

The syntactic role of discourse-related features*

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This paper focuses on the syntactic role of the features related to discourse and information structure. I argue that discourse-related features are encoded in syntax, projecting their own phrase structure, and are fundamental in accounting for cross-linguistic variation. Languages differ in the morphological realisation of the discourse-related features (i.e. whether they have topic and focus markers), in the extent to which they exhibit word order alternations and whether they employ syntactic operations which are strictly dependent on the discourse/informational properties of the sentence, as well as in the distinction between different information-structure categories characterised by different grammatical properties. All these differences can be reduced to the syntactic role of discourse-related functional projections, in particular to the overt realisation of their heads and to the kind of movement they trigger, obeying the rigid hierarchical constraints of a uniform functional clause structure, and univocally specifying interpretive instructions to the interfaces. Under this view, this paper offers an analysis of dislocation and fronting phenomena in Romance, which entails that variation in these processes is correlated with the activation and the attraction properties of the functional projections encoding information-structure distinctions.

1 INTRODUCTION

The primary purpose of this paper is to provide empirical and theoretical evidence for the claim that discourse-related features, such as topic and focus, play a fundamental role in determining word order alternations and are crucial in accounting for the syntactic differences between distinct information-structure categories. The central idea is that these features are encoded in syntax, and are therefore active in the syntactic computation driving the movement of sentential constituents to dedicated functional projections. It is generally acknowledged that all levels of grammar may be pervasively affected by topic and focus, in the form of prosodic, morphological (i.e. topic/focus markers), syntactic (linear word order) and semantic effects, according to the specific language. This multiple character makes the notions of topic and focus particularly interesting for the study of the interface between information structure and grammar. Nevertheless, there is the obvious problem of where these information-structure categories are encoded and how they perform their function in the grammar. Are they notions pertaining to the domain of semantic-pragmatic functions which simply have an impact on linguistic expressions or, rather, objects visible in the syntactic computation? In current theory, particular attention has been paid to scopal and discourse-related properties (cf. Chomsky 1995, 2001, 2008), especially within the cartographic approach (cf. Rizzi 1997, among others). Chomsky (1995), however, includes discourse-related phenomena among the “surface effects on interpretation”:

(1) “These are manifold, involving topic-focus and theme-rheme structures, figure-ground properties, effects on adjacency and linearity, and many others. Prima facie, they seem to involve some additional level or levels internal to the phonological component, postmorphology but prephonetic, accessed at the interface along with PF (Phonetic Form) and LF (Logical Form)” (Chomsky 1995:220).

According to this version of the Minimalist Program [MP], topic and focus are purely semantic features only visible and accessible at the interfaces (cf. also Chomsky 2001). More recently, Chomsky (2008) argues that Edge-Features may be assigned to a phase head to ensure that scope or discourse-related properties relevant for the specific interpretation trigger movement (i.e. internal merge) to an extra specifier position at the left edge of the phase. On grounds of interface economy (cf. Reinhart 1995, Fox 2000, Chomsky 2001), Edge-Features are optional and their presence is licensed if the movement that they trigger has some interpretive effect (cf. Chomsky 2008). In other words, when present, these features are always associated with additional, discourse-oriented effects. It follows that the phase head *C* with its edge position(s) can be conceived of as “a shorthand of the region that Rizzi (1997) calls the ‘left periphery’, possibly involving feature spread from fewer functional heads (maybe only one)” (Chomsky 2008:143).

A more direct and active implementation of discourse-related features in the narrow syntax is assumed within the cartographic approach to syntactic structures. Under this approach, discourse-related features are associated with the corresponding functional projections, which are able to project phrase structure (e.g. TopP and FocP in the left periphery of the sentence; cf. Rizzi 1997), and to drive syntactic operations such as topicalisation, Focus Fronting, clefting, and

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inversion. Following this approach, it is assumed that topic and focus features are directly encoded in the phrase structure and are thus visible to, and active in, the syntactic computation. This assumption has the essential advantage of reducing three fundamental cross-linguistic differences to the syntactic role of the functional projections associated with these features. These three differences are: (i) some languages show the morphological realisation of the heads of discourse-related functional projections, i.e. topic and focus markers; (ii) in several languages word order alternations and their grammaticality (together with their pragmatic felicity) are strictly dependent on the information structure of the sentence; and (iii) different information structure categories are associated with different grammatical properties, reflecting interpretive, prosodic, and syntactic differences. All three points of variation are immediately accounted for by the theoretical assumption that functional features, including discourse-related features, are present in the lexicon and project their own phrase structure.

In section 2, I start with a general discussion on the nature of discourse-related features and their association with functional projections in the phrase structure, which allows us to straightforwardly capture difference (i). In section 3, I focus on the characterisation of the movement operations driven by discourse properties and on the mechanism operating as a trigger for movement, leading us to an explanation of difference (ii). In section 4, I present several pieces of comparative data from Romance, especially from Sicilian, as empirical support for the thesis that discourse-related features play a fundamental role in the syntax. Finally, in section 5, through a detailed analysis of the diversity of the properties associated with different information structure categories, the distinct behaviour of each discourse-related category (difference (iii)) will be accounted for, making reference to the different characteristics of the relevant functional projection and the specific kind of movement triggered.

2 THE ASSOCIATION WITH FUNCTIONAL PROJECTIONS

Different proposals exist in the literature regarding the level or place in the grammar where information structure is encoded. According to some studies, information structure is represented and interpreted at LF (Chomsky 1976, 1981, Huang 1982, Horvath 1986, and Rochemont 1986) or at an abstract level of representation derived from LF, for example LF' in Huang (1984). Others postulate an independent and dedicated component of the grammar (e.g. Vallduví 1992a, Ertshik-Schir 1997, Ertshik-Schir & Strahov 2004). Both hypotheses deny the syntactic status of discourse-related notions, running into a series of problems once one assumes the architecture of the grammar posited in the generative framework (cf. Chomsky & Lasnik 1977, Chomsky 1981, 1986) and which developed into the T-model of the Minimalist Program (cf. Chomsky 1995 et seq.). This model implies that a direct interaction between the phonological component (PF) and the semantic component (LF) is not possible. Both components interface and communicate only with the narrow syntax. Given that discourse-related phenomena have both a phonological and an interpretive impact, it follows that the relevant features must be already present in the syntactic component. Moreover, the idea of an independent component interacting with the syntax and affecting syntactic structures may be viewed as a weakening of the principle of the independence and autonomy of syntax (Chomsky 1957) according to which syntactic rules and principles must be independent of meaning or discourse.

