taken as evidence that the relation between agreement and discourse is not so straightforward. Turkish, on the other hand, illustrates the possibility that focus can also be associated with agreement, since it contains clitics which are consistently related to the focus of a clause. Such is the case of the marker *dA*, as Göksel and Öszoy (2003) show.

[4] The EF has received different names and treatments. More standardly, it is known as the EPP feature. In my work, I adopt Chomsky's (2004, 2005) proposal that the EPP feature or Edge Feature triggers movement of the probed category. Alternatively, Rouveret (2010, 237) claims that "EPP is not the feature which causes post-Agree Move." He considers the possibility that a principle such as the EPP should be kept independent from the idea that some probes attract their goal. See also Biskup (2007) for different approaches to EPP.

grammatical features of phasal C are inherited to T. This explains certain differences as regards word order and information structure.

1.2. Information Structure: Some preliminaries

From the beginning of the 20th century, interest has been increasing in the communicative function of language. In order to distinguish between the grammatical structure of a sentence and the way we use a string of words to express a specific message, Ammann (1928) proposed the classical distinction between theme and rheme, which was inherited by the Prague School. In the USA it was Halliday (1967) who introduced this distinction, being the first linguist to use the term 'information structure'. For this author, the sentence is divided into phonological units which are more or less heavy depending on their informational content. In later years, Chafe (1976) introduced the notion of 'information packaging', developed by Vallduví (1992). In this line, the organization of discourse is rule by the Information Flow Principle (Chafe 1987; Prince 1981), which states that information is arranged from given to new.

Within Generative Grammar, Chomsky (1971) makes the distinction between focus and presupposition. In Chomsky's theory natural languages are distinguished in terms of parameters, which are the grammatical choices allowed by Universal Grammar. As regards the information structure, there are languages which most frequently use phonological strategies such as intonation whereas other languages employ syntactic and/or morphological devices (Kiss 1995; Miyagawa 2010). For example, English is a language which uses intonation, while other languages such as Hungarian, Turkish or Japanese are discourse-configurational where factors such as word order and specific discourse-content morphology rule the distribution of pieces of information in the message. This distinction does not mean that the first group does not have morphosyntactic strategies nor that the second group lacks phonological resources to organize discourse. It is rather a question of preference. The first class of languages emphasizes syntactic rearrangement (alongside intonation), whereas the second class prefers purely intonational devices.

The information structure of a sentence is connected with the way a message is presented in discourse. Traditionally, within a formal approach, two levels of articulation have been distinguished, namely 1) Topic + Comment and 2) Presupposition + Focus (Lambrecht 1994; Rizzi 1997; Zubizarreta 1998). The Topic is typically associated with information shared by the participants in the discourse and it is described as the entity that the sentence is about (Reinhart 1982). On the other hand, the

Comment is the part of the sentence which is predicated about the topic. To illustrate, in a sentence such as (1) the topic is italicized whereas the comment is the rest of the sentence:

(1) *This computer* may solve all your problems.

This sentence may be uttered in a context where the entity *this computer* has already been introduced and hence it refers to information known by the participants (given information).

The second level of articulation involves the partition in terms of focus and presupposition. The focus of the sentence is the most prominent element from a discourse point of view, and it displays new information, whereas the presupposition part includes information that is known, and it is also referred to as Background. In the previous example the focus position can be the bold-typed DP *all your problems* and the preceding sentence part can be the presupposition:

(2) This computer may solve **all your problems**.

The DP *all your problems* expresses new information and the sentence can be used as the answer to a question such as *What may this computer solve?* Note that the focus correlates with the comment in that it is part of it, and the topic correlates with the presupposition since the former must be included in the latter.

In the canonical pattern associated with the sentence, the topic most often coincides with the subject. This is the case in (1). In addition, the focus is developed either by the whole VP or by a smaller VP-internal unit. In (2) the new information may be provided by the VP solve all your problems or by the DP object all your problems, depending on what information is requested as new (*What may this computer do?* or *What may this computer solve?* respectively). The SVO order is the canonical pattern in languages such as English, Spanish, French, German, etc., whereas in other languages such as Turkish and Japanese the canonical word order is SOV.[5]

However, this basic order can be altered in the syntax of natural languages when discourse functions are assigned to constituents other than those which usually develop them. Discourse-based strategies which involve some syntactic rearrangement are Topicalization in English (3),

[5] For a typological approach to different canonical word orders, see Greenberg (1963) and Givón (1982).

