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Discourse-agreement features, phasal C and the edge: A minimalist approach¹

Ángel Jiménez Fernández*

Abstract

In this paper I deal with the syntactic process of AGREE in the Minimalist Program, the role of discourse/agreement features in it and their combination with an EF (edge feature) to trigger attraction. Miyagawa (2005) has classified languages as focus or agreement prominent, depending on the type of grammatical features (discourse or agreement) they allow to inherit from C(omplementiser) to T(ense). Some languages highlight discourse functions (Korean or Japanese), other languages put a special emphasis on agreement marking (English), but I claim that there is a third type of language which gives precedence to both discourse features and agreement features (Spanish). Following Chomsky's Uniformity Principle, all languages contain discourse features and agreement features. By feature inheritance, these inflectional features percolate down from a phasal head to the immediately lower head, thus accounting for the feature selection of languages, their flexible/rigid word order, and the different position that is targeted by discourse-driven moved constituents across languages. In languages of the Spanish group the landing site of displaced topics is shown to be the specifier of the Tense Phrase. Evidence in favour of this analysis comes from Binding facts.

Key Words: Feature inheritance, phasal heads, preposed topic, focus, word order, agreement features, discourse features.

* Departamento de Filología Inglesa (Lengua Inglesa), Universidad de Sevilla, Spain. ajimfer@us.es

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1. Introduction

In this work I am concerned with the interaction of different types of grammatical features 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 (cf. Miyagawa, 2005; Sigurðsson, 2003, 2009). Following this line of research, all languages contain the same kind of featural system. However, variation in the nature of grammatical features has received different explanations. Sigurðsson (2003) holds that although all languages share the same type of features, some of these features are not pronounced,² 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.³

As a preliminary task, I will clarify the notions of topic and focus that I deal with and some assumed properties that affect these two discourse functions. In line with Reinhart (1982), Zubizarreta (1999), among others, the topic of a sentence is what this sentence is about. This is also known as the Aboutness-topic (cf. Lambrecht, 1994; Frascarelli & Hinterhölzl, 2007). In example (1a), the subject functions as the topic of the whole sentence, whereas in (1b) the object is picked up as the topic:

² Sigurðsson (2003: 7) 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.

³ As Rouveret (p.c.) suggests, another possibility is that Universal Grammar (UG) provides with a universal set of features and languages differ in the number and type of features that they select (cf. 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

- (1) a. *Spain* has won this year's World Cup.
b. *The World Cup*, Spain has won only once.⁴

As regards focus, following Chomsky (1971), Jackendoff (1972), Zubizarreta (1999), among others, it can be defined as the non-presupposed part of the sentence, conveying new information not shared by speaker and hearer in discourse. For instance, the italicised constituent in (2) is the focus of the sentence and satisfies the information request in the previous question:

- (2) Q: How many times has Spain won the World Cup?
A: Spain has won the World cup *only once*.

This type of focus is usually termed information focus, to be distinguished from contrastive focus. The latter expresses some kind of correction or contrast in relation to a previous assertion (cf. Kiss, 1998; Zubizarreta, 1999):

- (3) Speaker A: Spain has won the FIFA World Cup twice.
Speaker B: No, *only once* has Spain won the FIFA World Cup.

Concerning the syntax of topics and focus, throughout this work, I assume that topics move to the left periphery of the clause (contra Cinque, 1990), and in line with Rizzi (1997), Haegeman (2006, 2007) and Grohmann (2003), among others, in principle, I do not make a difference between Topicalization and Clitic Left Dislocation in principle (though see Frey, 2005 for a different approach). In both types of phenomena the crucial property is that topics are displaced to the front of the sentence (cf. Erteschik-Shir, 2006). Finally, contrastive focus may undergo movement to the left periphery of the clause, as illustrated in (3).

The article is organised as follows. Section 2 introduces Miyagawa's classification into agreement-prominent and focus-prominent languages, which I basically adopt; but my analysis shows that there is a third type of language which is based on both types of feature: agreement and discourse features.⁵ This is discussed in section 3, whose core point is the

⁴ I am grateful to Marcelle Cole, who has been my informant for the examples in English.

⁵ That agreement features and discourse features are closely related should not come as a surprise.

interaction of agreement and topic features with the EPP or Edge Feature (EF, hereafter) under T(ense).⁶ Section 4 presents evidence in favour of analysing topic preposing as undergoing A-movement to Spec-TP in languages such as Spanish. This evidence is based on Binding facts and Floating Quantifiers. Finally, section 5 summarises my findings.