The stress-based approach to information structure, to focus in particular (cf. Reinhart 1995; Neeleman & Reinhart 1998; Zubizarreta 1998; Szendrői 2001, 2003; Samek-Lodovici 2006) also violates these principles, since it is based on the idea that prosodic requirements (e.g. the focus-stress correspondence) have a direct effect on syntactic structures and their interpretation. The analyses following this approach force a substantial revision of the T-model of grammar: not only is a direct connection between the phonological and the semantic components maintained here, but syntactic conditions and prosodic requirements are assumed to operate at the same time, with the latter having a direct impact on the former. The feature-driven approach, conversely, offers an unproblematic way of mapping between syntax and the interfaces. Jackendoff (1972), for example, proposes that a syntactic focus feature is assigned in the computation, and this will ensure a one-to-one matching between the constituent bearing this feature and both its interpretation and its prosodic properties. However, it has been observed (cf. Zubizarreta 1998:30; Szendrői 2001) that such an approach would imply a violation of Chomsky's condition of inclusiveness:

(2) *Inclusiveness*

"any structure formed by the computation (in particular, π and λ) is constituted of elements already present in the lexical items selected for N [i.e. the numeration – SC]; no new objects are added in the course of computation apart from rearrangements of lexical properties" (Chomsky 1995:228).

Indeed, an analysis that posits the introduction of discourse-related features during the derivation violates this principle. By contrast, if we take these features to be present in the lexicon, the condition of inclusiveness is met. Evidence for the presence of these functional categories in the lexicon comes from languages in which they have a phonological representation in the form of particles or special markers heading the corresponding functional projection, e.g. Japanese (cf., for example, Kuno 1972), Somali (cf. Svolacchia et al. 1995, Frascarelli & Puglielli 2007, 2008), and Gungbe (cf. Aboh 1998, 2004):

- (3) ... d̥ɔ̀ dàn l̥ò yà Kòfí wè hù - *(i) (Gungbe, Aboh 2004:51)
 that snake the Top Kofi Foc kill.PERF - it
 ‘... that the snake, Kofi killed it.’
- (4) Shalay Cali baa/ayaa yimíd. (Somali, Frascarelli & Puglielli 2007)
 yesterday Cali Foc come.PAST.3SG
 ‘CALI came yesterday.’

The postulation of a Top and a Foc head is therefore immediately supported by the fact that in many languages topic and focus markers, such as *yà* and *wè* in Gunbe (cf. 3) and *baa* or *ayaa* in Somali (cf. 4), are in fact morphologically realised. Although in other languages these features are not associated with an overt lexical item, we assume that they are universally present in the lexicon and have full phrase-structural status in the syntactic computation, irrespective of the overt or covert realisation of the functional head. Being present from the very beginning of the derivation, these functional projections will drive the computation, and the designated functional heads will attract the constituents bearing the matching features. At the interfaces, both interpretive and phonological properties will be directly read off the syntactic structure. The constituent bearing the focus feature, for example, will be interpreted as the focus of the sentence at LF, and will be assigned the main stress of the utterance at PF. As the interface mapping rules are sensitive to the discourse-related features and can therefore assign the correct representation to the syntactic features, no direct connection between the phonological and the semantic components is needed, in full compliance with the T-model. This immediately accounts for the morphological realisation of the heads of discourse-related functional projections in the form of overt topic and focus markers in some languages, as well as for the varying word orders associated with specific prosodic patterns according to the information structure of the sentence and the attraction properties of the functional projections involved.

3. CRITERIA AS TRIGGERS FOR MOVEMENT

In the previous section we saw that discourse categories are present in the lexicon as features that may or may not be assigned an overt phonological exponent. In addition to these features, we also need to postulate formal discourse-related features, which are optionally assigned to those lexical items that will be attracted by the corresponding functional head. As we have already seen, in accordance with the condition of inclusiveness, it is important to assume that these features are not added to the lexical item when they are selected from the lexicon, but rather that they are added in the numeration. On the basis that topic, focus, and interrogative functional categories are selected as lexical choices in the numeration, Aboh (2008) concludes that the information structure of a sentence is pre-determined in the numeration:

- (5) “A numeration N pre-determines the Information Structure of a linguistic expression.”

The constituent bearing the discourse-related feature must then end up in a local checking configuration with the relevant functional head encoding the matching feature (cf. Rizzi 1991/1996, 2006). Such a configuration is constrained by a family of principles, the so-called Criteria, which require that a Specifier/Head agreement relation obtains between the criterial functional head and the corresponding features of the relevant class (e.g. Q, Top, Foc, R, ...), as illustrated in (6) from Rizzi (2006:102):

- (6) XP_F and X_F must be in a Spec-head configuration, for $F = Q, \text{Top}, \text{Foc}, R, \dots$

The Criteria then operate as triggers for movement, attributing an attraction property to the head of the functional projection. Under this analysis, a one-to-one mapping between syntax and information structure is ensured by the univocal correspondence between the criterial feature triggering movement and the interface properties of the constituent moved. According to Rizzi (2006), the criterial position in the left periphery of the sentence represents the final position of A'-chains, where the moved element receives its scope discourse-related semantic properties. Movement operations targeting the C-domain, therefore, start off from a thematic position and end in a position associated with criterial effects, i.e. interpretive, scopal or discourse, effects:¹

- (7) a. Which book should you read _?
 b. This book, you should read _
 c. THIS BOOK you should read _ (rather than something else)

¹ The distinction between Substantive Criterial Features (SCF_S) and purely Formal Criterial Features (FCF_S), proposed in Rizzi (2006, 2009), allows us to account for intermediate movement and for the survival of the relevant features in subsequent stages of derivation, escaping the PIC and Transfer (Chomsky 2001, 2008). Movement is always feature-triggered, but while SCF_S are able to check the matching feature carried by the relevant XP, FCF_S trigger intermediate movement which is necessary to escape locality restrictions and allow the XP to move higher so that its active feature may be checked by the relevant SCF.