Left Dislocation in German (4), Left and Right Dislocation in Romance languages and Greek (5-6), or Scrambling in languages such as Turkish, Hiaki, Russian and Japanese (7):

(3) Most of my stuff my mom gets at Alexander's. (Huddleston and Pullum 2001, 1373)

(4) Diesen Mann, den kenne ich nicht. [German]
this.ACC man that-one.ACC know I not
'This man, I don't know [him].' (Grohmann 2000, 160)

(5) El cordero, yo lo hago al horno con menta. [Spanish]
the lamb I CL-ACC.3SG.MSC cook-PRES.1SG to.the oven with mint
'Lamb, I usually cook it with mint and in the oven.' (adapted from Fernández-Sánchez 2017, 3)

(6) Les he posat a la nevera, les pomes. [Catalan]
CL-ACC.3PL.FM have-PRES.1SG put in the fridge, the apples
'I've put the apples in the fridge.' (Fernández-Sánchez 2017, 4)

(7) a. Kto poceloval Katju? [Russian]
who kiss-PAST.3SG Catherine
'Who kissed Catherine?'

b. Katju pocelovala Anja
Catherine.ACC kiss-PAST.3SG Anna
'Anna kissed Catherine.' (Titov 2012, 19-20)

All these sentences involve some sort of rearrangement in the syntax, which leads to a special emphasis on a specific constituent whose unmarked syntactic position does not in principle show any prominence. More precisely, these constructions are the result of the interface between syntax and discourse, which is ultimately what information structure is about.

In a formal view of information structure, it is the CP-area and the TP-area that have been identified as the domains where discourse-based syntactic operations have been claimed to apply (Rizzi 1997, Haegeman 2012, Miyagawa 2017 for the two positions). The clausal domain (TP) is assumed to project into a left periphery via CP. Chomsky (2008) defines CP as a phase, whose head is endowed with features. In the following section I discuss the two types of features that drive the computation of a sentence, namely agreement and discourse features, in connection with the

type of head (i.e. phasal or non-phasal) which may shelter them. I will pay special attention to Miyagawa's system.

1.3. The C-T system as the locus for agreement/discourse

1.3.1. Grammatical features and phases

The framework that Miyagawa (2005, 2010, 2017) adopts is the Minimalist Program as it is presented in Chomsky (2001, 2007, 2008). In this model of grammar lexical items (LIs) enter the derivation with a series of inflectional features, which are probed by the agreement features under the categories of T(ense) and V. These two elements contain the relevant agreement features responsible for the valuation of the Case features of the subject and object, respectively. Conversely, these two nominals will have interpretable φ-features which will value the φ-features under T and V.

The uninterpretable features of T and V are held to be inherited from C(omplementizer) and *v* respectively. By a lowering process the agreement features in C and *v* percolate down to T and V to assure that Feature Valuation takes place in the domain of a phase.[6] Chomsky (2001) even insists that the only categories containing uninterpretable inflectional features are phasal heads. These features are lowered onto T and V, which contain an EF responsible for attracting the relevant phrase to a specifier position. The Feature Valuation process is implemented through the structural operation of AGREE, by which a Probe (P) searches for a suitable Goal (G). As a consequence, there is a kind of exchange of features. Chomsky assumes that Probes can only be phasal heads (C and *v*) and the operation of AGREE will be restricted to phases (CP and *v*P)[7]. Once all those features are valued, the uninterpretable features will be deleted before Transfer to the semantic and phonological components.[8]

