



Mapping Syntax 2022

St Catherine's College
University of Oxford
16 – 18 November 2022

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A theory of linearization: two implications for cartography

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Cartographic work is indissolubly linked with linear order. The hierarchies which underlie the clause and its major phrases have to be reconstructed from the different word orders to which they are mapped in the languages of the world. This requires having a system that maps these hierarchies to the different attested word orders, and that allows the inverse path (from the different word orders to the invariant hierarchies). Not a trivial matter. The idea that the physics of speech may provide a simple solution as it leaves just two options (a head either precedes or follows its complements and modifiers) is illusory, as it cannot account for several generalizations that hold of linear order. An account of them and the hope of deriving the orders of all languages from one and the same hierarchical organization via the same basic principles through a restrictive theory of linear order may however be attained once we have 1) a precise understanding of the fine-grained hierarchies and sub-hierarchies that underlie the clause and its phrases, 2) a restriction on Internal Merge whereby only the head of each (sub-)hierarchy can move (by itself or in one of the two pied piping modes), and 3) Kayne's Linear Correspondence Axiom (LCA). In the talk I will in particular discuss two theoretical implications of this account of linear order for the general cartographic architecture of the clause and its major phrases: 1) the fact that nothing is merged below (to the right) of a lexical head and 2) that the customary representation of a downward/rightward 'spine' should be replaced by a much more articulated structure.

Clause-internal wh-words and the Low Left Periphery: The case of Valdôtain Patois

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It is widely assumed that wh-words and Contrastive Foci (CF) target the same position both in the high and low peripheries (Rizzi & Bocci, 2017; Bonan, 2019; Kahnemuyipour, 2001). This conclusion is motivated by the complementary distribution of wh-words and CF in the high left periphery (HLP) across Romance languages (Rizzi & Bocci, 2017). In this paper, I use evidence from Valdôtain Patois (ValPa) to argue for a more nuanced approach. *On the empirical plane*, I show that **(i)** ValPa wh-words move to a wh-position at the edge of the LLP, then overtly to a wh-position in the HLP and that **(ii)** wh-words are compatible with CF clause-internally, but not in the high periphery. *On the theoretical plane*, I argue that **(i)** wh-words and CF do not target the same position and that **(ii)** the inner structure of the peripheries differs.

Data. In the ValPa variety spoken in the village Morgex in Aosta Valley (Italy) the unmarked argument order is DO>IO (1). All wh-words (except *perqué* ‘why’) can occur in two positions: fronted (FWh), (2a), and clause-internal (IWh), (2b). Both options differ from echo questions (2c) in terms of prosody and linear order. Topics can freely co-occur with both types of wh-words, (3). Contrastive Focus (CF) can co-occur with IWhs (4a), but not with FWhs (4b,c).

- (1) Dz’i baillà lo libro à Marco.
1SG’have.1SG given the book to Marco
‘I have given the book to Marco.’
- (2) a. **À qui** t’ à baillà lo libro? c. T’ à baillà lo libro **À QUI**?
b. T’ à baillà **à qui** lo libro? ‘You gave the book to WHOM?’
‘To whom did you give the book?’
- (3) a. *À Marvo* **quan** te ‘lli predz-e?
To Marco when 2SG CL.DAT.3SG speak-PRS.2SG
b. Te ‘lli predze **quan** *à Marvo*?
‘When will you speak to Marco?’
- (4) a. Te predze **quan** *À MARCO*, pò à Luca? c. ***Quan** *À MARCO* te predze, pò à Luca?
b. **À MARCO* **quan** te predze, pò à Luca? ‘When do you speak to Marco, no to Luca?’

IWhs and the structure of the Low Left Periphery (LLP). The following arguments show that the IWh, (2b), has moved from its base position: (i) the order of arguments; (ii) crossover effects (5), (iii) parasitic gaps (PGs), (6), and (iv) lack of intervention effects (not shown here for space reasons). **(i)** Since the unmarked order of arguments is DO>IO (1), the IO>DO order in (2b) indicates that the IWh has moved. **(ii)** In 0, *à qui* ‘to whom’ induces a crossover effect if coindexed with the possessive *son*. **(iii)** PGs can only be licensed by wh-movement, thus *à qui* in (5) must have moved from its base position.

- (5) *T’ à baillà [**à qui**]_i son_i libro t_i?
‘To whom you gave his book?’
- (6) T’ à atsitò **dequé** ì martsà [san agouté *pg*]?
2SG’have bought what at.the market [without tasting]?
‘What did you buy at the market without tasting?’

The IWh landing site is relatively low; in particular, it must follow manner adverbs like *bien* ‘well’:

- (7) a. Te sonn-e *bien* **dequé** avouë la fisa?
2SG play-2SG well what with the accordion
‘What do you play well with the accordion?’
b. *Te sonne **dequé** *bien* avouë la fisa?

These data suggest that the left periphery of the vP (LLP) in ValPa has elaborate structural layering, which is consistent with several proposals concerning LLP structure, and parallel to the structure of the CP (Belletti, 2004; Bonan, 2019; Kahnemuyipour, 2001; Poletto 2014, a.o.). In the ValPa LLP, the highest A’-position is a wh-position, purely targeted by wh-words. Such whP

is followed by freely-adjoining topics, (8). The position of the whP is crucial: it is the demarcation of the lower-phase edge, parallel to ForceP in the HLP (Rizzi & Bocci, 2017).

- (8) a. Te lo baille [_{Op} **quan**] [_{Top} lo libro] à Marco? b. *Te lo baille [_{Top} lo libro] [_{Op} **quan**] à Marco?
 ‘When do you give the book to Marco?’

Contrastive focus can co-occur with an IWh. The order is again fixed: IWh-(Top)-CF-(Top):

- (9) a. Te lo baille **quan** lo libro À MARCO deman? b. *Te lo baille À MARCO **quan** lo libro deman?
 ‘When do you give the book to Marco tomorrow?’

Crossover effects show that the CF constituent also undergoes A'-movement:

- (10) a. Te baille **quan** son_i libro À MARCO_i? b. Te baille **quan** À MARCO_i son_{*i/j} libro?
 ‘When do you give to Macro his book?’

For several reasons, IWh and CF cannot be analyzed as multiple specifiers of FocP (*pace* the Attract-All-F account, Bošković, 2022): **(i)** as it will be shown in the talk, ValPa disallows multiple wh-words; **(ii)** the order is strictly wh > CF; **(iii)** topic phrases can intersperse, cf. 0. Thus, IWh and CF target separate positions. Specifically, CF moves to a ‘lower’ A'-position in the LLP. Furthermore, unlike whP, multiple CF are possible (11). I thus propose a scrambling analysis of CF, (cfr. Poletto 2014 on A scrambling in Italian), whereby CF scramble to a position in the LLP associated with a contrastive interpretation.

- (11) Te baille quan son_i libro À MARCO_i (pò à Luca) À L'ÉCOULA (pò à meison) deman?
 ‘When will you give his book to Marco (not to Luca) tomorrow at school (not at home)?’

FWh and the structure of the High Left Periphery (HLP). I then show that IWhs move to an wh-position in the HLP. Evidence for this movement comes from **(i)** the lack of intervention effects (IEs); **(ii)** inverse scope (both presented in the talk), and **(iii)** parasitic gaps (6). PGs can only be licensed by *overt* A'-movement to a high position, where they can take wide scope (Nunes, 2004). Thus, *dequé* in (6) must have moved to the HLP in the syntax. The Lebeaux effect (Lebeaux 1988) outlined in the talk supports a successive-cyclic movement analysis, transiting through the edge position in the LLP (12).

- (12) ([_{TopP}] [_{whP} XP_i] ([_{TopP}] [_{TP} ... [_{whP} XP_i] ([_{TopP}] [_{VP} ...]])])

The different word orders, as in (2a-b), are obtained by deletion of different copies at PF (Bošković, 2011). The mutual exclusivity of FWhs and CF in the HLP (4b-c) suggests that, as opposed to the LLP, in the HLP wh-words and CF do target the same position (12), lower than the phase edge, as Topics can precede it (3a). While a definitive explanation of this asymmetry between the HLP and LLP in ValPa is outstanding, in the talk I will discuss possible analyses. In summary, this paper presents evidence that: **(i)** ValPa IWhs move to an dedicated wh-position at the edge of the LLP, whereas CF scramble in the LLP to a projection associated with contrastive interpretation; **(ii)** Whs successive-cyclically move further up, to an wh-position in the HLP, then different copies can be deleted at PF (lower copy deletion: FWh; higher copy deletion: IWh); **(iii)** peripheries differ structurally: in the LLP the wh-positions is at the periphery's edge, while in the HLP it can be preceded by other A' elements, e.g. Topics. A further topic the talk will explore is the [EXHAUSTIVE] nature of the whP in both the LLP and the HLP and whether this position is also targeted by New Information Focus.

Selected references: Belletti, A. 2004. Aspects of the low IP area, in Rizzi (ed) *The Structure of IP and CP: The Cartography of Syntactic Structures* OUP; Bonan, C. 2019. *On clause-internally moved wh-phrases. Wh-to-Foc, nominative clitics, and the theory of Northern Italian wh-in situ*, PhD Diss; Bošković, Z. 2011. Rescue by PF Deletion, Traces as (Non)interveners, and the That-Trace Effect, *LI* 42(1): 1-44; Lebeaux, D. 1988. Language acquisition and the form of grammar. Ph.D. Diss; Poletto, C. 2014. Word order in Old Italian; Rizzi, L. & G. Bocci. 2017. Left Periphery of the Clause; Primarily Illustrated for Italian, In Everaert M. & H. C. van Riemsdijk (Eds.) *The Wiley*.

Topic features and Inclusiveness

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There are two major approaches to Information Structure (IS) in recent generative linguistics. One is the cartographic model, where topic and focus are syntactic features, encoded as heads in the C-domain, following Rizzi (1997). The other is that IS is postsyntactic, the result of interpreting structures derived by syntactic operations (Chomsky 2001, Chomsky et al. 2019). A major argument against the cartographic theory according to Chomsky et al. is that it violates the Inclusiveness Condition, according to which syntactic features can only be introduced along with lexical items. If Topic and Focus are not introduced as features of lexical items, but are functions of derived syntactic structure, they can't have causal effect on syntactic derivation, such as triggering movement.

In many Arabic dialects topic and focus are indicated by particles in the C-domain. An interesting example is a series of topic particles in North Hail Arabic. Some particles occur with movement to the C-domain of a topic constituent, as familiar from various other languages (such as Japanese), but other particles mark topic function by agreement. The particle in the C-domain shows the ϕ -features of a sentence-internal DP, which is thereby interpreted as topic (of a certain kind). The agreement conforms to Agree (Chomsky 2001): The DP needs to be locally c-commanded by the particle within the same phase. This is exemplified in (1a), the structure of which is (1b).