In this example (from Rizzi 2006:101), the phrase [D book] receives the thematic property of ‘patient of the verb *read*’ and the interpretive/criterial property of ‘interrogative’ in (7a), ‘topic’ in (7b), and ‘focus’ in (7c), respectively. The distinction between these two types of semantic properties is reflected by Chomsky’s distinction between ‘external merge’ and ‘internal merge’ (Chomsky 2001, 2004), whereby the operation traditionally known as *move* (i.e. internal merge) brings an element to an edge position of a phase head for it to receive scope-discourse interpretive effects. The cartographic approach, therefore, shares Chomsky’s (1995, 2000) assumption that functional categories are those which attract other constituents, triggering movement, but differs from Chomsky’s current theory where each phase head may have multiple edge/specifier positions, insofar as it acknowledges the existence of an articulated and rich series of functional projections (each with their own specifier) related to discourse properties both at the left periphery of C (Rizzi 1997, 2001, 2004) and at the left periphery of *v* (Belletti 1999, 2001, 2004).

4. THE SYNTACTIC ROLE OF TOP AND FOC PROJECTIONS AND WORD ORDER ALTERNATIONS

The data and the analysis presented in this section aim at providing direct empirical reflexes and manifestations of the syntactic role of discourse-related features, focusing on the correspondences and interactions between word order alternations and discourse-related effects. In the preceding sections, we considered the phrase-structural status of discourse-related features, which can arbitrarily have an overt lexical realisation in the form of information structure markers, and the movement-triggering property of these heads which cause (moved) constituents to be interpreted according to the type of attracting criterial feature involved. Our next task is to account for word order variation which is sensitive to the information structure of the sentence, by examining the activation and distribution of the discourse-related functional projections within the clause structure. The analysis will be based on data from Romance, in particular from Sicilian, where the syntactic role of discourse-related features in determining the word order of the sentence is so pervasive, it requires that all sentence constituents – except the verb – end up in discourse-related positions. The (grammatically but not pragmatically) ‘relative’ free word order of this language is therefore captured as the result of syntactic operations which are driven by discourse-related features and which are necessary in order to satisfy the checking requirements, as dictated by the Criteria.

4.1 The syntactic role of Top Projections: Syntactic Extraposition

If we assume a canonical SVO order for Romance, including Sicilian, as is generally – albeit not uncontroversially – acknowledged, then the only way in which different word orders can emerge is from the triggering properties of the functional projections associated with information structure categories. Dislocation of topic constituents is a widespread phenomenon in Romance, as well as in other languages, and a well-studied area of research for the theory of movement (cf. Cinque 1990, Rizzi 1990, Rizzi 1997, 2004). Since Rizzi (1997), topicalisation has been conceived of as movement to dedicated functional projections in the left periphery of the sentence. In principle, there is no limit on the number of topics in the same sentence, although some restrictions must presumably be imposed by performance and memory constraints. Consider the following examples from Italian:

- (8) Di vestiti, a me, Gianni, in quel negozio, non mi ce ne
of clothes to me John in that shop not to-me_{CL} there_{CL} of-them_{CL}
ha mai comprati.
has ever bought
‘John has never bought me any clothes in that shop.’ (Cinque 1990:58)
- (9) Il libro, a Gianni, domani, glielo darò senz’ altro.
the book to John tomorrow to-him_{CL}-it_{CL} give.FUT.1SG without other
‘Tomorrow I will give the book to John for sure.’ (Rizzi 1997:290)

The possibility of a potentially unlimited number of topics occurring within the same sentence is captured by Rizzi by assuming that TopPs are recursive (indicated by the symbol * in Rizzi 1997):

- (10) ForceP TopP* FocP TopP* FinP IP

Topics can also appear in postverbal positions by means of Clitic Right Dislocation. This syntactic operation has also been analysed as movement to dedicated projections in the left periphery of the *vP* (cf. Cecchetto 1999, Belletti 1999, 2001, 2004).² The definition of the exact interpretive properties of a topic has been more problematic and is still not completely

² Here I am assuming the ‘clause-internal analysis’ of CLRD, based on the assumption that CLRD-topics occupy the specifier of a clause-internal topic phrase in the left of the VP (cf. Villalba 1996, 2000, Cecchetto 1999, Belletti 2004). For a different view (known as the ‘clause-