I concentrate on the syntax and discourse interpretations of several constructions in English, Japanese and Spanish to propose that in languages such as Spanish the EF works in tandem with both discourse features and agreement features, similar to what Miyagawa (2010) proposes for Finnish and other languages. I depart from Miyagawa's novel analysis, though, in that no extra-categories are added to derivations.⁷ This three-fold typology explains certain differences as regards word order with respect to languages such as English. Obviously, this does not mean that English has no discourse-based rearrangement process in relation to its basic word order (cf. Prince, 1981).⁸ The fact that English does not give prominence to discourse feature means that these features are not inherited by T. More precisely, these features are retained in C. Therefore, if some topic constituent moves to the left periphery in English, it will target the specifier of CP, as opposed to what happens in

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.

Rouveret (p.c.) points out that in some languages (Italian or Spanish) Topic structures require an agreement marker (clitic) on the verb (cf. Alexopoulou & Koliakou, 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 Özsoy (2003) show.

⁶ The EF has received different names and treatments. More standardly, it is known as the EPP feature. In my work, I adopt Chomsky's (2001, 2008) 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.

⁷ Specifically, Miyagawa (2010) proposes an αP between CP and TP, which is the locus of inherited features in case the specifier of TP is already filled. I use a multiple-specifier approach, so that if more than one constituent is displaced they move to different specifiers of TP (Richards, 1999).

⁸ Statistically, topic fronting is much less frequently used than in other languages (cf. Erteschik-

Japanese and Spanish, in which topics may move to Spec-TP when a topic feature is lowered from C to T (cf. *infra*).

2. Grammatical/discourse features and phases

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 (Rizzi, 1997, 2004, in his cartographic approach; Beninca/Poletto, 2004; Kiss 1998, 2002; among many others).

The exploration of these discourse-driven 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-driven movements in the narrow syntax and the interpretation of these displaced constituents is to be assigned at the C-I interface.

In my analysis, lexical items are extracted from the Lexicon with a [Top]- or [Foc]- feature (Aboh, 2010; Erteschik-Shir, 2006). These features are interpretable because the informational load that they carry is necessary in the semantic component. Following Miyagawa (2005, 2010), phasal heads contain agreement features and discourse features.⁹ In conformity with the Uniformity Principle, Miyagawa 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 (discourse, more generally), 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, Japa-

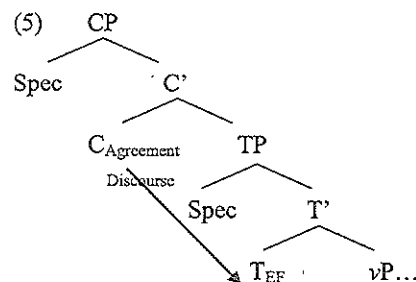
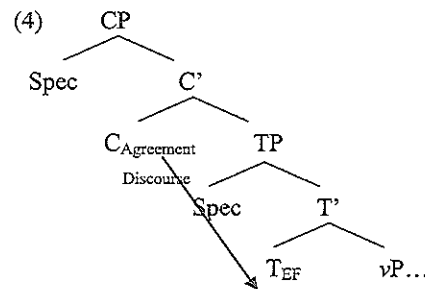
⁹ Actually Miyagawa (2005) claims that C contains agreement features and focus features. I add a [Top]-feature to both phasal heads, C and v . Tense features may also be seen as originating in C. However, if Chomsky (2008) and Miyagawa (2005) are right when positing that non-phasal heads enter the derivation 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

nese. 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 are inherited from the phasal head C.

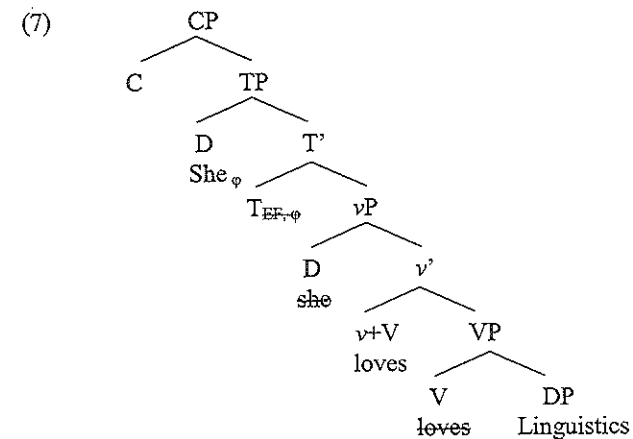
I adopt this parametric variation in essence, but, as I have already suggested, in my system there is a third class of languages, which emphasise both discourse and agreement features. Spanish is an example of this type of language. I view the inflectional system of languages as consisting of strictly morphological features and syntactic features. More specifically, a difference should be made between morpho-syntactic 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.

