

### Rizzi 97 Fine Structure of Left Periphery (Review)

Rizzi's work in the Fine Structure of the Left Periphery mirrors recurrent dynamics inside the field of syntax's evolution. Just as functional projections inside of VP and IP were expounded to become larger categories instead of a single X' projection, Rizzi's work aims to replicate this theme inside the CP domain. The intuitive driver behind added functional projections occurs when syntacticians notice that certain elements proposedly belonging to a single functional projection behave differently in different contexts. Depending on the degree of this variation, added functional projections are required to explain additional categorical distinctions made inside the grammar. It is important methodologically to note that these added functional projections are not a matter of heuristic preference, but depend entirely on objectively observable effects on acceptability when comparing two elements' behavior in the same linguistic environment. If we find a linguistic environment in which two elements we thought to belong to a single category behave differently, there must be a structural account of this variation that often depends on the two elements residing in different locations at different functional projection sites.

Initially, effects currently observed to be in the C-system were thought to possibly reside in the I-system. This can not be the case, however, as the C-system does not morphologically encode the same span of variation in tense that the I-system does.

- (1) It is true that Jerry laughs
- (2) It is true that Jerry laughed
- (3) It is true that Jerry will laugh

These sentences vary in tense: present indicative, past indicative, and future indicative.

Importantly, for each unique tense, the I-system has a unique morphological representation for each: ‘s’, ‘ed’, and ‘will’ respectively. If the C-system were merely an extension of the I system located higher up, we would expect it to be similarly reactive to variations in tense located lower down. Yet this is not what we see as “that” has no added prefixes and suffixes to encode the change in tense. While it is true that the C-system encodes certain aspects related to tense in lower and higher clauses, the grammatical distinction is broader and abstracts over finer distinctions made by the I-system. This is part of the empirical motivation to cast the C functional projection in its own right apart from the I-system.

### **(1) Differences between Topic and Focus:**

The basic syntactic structure of Topic and Focus have virtually identical representations inside of X-bar theory. Their differences lie in characteristics of other linguistic structures they can combine with and have slightly different compositional rules. Topics require null operators in the structures they combine with while focalized constituents are inconsistent with null operators.

Through topicalization, a topic-comment construction can be formed. The topicalized phrase is the topic, expressing old information, and the comment is a complex predicate that introduces new information. Through topicalization plus focal stress, a focus-presupposition construction can be formed. The preposed element introduces new information and corrects part of the presupposition. Since topicalization corrects part of the presupposition, it is intuitively obvious why it must be able to target portions of lower constituents in a way that the topic-comment structure does not need to. Topics merely add new information and do not target

or modify existing information in the clause.

(1) Your book, I bought it

(2) \*Your book, I bought

(2) is incorrect because the topicalized element *your book* is not quantificational and therefore cannot bind the empty category in object position. On the other hand (1) is grammatical as it fills the object position of “bought” with the resumptive clitic which can properly bind to its antecedent topic “your book”.

(3) \*YOUR BOOK, I bought it

(4) YOUR BOOK, I bought

(3) is incorrect because the focalized element must bind a syntactic variable which is a non-pronominal empty X-max category in an A-position. The resumptive clitic in (3) is an overt pronominal head and not empty. (4) on the other leaves the object position of *bought* empty, allowing the focalized constituent to bind to this variable.

The targeting feature characteristic of Focus and not of Topic becomes most apparent when we look at quantificational operators.

(1) \*None, I saw him

(2) \*Everything, I did it

(3) NONE I saw

(4) EVERYTHING I did

(3) and (4) are grammatical since the focalized constituent *none* and *everything* can bind the empty syntactic variable that is the direct object of *saw* and *did*. This way, *none* and *everything* selectively target and modify the quantity of variable that is the object of *saw* and *did*

respectively. (1) and (2) are semantically nonsensical since *none* does not bind to *him* and *everything* does not bind to it. Quantifiers of this sort must bind to variables and are meaningless on their own: everything only has meaning in relation to something and cannot stand alone.

(1) (\*TO GIANNI) what (\*TO GIANNI) did you tell (not to Peiro)

Before getting to the syntactic justification behind the ungrammaticality of combining the wh-operator with focalized constituents, it's important to look for possible cognitive justifications for these emergent syntactic behaviors. Given that focalized constituents correct incorrect information inside a preposition, it is vital that the rest of the information be correct. Otherwise, correcting a portion of the preposition would still result in the rest of the presupposition being false. Question operators create variability and this is not the sort of domain in which a portion of a statement could be corrected. Adding a question to a presupposition creates two fold variability and therefore becomes cognitively untenable.