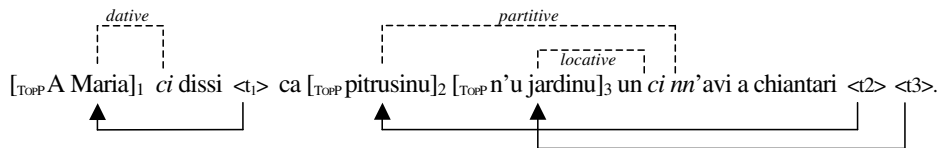
uncontroversial, especially if we take into account the possibility of distinguishing between topic types or topic categories on the basis of different dimensions of givenness/topichood or the combination with other information structure notions such as contrast (cf. Reinhart 1981, Vallduví 1992, Gundel & Fretheim 2004, Frascarelli & Hinterhölzl 2007). This has led to the identification of specialised Top positions in the left periphery of the sentence, which contrasts with the view that these Top projections are simply recursive. There is no general consensus on the precise number and interpretive nature of the projections necessary to account for virtually unlimited number of topics that can appear within the same sentence. However, the distinction between *Aboutness Topic*, i.e. what the sentence is about, and *Referential* or *Familiarity Topics*, i.e. (clitic) dislocated constituents that re-establish referents which are already given in the context or in the previous discourse, is widely recognised (cf. Frascarelli & Hinterhölzl 2007). The former topic category typically represents the subject of predication; only one Aboutness Topic per sentence is therefore possible, and its occurrence is limited to a preverbal position – the leftmost when co-occurring with other topics. *Referential Topics* are optional, as the corresponding resumptive clitic alone would suffice to re-establish the given referent, and they are potentially unlimited in number and can occur both in pre- and postverbal positions, via CLLD and CLRD respectively. In many languages, these various types of topic are characterised by distinctive properties. Conversely, in others, all topics exhibit the same syntactic marking (cf. Cruschina to appear). In Sicilian, all topical arguments of the verb must leave their A-positions within the vP and move to dedicated A'-positions. Since a general constraint imposes a limit of one focus constituent per sentence (cf., among others, Calabrese 1984, Belletti 2001), it follows that in Sicilian the constituents belonging to the presupposition/background part of the clause – essentially, all constituents but the focus – obligatory move to designated Top projections. Let us call this principle Syntactic Extraposition (SE):³

(11) *Syntactic Extraposition (SE)*

All [-focus] constituents must be dislocated to dedicated functional positions.

SE establishes a requirement stemming from the syntax of the Top functional projections. Clitic left dislocation (CLLD) and Clitic Right Dislocation (CLRD) represent the syntactic implementation of this requirement, as witnessed by the fact that clitic resumption of the dislocated topic constituent is always obligatory. Consider the following Sicilian example:

- (12) A Maria ci dissi ca pitrusinu n'u jardinu un ci nn' avi a chiantari.
 to Mary CL said that parsley in-the garden not CL CL has to plant
 'I told Mary she must not plant parsley in the garden.'



In this example, the new/focal information is conveyed by the verb, and all non-focus arguments of the verb are dislocated to a TopP of either the matrix or the embedded periphery, and resumed by the corresponding clitic pronoun. Significantly, clitic resumption in Sicilian proves obligatory even in those cases where it is actually optional in Italian, namely with dislocated constituents other than internal arguments (cf. Benincà 1988, Cinque 1990):⁴

- (13) a. A Giovanni, (gli) darò un libro.
 to John to-him_{CL} give.FUT.1SG a book
 'I'll give a book to John.'

external analysis') see Frascarelli (2000, 2004) and Cardinaletti (2002), who argue that all dislocated constituents are in the C-domain and CLRD results from the remnant movement of the rest of the sentence to a higher position (i.e. IP-inversion).

³ Similar conditions have been postulated to hold in Catalan (cf. Vallduví 1992a, 1992b), and, arguably, in Italian (cf. Calabrese 1992, Frascarelli 2000).

⁴ Clitic resumption is thus optional in conjunction with the dative and the locative arguments in the Italian equivalent of sentence (11):

- (i) A Maria (le) ho detto che prezzemolo in giardino non (ce) ne deve piantare.
 to Mary to-her_{CL} have said that parsley in garden not there_{CL} of-it_{CL} must plant
 'I told Mary she must not plant parsley in the garden.'

In Cruschina (to appear), however, I argue that optionality is only apparent and that the presence of the resumptive clitic is linked to specific pragmatic properties of the dislocated constituent, and in particular to its anaphoricity.

- b. A casa, (ci) andrò domani.
to home there_{CL} go.FUT.1SG tomorrow
'I'll go home tomorrow.'

In these examples, the dative argument in (13a) and the locative argument in (13b) need not be resumed by a clitic attached to the verb. Clitic resumption, by contrast, is obligatory in Sicilian in the equivalent sentences:

- (14) a. A Giovanni, *(ci) haju a dari un libbru.
to John to-him_{CL} have.PRES.1SG to give a book
'I'll give a book to John.'
b. Dintra, *(ci) vaju dumani.
home there_{CL} go.PRES.1SG tomorrow
'I'll go home tomorrow.'

The syntactic role of Top projections thus determines two obligatory empirical conditions in Sicilian (Cruschina 2006:365):⁵

- (15) (i) Constituents conveying given information must be topicalised (in Spec/TopP);
(ii) A resumptive pronoun is obligatory for all dislocated arguments.

The extraposition of [-focus] constituents clearly implies that only the constituent marked as [+focus] is allowed to remain within the clause, unless fronted for independent reasons (cf. section 4.2 below).⁶ Similar conditions hold in Catalan (cf. 15) and in Spanish (cf. 16) (cf. Villalba 2000:53):

- (16) a. Al Joan, *(li) donaré un llibre.
to John to-him_{CL} give.FUT.1SG a book
b. A casa, *(hi) aniré demà.
to home there_{CL} go.FUT.1SG tomorrow
(17) a. A Juan, *(le) daré un libro.
to John to-him_{CL} give.FUT.1SG a book
b. A casa, Ø iré mañana.
to home go.FUT.1SG tomorrow

Vallduví (1992a, 1992b) points out that extraposition proves obligatory in Catalan, where “all non-focal constituents, therefore, must be removed and detached from IP” (Vallduví 1992b:472) and obligatorily connected with a clitic pronoun within the clause. Less transparent is the situation in Spanish, which lacks partitive clitics, as well as oblique clitics other than dative (cf. 17b). Nevertheless, clitic resumption in Spanish is obligatory whenever the corresponding clitic is available (cf. 17a).

These conditions, instantiating the SE-requirement, clearly show that word order alternations through dislocation are linked to the information structure of the sentence and, consequently, to the syntactic role of the Top projections within the sentence where movement-driving features are encoded. Movement to the specifier position of TopP therefore becomes necessary for the appropriate checking/criterial configuration to obtain.