Let's see how the interaction of agreement/discourse features with the EF may explain the basic differences between languages:



Building on Miyagawa's work, 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 motivates the Internal Merge of a constituent with the same discourse feature to Spec-TP.¹⁰ English and Japanese illustrate the two types of language that Miyagawa (2005) argues for. To start with English, a sentence such as (6) is derived as in (7), where agreement features clearly play a crucial role:

(6) She loves Linguistics.

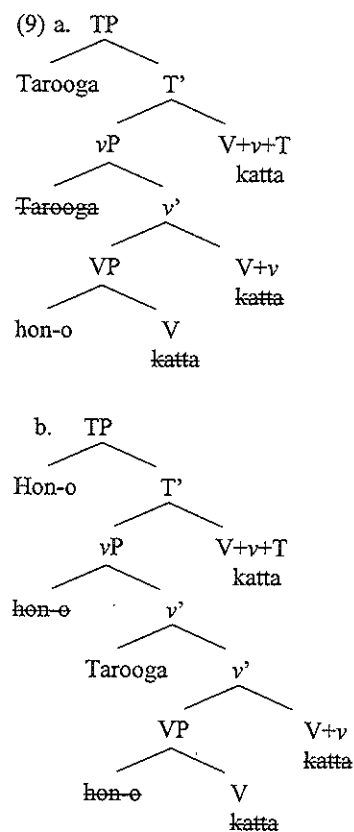


On the other extreme of this typological classification is Japanese, which is claimed to highlight discourse features. This explains the different word orders attested in such a language, as seen in the examples in (8) –taken from Miyagawa (2005: 220)– and their corresponding derivations in (9):

¹⁰ On previous approaches to a possible classification of languages depending on their discourse configurational character, see Li and Thompson (1976) and Kiss (1995). They suggest that languages can be classified as subject-prominent or topic-prominent. However, Miyagawa's (2005, 2010) typology has theoretical consequences which are absent from these preliminary studies. For him, if a language is agreement-prominent, agreement features are lowered onto T and AGREE relation is established with a suitable goal; conversely, in discourse-prominent languages, it is dis-

- (8) 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.'

Contra Miyagawa (2005), in my system, on a scale from discourse prominence to agreement prominence there is an intermediate point represented by those languages which highlight both agreement and discourse features. This intermediate point is exemplified by Spanish, which is the proposal I put forward in next section.



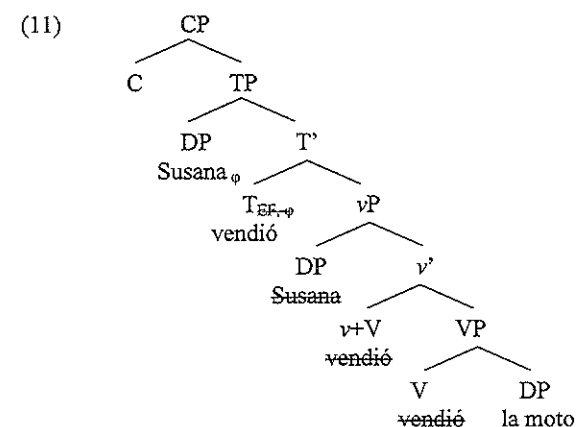
3. The counterexample: Spanish (and beyond)

Miyagawa (2005, 2006) holds that Indo-European languages are always agreement-prominent. I depart from his view and show that Spanish is both agreement- and discourse-prominent.

That Spanish overtly marks subject/verb agreement is no news. This concord relation has been claimed to manifest itself by movement of the subject into Spec-TP (cf. Zagona, 2002).¹¹ Example (7) may illustrate this assertion:

- (10) Susana vendió la moto.
Susana sell-PAST.3sg the motorbike
'Susana sold the motorbike.'

This sentence follows the canonical pattern for Spanish in terms of word order: SVO. One plausible way to explain how to derive this order is to move the DP subject *Susana* to Spec-TP and the verb *vendió* into T.¹²



¹¹ Alongside the view that preverbal subjects move to Spec-TP in Spanish, we find other proposals which are based on the possibility that preverbal subjects move to the left periphery. See Uriagereka (1995) for the plausibility of this proposal. Barbosa (2009) also entertains this possibility for Portuguese. From a cartographic perspective, Paoli, 2007 also identifies a position for preverbal subjects on the left periphery in a variety of Romance languages. Ordóñez and Treviño (1999) claim that preverbal subjects in Spanish are also left-dislocated, so that they behave as typical cases of dislocated objects. In my view, this is explained if, as I claim, Spanish lowers both agreement and discourse features from C to T.