- (1) a. **ʔedi**-ah ʔaf-ah l-bint Firas
PRT-3SG.F saw-3SG.F the-girl Firas
'The girl, Firas saw her.'

- b. [_{CP} ʔedi-ah [_{TP} ʔaf-ah+T [_{VP} l-bint [_{VP} Firas <ʔaf-ah> <l-bint>]]]]

In (1), the verb has moved to T, as it (arguably) always does in Arabic. The verb has an object agreement suffix (or clitic), as it always does when the object is null or has moved (except for focus). The agreement on the particle is not dependent on the agreement on the verb; the particle does not 'inherit' the phi-features from the verb (or vice versa). This can be seen in (2), featuring another agreeing topic particle *tara* marking Contrastive Topic (C-Top).

- (2) **tara**-ah gal MILAN ʔin -uh zahr-ah
C-Top-3SG.F said.3SG.M Milan.3SG.F that-3SG.M visited-3SG.F
'He said that he visited MILAN (but not Rome).'

Here the particle agrees with the object moved to embedded spec-CP (to be in the same phase as the particle), marking it as contrastive topic. The verb with object agreement is in the embedded clause.

The particles in North Hail Arabic mark different types of topic: Shift-topic, Contrastive Topic (including *tara*) and Familiar Topic (including *ʔedi*). Multiple particles/topics are possible, in that order (as predicted by Frascarelli & Hinterhölzl 2007). The agreement between topic particle and DP may work like Case in Chomsky (2001): The particle, a head in the C-domain, has a valued IS-feature, Familiar Topic for *ʔedi*, Contrastive Topic for *tara*, but unvalued ϕ -features. It probes for a DP with valued ϕ -features but an unvalued IS-feature. The particle assigns its IS-feature value to the DP, receiving its ϕ -feature values in return.

This means that topic features *are* introduced as features of lexical items, namely, the topic particles, observing Inclusiveness under a syntactic account of IS. The cartographic account of topics in Romance and various other languages postulates abstract heads with topic features, drawn from the lexicon, which, by hypothesis, may observe Inclusiveness. Yet, because they are abstract, they may be just convenient modelling devices. The North Hail Arabic particles, on the other hand, are overt, with observable properties. By the familiar (although not incontestable) methodological rule of thumb that what is overt in one language may be covert in another, the Arabic particles provide support for the cartographic syntactic theory of IS, specifically a version where phrasal constituents can be assigned their IS-value by Agree with a C-head.

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Wh-phrases as the syntax-prosody interface

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In main wh-questions, Italian shows a marked prosodic pattern: the Nuclear Pitch Accent typically falls on the lexical verb, as in (1a), rather than in the default rightmost position (Calabrese 1982, Ladd 1996, Marotta 2001). However, the prosodic experiment reported in Bocci, Cruschina & Rizzi (2021) shows that NPA placement is sensitive to the nature of the wh-phrase. With a partitive phrase like *chi di voi* ‘who among you’, the NPA is consistently realized on the *wh*-phrase itself, rather than on the lexical verb, as shown in (1b).

- (1) a. Chi **canta** una canzone?
 who sings a song
 ‘Who is singing a song?’
 b. Chi di **voi** canta una canzone?
 who of you sings a song
 ‘Who among you is singing a song?’
 c. Chi diavolo **canta** una canzone?
 who devil sings a song
 ‘Who the hell is singing a song?’

Prima facie, the difference seems to be related to phonological weight, since in (1b) the wh-phrase is more complex and heavier than in (1a). To control for this factor, stimuli like (1b) were compared with parallel stimuli with an aggressively non-D-linked wh-element like *chi diavolo* ‘who the hell’, (1c). Despite the similar phonological weight, aggressively non-D-linked elements differ systematically from partitive ones, in that they never attract the NPA; the latter is always realized on the lexical verb, as shown in (1c). This contrast shows that the nature of the wh-phrase is relevant in determining NPA assignment.

We maintain the null hypothesis that the NPA is invariably associated with the syntactic [focus] feature, as it is in declarative clauses. Crucially, however, in (1a) and (1c) prosodic prominence on the lexical verb does *not* convey focus on the latter. This implies that the verb is associated with an uninterpretable (non-criterial) instance of [focus]. Building on Marotta (2001) and Poletto & Pollock (2009), we propose that Italian has two series of homophonous wh-elements, one weak and one strong, of which the weak form is selected whenever possible. In both series the wh-element bears the [wh] and [focus] features, the latter attracting the NPA. However, a PF filter rules out a phonological representation where the NPA falls on a weak or phonologically empty form.

(1a) and (1c) feature the preferred weak form. Because of the PF requirement, the weak form must ‘discharge’ its [focus] feature on a non-weak element that can bear the NPA. This is obtained through a feature-sharing mechanism: in order to be licensed, a weak wh-phrase must agree with every phase head along the movement chain, thus sharing with it the [focus] feature. In (1a) and (1c), the weak wh-phrase shares the [focus] feature with the low Foc head when passing through the vP periphery, before reaching its criterial position in the left periphery (cf. also Bocci, Bianchi & Cruschina 2021):

- (2) [FP $\text{chi}_{[\text{wh}], [\text{F}]}$] [Foc° [TP T ... [_{vP} < $\text{chi}_{[\text{wh}], [\text{F}]}$ > [FP Foc [_{vP} < $\text{chi}_{[\text{wh}], [\text{F}]}$ > [v° VP]]]]]]]

The lexical V° moves up to the T head, incorporating v° and the activated low Foc head. At the PF interface, the NPA is assigned to the rightmost non-weak element bearing [focus]: this corresponds to the lexical verb.

Turning to partitive wh-phrases as in (1b), we assume that they require the strong wh-form, which licenses the null head of the partitive structure (Cardinaletti & Giusti 2006). The strong form is not subject to the PF filter, and it need not agree with a phase head other than the criterial one. Thus, at PF the partitive wh-phrase is the rightmost non-null and non-weak element bearing [focus], and it is assigned the NPA.

To sum up, in this paper we show that the position of the NPA in Italian wh-questions does not give rise to a focal interpretation of the element it associates with, but it rather signals the derivation history of the wh-element by means of a process of wh-agreement that mirrors at the prosodic level what in other languages is expressed morpho(phono)logically (see, e.g., Chung 1998 for Chamorro and Willis 2000 for Welsh). This phenomenon of agreement, in turn, depends on the type of wh-form: weak *vs* strong. This means that the distinction between strong and weak wh-elements is important not only to analyse the doubling configurations of Northern Italian dialects (see Poletto & Pollock 2009), where the two types of wh-items are morphologically distinct, but also to understand the prosodic properties of wh-questions in a language like Italian where the two forms are homophonous. From a cartographic perspective, moreover, this paper confirms the essential and active role of functional syntactic features – the [focus] feature in this study – in driving the syntactic derivation, even in the case of a mismatch between prosody and interpretation.

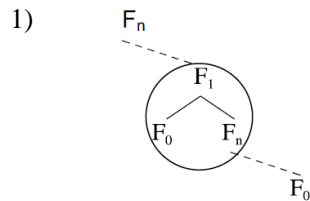
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On boundaries and locality

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Williams (2009) presents a view of cartography where boundaries between functional sequences play a major role. In Williams' view, a functional sequence F_n, \dots, F_0 , where F_0 always corresponds to the lexical verb, defines what is traditionally termed a 'clause'. He ascribes particular significance to the *boundary* between functional sequences, indicated in (1):



Williams claims that the F_n/F_0 boundary is '*fundamental to a class of explanations*' (2009: 363). Indeed, such an approach provides an interesting framework for the study of auxiliary verb constructions (AVC), since monoclausality is one of the core components of the definition of periphrastic construction (Anderson, 2011; RAE-ASALE, 2009: §28.1a; Cinque, 2004).

In this talk we propose a framework where the crucial properties of the F_n/F_0 boundary fall out of independently motivated assumptions. Specifically, we present a version of Lexicalised Tree Adjoining Grammars (LTAG, Frank, 2002, 2013), where each elementary tree will be defined as the extended projection of a *single lexical predicate*. A 'lexical predicate' is defined as a category that can both modify and be modified. The elementary tree of a lexical predicate P will contain P , its functional modifiers, and its arguments (Krivochen & García Fernández, 2019). This allows us to recast Williams' insights about the importance of the F_n/F_0 boundary, as well as have a flexible framework for the study of sequences of auxiliary verbs cross-linguistically. For instance, a traditional cartographic approach would require movement to account for the Spanish paradigm in (2a-b), where the position of the perfect auxiliary is not fixed with respect to the modal:

- 2)
- | | | | | | | |
|----|---|-----------|--------------|----------|----------|-----------|
| a. | Juan | está | teniendo que | llegar | temprano | (Spanish) |
| J. | has.3SG.Pres | must.GER | arrive | early | | |
| | 'Juan is currently under the obligation to arrive early' ((PERF > MOD) > V) | | | | | |
| b. | Juan | tiene que | estar | llegando | temprano | |
| J. | must.3SG.Pres | be.INF | arrive.GER | early | | |
| | 'Juan must be arriving early' (these days) (MOD > (PERF > V)) | | | | | |

The paradigm in (2) is not anomalous in Spanish. The situation repeats with temporal <ir a + infinitive> (and, maybe controversially, with perfective <haber + participle>) modifying other modals (*deber*, *poder*...) and aspectual phasal auxiliaries (*empezar a*, *continuar*, *terminar de*...). We propose that it is the presence of lexical predicates that defines an F_n/F_0 boundary: in (2a) we have [$está_{F1}$ [$teniendo que$] $_{F0}$] [$llegar temprano$] $_{F0}$] and in (2b) we have [$tiene que$] $_{F0}$ [$estar$ [$llegando temprano$] $_{F0}$]: the sentences are *not* synonymous (cf. also Bosque, 2018). In both cases there are two elementary trees, but structured differently: only the second structure is monotonically right-branching. This structural variety is unexpected under uniform monotonicity as in Cinque (2004). Crucial also is the fact that there is no reconstruction effect that may indicate movement: in (2a) the perfect does not affect the lexical verb. If the F_n/F_0 boundary corresponds to the limits of elementary trees, under LTAG assumptions this means that syntactic dependencies are established within the limits of each F_n/F_0 unit. The size of these units varies cross-linguistically: it is not possible to determine the order of all elements in a Spanish elementary tree *a priori*, but English auxiliary chains follow a very rigid *Modal*>*Perfective*>*Progressive*>*Passive* order which defines a single elementary tree. The difference pertains to what counts as a lexical predicate: English modals are *not* lexical predicates insofar as they cannot be modified themselves (cf. **is musting* / **has musted*). Our approach shifts the focus from a rigid array of functional heads to the role of boundaries in syntactic dependencies: 'monoclausality' is recast in terms of elementary trees. We will show that this approach provides an explanation for why there are processes that may cross F_n/F_0 boundaries, including clitic climbing and niching (Williams, 2009: 365; Ross, 1991; Krivochen & García Fernández, 2019, 2022), and there are processes that cannot; in particular, functional application.