4.2 The syntactic role of Foc Projections: Focus Fronting

Focus Fronting (henceforth FF) is another syntactic construction that guarantees a straightforward and transparent relationship between syntactic marking and discourse properties in Sicilian. A peculiar word order characterised by the sentence-final position of the verb has been recently analysed as involving a FocP in the left periphery of the sentence (Benincà & Poletto 2004, Cruschina 2006, in press, Bentley 2007), associated with syntactic and interpretive properties which make it different from the (contrastive) FocP identified by Rizzi (1997) for Italian (cf. section 5.2 below). This dedicated projection is responsible for the fronting of (non-contrastive) focus constituents. As a consequence, the verb often, but not systematically, appears at the end of the sentence (examples from Rohlf 1969:323):

⁵ Constructions other than CLLD and CLRD characterised by the lack of clitic resumption of a [-focus] constituent – e.g. Marginalisation (cf. Antinucci & Cinque 1977, Calabrese 1982, Cardinaletti 2001, 2002) or non-clitic-resumed left-dislocation (cf. Benincà 1988, Cinque 1990) – are not possible in Sicilian (cf. Cruschina to appear).

⁶ The inflected verb is never extraposed (cf. Frascarelli 2000, Lopez 2009), as suggested by the fact that it always belongs to the Intonational Phrase containing the [+focus] constituent (cf. Frascarelli 2000).

- (18) a. Iddu **picciliddu** è.
 he child is
 ‘He is a child.’
 b. **A frevi**aju.
 the fever have.PRES.1SG
 ‘I have a temperature.’

In compliance with interface economy, FF is always sanctioned by a scope or interpretive effect (Cruschina in press). It typically occurs in answers to *wh*-questions, in exclamative sentences and *yes/no*-questions, as well as in declaratives, whenever the new information conveyed by the focus has an additional discourse effect, e.g. a mirative value conveyed by unexpected information (examples from Cruschina 2006:371-372).⁷

- (19) a. **Na casa** s’ accattà!
 a house REFL_{CL} buy.PAST.3SG
 ‘He bought a house!’
 b. **U suli** niscì!
 the sun go-out.PAST.3SG
 ‘The sun came out!’
- (20) a. Chi **viglianti** s’?
 INT awake be.PRES.2SG
 ‘Are you awake?’
 b. Vossia chi **dutturi** jè?
 you.POLITE INT doctor is
 ‘Are you a doctor?’

FF of some elements (*viz.* bare quantifiers, focus particles together with their associates) is favoured by the tendency in the language to overtly mark scope relations, coupled with the inherently focal nature of these elements:

- (21) a. **Nenti** fici.
 nothing do.PAST.1SG
 ‘I did nothing.’
 b. **A nuddu** vitti.
 to.ACC nobody see.PAST.1SG
 ‘I didn’t see anybody.’
- (22) a. **Sulu un paru di scarpi** m’ accattavu!
 only a pair of shoes REFL_{CL} buy.PAST.1SG
 ‘I only bought a pair of shoes!’
 b. **Macari tu** ci vua!
 even you there_{CL} want.PRES.3SG
 ‘All we need is you!’
 c. **Mancu di lu diavulu** si scanta!
 not-even of the devil REFL_{CL} is-afraid
 ‘He doesn’t even fear the devil!’

Moreover, fronting is normally involved in sentence types strongly associated with focus, such as copular and existential sentences, whose function it is to introduce new referents or new properties into the discourse.

Although both exhaustivity and contrast are possible interpretations of the fronted focus, neither is required for FF to apply. An exhaustive interpretation often appears to be present, especially in answers to questions, but we believe that this is simply the result of a process of pragmatic inference and implicature, and not an inherent property of FF (as maintained in Kiss’s (1998) analysis of Hungarian FF). In some languages, contrast is considered to be the feature which induces movement of the focus constituent to the left periphery. However, contrast is not a necessary condition for FF in Sicilian (as assumed in Rizzi 1997, among many others, for Italian, and in Lopez 2009 for Romance in general). Furthermore, with a contrastive reading, the entire interpretation of the FF structure is affected and significantly differs from the interpretation of non-contrastive FF sentences. This interpretative difference is indicative of a clear-cut distinction

⁷ In linguistic typology, the expression of unexpected new information and surprise is known as mirativity. According to Aikhenvald (2004:209), “mirativity is a grammatical category whose primary meaning is speaker’s unprepared mind, unexpected new information, and concomitant surprise” (cf. DeLancey 1997, 2001).

between Informational Focus (IFoc) and Contrastive Focus (CFoc) in FF structures, supporting the claim that there are two distinct target positions (cf. Benincà & Poletto 2004, Benincà 2006, Cruschina 2006, in press; see section 5.2 below).

Ample evidence exists to counter the general claim that FF in Romance is possible only when associated with contrast. We have seen that FF in Sicilian is not exclusively related to CFoc, but generally involves IFoc too. A similar scenario is found in Sardinian, where FF is subject to conditions similar to those found in Sicilian.⁸

- (23) a. **Custu libru** appo lessu. (Jones 1988:185)
 this book have.PRES.1SG read.PP
 ‘I read this book.’
 b. **Troppu grassu** est Juanne. (Jones 1993:18)
 too fat is Juanne
 ‘Juanne is too fat.’

The synthesis of existing analyses and new empirical data from other Romance languages shows that, contrary to traditional assumptions, non-contrastive FF is widespread in Romance, especially with quantifiers and quantified expressions (i.e. QP-Fronting) (cf. Raposo 1994, Raposo & Uriagereka 1996, Barbosa 2000, 2001 for Portuguese; Benincà 1988, Benincà & Poletto 2004 for Italian; Zubizarreta 1998 for Spanish; Vallduvì 1992c, Quer 2002 for Catalan; Alboiu 2002, Cornilescu 2004 for Romanian; cf. also Laka 1990 and Uriagereka 1995a, 1995b). The following Italian examples are from Benincà (1988:141-142):⁹

- (24) a. **Niente** concludi, stando in questo buco.
 nothing conclude.PRES.2SG stay.GER in this hole
 ‘You are not getting anywhere, staying in this hole!’
 b. **A nessuno** nuoce, col suo comportamento.
 to nobody harm.PRES.3SG with his behaviour
 ‘He’s not hurting anyone with his behaviour.’