¹² On overt movement of V to T in Spanish, see Gutiérrez Bravo (2007), Suñer (1992), Zagona

According to the word order obtained in (11), Spanish should be on a par with English in that it overtly shows subject-verb agreement and this is captured if T contains an EF which, in conjunction with the ϕ -features inherited from C, attracts the subject. This is compatible with the view that Spanish is an agreement-prominent language. However, Spanish also allows other linear possibilities which seem to involve some kind of rearrangement of the canonical pattern SVO. Alongside (10), we find the following additional word orders:

- (12) a. Vendió Susana la moto. (V-S-O)
 b. Vendió la moto Susana. (V-O-S)
 c. La moto vendió Susana. (O-V-S)
 d. La moto(,) la vendió Susana. (O-cl-V-S)
 e. La moto Susana vendió. (O-S-V)
 f. La moto Susana la vendió. (O-S-cl-S)
 'Susana sold the motorbike.'

From a first look at these sentences, the descriptive conclusion is that elements can be freely reordered in Spanish. Nevertheless, in my view this rearrangement is not completely free. It is subject to discourse rules. Chomsky (2008) holds that optional movement is not truly optional in that it reflects some type of discourse-related properties. This is exactly what we may find in (12): all these sentences have a different informational reading. To be more precise, in (12b) a special discourse emphasis is placed on the subject, which is seen as the informational focus (new information); in (12d) the object has been preposed to the left periphery and it is the topic of the whole sentence.

From the data in (12) the following generalisation can be extracted: in Spanish movement of constituents is not optional, it has a discourse-determined motivation. It makes extensive use of discourse movement: (12d) exemplifies a case of Topicalisation (more specifically, Clitic Left Dislocation), but also in (12c) a contrastive focus is detected when preposing the object. In this sense it is very similar to Japanese and other languages where a robust informational structure is found. In other words, it seems that Spanish is a discourse-prominent language. This leads me to a paradoxical conclusion: on the one hand, given its subject-verb agreement properties, Spanish is an agreement-prominent lan-

detected in the language, Spanish is a discourse-prominent language. Obviously, this conclusion appears to argue against the two-extreme-poles parameter that Miyagawa (2005) proposes.

Implementing Miyagawa's original typology, I claim that in between the two extremes there are languages which give prominence to both agreement and discourse features. Word order rearrangement in languages like Spanish gives credence to this proposal. In addition, if the same set of inflectional features is present in all languages, albeit that some languages highlight agreement features, while others emphasise discourse features, it is also predicted that there will be languages which show both. However, this third linguistic type poses some problems: (i) if a language is both agreement and discourse prominent, it should be the case that T will attract any category to satisfy its EF; (ii) if T inherits both agreement and discourse features from C, T will attract as many constituents as possible to value its features; and (iii) if categories other than subjects may raise to Spec-TP and if concord is standardly established between subject and V via T, how come Spanish shows examples of clause-final subjects?

The solution to these three closely linked mysteries is related to the inflectional features lowered onto T and the operation of AGREE. Following Gutiérrez Bravo (2007) and Zagona (2002), in Spanish any topic category may move to Spec-TP (cf. Holmberg & Nikanne, 2002 for a similar proposal in Finnish). This explains the different word orders that sentences in (10) and (12) illustrate. The canonical SVO pattern is obtained by raising the subject into Spec-TP, but this is possible only if the EF under T works in conjunction with both ϕ -features and a [Top]-feature.¹³ In order for this process to take place, T inherits the unvalued

¹³ Dealing with null-subject Romance languages, Barbosa (1994) suggests that the EPP feature under T is satisfied by the rich inflection of the verb. If there is an overt subject, it is placed in a higher specifier position on the periphery. This implies that there is no need to project Spec-TP. Rouveret (2010) rejects this possibility by showing that subjects, in the pattern /SVO/, in Romance are not exactly topics as they can be expressed by negative quantifiers such as *ninguém* 'nobody' in Portuguese (*Ninguém provavelmente errou* 'Nobody probably failed'). This is a sign that subjects in Portuguese are not left-dislocated topics. The same point is held by Costa and Galves (2000), who claim that in the above-mentioned Portuguese sentence the subject may externalise to an A-position without being marked as topic or focus.