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Description and explanation in the left periphery: some results, problems and prospects

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Cartographic studies involve a large descriptive endeavor, which aims at capturing the fine details of syntactic structures across languages. This descriptive effort is constrained and guided by theoretical hypotheses, and constantly implies the search for explanation, intended as the effort of tracing back the intricate observed patterns to the interaction of plausible principles of the language faculty. In the spirit of this dual goal, drawing the correct syntactic map is just the beginning, not the end point of the endeavor: we want to deductively connect the properties that we observe to abstract principles constraining syntax and the interfaces with sound and meaning.

In line with these remarks, I would like to review here a number of differential properties of topic and focus in the peripheries of the clause. One property that was highlighted in the first cartographic analyses has to do with the fact that a single focal position can appear in the left periphery of a clause, whereas multiple topics are often possible across languages. In my earlier analysis of this pattern, I tried to deduce the asymmetry from the different interpretive routines that topic and focus activate at the interface with meaning.

Taking this interface approach as a starting point, I will develop the analysis to deal with three empirical generalizations:

1. In many languages, topic positions are higher than focus positions. There are apparent exceptions, some of which we will discuss, but $\text{Top} > \text{Foc}$ is the clearly prevalent pattern. This ordering constraint thus seems to call for a principled explanation.
2. In the vP periphery of Italian, in Belletti's (2004) sense, the observed position of elements is that the low focus position (e.g. of an inverted subject) immediately follows the verb, and the $\text{V} - \text{Foc}$ structure is followed by the right peripheral, right-dislocated topic. By putting together 1. and 2., we can then observe a mirror image order of topic and focus around the axis of symmetry provided by the inflected verb ($\text{Top} - \text{Foc} - \text{V} - \text{Foc} - \text{Top}$), a state of affairs that is reminiscent of Cinque's (2005) observations and analysis of the order of nominal modifiers around the noun in his work on Greenberg's Universal 20.
3. One notable exception to generalization 1. is offered by Italian, which clearly permits a topic position immediately after the focus position. This led my first analysis of the Italian left periphery (Rizzi 1997) to assume a very free distribution of topics. Nevertheless, successive work showed that the post-focal topic position has very special syntactic and interpretive properties, which raise questions on its status and derivational history.

In this paper I would like to address these three generalizations in a unitary way, by sharpening the analysis of the syntax and interpretation of the Topic – Comment and Focus – Presupposition articulations, and connecting the pieces by assuming movement derivations that involve more complexity than meets the eye. I will conclude by illustrating some future perspectives of this kind of analysis.

On deriving the consistency principle in Old Italo-Romance

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The aim of this talk is to analyze a word order constraint known as the “consistency principle” Giorgi and Longobardi (1991:98), i.e. the fact that “an XP immediately expanding a lexical category on the non-recursive side is directionally consistent in every projection” in two Old Italo-Romance varieties, Old Florentine and Old Venetian. In both languages we analyze data from nominal anteposition, where the N moves in front of the quantifier (1) and infinitival preposing, where the infinitival verb moves in front of the modal auxiliary (2). We show based on quantitative data coming from two data sets we collected (for an overview of the data and the methodology see Balsemin & Poletto 2021 for Old Italian and Pinzin & Poletto 2022 for Old Venetian) that the order of the modifiers and objects must be strictly head-final, as shown in (1) and (2):

- (1) sì ll’ apella principe dell’ **altre parti tutte** (Brunetto Latini, Rettorica 158.18, c.1260-61)
this.way CL.3SG.M names prince.of.the other parts all
‘this way it names him prince of all the other parts’
- (2) [...] **alguna causa açonçer vorà** sovra la soa enpromessa [...]. (Statuta Veneta I, 42, c.1310-1346)
any thing add.INF will.want over the his promise
‘[...] he will add anything to his promise [...].’

The restriction has no exceptions either in the Old Florentine and Old Venetian data for both nominal anteposition and infinitival preposing. Since Old Italian varieties were VO languages, and the constraint only surfaces in the case of moved N/V, these data are not immediately amenable to a regular Final-over-Final Constraint (FOFC) as proposed for OV languages in Sheehan & al. (2017). We provide an alternative solution and assume Cinque’s (2022) recent proposal that also direct objects are located in a specifier position inside the VP (hence to the left of the lexical verb so that all languages start out as OV languages) and that all modifiers are originally merged as left branches in the nominal domain as well, as generally assumed in a cartographic framework. We argue that the left peripheral movements that target either the DP (cf. 1) or the CP (cf.2) can only occur if there is no prior movement of the lexical head (either the N or the V). Furthermore, once the set of meaningless movements giving rise to the basic word order of a VO language with high movement of the lexical verb/noun starts, it is not possible to stop it at any intermediate position. The N/V must reach its final destination in the nominal/verbal functional field. Hence, either the VP/FP is moved in its universal first merge order, or movement to the CP is not possible at all. Evidently, since Focus and more general operator-like movements escape the Universal 20 restriction, we can move objects as independent modifiers either as WHs or focused XP, but we cannot move a (functional) portion of the clausal structure bigger than the NP/VP. We will first show that in Old Italian both the lexical infinitival verb and the lexical noun move to a rather high position in the functional spine taking into account the following tests a) position of adjectival/adverbial modifiers b) position of nominal and PP objects. Then, we will provide quantitative data that show that movements of the NP/VP to the left periphery are possible only in Mod-N/OV order. We will also consider the positioning of topics with respect to other left peripheral elements and discuss the well-known problem of base generation versus movement.

Jespersen's Cycle: The view from cartography

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1. Negation and verb movement: an empirical correlation. Since the seminal work of Zanuttini (1997), Romance negation has attracted a great deal of interest in the cartographic literature, with special attention paid to the syntactic distribution of postverbal negators in varieties displaying Stages II-III of Jespersen's Cycle (JC). Following theoretical and empirical advances, Zanuttini's original proposal to host such negators in three dedicated functional projections interspersed among different adverbs within the IP has been challenged (e.g. Manzini & Savoia 2005, 2011) and revisited (e.g. Garzonio & Poletto 2009, 2018; Poletto 2017), but one empirical question has remained largely unanswered: why are Stage II-III Romance varieties broadly concentrated in a continuous geographical area (Belgium, France, Switzerland, northern Italy, parts of northeastern Spain), while the rest of the Romance area is still at Stage I? As noted by Poletto (2016:837), such a distribution suggests that 'some Romance languages but not others have independent properties that have accelerated, slowed down, or blocked Jespersen's Cycle'. In this presentation we show how cartography enables us to identify one such independent property, namely verb-movement. Progressing beyond the traditional Germanic vs Romance dichotomy of lack vs presence of V-movement, works adopting a more fine-grained cartographic view of the IP have identified at least four different typologies of V-movement across contemporary Romance varieties: high (e.g. French), clause-medial (e.g. northern regional Italian), low (e.g. European Portuguese) and very low (e.g. Spanish) (Ledgeway & Lombardi 2005, 2014; Ledgeway 2012, 2020; Schifano 2015, 2018; Roberts 2019). Combining these negation and V-movement types (Stages I, II, III and high, medial, (very) low, respectively), an interesting correlation emerges which, to date, has gone unnoticed: Stage II-III varieties coincide exclusively with those exhibiting high or clause-medial V-movement (AUTHORS 2022). In our talk, a selection of diachronic and synchronic evidence will be provided to support the empirical robustness of such a correlation and the predictions it makes, on the basis of the extensive corpus of data collated by AUTHORS (in prep.). Our results highlight the empirical and methodological role that cartography plays in unveiling the types of Romance negation and V-movement and their connection.

2. Negation and verb-movement: a formal account. Far from being an accident of the system, we also show that this correlation between negation and V-movement finds a principled explanation in the licensing requirements of postverbal negators, most of which share a nominal nature (Manzini & Savoia 2005, III: 206, 209, 216-18, 2011; Garzonio 2008; Rowlett 2011) requiring them to be licensed as negators rather than nominal elements. More specifically, we argue that, in order to move beyond their original emphatic function (e.g. (O)Fr. *pas* < PASSU(M) 'step'), postverbal negators must be endowed with the [Neg] feature ordinarily associated with the preverbal negator in Stage I varieties. This is only possible when the verb reaches the T-domain (viz. high / clause-medial V-movement languages), i.e. when the T-domain is active and T can SHARE or DONATE (in the sense of Ouali 2008) [Neg] with/to its complement, viz. the extended *v*-VP where the postverbal negator is hosted. This explains why low V-movement languages never progress beyond Stage I: their T-domain is inactive (viz. lack of high or clause-medial V-movement), such that the sentential negator carrying [Neg] is lexicalised in the extended *v*-VP domain, and emphatic postverbal negators (e.g. Salentino *filu*) cannot inherit [Neg], as DONATE can only obtain across different domains, e.g. T can DONATE to its complement *v*-VP but *v*-VP does not have a complement which can receive a donated feature. This particular approach, which combines a richly articulated IP for the empirical investigation with a more reduced T/*v*-VP structure for the theoretical approach, allows us to contribute to the theoretical debate about the alleged (in)compatibility between cartography and more economy-constrained approaches, stressing the compelling heuristic value of the former.

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PARAMETRIC SETTINGS OF FUNCTIONAL PROJECTIONS IN DIACHRONY
THE CASE OF ROMANCE CLEFTS AND WH-INTERROGATIVES

This paper utilises data from ten Romance corpora to determine how the functional projections responsible for nominal clefting and for interrogative wh-movement have changed from earlier stages of Romance to present times. The data are assessed through the lens of Rizzi's (2017) parameters.

INTRODUCTION. According to Rizzi's (2017; see also Samo 2022) study of parameters, functional projections can be understood as either requiring overt movement (IM=1) or not (IM=0). This, along with other parameters such as the Spell Out of functional heads, allows a fine understanding of the way languages function, and evolve. In this study, we utilise Rizzi's parameters to determine whether the existing understandings of cleft structure and interrogative wh-movement in Romance are tenable *as is* or need refining. To do so, we investigate the parametric settings of the projections involved in these structures, and their evolution over time.

CONCEPTUAL CHALLENGES. Belletti's (2015) promotes a derivation of clefts which utilises, depending on the nature and role of the structure, either Rizzi's (1997) high left-peripheral FocusP or Belletti's low left-peripheral (2004) Foc. In both cases, the involved projections require overt movement, i.e., IM=1.