The syntactic reason behind why wh-operators cannot combine with focalized constituents is because they compete for the same location in the tree: the specifier of FocP. It makes sense why question operators would behave like focalized constituents, in that they must target and bind lower variables in the clause to derive their meaning. Wh-operators are compatible with topics but only in fixed orders.

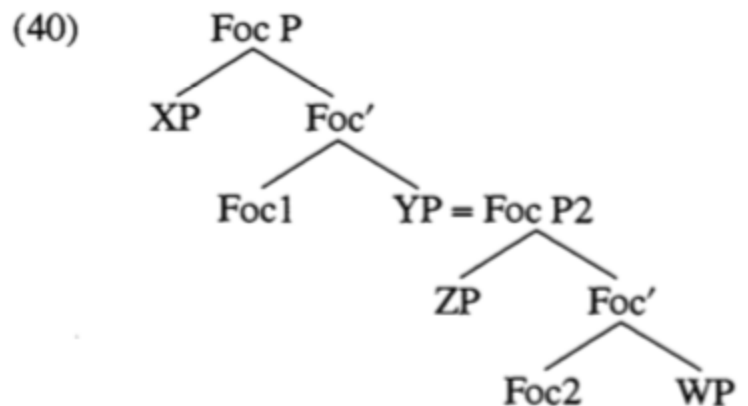
(1) \*what, to Gianni, did you tell him

(2) to Gianni, what did you tell him

Since the wh operator sits in the specifier of focus, the topicalized constituent “to Gianni” sits in a functional projection lower in the tree. This creates a violation of the Wh criterion, in which the wh feature must be in a local configuration with the [+wh] feature to be valued. The

topic “to Gianni” blocks I to C movement necessary for the wh-criterion and therefore results in ungrammaticality.

A crucial difference between Focus and Topic is that you can have multiple Topics per construction while you can have only one focus. Topic is structurally recursive while focus is not. If we were to attempt to imbed a Focus inside of another, it is simple to show where the possibility for error would occur.



Inside of Foc P2, ZP targets an element inside of WP and modifies it. We can represent this as  $ZP(WP) = z$ . Looking up towards the highest projection Foc P we see that XP can modify anything inside of Foc P2. If XP were to modify the same element

inside of YP as ZP had modified and change its value, this would lead to an immediate contradiction as different truth assignments can't simultaneously be true.  $XP(YP) = XP(ZP(WP)) = YP(z) = x$  is a contradiction if  $x \neq z$

## **(2) Determining the location of Force and Fin:**

The driver behind the relative ordering of Force and Fin is based on two central factors:

- (1) Case assignment occurs under locality conditions (Relativized Minimality)
- (2) Higher and lower clauses seek the specification of force and finiteness respectively and complementizers can assign case to elements not valued inside the upper or lower clause.

- (51) a. ... that John will leave tomorrow  
b. ... that, tomorrow, John will leave

- (52) a. ... for John to leave tomorrow  
b. ... \* for, tomorrow, John to leave

The ungrammaticality 52 b.) arises from the fact that the complementizer *for* cannot assign case to the subject of the lower clause *John* with the Topic *tomorrow* intervening. This falls out from the fact that case assignment must occur under conditions in which the case assignor and the assignee are adjacent in the tree. In 52 b.) the intervening Topic *tomorrow* blocks case assignment. This case shows us that Finiteness must be located in the lowest projection of the C system since it assigns case to the lower clause following the rules of Relativized Minimality. That example also tells us that Topic must be located higher up in the C system. The grammaticality of 51 a.) and b.), despite paralleling the construction in 52 a.) and b.), is due to the fact that the tensed complementizer *that* does not participate in assigning case to John: case is assigned to *John* from within the lower clause itself from *will*. Thus *that* occurring at the specifier of Force site allows the possibility for a Topic to intervene between the complementizer and the lower clause. It may be too quick, however, to tie the contrast of these sentences solely to case effects. Another possible explanation for the differences between these sentences is the fact that the lower clause in 52 b.) is non-finite while in 51 a.) it is finite. The ungrammaticality of 52 b.) then would be tied to the specification of finiteness and not case assignment. Examples from West Flemish speak to the contrary:

- (55) With yesterday she not to come (english gloss)

This should be ungrammatical in English because the prepositional determiner *with* would not be able to assign case to the subject with the intervening Top and also could not receive case from the infinitive *to*. This is grammatical in Finnish, however, since infinitive constructions that begin with *me* mark the subject with a nominative case which is determined by Agr and not a projection in the C-system. The Top can therefore be added between the clause and the complementizer because the complementizer isn't an assignment case to begin with.