In my view, the presence of a negative quantifier in these constructions is due to the fact that the subject is the focus of the relevant sentence and focused constituents allow for negative quantifiers. Spanish also instantiates focused subjects which are realised by quantified expressions

ϕ -features and the unvalued [Top]-feature from C. The whole process for (10) is represented in (13):¹⁴

- (13) [_{CP} [_C \emptyset] [_{TP} Susana [_T vendió+ ϕ] [_{DP} Susana [_v vendió+ ϕ] [_{vP} [_v vendió] la moto]]]]
 [3rd, SG] [past-tns]
 [Top] [3rd, SG]
 [Foc]
 [EF]

Following Chomsky (2007, 2008), when the derivation is transferred to the semantic and phonological components, the already valued uninterpretable features are deleted. The rest of the grammatical features involved are necessary for the interpretation of the sentence at LF.¹⁵ The derivation in (10) will account for the canonical pattern SVO in Spanish. Note that this derivation is based on my claim that T inherits both agreement features and discourse features from C in languages like Spanish. T is the category responsible for activating the process of valuation of agreement and discourse features.¹⁶ This complies with Zubizarreta's (1998) description of T as a multifunctional category in Spanish. The EF feature will be responsible for multiple specifiers of TP. Rouveret (p.c.) suggests that independent evidence for the multifunctionality of T can be found in subject-initial clauses in Germanic languages. In this respect, Travis (2005) and Zwart (2005) claim that the initial subject is in Spec-TP, rather than Spec-CP. This generalisation needs further inquiry, but space precludes me from addressing the issue here.

As mentioned earlier, Spanish seems to be a free word order language. As such, it shows other possible rearrangements which have been illustrated in (12). To start with, (12c) exemplifies the use of the OVS

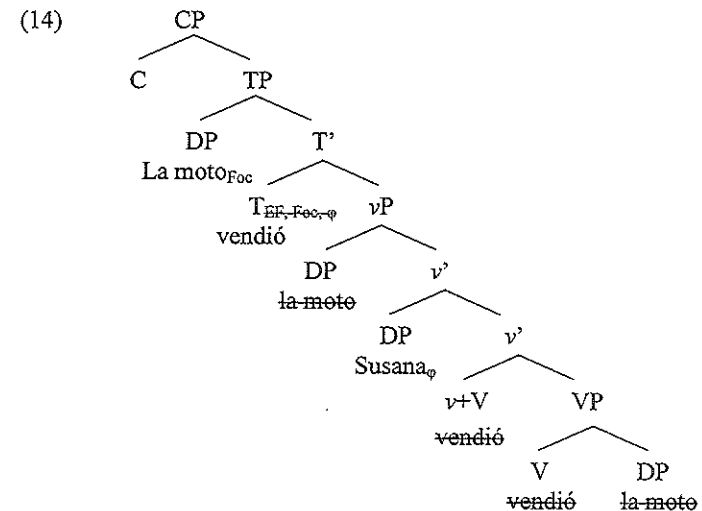
in Romance may move to Spec-TP due to a (contrastive) focus feature. See Costa and Galves (2000) for a different analysis.

¹⁴ This derivation is partial in that I do not pay attention to Case features or to the role of the object in the process of feature valuation.

¹⁵ For an alternative proposal, see Bailyn (2003), who argues for the existence of a Functional Form, responsible for the informational interpretation of sentences. It might be the case that apart from PF and LF there is an FF, but I will not pursue the issue any further.

¹⁶ Miyagawa (2001) and Rizzi (1990) also suggest that in certain cases the *wh*-feature can occur on T. One question that this raises (posed by Miyagawa, p.c.), is how then is the *wh*-phrase related to the Q(uestion) feature on C to give the appropriate question meaning. If my proposal about feature spreading is correct, the Q-feature would also be inherited by T so that the interrogative inter-

construction in Spanish, where the object has a [Foc]-feature.¹⁷ In the light of my claim that in Spanish both agreement and discourse features are lowered from C to T, I analyse this sentence as in (14):



The sentence in (12c) is the typical construction exemplifying contrastive focus in Spanish. The DP *la moto* 'the motorbike' has entered the Numeration with an interpretable [Foc]-feature (Aboh, 2010). The EF of T in combination with the unvalued [Foc] inherited from C will probe and locate the suitable goal *la moto*. AGREE will ensure the valuing of T's [Foc]-feature. Due to its uninterpretable, this feature gets deleted in the Transfer process.¹⁸

¹⁷ Contrastive focus seems to be overtly manifested in syntax through the instantiation of a contrastive [Foc]-feature which will motivate the internal merge of the corrective/contrastive constituent to the left periphery (cf. Kiss, 1998; Rizzi, 1997). On the contrary, informational focus instantiates in languages just as a derivative function, not to be related to a specific [Foc]-feature. See Ishihara (2000) and Neeleman and Reinhart (1998) for a similar claim.