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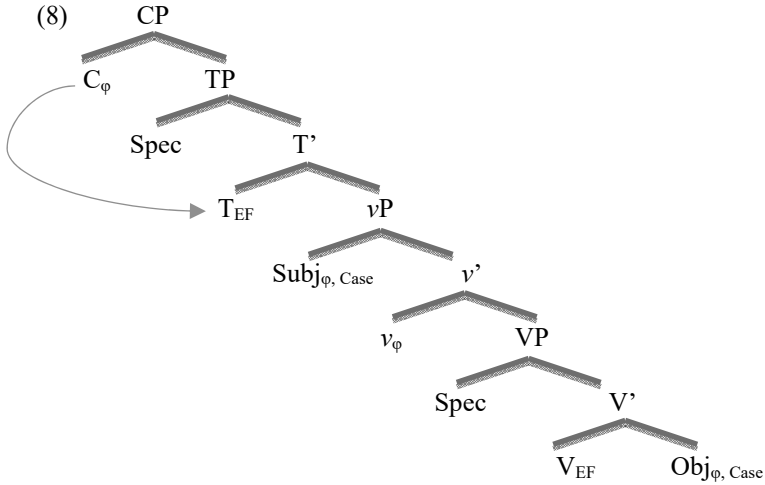
[6] There are other proposals concerning the existence of unvalued φ-features under C. Branigan (2005, 8) claims that "instead of feature inheritance, C will contain unvalued φ which will be replaced with a valued φ set, so C will agree with the features in T and the subject DP". Also, the process of feature inheritance has been argued to be from T to C. On this possibility, see Rouveret (2010).

[7] The standard idea is that *v*P is a phase only in transitive constructions. However, Marantz (2008) extends the concept of phasehood to include other types of *v*P. I will leave the question open as it does not alter the line of reasoning in this work. See also Boeckx and Grohmann (2007) for a general definition of phases which relates them to the notion of island and bounding node.

[8] See Richards (2007) for the interconnection between unvalued features, feature inheritance and Transfer.

The syntactic skeleton of a sentence and the features involved may be represented as follows:



In a typical transitive sentence, the different LIs selected from the Lexicon are merged with one another via the relevant grammatical features. This is what Chomsky (2008) calls External Merge, to be distinguished from Internal Merge or Move. T and V only contain the EF but inherit their unvalued uninterpretable features from their respective phasal heads, C and *v* (Chomsky 2008, 147). This is illustrated for T-to-C lowering in (8) using block arrows.

Following recent ideas by Chomsky (2008), there seems to be a strict parallelism between C and *v*. Both of them are the heads of a phase and their φ-features are lowered onto the category they select, T and V. These φ-features in conjunction with the EF will probe the subject and the object as their goals, establishing the AGREE relation by which the uninterpretable features are valued and deleted, and the goals will move to the edge of T and V. This is what Chomsky refers to as Internal Merge (IM). This mechanism will be crucial to my analysis of word order, as it "yields discourse-related properties such as old information" (Chomsky 2008, 139).

Another possible <P, G> relation is the one which is set by Long-Distance Agreement. In this case, P and G agree but there is no movement of G to the specifier of P. Expletive constructions in English can be used to illustrate Long-Distance Agreement:

(9) There seem to have been several problems.

In this existential construction T agrees with the following Quantifier Phrase (QP), but the expletive *there* is inserted in its edge in order to satisfy the EF under T.

1.3.2. Grammatical features and discourse features

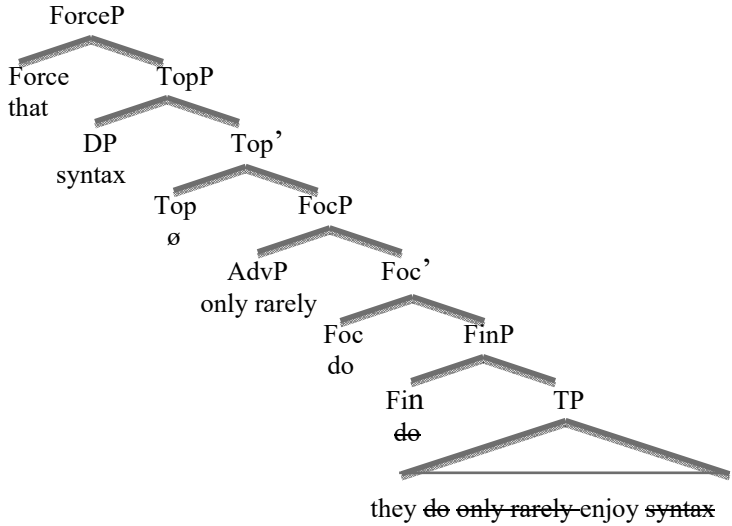
All types of Agreement relations are based on unvalued uninterpretable features.[9] Chomsky (2007) calls them agreement features. However, there are languages in which AGREE seems to operate in conjunction with discourse features. As mentioned above, Miyagawa (2005) and Chomsky (2008) have claimed that agreement features are associated in the Lexicon with phasal heads (C and *v*). This way, they are on a par with focus and topic features under the assumption that Focus and Topic depend on the region of C.