While I to C movement often involves movement to Fin, I can also move to higher positions located within the C-system. In cases where I moves to a higher position, we would expect the possibility of hosting an intervening Top.

(1) If yesterday John had done that

(2) Had (\*yesterday) John done that

The reason why sentence (1) can host an intervening Topic while sentence (2) cannot is because the *if* moves to a higher position within the C-system than *had* which moves to Fin. Since Fin is the last functional projection within the C-system, there is no room left to host the intervening Topic *yesterday* making (2) ungrammatical.

### **(3) The C-system and PRO**

The null case approach to PRO states that PRO requires null case to be sanctioned by infinitivals. The null case alone, however, cannot express the dependency seen between the C system and PRO and cannot account for the ungrammaticality of the following.

(1) It seems [PRO to be happy]

Under the null case approach, there seems to be no reason why this sentence would be ungrammatical with *to* being available to license null case to PRO. Wantaba proposed that case

checking on PRO is handled by a [+F] (finiteness) feature in AgrS that must be checked in C-system. This proposal creates the dependency between the C-system and PRO, accounting for the empirical observation that PRO only “occurs in clauses protected by a CP layer”. This proposal requires head government, however, stating that the null case is “sanctioned by [-fin] under head government”. For the finiteness feature to be checked and valued, and thus become (-), AgrS must move up to the C-system.

Adjacency and Anti Adjacency effects:

- (1) \*I wonder who, this book, t would buy around Christmas
- (2) I wonder who, around Christmas, t would buy this book
- (3) \*I wonder if he, around Christmas, will buy this book

Argument topicalization of *this book* in (1) leads to ungrammaticality as it blocks subject extraction. The contrast between (2) and (3) raises the question of why adverb preposing triggers adjacency effects on case in example (3) but not on traces in example (2). Before answering this question, we must look at how the Force and Finiteness projections get activated in English.

English has the option of pairing Force and finiteness in a single head, in cases where Topic/Focus is not present. In the presence of a Topic/Focus, this single X-bar projection containing Force and Finiteness together splits, and Finiteness and Force are expressed individually. The following feature set is postulated to account for these two different scenarios:

- (90)     That = +decl, (+fin)  
             0    = (+decl), +fin, (+Agr)

Features with parenthesis around them are optional and are meant to account for cases in which a split does not occur and one or the other feature is realized. For example if we take the sentence



[Who do you think [t will win the prize]] no split occurs, as no Topic or Focus is present, so we must choose between that or 0. In this case, since the presence of the trace requires licensing of null case, we need to choose 0 as its +Agr feature can be used to license the case of the trace.

Thus the derivation selects the following [Who do you think[ t' 0 [t will win the prize]].

Now the question that remains to be answered is why that-trace violations are lifted with adverb preposing and not argument topicalization given that they both trigger the Topic/Focus field and force the Finiteness/Force split. The difference can be accounted for in the fact that argument topicalization triggers the Topic/Focus field as a Topic and therefore requires a null operator (Op) which sits in the specifier of Fin. Adverb preposing, on the other hand, triggers the Topic/Focus field as a Focus and cannot co-occur with a null anaphoric operator: the specifier of Fin remains empty.

(1) ... that, next year, will be law

(2) \*.. that, this book, knows very well

The derivation of sentence (1) precedes by splitting Finiteness/Force as *next year* is a preposing adverbial and takes its position at specifier of Top: [that [next year Top° [ [t will be law]]]. We must choose 0 so the derivation precedes to [that [next year Top° [t' 0[t will be law]]]. 0 has [+fin] feature and optional [+Agr] feature that will be used here. The derivation precedes to become [that [next year Top° [t' Fin° +Agr[t will be law]]]. The +Agr feature checks and values the case of the null operator and allows Fin° to govern the trace. Now we will contrast this with how the derivation of (2) precedes to show why subject extraction is not possible.

Force/Finiteness again splits due to the topicalized argument “this book” which is a topic and requires a null operator (Op). The sentence precedes as [that [this book Top° [Op Fin° [t know]]].

The null operator sits in the specifier of Fin as case assignment can only occur on locality conditions(Relativized Minimality). Since Op sits in the specifier of Fin, its Agr features will be checked and valued by Op and not by the trace. Since a single feature cannot be checked and valued more than once by distinct features, and Op is most local to the Agr projection, the case of the trace would go unvalued. It is for this reason that there exists an asymmetry between easing subject extraction violations between argument topicalization and adverb preposing.

Sources:

(1)

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