¹⁸ This is a partial derivation. I am not taking into account the valuation of Case features. However, following recent ideas proposed by Chomsky (2007, 2008) and Hiraiwa (2005), I assume that the DP object *la moto* 'the motorbike' gets its unvalued Case feature valued as ACC. Additionally, this DP moves to the periphery to value the [Foc]-feature under T. In conformity with the Phase Impenetrability Principle, this DP will also leave a copy in the outer specifier of vP on

Evidence that the focalised constituent moves to a position lower than CP comes from the fact that when Focalisation takes place in finite subordinate clauses the complementiser *que* 'that' precedes the focalised element, as the example in (15) shows:

- (15) Te repito que LA MOTO ha vendido Susana, no la bici.
 CL repeat-1sg that the motorbike has sold Susana, not the bike
 'I repeat that Susana has sold the motorbike, not the bicycle.'

Apart from the [Foc]-feature, T also inherits ϕ -features from the phasal C. Spanish illustrates a double choice in languages: (i) probing a goal with the relevant agreement features and applying AGREE; or (ii) combining the ϕ -features under T with its EF and attracting the relevant category agreed with. In both cases, the process of feature valuation will ensure that the ϕ -features in T get valued. If we choose the first option, Long-Distance agreement will be at issue. If we opt for the second possibility, movement of the relevant category will apply. Evidence that Spanish instantiates both options is that the focalised constituent can co-occur with the subject in the region of T, as (16) illustrates. In such a case both the subject *Susana* and the object *la moto* have been attracted to the T-zone as multiple specifiers. The resulting sentence basically corresponds with the word order OSV in (12e):

- (16) LA MOTO Susana ha vendido, no la bici.
 The motorbike Susana has sold, not the bike
 'Susana has sold the motorbike, not the bicycle'

Another construction where the ϕ -features and discourse features are mingled with the EF is (12d), repeated here for convenience:

- (12) d. La moto, la vendió Susana.

In this sentence the DP object *la moto* 'the motorbike' has been dislocated to the left periphery due to its [Top]-feature, but also this construction shows overt subject-verb concord. In my view, the interweaving of both types of features is captured in terms of percolation of the ϕ -features and the [Top]-feature from C to T. AGREE will apply at this level and in conjunction with the EF under T the topic *la moto* is

attracted to Spec-TP.¹⁹ Again a Long-Distance version of AGREE will be responsible for the valuation of the T's ϕ -features via a <Probe, Goal> relation with the subject *Susana*.²⁰

Spanish also exhibits the patterns VSO and VOS illustrated in (12a-b):

- (12) a. Vendió Susana la moto. (V-S-O)
 b. Vendió la moto Susana. (V-O-S)

In (12b) the EF under T appears to be satisfied by attracting the whole VP to its specifier position due to a [Top]-feature, and the DP subject *Susana* remains in situ in accordance with Alexiadou and Anagnostopoulou's (2001) Subject-in-Situ Generalisation.²¹ By contrast, T enters the derivation with no EF in (12b), which is possible in the light of the optional character of the EF proposed by Chomsky (2008). This explains why the verb *vendió* 'sold' raises to T and no specifier position is projected and occupied by any of the arguments involved. What is interesting about this construction is that the EF is rather optional and then, agreement and discourse features may work in isolation, i.e., they will not always combine with an EF.²²

It seems safe to conclude that Spanish is placed between the two extreme poles of the scale which will classify languages as giving prominence to agreement features or to discourse features. In this sec-

¹⁹ As I have previously mentioned, I assume that an EF can be satisfied by a phrase of any category (cf. Alexiadou & Anagnostopoulou, 2001; Lasnik, 1995, 1999).

²⁰ I am not taking into account the insertion of the third-person feminine clitic pronoun *la* in (12d). As a Romance language, Spanish shows resumptive clitics which are attached to the verbal stem. If the topicalised constituent is the object, this is doubled by means of a resumptive clitic. The phenomenon is known as Clitic Left Dislocation, and it is extensively discussed in Belletti, 2005; Camacho, 2006; Demonte, 1995; Rouveret, 2002, 2008; Barbosa, 2008; inter alios.

²¹ An alternative analysis of VOS constructions is proposed by Ordóñez (1998), which is based on three steps: first, the subject moves to a focus position; second, the object moves to a position higher than the one occupied by the subject; and finally, the remnant TP is raised to even a higher position. I agree with Ordóñez in that the in-situ subject involves focus, specifically informational focus, but this particular type of focused constituent needn't move in order to be marked as such.