The idea that the C-system is responsible for focalization and topicalization is not new. This has been extensively explored by Rizzi (1997, 2004) in his cartographic approach and É Kiss (1998), among many others. These linguists have proposed that the C-system is split into different functional categories in order to account for word order and discourse interpretation. To give a concrete example, the structure of a sentence such as (10), involving a topic and a focus in the left periphery, will be something like (11):

(10) Students say that syntax only rarely do they enjoy. (Adapted from Radford 2009)

[9] For different relations between the notions of valuation and interpretability, see Pesetsky and Torrego (2007). Contrary to the standard view that all uninterpretable features are unvalued and *vice versa*, these linguists hold that some features may be interpretable but unvalued, or uninterpretable but valued.

(11)



The exploration of these discourse-related movements and their role in the rearrangement of word order has led to the proliferation of many functional categories, which, in a way, might be regarded as uneconomical. In fact, Chomsky (2008: 139) states that discourse-related properties make up a subcomponent within the Conceptual-Intentional (C-I) interface, not strictly marked in the narrow syntax by specific discourse-like categories. What is clear is that at least in some languages there are discourse-induced movements in the narrow syntax, and the interpretation of these displaced constituents is to be assigned at the C-I interface.

Within Chomsky's (1995) framework, in my previous research I proposed that certain rearrangements in the canonical word order of English or Spanish are due to the movement of a constituent to the specifier of the relevant Topic/Focus phrase to check a Topic or Focus feature (Rizzi 1997 and subsequent; Jiménez-Fernández 2005). Under the assumption that a Spec(ifier)-Head relationship is no longer available in UG to establish structural agreement, I will re-elaborate my previous proposal to the effect that certain LIs are extracted from the Lexicon with a [Top]- or [Foc]-feature. These features are interpretable because the discourse information that they convey is necessary in the semantic component. Following Miyagawa (2005), I assume that phasal heads

contain agreement features and discourse features.[10] This seems to be universal in the light of Miyagawa's proposal, which is based on Chomsky's (2001, 2) Uniformity Principle:

(12) *Uniformity Principle*:
In the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances.

In conformity with the Uniformity Principle, Miyagawa (2005) argues that all languages contain the same set of features, which will be universally manifested in some way. He concentrates on the inflectional features of agreement and focus and uses this set of features to establish parametric variation between two types of languages: those that exploit agreement features to trigger movement, Indo-European languages, and those that highlight focus features, Japanese. In other words, Miyagawa (2005) classifies languages according to whether they are agreement-prominent or focus prominent.

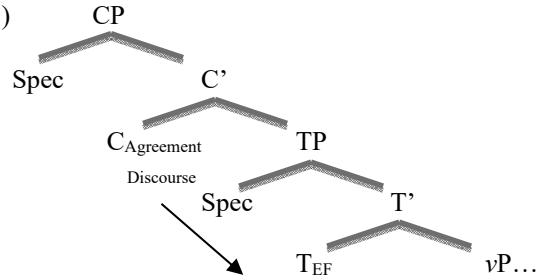
Miyagawa assumes that T has an EPP or edge feature universally that has to be satisfied in conjunction with agreement or focus features, which will be inherited from the phasal head C (See note 3 for a general approach to the relation between agreement and focus features).

I adopt this parametric variation in essence, but, as I have already suggested, in my system there is a third class of languages, which emphasize both focus and agreement features. Spanish is an example of this type of language. I understand the focus feature as a discourse feature in that the constituent satisfying the relevant feature by movement might be interpreted as either new or old information. So it may be a case of focalization or topicalization. I view the inflectional system of languages as consisting of strictly morphological features and syntactic features. More specifically, a difference should be made between morphosyntactic and discourse-syntactic features. Both of them are responsible for the activation of AGREE in the narrow syntax and work in conjunction with the EF under T.