FocusP has traditionally been considered responsible for the attraction of either wh-elements or contrastive foci. However, while the former are systematically attracted into SpecFocusP in Standard Italian, which suggests a setting as IM=1, the latter can surface either fronted or in situ (Bianchi 2013), rather suggesting an IM=1/0 setting. Clefts are present in the language but require certain context conditions to be met to be licensed (Larivée 2021). Languages like European French, on the other hand, have both shifted and in situ wh-elements (IM=1/0) but **no** prosodic foci, and productive clefts. The existence of Foc, in the other hand, was originally posited to account for the existence of VS structures in Standard Italian (Belletti 2004) but many pieces of research have suggested that Italian low foci are always unmoved (Cardinaletti 2001, Samek-Lodovici 2015, Bonan 2021), thus suggesting an IM=0 setting for the language. In French, the position is not exploited in any known structure.

These facts, coupled with numerous other empiric considerations, question the validity of the classification of the FPs exploited in clefts as FocusP and Foc. The functional projections investigated in this study are thus, minimally: Rizzi's (1997), Belletti's (2004) Foc, and the higher FPs exploited in inversed and interrogative clefts. We nonetheless also test the legitimacy of Rizzi's (2017) splitting of FocusP into two projections surrounding IntP, as well as Cable's (2010) understanding of wh-fronting as QP-fronting.

WORKING HYPOTHESES. The working hypotheses behind the present study are as follows:

- The parametrisation of functional projections evolves in the direction of **no** movement (IM=0 in Rizzi's 2017 terms, see works on the diachrony of Chinese interrogatives, Aldridge 2010, or Japanese, Aldridge 2009, but also Roberts & Roussou 2003, Dadan 2019, a.o.);
- Diachronically, one functional projection can display different settings for the same parameter at different stages. Synchronically, this ought to be disallowed;
- When what is commonly considered as one single projection displays different parametrisations across structures (e.g., IM=1 in clefts vs IM=0 in interrogatives), the existence of **two** separate projections ought to be posited instead.

METHODOLOGY AND DISCUSSION. Our hypotheses have been tested utilising corpus linguistics techniques. As a preliminary assessment of the theory, we have limited the scope of the present investigation to the study of three standard Romance languages: Italian, French and European Portuguese.

The corpora chosen for this study are: [Archivio Datini](#), [Corpus Epistolare Ottocentesco Digitale](#), and [Archivio del parlato italiano](#) for Italian; [Base de français medieval](#), [Groupe d'Observation et de Recherche sur les Documents Epistolaires du Seizième siècle](#), [ESLO](#) 1-2, and [88milSMS](#) for French; [Tycho Brahe Parsed Corpus of Historical Portuguese](#), [Reference Corpus of Contemporary Portuguese](#), and [Corpus do Português](#) for European Portuguese.

The data, which we classify utilising a parametrisation à la Rizzi (2017), will shed light on the diachronic evolution of the functional projections under consideration, and especially Rizzi's FocusP and Belletti's Foc. We shall also discuss the consequences of our innovative classification for the received cartography of clefts, and for the role of FocusP in the theory of interrogatives.

CONCLUSIONS. Belletti's (2015) cartographic analysis of clefts makes use of two functional projections that require systematic movement into their Spec, which she understands as Rizzi's (1997) FocusP and Belletti's (2004) Foc. However, the very fact that Foc doesn't attract low foci in Standard Italian is problematic in light of Rizzi's (2017) movement parameters, whereby an IM=1 projection should stay IM=1 across structures. The data discussed in this paper will outline what is tenable, and what is challenging, in the current understanding of Romance clefts and interrogative wh-movement, and suggest alternative trajectories for future investigations.

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A Cartographic Analysis of Direct Modifiers in Japanese

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Keywords— Japanese, cartography, direct modifiers, functional projections

In this paper, I look at the Japanese DP from a cartographic perspective (Cinque, 2010, 2020; Cinque and Rizzi, 2010) and show that this language does exhibit direct modification, contrary to what is often claimed in the literature. I put forth syntactic tests for direct modification, i.e. lack of predicativity and gradability, and present examples of direct modifiers based on a corpus study. Next, I evaluate which broad groups direct modifiers can be assigned to in order to then determine the necessary inventory of Functional Projections. As it turns out, Japanese provides evidence that the available inventory of FPs might need to be revised and that fine-grained semantic categories do not allow a satisfying analysis.

No dedicated study on the Japanese DP can be found and the claim has prevailed, that no direct modifiers exist (Kuno, 1973; Sproat and Shih, 1991; Baker, 2003; Laenzlinger, 2011), those modifiers that are lower in the DP, functional, phrasal and adhere to strict ordering principles. Clear cases of direct modification however do exist and are scattered in the literature (overview in Watanabe 2017): The equivalents of non-intersective modifiers, without a semantic intersection with their head noun (Larson, 1998), such as *kanzen* 'complete, and so-called Relational Modifiers (RMs), in English and Romance languages adjectives derived from nouns (Levi, 1978; Bortolotto, 2016) such as *Nihon* 'Japanese'.

Many more instances of mono-attributive (= direct) modifiers can be found when looking at the Japanese literature (Muraki 2012 among others). Those are situated mostly in the group of so-called *no*-modifiers. A corpus analysis of all *no*-modifiers in the available literature reveals that the number of direct modifiers is much bigger than assumed. Many examples of non-intersective and RMs are contained here, but also modifiers that do not belong to these categories, such as *haizan* 'having survived defeat' or *kōki* 'curious' which cannot occur in predicative position hence are direct.

- (1) a. haizan-no seito
 having.survived.defeat-no student
 'the student that has survived defeat'
- b. *seito=wa haizan da
 student=TOP having.survived.defeat COP

But what FPs are such modifiers situated in? Non-intersective, presumably higher than intersective modifiers but below quantifiers (Panayidou, 2013), and RMs, presumably very low in the DP (Bortolotto, 2016), mark instantiations of available categories assignable easily to existing FPs. But what about modifiers such as *haizan* above? Neither can they be assigned to any of those broader domains of direct modifiers, nor do they fit in any of the fine-grained semantic hierarchies (Scott, 2002).

How can one avoid the problems of specific categories undermining the Universal Base Hypothesis (Wiltschko, 2014) as well as the problem of plenitude, which positing an FP for every available modifier entails (Larson, 2021)? One solution I would like to discuss is to include a broad domain for those direct modifiers that cannot be assigned to any existing categories. One model is offered by Svenonius (2008) with the FPs SortP and nP, couched between the left (focus) and right (idiomatic modifiers) edges. This has the advantage that it does away with the lack of ordering restrictions found in Japanese (Nagano, 2016).

In a nutshell, Japanese has direct modifiers, found mostly but not exclusively as the equivalents of language-specific groups. The fact that many modifiers are not readily assignable to existing FPs in the direct domain raises the questions whether we need to rethink the mark-up of the DP, for example by including a broader, less fine-grained domain. As an outlook, the question needs to be answered whether this is a language-specific issue or whether such a domain needs to be assumed in every language.

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Evidence for a nominal periphery in the emergence of DOM in old Romance

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There has been a growing scholarship in recent years on the licensing parameters of Differential Object Marking (henceforth, DOM, following Bossong 1985) within Romance at a clausal, verbal, and lexical level. Two subareas of this research that have received notably less attention within the literature are that of nominal parameters (however, note Iemmolo 2010, Guardiano and Longobardi 2005; Longobardi and Guardiano 2009, *et al.*; Ledgeway 2018) and the diachronic emergence of these parameters in early old Romance. This intersection becomes of striking interest in the light of the vast amount of nominal microparametric variation in the licensing of DOM in diachrony. Namely, earlier stages of those old (southern) Romance varieties that present DOM (see Ledgeway 2020) can be seen as paralleling modern substandard varieties (Calabrese varieties, Asturian, Galician, Corsican) in so much as topical, highly referential D heads (as in (1a), (1c), (2), and (3a)) are more likely to be differentially marked than phrasal Ds (as in (1b), (3b)).

(1) a. *A ti adoro e creo de toda voluntad* (13th century Spanish, Çid.1207:18)
DOM you adore.1SG and believe.1SG of all will
'I willingly believe and adore you'

b. *Si pudiéssemos matar el moro Avengalvón* (Çid.1207:126)
if could.IMP.SUBJ.1PL kill the moor Avengalvón
'Were it possible to kill the moor Avengalvón...'

c. *En su mano tenía a Çelfa* (Çid.1207:46)
in his hand had.3SG DOM Cella
'He had Cella in his hand'

(2) *Mama jiu a' Merica e vitti a Trump/u Trump*
mum went.3SG to America and saw.3SG DOM trump/the=trump
'Mum went to the States and saw Trump' (San Luca, Calabria, Ledgeway *et al.* 2019:15)

(3) a. *Viume á mim* (Galician, Saco Arce 1868)
saw.3SG=me DOM me
'He saw me'

b. *Hoxe vin (*á) teu pai*
today saw.1SG (*DOM) your dad
'I saw your dad today'

At a typological and implicational level, this has already been noted in the literature (Aissen 2003, Comrie 1979, Croft 1988) based on definiteness- and animacy-related features in the nominal. Notably, this animacy requirement for DOM is called into question when considering those varieties in which toponyms (i.e., topical, highly referential but inanimate D-heads) are differentially marked before animate phrasal Ds, as in (1c). Arguably, the data detailed above are indicative of structural parametric variation, namely a process of differential nominal movement within the extended nominal domain. Following proposals for a nominal left periphery (or Case Phrase, henceforth KP, à la Giusti 1996, 2006) and using novel diachronic data from various old Romance varieties from an ongoing doctoral project (Singh, left prep.) in Europe, this talk argues that DOM emerges as a historical process of pragmatically marked D-head raising

This talk will, therefore, highlight the value of historical data within cartography in providing answers regarding a diachronic phenomenon that has evaded satisfactory syntactic analyses up until now within the literature. It will also account for the intersection and interplay between the semantico-pragmatic interface and the Determiner Phrase in the licensing of DOM whilst also providing further evidence for peripheral projection(s) within the extended DP. At a more specific level, it will also account for the distribution of DOM within modern Romance between varieties with fewer nominal restrictions in its licensing (such as Spanish, Neapolitan, Romanian) and those in which DOM is restricted to a subset of D-heads (European Portuguese, Corsican, Galician, Calabrese varieties, and Sardinian varieties).

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Two D heads: cartographic evidence from Romance

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In the debate between the DP and NP hypotheses, little attention has been paid to the significance of double determiner systems and how they may inform the discussion of cartographic approaches to DP. In this work we analyze systems which have more than one distinct morpho-phonological definite article. A reasonable assumption would be that the different articles are just different morpho-phonological manifestations of the same D head. However, we present an alternative idea, namely that the two different definite articles correspond to two different D positions, as in the structure in (1).