Another non-contrastive context triggering FF obtains with constituents expressing new and unexpected information, i.e. Mirative-Fronting, as shown above for Sicilian (cf. (19), (20), and fn. 7) and proposed in Brunetti (2008) for Italian:¹⁰

- (25) a. Ma guarda te! **In bagno** has messo le chiavi!
 but look.IMP.2SG you in bathroom have put the keys
 ‘Look at that! He put the keys in the bathroom!’
 b. Non ci posso credere! **Due bottiglie** ci siamo bevuti!
 not to-it_{CL}.can.PRES.1SG believe two bottles REFL_{CL} be.PRES.1PL drinken
 ‘I can’t believe it! We drank two bottles!’

A similar type of fronting has also been described for European Portuguese, although it is generally assimilated with QP-Fronting (Barbosa 2000, 2001) or considered among those elements involved in *affective constructions* which trigger proclisis (Raposo 1994, Raposo & Uriagereka 1996). Ambar (1999:41-42) terms this type of construction an “evaluative construction”, which involves the fronting of an emphatic and evaluative element to a dedicated functional position, i.e. *Evaluative Phrase*, in the left periphery of the sentence, and which is normally characterised by an exclamative aspect. All these analyses highlight that this construction proves felicitous and natural in exclamative contexts, and we can take the exclamative nature of this construction, coupled with the focal properties observed in Costa (1998), as direct evidence for a parallelism between Mirative-Fronting and the Portuguese focus construction at issue.¹¹

Let us now consider the position of IFocP. In the majority of the Romance languages – exceptions being Sicilian and Sardinian, as described above – IFoc has to occur in situ, in a postverbal position, not allowing the fronting option. Recent work on the interaction between subject inversion and focalisation in Italian (Belletti 1999, 2001, 2004) correlates postverbal IFoc to a specific structural position within a clause internal array of functional projections at the left periphery

⁸ For a detailed comparison of FF in Sardinian and Sicilian, see Cruschina & Remberger (forthcoming).

⁹ See also Ledgeway (2009), who shows that Neapolitan appears to be less restrictive than Italian with regard to the fronting of focus constituents, which is, in fact, possible when no explicit contrast is implied.

¹⁰ See Paoli (in press) for Triestino, where, in specific contexts, preverbal IFoc adds special emphasis and expresses “a degree of contrast, or an element of ‘unexpectedness’.”

¹¹ Non-contrastive FF is also described in Gallego (2007) for Spanish in terms of “mild focalisation” (as opposed to contrastive focalisation), as well as in Leonetti & Escadell Vidal (2008, in press) for Spanish and in Mensching & Remberger (in press) for Sardinian as yielding an interpretation of *verum* which conveys emphasis on the truth-value/polarity of the proposition (cf. Höhle 1992).

of the VP. Under this hypothesis, ‘free inversion’ of the subject (cf. Rizzi 1982) is then the result of subject focalisation to a position that is immediately postverbal on the surface (cf. Belletti 1999, 2001, 2004:21):

- (26) a. Chi è partito / ha parlato?
 who is left has spoken
 ‘Who left / spoke?’
 b. È partito / ha parlato **Gianni**.
 is left has spoken John
 ‘John left / spoke.’

‘Free inversion’, therefore, is clearly dependent on the information structure of the sentence, since it obtains whenever the subject is the focus of the sentence. Structurally, it corresponds to the activation of a dedicated projection in the left periphery of the VP:

- (27) [CP[TP[TopP Top [FocP **Foc** [TopP TopVP]]]]]

Within the cartographic approach to syntactic structure, it follows that two positions are available as syntactic correlates of focus: a higher FocP within the left periphery of the sentence (Rizzi 1997) and a lower FocP in the left periphery of the VP (Belletti 2004). In minimalist terms, the first projection is at the edge of the C-phase, the latter at the edge of the *v**-phase. The two phases have different domains and, accordingly, different properties, but their functional peripheries seem to comprise a similar array of topic and focus projections (cf. Belletti 2004, Drubig 2007). Therefore, with regard to the placement of the focus, cross-linguistic variation reduces to the activation of either focus position within these peripheries. In some Romance languages FF is not admitted, irrespective of the CFoc vs. IFoc distinction. Consequently, the clause internal FocP is the only projection that hosts focus constituents. This is the situation in Turinese and French. In Turinese “contrastively focalised phrases are not allowed to appear in sentence-initial position in Tur[inese]: irrespective of the category of the focalised elements [...] the element must appear post-verbally in order to receive contrastive interpretation” (Paoli 2003:161):

- (27) a. Gioann a l’ ha catà IL GELATO, nen la torta
 John SCL L has bought the ice-cream not the cake
 b. *IL GELATO a l’ ha catà Gioann, nen la torta
 the ice-cream SCL L has bought John not the cake
 ‘It is the ice-cream that John has bought, not the cake’

FF and free inversion are not possible in French, not even as a marked word order. A cleft (or a reduced cleft) with the post-copular constituent in focus is the only corresponding construction (Belletti 2005):

- (29) a. Qui est parti / a parlé?
 who is left / has spoken
 ‘Who left / spoke?’
 b. C’ est **Jean** (qui est parti / a parlé)
 it is John who is left / has spoken
 ‘It’s John (who left / spoke).’

According to Belletti, French cleft-sentences involve movement of the focus to the clause-internal FocP. This analysis has been extended to other cases of elements that appear to be in situ, such as wh-phrases,¹² which must in fact be understood as the result of a (string-vacuous) movement to the functional projection identified by Belletti.