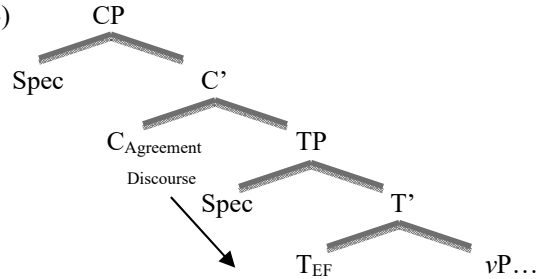
[10] Actually Miyagawa (2005) claims that C contains agreement features and focus features. I will add a [Top]-feature to both phasal heads, C and *v*. Tense features may also be seen as originating in C. However, if Chomsky (2008) and Miyagawa (2005) are right when positing that non-phasal heads enter the derivation only with interpretable features, it follows that tense features will be sheltered under T from the very beginning of a derivation. I will not pursue this issue any further as I will not consider tense features in my analysis.

We can see in (13-14) how the interaction of agreement/discourse features with the EF may explain the basic differences between languages:

(13)



(14)



From these two representations it can be inferred that all languages are held to contain both Agreement features and Discourse features. However, in Miyagawa's (2005, 206) words, "a language is either focus prominent or agreement prominent. But it isn't the case that, for example, an agreement prominent language does not also have focus" (Bear in mind that 'focus' stands for discourse functions in general in my approach).

If a language is agreement prominent, the agreement features spread down from C to T and, along with the EF under T, attract the category agreed with to Spec-TP. On the other hand, if a language is discourse prominent, the discourse feature under C is inherited by T and, in conjunction with its EF, triggers the Internal Merge of a constituent with the same discourse feature to Spec-TP.[11]

[11] On previous approaches to a possible classification of languages depending on their discourse configurational character, see Li and Thompson (1976) and É Kiss (1995). They suggest that languages can be classified as subject-prominent or topic-prominent. One of the determining factors that É Kiss (1995) points out is how often a language uses Topicalization.

The movement operations analyzed in Miyagawa (2005) involve both the notions of focus and topic and, as I mentioned before, sometimes there is no clear distinction drawn between the two types of discourse functions.[12] This is a further complication since I concentrate on the concept of topic and assume that at least informational focus is a derivative function, not to be linked to a specific syntactic category. In this respect, I follow Neeleman and Reinhart's (1998) proposal that the assignment of focus domains is determined by a Focus Rule, to the effect that any constituent containing the main stress in TP will be the focus of TP.[13] Moreover, I will leave aside the notion of identificational or contrastive focus.[14]

Chomsky (2001, 2005, 2007) has claimed that there exists a strict parallelism between phasal heads, specifically C and little *v*, in that they come from the Lexicon with some unvalued feature which activates AGREE by means of a <P, G> relation. Taking this view as a base, I will explore both the C-system and the *v*-system in terms of the kind of inflectional features that the two heads contain.

The grammatical features taken into consideration in Miyagawa's are held to belong to the C-area. Nevertheless, in my view these features are also related to little *v* (see Chapter 2). V inherits agreement features and/or discourse features from the light *v*. In some languages, an unvalued

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[12] This is not surprising at all. The unclear borderline between focus and topic seems to be crosslinguistic. In Celtic languages the same syntactic forms can support the two readings (Rouveret, p.c.).

[13] One problem posed by this phonological approach is that some languages show designated positions for focus (informational focus). Such is the case for Italian, whose strategy is phonological and syntactic. Furthermore, there are languages which do not use phonological devices to single out the informational focus, as it is the case of Chinese, whose strategy is basically syntactic. And finally, there are languages like Portuguese which mostly use stress to mark focus without resorting to movement. On these possibilities, see Costa (2004), Xu (2004), Belletti (2004), inter alia. It might be the case that the assignment of new information focus varies among languages, so that at least for some languages specific syntactic positions must be posited to explain word order variation. As this simply does not influence my hypothesis about topics, I will just suppose that in some languages the Focus Rule will be in charge of determining the informational focus of the clause. See Ortega-Santos (2006) for a proposal in which Copy Theory and Sentence Stress Assignment conditions interact to mark the new information focus of a sentence.