(1) [_{DP1} D [_{DP2} D [_{NP} N]]]

If on the right track, the analysis supports the idea of a multi-layered approach to DP, along the lines of Zamparelli (1995 and later work). We provide new morpho-syntactic evidence for the multi-layered approach from two sets of facts in Romance languages and therefore evidence for an extended DP with two D heads. The first set involves Romance varieties that use two different definite articles with common nouns, varieties such as Balearic Catalan and French Picard. The second set involves Romance varieties that use a specialized definite article for proper names (the so-called personal article), varieties such as Balearic Catalan and Central Catalan. Ultimately, the different definite articles have different distributions, which we show provide evidence for the structure in (1).

Romance languages are mostly homogeneous in terms of the form of their definite articles, which typically display *l-* forms descended from Latin *ille*, as in Spanish *el/la niño/niña* ('the boy/girl'). Less widespread are Romance languages displaying *s-* forms descended from Latin *ipse*, as in Sardinian *su cane* ('the dog'-m.sg.), *sa mákkina* ('the car'-f.sg.; Blasco Ferrer 1986). Even more striking are the Romance varieties displaying a double system, such as Balearic Catalan (*s-* and *l-* forms) and French (but not Belgian) Picard (*ch-* and *l-* forms):

- (2) a. *Sa muntanya que veus és molt alta.* (Balearic Catalan)
the.F mountain that see.2PSG is very tall
'The mountain that you see is very tall.'
b. *Anem a la muntanya.*
go.1PPL to the.F mountain
'Let's go to the mountain.'
- (3) a. *ch' pus riche* (Boulogne Picard; Haigneré 1901)
the.M most rich
'the richest'
b. *le roy*
'the.M king'

(For relevant facts in Germanic and French Creoles see Löbner 1985, 2012 and Wespel 2008.) Following Ledgeway (2012:103) for Balearic Catalan, we show that the two different forms are reserved for different types of DPs. Specifically, the Balearic *s-* forms appear in what Ledgeway labels [+particularized] DPs and the *l-* forms in [-particularized] DPs. The [+particularized] DPs include adjectival expressions, prepositional phrases, superlatives, and relative clauses; the [-particularized] DPs include generics/uniques, titles, and collective nouns. We extend Ledgeway's characterization to varieties of Picard: *ch-* forms appear with [+particularized] DPs, *l-* forms with [-particularized] DPs.

We take the Balearic Catalan *s-* and Picard *ch-* forms above to correspond to the upper DP1 layer and *l-* (in these two Romance varieties) to correspond to the lower DP2 layer (recall (1)):

(4) [_{DP1} *ch-*, *s-* [_{DP2} *l-* [_{NP}]]]

In support of this analysis we observe that both definite articles may be expressed within a single nominal expression:

- (5) *es l'amo, es l'avi* (*s-* + *l-*) (Balearic Catalan)
'the mister', 'the grandfather'
- (6) *ch' l'esprit, ch' l'infant* (*ch-* + *l-*) (Boulogne Picard)
'the spirit', 'the child'

Furthermore, there is evidence that vocatives, typically incompatible with definite DPs (**the waiter!*), appear with DP2 (*l-*) articles, but not with DP1 (*s-*) articles in Balearic Catalan:

- (7) a. *s'avi! (Balearic Catalan)
 b. l'avi!
 'the-grandfather'

The second set of facts supporting a multi-layered DP structure involves the distribution of a specialized personal article in Central and Balearic Catalan. This article (*en* - m.sg.; *na* - f.sg.) only precedes [+human] proper names. The personal article (*en*) is illustrated in (8) and the regular definite article (*el*) in (9).

- (8) [DP [D *en*] [NP Joan]] va arribar tard (Central Catalan)
en Joan arrived late
 (9) [DP [D *el*] [NP noi]] va arribar tard
 the boy arrived late

The idea going back to Longobardi (1994) is that both types of articles correspond to D and that the personal article is an expletive. However, a closer look at the facts reveals that personal articles and regular definite articles differ in both their morphological and syntactic properties. For one thing, personal articles cannot be pluralized but regular definite articles can:

- (10) a. *ens vs. els 'the' (m.pl) (Central Catalan)
 b. *nes vs. les 'the' (f.pl)

Second, pronominal adjectives (e.g., *propí* or *mateix*) cannot appear between personal article and noun (11a), but can between regular article and noun (11b).

- (11) a. **en* propí Pere (Central Catalan)
 b. *el* propí professor
 'the same professor'

A third difference is that personal articles cannot introduce relative clauses (12a) but regular definite articles can (12b).

- (12) a. **en* (Pere) que va arribar ahir (Central Catalan)
 b. *el* (Pere) que va arribar ahir
 the (Pere) that arrived yesterday

These differences between the personal article and definite article suggest that the two sets of forms must be distinguished, in contrast to Longobardi's earlier treatment. Generalizing the analysis in (4), we propose that the personal article corresponds to DP2, not DP1. In support of this proposal, we observe that the *s*- definite article of Balearic Catalan, which corresponds to DP1 (recall (4)) may co-occur with the personal article:

- (13) *es* conco *en* Toni (Menorcan Balearic Catalan)
 the uncle *en* Toni
 'Uncle Toni'

The same fact is found with the *l*- definite article in Central Catalan, at least for some speakers:

- (14) *el* petit *en* Joan (Central Catalan)
 the small *en* Joan

Although the evidence for DP1 and DP2 is more conspicuous in Romance varieties with a double system of definite articles and personal articles, the analysis put forth here explains several otherwise recalcitrant facts in Romance languages with only a sole definite article. One is the well-known feature of French vocatives, possible with an *l*- form (e.g., *au revoir les enfants* 'goodbye children'). According to our analysis, this *l*- article would correspond to DP2 and an isomorphic *l*- form to DP1. In Sardinian, differential object marking is possible only with DPs that correspond to DP2, not DP1, even though the language exclusively displays *s*- definite articles. Similarly, vocatives are possible with *s*- articles in Sardinian, but only with DPs corresponding to DP2.

Our proposal for a multi-layered approach to DPs (recall (1) and (4)) brings us to a crucial point concerning the notion of 'argumenthood' and Longobardi's (1994) seminal work on N-to-D raising of proper names. Under many accounts, including Longobardi's, DPs (not NPs) can serve as arguments. DP1, DP2 or both? Under our approach, either DP1 or DP2 can potentially serve as an argument; however, in order for DP2 to serve as an argument, it must raise to the higher DP1 projection. In this way, the original intuition behind Longobardi's proposal is retained.

Syntacticization of Evidentiality: with special reference to Chinese

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The present study aims at drawing an attention to the interrelationship between syntax and information structure, by means of a number of case studies of evidentiality taken from Classic Chinese written texts, Mandarin Chinese as well as dialects.

A cartographic approach is proposed to combine the study of Chinese evidentiality with the proposals for the structure of clause in Rizzi (1997) and Cinque (1999 & 2004). It is suggested that (1) in Chinese, evidentiality is marked with sentence final particles as well as the adverbial strategies; (2) In general, evidentiality, as an independent grammatical category, i.e., a functional head, distributed at two domains: CP domain (realized as Particles and Sentential adverbial correspondences) and IP domain (realized as inflectional marker, clitic or adverbial correspondences).

Conjunctions in the left periphery: on symmetry-breaking phenomena in syntax

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Descriptively, Universal Grammar allows three distinct types of strategies for multiple *wh*-questions: languages like Bulgarian and Polish, where all *wh*-elements move to the CP (1a); languages like Japanese and Chinese, where all *wh*-elements stay in situ within TP (1b); languages like Italian and English, which combine these two opposite strategies and move just one *wh*-element to the CP while leaving the other(s) in situ within the TP (1c):

- (1)a [CP *wh*-phrase *wh*-phrase [TP ... t ... t ...]] (I-type: Bulgarian, Polish...)
b [CP [TP *wh*-phrase ... *wh*-phrase]] (II-type: Chinese, Japanese...)
c [CP *wh*-phrase C [TP ... t ... *wh*-phrase]] (III-type: English, Italian...)

The literature in the field is vast: see Bayer - Cheng (2017) and Veneeta (2017) for a critical review on the syntactic and semantics aspects of these constructions, respectively, and Cinque - Krapova (2008) for illuminating reflections on the order of *wh*-phrases. The aim of this talk is to prove that the abstract description in (1) can be simplified by exploring the fine structure of the left periphery in detail, as assumed within the cartographic approach, and assuming that symmetric XP-YP constructions are unstable in syntax; see Moro (2000, 2008), Chomsky (2013), Rizzi (2015, 2016) among others.

The key-step of this research comes from a sharp and quite neglected contrast in Italian: the causative *wh*-adverbial *per quale ragione* (for what reason) must be immediately preceded by a coordinative head *e* (and) when it occurs in situ as in (2a); on the other hand, the same head is banned with the non-interrogative counterpart of this adverbial, *per questa ragione* (for this reason) as in (2b):

- (2)a Mi chiedo [[α chi è partito] *(*e*) [β per quale ragione]]
to.me wonder.1_{SG} who is.3_{SG} left and for what reason
'I wonder who left and for what reason.'
b Mi chiedo [[α chi è partito] (**e*) [β per questa ragione]]
to.me wonder.1_{SG} who is.3_{SG} left and for this reason
'I wonder who left for this reason.'

This sharp contrast raises an immediate and simple question: what is the label of α and β conjoined by *e* (and)? After proving this is not a case of sluicing in the sense of Merchant (2005), I will show that all *wh*-phrases must move outside the TP domain to reach the left periphery as in (3)a while respecting well-formed conditions on chain formation in the sense of Rizzi (1985); the intervention of the conjunction here represented as "&" as in (3)b is due the necessity to break the symmetrical XP-YP item generated via movement in (3)a and to share Foc^o-features (cfr. case assignment in *Mariam Petrumque* in Latin), supporting the analysis in Moro (2011), yielding (3)c where & conjoins two CPs:

- (3)a [CP *wh*-phrase₂ [CP *wh*-phrase₁ ... [TP t₁ V t₂]]
b & [*wh*-phrase₂ [*wh*-phrase₁ ... [TP t₁ V t₂]]
c [[CP *wh*-phrase₁ [TP t₁ V t₂]]_j & [CP *wh*-phrase₂ t]]_j

This proposal allows us to reduce the abstract trifold typology in (1) to a binary taxonomy eliminating the mixed type III under parametrized conditions. Finally, this analysis solves an apparent semantic paradox yielded by the following contrast: *who left and for what reason is obvious*/**tall*.