5. THE SYNTAX OF DIFFERENT INFORMATION-STRUCTURE CATEGORIES

Another advantage of the view that discourse-related functional projections play an active role in the syntactic computation is that, under this analysis, it is possible to account immediately for the different information-structure categories that are characterised by distinct grammatical properties. The minimalist idea of a single phase head that allows multiple edge positions but not the creation of phrase structure cannot fully explain these differences. According to the MP, elements that undergo movement to the C-phase edge receive a discourse-related interpretation, being interpreted, for instance, as topic or focus. However, theoretical problems arise when more than one phrase has moved to the edge of the C-phase, and also when a single phrase undergoes internal merge to an edge position. Specifier positions equidistant to the head must be

¹² See Kato (2003) for wh in situ in Brazilian Portuguese, and Belletti (2005) for wh in situ in French. See also Jayaseelan (2001) for a similar analysis of wh in situ in Malayalam.

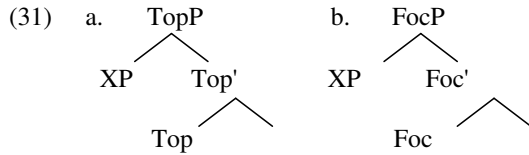
interchangeable. This appears to be in contradiction with the specific ordering constraints characterising the distribution of the elements moved to the left periphery of the sentence. Moreover, under this analysis, it is not possible to account for the intervention effects predicted by Relativized Minimality, which vary according to the specific nature of the peripheral element (cf. Rizzi 1997, 2004). In other words, as far as locality is concerned, how is it possible to distinguish between A'-dependencies creating minimality effects (e.g. wh, focus, negation, quantificational dependencies) and those not creating them (e.g. topic dependencies) in a multiple specifier approach? These distinctions, by contrast, directly follow from the cartographic hypothesis that different discourse-related properties are encoded in different functional projections.

5.1 Focus vs. Topic

On the basis of several syntactic tests, Rizzi (1997) concludes that focalisation is an instance of quantificational movement. The syntactic properties deriving from the quantificational nature of focus movement as opposed to topicalisation are:

- (30) i. *Resumptive clitic*: topics need a resumptive clitic, foci cannot be resumed by a clitic;
 ii. *Weak-Crossover*: foci give rise to WCO effects, topics do not;
 iii. *Bare quantifiers*: bare quantifiers can be focalised, but not dislocated as topics;
 iv. *Uniqueness*: there can be many topics, but only one focus per sentence;
 v. *Compatibility with wh-phrases*: topics are compatible with wh-phrases, foci are not.

Indiscriminate edge features would not be able to account for this set of differences nor for the different interpretation (cf. Gallego 2008), when a constituent is dislocated. To distinguish between topic and focus, Rizzi (1997) proposes the following analysis:



These two configurations are able to capture the empirical distinction between topic and focus. XP will be unambiguously interpreted as topic in (31a) and as focus in (32b). All the relevant typical properties are directly read off these syntactic structures at the interfaces. Moreover, the targeted position defines a type of chain which shows selective locality effects. Focus chains are sensitive to the intervention of elements with quantificational properties, whereas chains targeting TopP are not sensitive to the intervention of a lower topic and, at least in some languages (e.g. Romance), multiple topics are possible (cf. Cinque 1990, Rizzi 1990, 1997, 2004).

The articulated configurations in (31) thus guarantee the local simplicity and the language structural uniformity advocated in current linguistic theory (cf. Chomsky 2001).

5.2 IFoc vs. CFoc

FF in Sicilian and Sardinian is possible not only with IFoc, as discussed in section 4.2, but also with CFoc, as in the following examples from Sardinian (from Mensching & Remberger in press) and Sicilian respectively:

- (32) A CASTEDDU soe andadu, no a Nùgoro.
 to Cagliari am gone not to Nuoro
 'It was to Cagliari that we went, not to Nuoro.'
- (33) UN LIBBRU ci detti (no nu giornali).
 a book to-him_{CL} give.PAST.ISG not a newspaper
 'It was a book that I gave him, not a newspaper.'

The possibility of fronting both types of focus in Sicilian and Sardinian permits an immediate and close comparison of their syntactic similarities and differences when they occur in the left periphery of the sentence, providing robust evidence for the claim that, when fronted, IFoc and CFoc occupy two distinct positions within the left periphery of the sentence.¹³ From this comparison, two main differences emerge as regards adjacency to the verb and partial movement. First, IFoc always need to be adjacent to the verb, whereas CFoc need not. The following Sicilian example (from Bentley 2007) shows a

¹³ The distinction between CFoc and IFoc is supported by semantic and prosodic evidence. Interpretively, whereas IFoc simply evokes a set of alternatives, which includes the focus itself, CFoc identifies by contrastive exclusion the complement of the focus within the set of alternatives. Prosodically, distinct intonational patterns have been identified in a number of languages (cf. Zubizarreta 1998 for Spanish and other Romance languages, Frota 2000 for European Portuguese, Selkirk 2002 for English, Nespor & Guasti 2002, Donati & Nespor 2003, Avesani & Vayra 2004, Bocci & Avesani 2006, 2008, Bocci 2007, 2008, for Italian).

constituent can intervene between the fronted focus and the verb only when the focus bears a clear contrastive interpretation, as in (35). The lack of adjacency would otherwise result in the ungrammaticality of the sentence, as in (34):

- (34) a. Chi cci ricisti a tò niputi?
 what to-him_{CL} say.PAST-2SG to your nephew
 ‘What did you say to your nephew?’
 b. **A virità** (*a mè niputi) cci rissi.
 the truth to your nephew to-him_{CL} say.PAST.1SG
 ‘I told the truth (to my nephew).’
- (35) Na littra, a Pina, cci scrissi (no un pizzinu)
 a letter to Pina to-her_{CL} write.PAST.1SG not a note
 ‘I wrote a letter to Pina (not a note).’