[14] For differences between identificational and informational focus, see Drubig (2003), É. Kiss (1998), Belletti (2004), Xu (2004), and Zubizarreta (1999), among many others. Note that the kind of focus that Miyagawa (2005) deals with is the contrastive or identificational focus that can be detected in the CP system.

uninterpretable [Top]-feature is spread down from little v to V. In conjunction with an EF, the [Top]-feature gets valued and attracts the relevant topic category to Spec-VP.

1.3.3 The CP phase and agreement/discourse prominence: English vs. Japanese

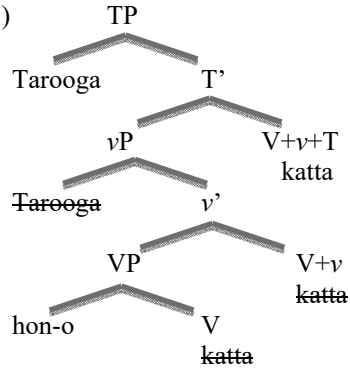
In this section I go through the different agreement relations and the discourse functions that describe how languages develop their system of grammatical features within the CP-area. The left periphery of a clause has been claimed to be the place where discourse functions are detected (Rizzi 1997 and subsequent work), but also it is the zone where agreement features have been identified (Carstens 2003; Chomsky 2005). Given these two ideas, it can be proposed that there are languages which require spreading of agreement features to T, languages which need percolation of discourse features to T, and languages that utilize both types of lowering.

Concentrating on the C phase, Miyagawa (2005, 2010) concludes that Japanese is a focus-prominent language or a discourse-prominent language, to use my neutral terminology. I will illustrate this conclusion by analyzing the sentences in (15) and (16) from Ishihara (2000):

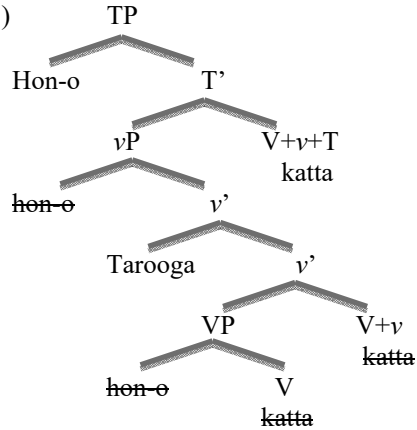
(15)a. Taroo-ga hon-o katta.
Taro-NOM book-ACC bought
'Taro bought a book'.
b. Hon-o Taroo-ga katta.
book-ACC Taro-NOM bought
'A book, Taro bought'.
(16)a. Taroo-ga kyoo hon-o katta.
Taro-NOM yesterday book-ACC bought
'Yesterday Taro bought a book'.
b. Hon-o Taroo-ga kyoo katta.
book-ACC Taro-NOM yesterday bought
'A book, Taro bought yesterday'.

Miyagawa (2005) uses these sentences to detect differences in terms of the informational focus available in each of those constructions. The interpretations of (15a-b) and (16a-b) are thoroughly distinct. The analysis proposed by Ishihara (2000) for (15a) and (15b) is as follows:

(17)



(18)



Following Ishihara (2000), Koizumi (2000) and Miyagawa (2005), the verb in Japanese raises first to the light *v*, and then it ends up in T. In both (17) and (18) *katta* moves to T via *v*. Descriptively, in (15a) the order of constituents is the canonical SOV, while in (15b) this order has been altered and it corresponds to an OSV construction. Many linguists have interpreted this rearrangement as a case of Scrambling (e.g., Bailyn 2001; Ko 2007). For instance, in (18) the object *hon-o* has been scrambled to Spec-TP.[15] As a previous step and following the Phase Impenetrability

[15] As Miyagawa (p.c.) points out, in the Japanese scrambling literature, the scrambled element is typically assumed to adjoin to TP, not move directly into Spec-TP. This analysis is traced back to Saito's (1985) MIT dissertation.

Principle, this nominal expression has moved to Spec-*v*P in order to satisfy an optional EF under *v*. In (17) there is no object shift at all and the subject *Taroo-ga* has been attracted to Spec-TP.