²² Alternatively, Alexiadou and Anagnostopoulou (1998) suggest that in VSO/subject drop languages, V-to-I movement satisfies the EF (their EPP). See also Barbosa (2009). However, following Chomsky (2008), I assume that EF/EPP can be satisfied only by (internal/external)

tion Spanish has been shown to highlight both types of inflectional features. This intermediate position of some languages implies that both their agreement features and their discourse features are lowered from C to T.

4. Empirical evidence for moving topics to Spec-TP

In this last section I provide with strong evidence in favour of lowering discourse features onto T, thereby triggering movement of topics into Spec-TP. This evidence is based on Binding effects and the syntax of floating quantifiers.

Movement of a DP to Spec-TP is held to be an instance of A-movement since it does not allow for reconstruction, contrary to A'-movement (cf. Chomsky, 1995; Lasnik, 1999, 2003; Temürçü, 2005). If reconstruction applies in A'-movement, as suggested by Lasnik (1999, 2003), and preposed topics undergo movement to Spec-CP, it is predicted that a displaced topic containing an anaphor should be interpreted in its original position (after reconstruction). By contrast, if topic displacement is actually A-movement in languages such as Spanish (hence, movement to Spec-TP), the prediction is that no reconstruction is allowed and the preposed topic is interpreted in the targeted position (See Temürçü, 2005 for a similar conclusion in Turkish).

In this connection, it must be noted that the c-command relation between binder and bindee may be modified as a consequence of topic displacement, which is clearly symptomatic of A-movement:

- (17) a. **Su_i enfermera llamó al paciente_i ayer.*
 Self's nurse called-PAST.3SG to.the patient yesterday
 'His nurse called the patient yesterday.'
- b. *Al paciente_i su_i enfermera lo llamó ayer.*
 to.the patient self's nurse CL called-PAST.3SG yesterday
 'The patient was called by his/her nurse yesterday.'

Originally, sentence (17a) leads to the violation of conditions A and C in that the anaphor *su* 'his/her' remains unbound (on the relevant reading) and the R-expression *el paciente* 'the patient' is c-commanded

by the DP *su enfermera* 'his/her nurse'.²³ However, when the object is preposed to a topic position the c-command relation is reversed so that the possessive anaphor is bound and the R-expression is free, hence avoiding any violation of condition A and C respectively. If Temürçü (2005) is right in asserting that A-movement involves modifying the c-command domain, the conclusion to be drawn is that in (17b) amelioration of the binding relation is caused by the argumental nature of movement. In other words, *el paciente* undergoes movement to Spec-TP thereby reversing the c-command relation.

Movement of preposed topics to Spec-TP can only be accounted for if previously discourse features are lowered from C to T. Accordingly, Binding effects give credit to my claim that in languages such as Spanish discourse features are transferred from C to T.

Floating Quantifiers (FQ) constitute a second piece of evidence which supports my analysis of topic/focus fronting to Spec-TP, hence to an A-position, in Spanish. On the basis of Catalan data, López (2009) concludes that FQs are allowed only in A-movement, not in A'-movement (cf. Mahajan, 1990; Lasnik, 2003).²⁴ In Spanish, the same constraint is found, thus cases of A-movement such as raising and passive constructions are compatible with FQs.

- (18) a. *Los niños parecen haber terminado todos la tarea.* [Raising]
 The kids seem-PRES.3PL to.have finished all the homework
 'The kids seem to have all finished their homework.'
- b. *Las aceitunas han sido recolectadas todas.* [Passive]
 the olives have-PERF.3PL been picked all
 'The olives have all been picked.'

Similarly, if topic/focus displacement involves A-movement (movement to Spec-TP), it should be concurrent with FQs. This prediction is borne out, as shown in (19). This strongly suggests that topic fronting is an instance of A-movement in languages such as Spanish:

²³ Sentence (17c) has an additional reading, in which the possessive *su* 'his' is understood as referring to somebody else in the context. On this interpretation, this sentence is completely felicitous.

²⁴ See Valmala (2008) for the information-sensitive nature of FQs. See also Bobaljik (2003) for an

- (19) a. *Las peras se las ha comido María todas.*
 the pears CL CL have-PERF.3SG eaten Maria all
 b. *Las peras, María se las ha comido todas.*
 c. *María, las peras se las ha comido todas.*
 'Maria has eaten all the pears.'

In strong contrast with Spanish, English is classified as purely agreement-prominent languages. Accordingly, it does not allow inheritance of discourse feature onto T. Thus, as is generally assumed (Rizzi, 1997), topic dislocation must undergo movement to Spec-CP, hence A'-movement. If this is on the right track, no FQ should be expected to co-occur with topic fronting, provided that FQ is incompatible with A'-movement. This is confirmed in (20):²⁵

- (20) a. *Those problems this computer could solve all in a second.
 b. *Those problems this computer could all solve in a second.