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Cartography Reappraised: An Arabic Left Dislocation Perspective

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PROLOGUE Luigi Rizzi's (1997) *The Fine Structure of the Left Periphery* arguably constitutes the first theoretical attempt to revisit the clausal layer appearing above (T)ense (P)hrase (i.e., The (C)omplemenizer (P)hrase, CP); see Newmeyer (2009: p. 115) for the claim that "(t)he cartography program has its root in pre-minimalist work". The central claim of this approach is that elements bearing information-structural features tend to occupy a position in the left periphery of the clause, and that these elements appear in a fixed cascade. As it stands, this cascade is argued to account for the appearance of these elements in the left periphery by assuming that the relevant elements undergo movement to a dedicated position in the left periphery from a TP internal position. This cartographic approach to the left periphery is now widely accepted and has been applied to a number of languages including Arabic (Ouhalla 1997; Aoun and Benmamoun 1998; Ouhalla and Shlonsky 2002, a.o.). This paper, nonetheless, makes two divergent theoretical claims. First, Clitic Left Dislocation (CLLD) in Modern Standard Arabic (MSA), *qua* an information-structural articulation, does not behave squarely with respect to the cartographic desiderata, since CLLD in this language simultaneously exhibits the properties of movement and base-generation. Second, CLLD in MSA is best analyzed in a movement-free fashion, *contra* the cartography program, by treating dislocated elements as base-generated entities which escape an ellipsis operation at the (P)onological (F)orm.

CLAIMS MSA has a construction akin to Italian-style CLLD (cf. Aoun et al. 2010). This construction is characterized by there being a dislocated XP element (underlined) surfacing in the left periphery of the clause, which is linked to the host clause via an intermediary of a correlate (boldfaced), as shown in (1); see Ott (2015) for the rationale behind this partition of terminology.

1. aliya-an, h?yatu-*(hu)
Ali-ACC greeted.1P-him.ACC.
'I greeted Ali.'

Two options suggest themselves for the analysis of this construction (Cinque 1990). On the one hand, CLLD can be derived by movement: the dislocated XP (dXP) is related to the correlate by syntactic movement (López 2009). On the other hand, CLLD can be generated by a construal rule: the dXP and the correlate are externally merged where they appear in the clausal spine (De Cat 2007). The two options are not without drawbacks, however, since CLLD in MSA shows mixed properties. For example, the dXP shares the same morphological case and θ -role as the correlate, a state of affairs which speaks in favor of a movement dependency, i.e., both elements are assigned case and θ -role by the same predicate (Anagnostopoulou 1997, Preminger 2011, *pace* Bošković 2007).

On the other hand, the dXP in (1) shows base-generation properties as well in that it is related to an obligatory correlate in the host clause instead of a trace, which is unexpected under the movement account according to which a real gap is expected to be found in the host clause (cf. Adger & Ramchand 2005 a.o.). Further, the fact that the dXP as in (1) typically forms an intonational phrase on its own, which is flagged here by a comma, cannot follow from a movement analysis (cf. Frascarelli 2000). In addition to this, CLLD in MSA does not give rise to Weak Crossover effects (WCO); a bonafide feature of constructions derived by base-generation (2), *contra* Lasnik & Stowell (1991). Moreover, the dXP in MSA can be extracted out of a Complex NP Island without inducing a grammaticality violation, symptomatic of constructions generated by a construal rule as in (3). This state of affairs, therefore, imposes a challenge to the cartography program, which presupposes a pre-determined movement operation to derive information-structural elements.

2. Zayid-an_i, umu-hu_j tuhibu-hu_j
Zayid-ACC mother-his loves.3P-him.ACC
'Zayid's mother loves him'.
3. Hind-an_i hajytaw [ISLAND al-mudaress.a alði darasa-ha_i]
Hind-ACC greet-1p [the-teacher.ACC who taught-her.ACC]
'I greeted the teacher who taught Hind.'

PROPOSAL To solve this conundrum, a bisentential analysis of CLLD is to be preferred (Ott 2015, Fernández-Sánchez 2020, Alzayid 2022). On this analysis, CLLD in MSA is best viewed as having a biclausal structure whereby there are two identical sentences *modulo* the correlate and the dXP. The dXP is the surface fragment of backward clausal ellipsis in CP1 (Merchant 2001), which is implemented at PF. This is shown in (4) for the example in (1).

4. [CP1 hajytaw aliya-an] ⇔ [CP2 hajytaw -hu]

On the biclausal approach sketched in (4), the dXPs as in CP1 are taken to be 'fragments' in the sense of Merchant (2004a). Of special importance here is the fact that the two clauses must be semantically parallel in that the propositions denoted by CP1 and CP2 are truth-conditionally equivalent, and hence they are in a relation of mutual entailment (cf. Merchant 2001). Crucially, the elliptical analysis assumed here is not construction-specific, but it ties in with other instances of clausal ellipsis where parts of the clause are missing including the subject position and agreement domain, as in sluicing and split questions (Merchant 2004a). Another ingredient of this analysis is that the two clauses are related via an intermediary of a coordination mechanism termed 'Specifying Coordination', after De Vries (2009b), according to which the first clause explicates/specifies the second clause. The biclausal analysis, therefore, provides a principled analysis for the mixed properties exhibited by CLLD in MSA: movement effects are a corollary of ellipsis parallelism in that case matching for instance attested for the dXP and the correlate is due to the fact that the two elements are assigned case by the same predicate, one of which undergoes ellipsis at PF as shown in (4). Likewise, base-generation effects arise because there is no derivational link between the dXP and the correlate to begin with, since they are generated in two different, but semantically parallel root clauses. Under cartographic analyses assuming movement of the dXP, however, base-generation properties, such as WCO effects obviation, are typically captured by mere *ad hoc* mechanisms (cf. Rizzi 1997 a.o.).

EPILOGUE Since dXPs in MSA are analyzed as elements stranded by ellipsis, the dichotomy movement vs. base-generation is rendered redundant. This is a welcome result from a minimalist perspective since it removes unnecessary constructs from the theory, amounting to an outcome that the grammar is relieved of a constructional residue, thereby decomposing peripheral phenomena, such as CLLD, into irreducibly core principles of the grammar (cf. Chomsky 1993 on the dichotomy core vs. peripheral).

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The decomposition of subjects and the role of SubjP

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1. Background By and large, structural representations in the generative framework initially operated with a unique subject position ('SpecIP'), which was governed by the E(xtended)P(rojection)P(rinciple) requiring the presence of a subject. In the cartographic tradition, there has been a steady development in decomposing this single position in terms of various positions, each related to particular formal or interpretive properties of the subject. This hypothesis of the split subject also resulted from the independently motivated decomposition of the IP layer, often in relation to the observed distribution of the finite verb in relation to adjuncts. Relevant literature is Sportiche (1988) with the VP-internal subject hypothesis (see McCloskey 1997), Pollock (1989), with the decomposition of IP into AgrP and TP, Cinque (1999) with the proliferation of functional domains within the IP system, etc. I focus on the Split Subj hypothesis postulating that the unique subject position on the left end of the clause ('IP', or 'TP'), i.e. the domain dominated by the CP layer, should be rethought of as a sequence of positions with SpecSubjP the highest 'clause-internal' subject position. The core idea of this proposal is due to Cardinaletti (1997, 2004).

2. Split subjects, SubjP and extraction. In a series of papers, Rizzi and Shlonsky (2006, 2007) propose that SpecSubjP is associated with the EPP requirement by the assumption that SubjP is a criterial position, i.e. the head Subj must host a featurally matching specifier. Like all criterial positions, SpecSubjP is also a halting position, disallowing extraction. Rizzi and Shlonsky thus derive the well known English *that*-trace effects, among others, from the subject criterion. They also elaborate an account for patterns in which the subject IS extracted, their account hinges on indirect satisfaction of the Subject Criterion via a dominating enriched head. Danckaert and Haegeman (2017) adopt the latter proposal to account for a set of unexpected subject extraction phenomena from English finite clauses.

3. Deploying SubjP. The empirical focus of this chapter is on the non pro drop languages, English and French. The paper first provides independent empirical motivation for the split subject/SubjP hypothesis for English, referring to distributional arguments involving adverbial modifiers to the right of the subject nominal and to the left of the finite auxiliary.

- (1) a. The Prime Minister at that point could not commit himself to a total lockdown.
- b. The Labour leader throughout his speech was delivering the message well.

The paper then explores the role of SubjP in relation to second conjunct subject ellipsis (SCSE) as in (2a), as well as to register-specific subject omission (RSSO), as in (2b). The derivation of both (2a) and (2b) relies on SubjP, though the analyses are not identical.

- (2) a. I went home and (I) wrote a few letters after dinner.
- b. Wrote a few letters after dinner.

The final section focusses on an asymmetry in French SCSE and RSSO, which, though by and large in line with English (See Haegeman and Stark 2020, Bailey, Haegeman and Hornsby in prep), displays an intriguing pattern with impersonal *on*. The paper will reformulate De Crousaz and Shlonsky's (2003) account in line with the SubjP hypothesis.

- (3) a. Il/on mange de la viande et (il) boit du bon vin.
 He/*on* eats of the meat and (he)/*(*on*) drinks of-the good wine
- b. On part demain matin.
 on leaves tomorrow morning.
 'We are leaving tomorrow.'
 * _____ doit encore faire les bagages.
 _____ must still make the luggage

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1. Theoretical assumptions

The adverbial hierarchy put forward by Ledgeway and Lombardi (2005:83), and ultimately based on Cinque (1999:106), will be adopted and used to plot the position of the verb within the I(nflectional)P(hrase). For instance, a variety in which the finite lexical verb consistently follows adverbs lexicalizing SpecAsp_{perfective} (e.g. *always*) in pragmatically unmarked utterances will be classified as displaying low V(erb)-movement, whereas a variety where the verb generally occurs before high adverbs, e.g. *probably* (lexicalizing SpecMod_{epistemic}), will qualify as a high V-movement language.

2. The view from Romance

The verb needs to raise to a position high within the T-domain in northern Romance (e.g. Gallo-Romance, NIDs), from where it precedes high adverbs such as *deliberately* (SpecMod_{volitional}). In southern Romance (e.g. Daco-Romance, SIDs), by contrast, the verb remains in a low(er) *v*-related position following high and, more significantly, low adverbs such as *already* (SpecT_{anterior}) (Ledgeway 2020:30–45; cf. also Schifano 2018).

Now, V-to-T movement, typical of northern Romance, is bundled with a strong D-feature in the T-edge, hence allowing for SpecTP to host subjects. Differently, V-to-*v* movement, typical of southern Romance (where TP is rather inactive), is expected to license a strong D-feature in the *v*-edge, related to the D(ifferential)O(bject)M(arking) (cf. Ledgeway 2020:52–9).