Adopting ideas by Chomsky (2001), Fox (2000) and Miyagawa (2005, 2006), it can be argued that optional movement is available only if it has some kind of effect on the output. What this means is that if a new position for a constituent leads to a rather different interpretation of the whole string where this occurs, that movement is licensed.[16]

In the light of this claim, the two patterns SOV and OSV display different interpretations in terms of the topic/focus structure that they represent. The constructions in (15a-b) differ in that in (15a) the subject *Taroo-ga* is the topic of the sentence, while the object *hon-o* is the informational focus, providing new information about Taro. On the other hand, in (15b) *hon-o* is regarded as the topic of the sentence and *Taroo-ga* may perform the function of informational focus. Syntactically, in (15a) the subject *Taroo-ga* seems to have been moved to Spec-TP while the object *hon-o* remains *in situ*. A different explanation for movement can be given for (15b): the object moves to Spec-TP, while the subject stays in its original position.

What examples (15a-b) illustrate is simply that in Japanese subject and object movement may be viewed as optional. However, in accordance with the Minimalist Program, where movement is feature-driven, if the subject or object is attracted to Spec-TP it is because they should contain some feature which triggers their displacement. In my system this feature is a discourse-like feature, specifically a [Top]-feature under T, which attracts the constituent that it agrees with, getting a value and then being deleted due to its non-interpretability. This [Top]-feature is inherited from C and works in conjunction with the EF under T.[17, 18]

However, the view that the scrambled constituent moves to Spec-TP is consistent with Kuroda (1988) and Miyagawa (2001).

[16] On the (non-)optionality of movement, see the compilation of articles in Karimi (2003) and Sabel and Saito (2005). See also Miyagawa (2006), who claims that an element can freely move, but if it receives interpretation in the new position it will stay there; otherwise reconstruction will apply.

[17] This view is consistent with the subject-in-situ generalization proposed by Alexiadou and Anagnostopoulou (2001). When the topic is the object, as in (15b), the subject seems to stay in its original position within the *v*-system.

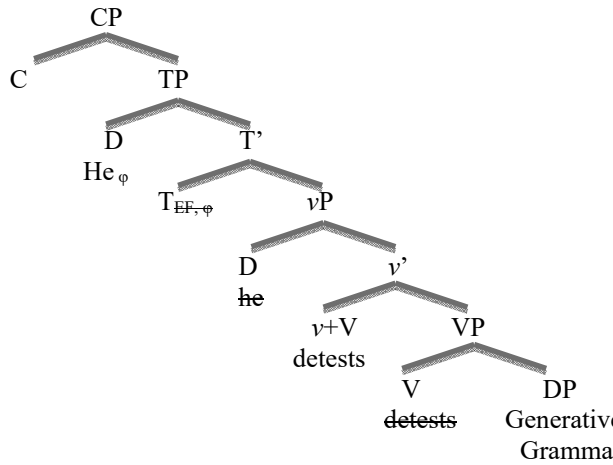
[18] Maki et al. (1999) also propose the existence of a topic feature to explain topicalization in embedded clauses in Japanese and English. However, they claim that topics adjoin to INFL and then INFL moves at LF to C. This is untenable in my system in that there is no movement of T to C, rather the features under C are lowered onto T.

As I said above, this featural mechanism is allowed in languages because it has an effect on the output, this being the distinction between two discourse readings of a string of constituents. If this is on the right track, the optionality that I am dealing with here is simply illusory. Movement of a topicalized element is well-motivated and demonstrates that Japanese is a discourse-prominent language. From this it follows that in discourse-prominent languages the periphery should be identified with the TP domain.

Now I turn to English. In this language word order seems to be less free and special prominence is given to the agreement relation between the verb and the subject. This means that English is what Miyagawa (2005; 2010) calls an agreement-prominent language. To illustrate this type of language, let's pay attention to an English sentence such as (19) and its partial analysis in (20):

(19) He detests Generative Grammar.

(20)



Following Chomsky's (2005, 2007) idea that only phasal heads contain unvalued features, C is extracted from the Lexicon with unvalued φ-features that percolate down to T, which probes a suitable constituent. The φ- features under T will be valued as [3rd SG] via AGREE with the pronoun *he*, and these features along with the EF make it possible for the category agreed with to internally merge in the specifier position of TP. In the process of Transfer to the semantic and phonological components, the already valued uninterpretable features under T are deleted.