The adjacency between fronted focus and verb is an essential condition for the grammaticality of those structures featuring FF in Sardinian, as generally acknowledged in the literature (cf. Jones 1988, 1993, among others). Nevertheless, this requirement can be violated when the fronted focus constitutes an instance of CFoc:

- (36) SOS DURCHES, a su pitzinnu appo comporadu, no sos puliches.
 the sweets to the child have.PRES.1SG bought not the fleas
 ‘I bought sweets for the child, not fleas.’ (Sa-Limba 1999-2008)

This difference can be explained by assuming that in the case of IFoc-fronting, the verb is endowed with the relevant focus feature, thus verb movement to FocP is necessary so that the focus feature is in a Specifier-Head configuration with the fronted focus constituent (in the same manner as for wh-phrases, cf. Rizzi 1991). Conversely, this kind of verb movement does not take place in CFoc-fronting. According to Rizzi’s (1997) analysis of CFoc in Italian, the peripheral focus projection is inherently endowed with the relevant feature. Verb movement is therefore unnecessary for meeting the required criterial configuration, and the absence of verb movement evidently results in the lack of adjacency between the focus constituent and the verb.

As for the second difference, only CFoc can stay in the left periphery of a complement clause, whereas IFoc cannot undergo partial movement to an intermediate periphery but must move on to the left periphery of the matrix clause, as illustrated in (37) and (38) from Sardinian and Sicilian respectively:

- (37) a. Appo nadu chi SA MÀCCHINA mi comporat, no sa bricicheta
 have.PRES.1SG said that the car me_{CL} buys not the bicycle
 ‘I said that he is going to buy me the car, and not the bicycle.’
 b. *Appo nadu chi **sa màchina** mi comporat.
 have.PRES.1SG said that the car me_{CL} buys
 c. **Sa màchina** appo nadu chi mi comporat.
 the car have.PRES.1SG said that me_{CL} buys
 ‘I said that he is going to buy me the car.’
- (38) a. Dissi ca NA MACHINA s’ accattà, no un muturinu.
 SAY.PAST.3SG that a car REFL_{CL} buy.PAST.3SG not a moped
 ‘He said he bought a car, not a moped.’
 b. *Dissi ca **na macchina** s’ accattà.
 SAY.PAST.3SG that a car REFL_{CL} buy.PAST.3SG
 c. **Na macchina** dissi ca s’ accattà.
 a car SAY.PAST.3SG that REFL_{CL} buy.PAST.3SG
 ‘He said he bought a car.’

Cross-linguistic evidence confirms this last distinction. The characterisation of IFoc-fronting as a matrix phenomenon has been independently discussed and argued for in other languages that allow IFoc-fronting (e.g. Hungarian, Somali) by Frascarelli (2005) and Frascarelli & Puglielli (2008). In particular, Frascarelli (2005:17-18) argues that the focus constituent within an embedded C-domain is inappropriate as an answer to a wh-question – namely, with IFoc – and states that “languages that realize Focus in a fronted position do not allow informational Focus in embedded C-domains.”

These differences support the claim that IFoc and CFoc, when fronted, must be kept separate not only on an interpretive level (cf. fn. 13), but also on a syntactic level, in the sense that they target distinct projections within the left periphery of the sentence:

(39) ... ContrP TopP IFocP FinP

A higher projection encodes Contrast or Contrastive Focus (cf. Benincà & Poletto 2004, Frascarelli & Hinterhölzl 2007). Cross-linguistically, contrast appears to be independent of focus: contrastive topics are in fact possible (Szabolcsi 1981, Gundel 1988). The orthogonal nature of contrast with respect to the topic-focus distinction is confirmed by the fact that, in some languages, contrastive constituents are syntactically marked irrespective of their information nature. In Finnish, for instance, contrastive foci and contrastive topics occupy the same structural designated position, supporting the idea that contrast must be regarded as an autonomous concept structurally related to an independent position within the left periphery (cf. Vilkuina 1995; see also Vallduví & Vilkuina 1998, Molnár 2002, Frascarelli & Hinterhölzl 2007).

6. CONCLUSIONS

The phenomena discussed in this paper support the cartographic tenet that functional projections are richly articulated and hierarchically organised. More specifically, this paper argues for a necessary correlation between discourse/informational properties and specialised functional projections in the phrase structure. Crucial to this assumption is evidence from comparative data: in some languages each head (Top, Foc, Int) may be overtly realised, and may act as trigger for movement of the relevant phrasal constituent. We considered the case of Sicilian, where the interaction between discourse-related phenomena and the syntax of linguistic expressions is transparently manifested through word order and, in particular, by dislocation and fronting operations. Word order alternations consistently and systematically correspond to overt manifestations of the different information structures of the sentences. By introducing data from other Romance languages, we saw that the variation that emerges with respect to the placement of the focus constituent can be captured in terms of activation of the focus projections that have been identified in cartographic studies of phrase structure. The first distinction to be established is that between clause external and clause internal focus positions (cf. Rizzi 1994, Belletti 2001, 2004), which leads to the distinction between FF on the one hand, and focus in situ and subject inversion on the other. A second distinction within the left periphery of the sentence must be made in order to account for differences between IFoc and CFoc. A higher functional projection is designated for the encoding of contrastiveness and, hence, to Cfoc. A lower projection for non-contrastive FF is targeted by Sicilian and Sardinian fronted IFoc, and is also involved in other fronting operations in Romance, such as non-contrastive FF with quantifiers and quantified expressions (i.e. QP-Fronting) and with constituents expressing new and unexpected information (i.e. Mirative-Fronting). Even if languages differ in the type and number of functional projections they activate, in the extent to which they morphologically realise the corresponding heads, and in their attraction properties, discourse-related functional projections uniformly obey rigid hierarchical constraints and univocally specify interpretive instructions for the interfaces.

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