3. Daco-Romanian and Daco-Romance

In the case of (Daco-)Romanian, analyses describing it as a low V-movement language (viz. V-to-*v* movement; Ledgeway and Lombardi 2005:101; Ledgeway 2020:54) are found alongside those in which (Daco-)Romanian verbs are taken as targeting the highest position within IP (viz. V-to-T movement; Schifano 2018:63–6; Nicolae 2019:13f.). Although the two options seem to be irreconcilable, they do not exclude, in fact, each other; rather, they show that (Daco-)Romanian displays a certain degree of diatopic and diaphasic variation in the level of V-movement, as it conflates two syntactic tendencies, i.e. Balkan-style V-to-(Spec)T movement (for Greek, cf. Mavrogiorgos 2010:198ff.; for Bulgarian, cf. Migdalski 2006:93ff.) and typical southern Romance V-to-*v* movement. To give an example, while some speakers from, e.g., Oltenia in southwest Romania regard the utterance in (1a) below as pragmatically neutral, hence with the adverb *mereu* ‘always’ in SpecAsp_{perfect} and the verb in a lower position below the adverb (cf. 1b), other speakers from, e.g., Muntenia in southeast Romania interpret it as marked, with the adverb occupying a focus-position within the C-domain (cf. 1c). Similar observations can be made for other Daco-Romance varieties, e.g. Megleno-Romanian and Aromanian.

- (1) a. *Mereu* *plouă.*
 b. [CP [IP [Asp perfect *Mereu*] *plouă.]]*
 c. [CP *Mereu* [IP always *plouă.]]*
 always always rain.IND.PRS.3SG
 ‘It is always raining.’ (Daco-Romanian)

Arguably, the fact that some speakers of Daco-Romanian have V-to-*v* movement (cf. Oltenia), while other speakers may have V-to-T movement (cf. Nicolae 2019:13f.), can be further linked to other syntactic reflexes (cf. Ledgeway 2020). For example, the double subject construction (2;

Cornilescu 2000) might be natural for those who allow V-to-T movement, given that TP is active for them, hence the subject can be hosted in SpecTP. By contrast, it is impossible for those who have V-to-*v* movement, given that TP is inactive, so both *el* ‘he’ and *tata* ‘father’ would compete for the same position, i.e. Spec \bar{v} P.

(2) [_{MoodP} *Vine* [_{TP} [_{SpecTP} *el*] [_{vP} [_{Spec vP} *tata*] *mâine.*]]]
 come.IND.PRS.3SG he father tomorrow
 ‘Father will come tomorrow.’ (Daco-Romanian)

4. Aims of the paper

Consequently, the aims of my paper are twofold: (i) to capture the variation regarding the level of V-movement in (Daco-)Romanian, in particular, and Daco-Romance, more generally, taking into account both the Balkan and the (southern) Romance nature of Daco-Romance; and (ii) to critically analyse the consequences of internal variation regarding the level of V-movement in (Daco-)Romanian, e.g. the native speakers that consistently display V-to-T movement also allow for the double subject construction, unlike those that employ V-to-*v* movement.

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The Finitary Nature of the Functional Categories in the Left Periphery and some Left-Right Asymmetry

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In this talk, I will present what I believe to be the least common denominator of a minority perspective that considers a relevant part of linearization as strictly dependent on the asymmetric nature of the hierarchical structure (in the spirit of Kayne's Linear Correspondence Axiom, Kayne 1994, 2020). From this viewpoint, the induction of linear order is in fact a component of narrow syntax: the radical (null) hypothesis here defended is that the source of the relevant asymmetries is the incrementality of phrase structure building as it flows in time. This perspective has a clear impact in terms of restrictions on dislocation and intervention. Focusing on minimal contrasts on items targeting the left-peripheral *wh*-related positions "between" Topic and Focus dedicated positions (Rizzi, 1997), I will discuss some evidence suggesting that *given information* is generally processed *before new-information* and that departures from this pattern produce more restricted non-local dependencies (e.g. sensitivity to weak cross-over, unavailability of clitic doubling/resumption). An interesting case study that will be discussed is that of D-linked *wh*- items (Pesetsky, 1987): We will see how the presence of a lexical restriction (*quale* (libro)/which (book)) and the minimal contrast between D-linked vs non-D-linked *wh*- items (*quale*/che (N), *which*/what (N)) suggests that both a different "landing site" position might be targeted by *wh*-movement of these items (building on De Cia, 2020; Munaro et al., 2001; Watanabe, 1992) and that a differentiated featural internal structure, related to the a readily available "in-situ interpretation", are responsible for the documented asymmetries.

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Growing trees: Children climbing up the cartographic tree

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Tel Aviv University

Children acquire different syntactic structures in different stages. The cartographic tree allows a natural way to account for this gradual acquisition, which cannot be accounted for within any other framework. I will present the **growing trees approach**, developed with Adriana Belletti and Luigi Rizzi (Friedmann, Belletti, & Rizzi, 2021) suggesting that stages of acquisition follow the geometry of the cartographic tree, with early stages corresponding to the lower zones of the tree, which keeps growing bottom-up, acquiring higher and higher zones of the tree. This approach identifies three stages of climbing the cartographic tree:

- 1) a stage solely involving the IP structure, including the lexical and inflectional layers, allowing the acquisition of **A-movement**.
- 2) a stage in which the lower field of the left periphery is acquired, including finiteness (Fin), Mod, and Q. Allowing the acquisition of **root Wh-questions, yes/no questions, and proposed adverbs**
- 3) a stage in which the higher field of the left periphery is acquired, including Top, Int (hosting the embedded question marker *if* and *why*) and Force (introducing all finite embedded clauses, including relatives). This allows for the acquisition of **relative clauses, topicalization, and why questions**, as well as **finite clause embedding**.

Time of appearance of a given structure varied significantly between children, but the relative order of acquisition of the various structures remained constant across children.

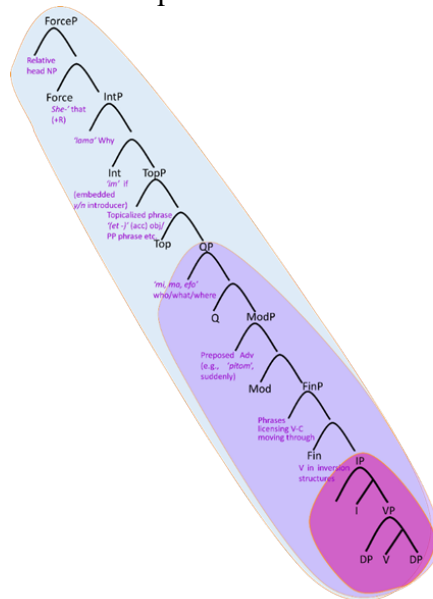


Figure 2. A cartographic tree for Hebrew and the three stages of acquisition of the growing trees:

- Stage 1: IP, including nonfinite embedding to modals and A-movement
- Stage 2: ModP, QP, and FinP.
- Stage 3: ForceP, IntP, and TopicP.

In the talk, I will shortly motivate a map of the left periphery for Hebrew, matching the essential properties of the cross-linguistically valid left-peripheral backbone (Rizzi & Bocci 2017), and show how the cartographic tree accounts for syntactic acquisition of 61 children acquiring Hebrew.

The ‘Growing Trees’ hypothesis in L2 acquisition: Evidence from L1 Mandarin intermediate learners of Spanish

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The present study reports the hierarchy in the acquisition of various syntactic structures by Mandarin L2 speakers of Spanish following the ‘Growing Trees’ hypothesis (Friedmann et al., 2021). 62 classroom L2 intermediate learners from China ($F = 52$, age range = 19-22, mean age = 19.85, $SD = .79$) participated in the experiments. Data collection took place via a written narrative elicitation task with a wordless video (Berman & Verhoeven, 2002; Sebastián & Slobin, 1994) and the data was coded ($N = 1073$ clauses) in terms of the percentage of the correct use of nominal agreement (NA, including gender and number), grammatical tense and aspect (TA, focusing on preterit and imperfect), and structures from the higher field of the left periphery including declarative embedded clauses and relative clauses (EC). Results showed that the hierarchy exists even for L2 learners, with the lower field easily acquired (correct use of NA = 90.5%), followed by TA (correct use = 66.2%) and EC (correct use = 14.3%). This is at odds with the predictions of the Interpretability Hypothesis (Hawkins & Casillas, 2008; Tsimpli & Dimitrakopoulou, 2007), in which claim only the interpretable features remain accessible to adults in a second language. Since the intermediate layer (i.e., grammatical tense and aspect) led to difficulties, we randomly divided the participants into two groups. For the experimental group ($N = 31$), we designed a sequence of communicative activities focusing exclusively on the learning of preterit and imperfect (without the interference of any possible embedded structures), so that the learning follows the direction from lower to higher layers. After 15 hours of training, the experimental group showed a significant improvement ($\beta = .24$, $SE = .06$, $t = 3.9$, $p < .001$) in their performance than that of the control group whose pedagogical interventions did not follow the Growing Tree approach using generalized linear models (see Fig. 1). We argue that as in L1, dangling structures are hardly acquired by L2 learners and introducing higher stages without consolidating the lower ones would complicate the learning procedure (cf. Slabakova, 2008). However, unlike in children who involved a tree consisting of both VP and IP in the earliest stage (Friedmann et al., 2021), it seems that adult learners performed differently, with the nominal zone acquired early and then gradually IP, suggesting the time and the order of acquisition inside each zone/stage are subject to vary between L1 and L2, which has its implications for L2 teaching. In addition, the fact that learners performed well in the acquisition of nominal agreement and worse in the verbal agreement cannot be attributed simply to presence or absence of ϕ -features in the L1, instead, it might be captured by the Feature Reassembly Hypothesis (Lardiere, 2009). Although our study focuses on written production, further research should explore those structures in oral production as well.

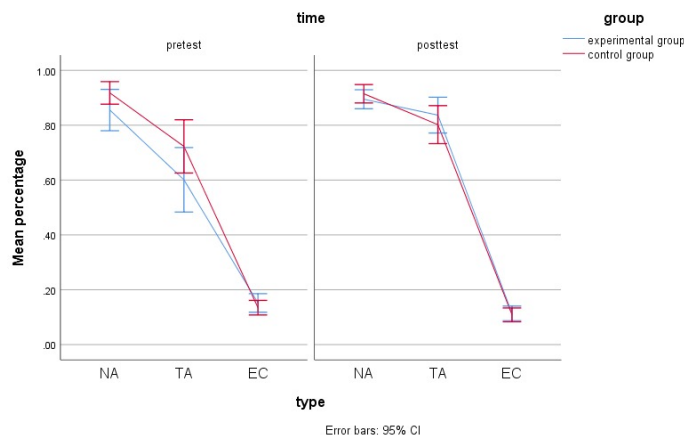


Fig. 1. Mean percentage of the correct use of nominal agreement, grammatical tense/aspect, and embedded clauses in pre- and post-tests in two groups.