On its way to the CP-domain, the DP object *those problems* sits in Spec-vP, so that its features are visible for C (PIC), and subsequently raises to Spec-CP. As regards (20b), it is in the spec-vP position that the Q *all* is stranded. Alternatively, the FQ could have been stranded in the original object position, as complement of VP (example (20a)). In both

²⁵ McCloskey (2000) has observed that in West Ulster English FQs are compatible with certain types of A'-movement. In particular, he shows that a Q can float in *wh*-movement:

- (i) a. What did you get all for Christmas?
 b. Who did you meet all when you were in Derry?
 c. Where did they go all for their holidays? (McCloskey 2000: 58)

So far it seems that the behaviour of *wh*-movement with respect to the FQ is similar to the typical subject A-movement to Spec-TP. Consequently, either *wh*-operators target an A-position or else the argument based on FQs should be abandoned. However, despite their similarities the interaction between FQs and A'-movement should be analysed as a phenomenon independent from the interplay of FQs and A-movement. This receives support from the difference drawn in (ii):

- (ii) a. Who was throwing stones all around Butchers' Gate?
 b. *They were throwing stones all around Butchers' Gate.

As is clear, stranding in a post-object position is illegal under A-movement, while it is licensed under A'-movement. This distinction suggests that actually the Q *all* should not be analysed as a FQ in cases of A'-movement, since it clearly does not signal the syntactic slot from which the

cases, the outcome is ill-formed. However, the result is incorrect due to the fact that the second cycle of this successive cyclic movement is an instance of A'-movement in English, hence incompatible with the FQ.

5. Concluding Remarks

In this work I have implemented Miyagawa's (2005) hypothesis that languages show parametric variation as regards the type of inflectional features that percolate from C to T by proposing that languages such as Spanish instantiate a third class of language which gives prominence to both agreement and discourse features.

Giving priority to a set of features means that the relevant features are lowered from the phasal head onto its complement's head. The features that are somehow blurred remain in the original phasal head. Certain surface differences that define languages may reduce to the interaction of an Edge Feature of T with either ϕ -features or [Top]-features, or both. When T does not contain an EF, its agreement/discourse features activate a Long-Distance AGREE operation with the relevant categories, accounting for the fact that these constituents stay in situ.

I have given evidence to the effect that Spanish preposed topics move to Spec-TP, an A-position. The emergence of a new binding configuration after fronting a topic and the interplay between topic preposing and the syntax of FQ suggest that this hypothesis is on the right track.

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A percepção de vogais do alemão por bilingues luso-alemães: remigrantes sofrem erosão fonológica?

Cristina Flores*
 Andréia Schurt Rauber**

Resumo

- Este estudo investigou a percepção de vogais do alemão por um grupo de oito adolescentes e jovens portugueses que cresceram como bilingues na Alemanha e retornaram a Portugal na infância (com as idades entre 5 e 10 anos). Todos os informantes afirmaram não utilizar o alemão desde o seu regresso e já não ser capazes de formular frases correctas nesta língua. O estudo teve como objectivo testar se a sua habilidade perceptiva para discriminar sons do alemão tinha sofrido erosão ou se tinha mantido invulnerável à falta de uso da língua. Diferentemente do alemão, as vogais do português não se distinguem em termos de duração e o inventário fonológico desta língua não contém as vogais arredondadas /ʏ/ e /y:/. Assim, testámos a habilidade perceptiva dos informantes para discriminar vogais em termos de (i) duração, no contraste /a-a:/; (ii) duração+qualidade, nos contrastes /ɪ-i:/ e /ʊ-u:/; e (iii) qualidade, nos contrastes /i-ʏ/, /ʊ-ʏ/, /i:-y:/ e /u:-y:/ por meio de um teste de discriminação categórica. Os resultados revelam que os informantes regressados foram capazes de fazer distinções entre vogais que diferiam em termos de duração, duração+qualidade e qualidade na língua que sofreu erosão. Isto indica que, embora sejam incapazes de reactivar a gramática e o léxico da língua não utilizada, a sua habilidade para discriminar os sons do alemão parece permanecer estável.

Palavras-chave: erosão linguística; percepção; fonologia do alemão

* Universidade do Minho, Departamento de Estudos Germanísticos e Eslovos, Braga, Portugal. cflores@ilch.uminho.pt

** Universidade Católica de Pelotas, Programa de Pós-Graduação em Letras, Pelotas, Brasil. asrauber@gmail.com