Focus movement, pied-piping and remnant movement in Mandarin Chinese: When Sentence-Final Particles meet Right Dislocation

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This paper investigates the syntax of Sentence-Final Particles (SFPs) and Right Dislocation (RD) in Mandarin with a cartographic approach. We propose that focus movement also exists in Chinese but is necessarily realized in a pied-piping way, and that two more steps of remnant movement are required to account for the interaction between SFPs and RD.

Recent studies have analyzed **SFPs** as a range of final heads in the split CP (Paul 2014, Pan 2015, Paul and Pan 2017). Pan (2020) proposes that they are initial C-heads bearing the EPP feature which triggers a Comp-to-Spec movement and thus appear sentence-finally. **RD** in Chinese languages has been analyzed as a mono-clausal structure derived by a leftward movement of the non-RD part (Cheung 1997, 2009; Wei and Li 2018). Sun (2021) argues that a single fronting operation is not enough to derive all the possible word orders and that a GroundP (Poletto and Pollock 2004) immediately lower than SpeechActP is required to hold the RD part.

In the following examples, (1-b) is one possible RD version of (1-a), where the right-dislocated element *yijing* ‘already’ is a non-movable adverb (i.e., unable to appear to the left of the subject or to the right of the verb in a non-RD context). The SFP *ma* in (1-b) precedes the RD element, instead of appearing sentence-finally as in (1-a).

- (1) a. *Ta yijing shang DAXUE le ma?*
3SG already attend college ASP SFP
‘Is she/he already attending COLLEGE?’
(I thought she/he was still in high school!’)
- b. *Ta shang DAXUE le ma yijing (*ma)?*
3SG attend college ASP SFP already SFP
‘Is she/he already attending COLLEGE?’
(I thought she/he was still in high school!’)

DERIVATION OF (1-b): 1). move the subject from AspP to TP; 2). move the whole AspP to SpecFocusP as a pied-piping movement triggered by the focus feature on *daxue* ‘college’; 3). move the TP subject to TopicP; 4). remnant-move TP to SpecGroundP as it contains some information not targeted by the speech act; 5). remnant-move the complement of GroundP, i.e., TopicP, to the specifier of SpeechActP, which is headed by the SFP *ma*. More justifications of these steps will be provided in the talk.

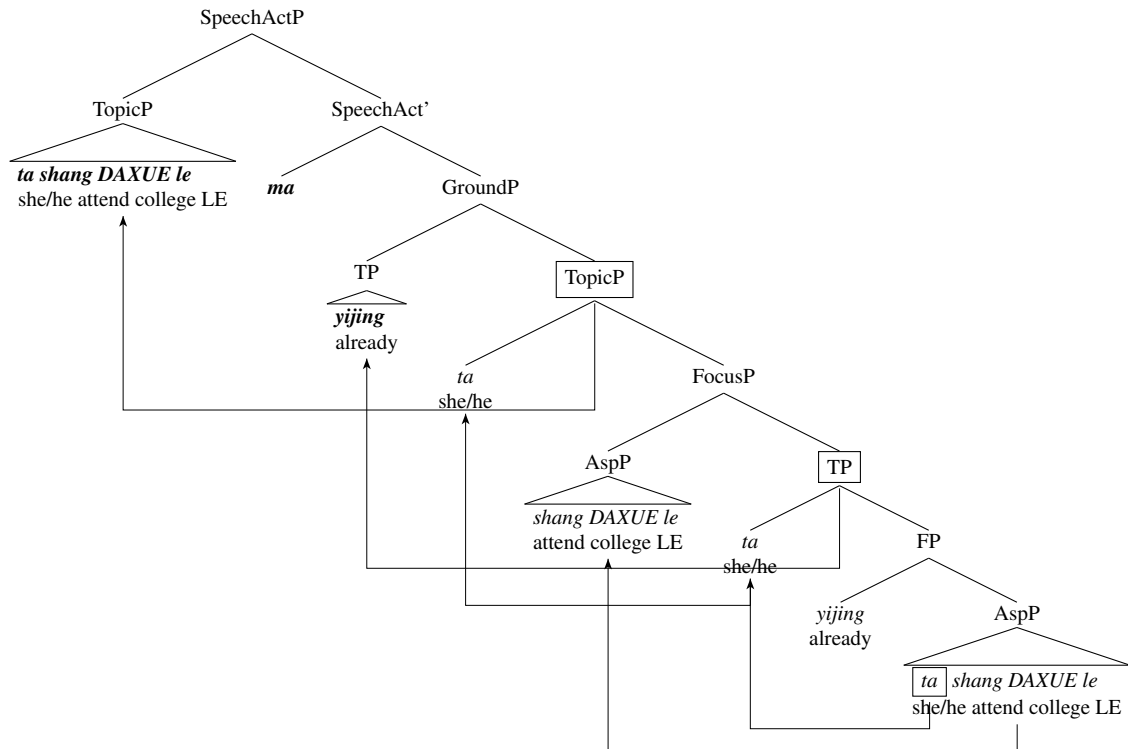


Figure 1: Derivation of (1-b)

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Kayne’s (2005) *decompositionality* principle—informally known as ‘the One Feature, one Head principle’ (OFOHp)—soon became the general methodological guideline in Syntactic Cartography. By this principle, each feature from the conceptual-intentional system would correspond to an independent category, identified with a single position in the f(unctional)-seq(uence). Prior to the aforementioned work by Kayne, Rizzi (1997) and Cinque (1999)—the founding works of the cartographic approach—had already acknowledged the idea behind the OFOHP that each specifier/head would realise one single feature. The assumption of this principle would have us wondering where, in the f-seq, the different classes of adverbial-like elements informally called “focusing adverbs”—given their ordinary (though not necessary) association with focus—would be placed, since the general linguistic literature realises that they can be splintered into five subclasses (see, e.g. Quirk et al. 1976, Ilari 1992, Ricca 1999, Adorno 2000, De Cesare 2010, Shu 2011, Ferrari et al. 2011, a.o.): (a) exclusive adverbs (*only*), (b) non-scalar additives (*also*), (c) scalar additives (*even*), (d) adverbs of inclusion (*including*) and (e) particularizers (*mainly*).

Goal: It is therefore the main goal of this paper to come up with a hierarchy for the aforementioned five classes of “focusing adverbs” and, at the same time, to determine their position relative to the categories of the clausal f-seq. **Methodology:** To do so, I turn to precedence-and-transitivity tests (mainly on the basis of South American Spanish, Brazilian Portuguese and English) firstly to propose a hierarchy for these five distinct classes of focusing adverbs and, subsequently, to order them with respect to the other adverbial-like modifiers in the f-seq. **Results and discussion:** The precedence expedient suggests that adverbs of inclusion (*inclusive/incluso/including*) precede particularisers (*principalmente/mainly*) (1) which precede scalar additives (*até/hasta/even*) (2) which, in turn, precede adverbials of exclusion (3). Therefore, by transitivity, adverbs of inclusion precede particularisers which precede adverbs of exclusion (4). (The same expedient can be replicated with the other two classes of adverbials which can be associated with (i.e. which can have scope over) sentence focus.) Following the cartographic spirit, the same methodology can be applied to place these focusing adverbials among the adverbs from Cinque’s hierarchy. Example (5) indeed suggests that the three classes of “focusing adverbs” explored in examples (1-3) just seen precede $T_{Anterior}$ *já* ‘already’, while (6) suggests that they follow the celerative_I adverb *rapidamente* ‘quickly’, at least in Brazilian Portuguese. Therefore, the three classes of “focusing” adverbs in (1-3) must be integrated into Cinque’s hierarchy within the inflectional domain (see (5c, 6c) and, by transitivity, (7)). Hence, since focusing adverbs are located in the medial zone of the inflectional domain, it is expected that they do not behave as high adverbs as far as those syntactic-semantic properties often associated with high adverbs (Bellert 1976, Ramat and Ricca 1998, Tescari Neto 2022) are concerned. One of those properties states that while high AdvPs cannot be coordinated with a proposition (8a), low AdvPs can (8b). Focusing adverbs pattern like low adverbs (8c) in that they can also be coordinated with a proposition. That is consistent with their position of merging among medial AdvPs (as suggested by (7)).

- | | | | |
|-----|-----|---|---|
| (1) | a. | O João adora inclusive principalmente banana | (‘J. loves especially chiefly banana’) |
| | a’. | Juan adora incluso principalmente los plátanos (= (1a’)) | |
| | b. | *O João adora principalmente inclusive banana | (‘J. loves chiefly especially banana’) |
| | b’. | *Juan adora principalmente incluso los plátanos | (1c) Hence: adverbs of inclusion > particularisers |
| (2) | a. | O Joãoalaria particularmente até o inglês, se precisasse | (‘J. would particularly even English, if he had to’) |
| | a’. | Juan hablaría particularmente hasta inglés si lo necesitara (= 2a’) | |
| | b. | *O Joãoalaria até particularmente o inglês, se precisasse | (‘J. would even particularly English, if he had to’) |
| | b’. | *Juan hablaría hasta particularmente inglés si lo necesitara | (2c) Hence: /particulariser > scalar additive/ |
| (3) | a. | He’d even only speak English, if he had to | (Kayne, 1998: 162, n. 83) |
| | b. | *He’d only even speak English, if he had to Therefore: | (3c) Hence: [scalar additive > adverbs of exclusion] |
| (4) | | adverbs of inclusion > particularisers > scalar additives > adverbs of exclusion | |
| (5) | a. | O José inclusive/principalmente/até/só já limpou a casa. (‘J. especially/chiefly/even/only already cleaned the house’) | |
| | b. | *O José já inclusive/principalmente/até/só limpou a casa. | (5c) Hence: “focusing adverbs” > $T_{Anterior}$ |
| (6) | a. | O José rapidamente inclusive/principalmente/até/só limpou a casa. | |
| | | (‘J. quickly especially/chiefly/even/only already cleaned ...’) | |
| | b. | *O José inclusive/principalmente/até/só rapidamente limpou... | (6c) Hence: celerative _I > focusing adverbs > $T_{Anterior}$ |
| (7) | | celerative _I > adverbs of exclusion > particularisers > scalar additives > adverbs of exclusion > $T_{Anterior}$ | |
| (8) | a. | *O João fuma charutos e provavelmente (‘J. smokes cigars and probably’) | |
| | b. | O João fuma charutos e prazerosamente (‘J. smokes cigars and willingly’) | |
| | c. | O João fuma charutos e ?inclusive/principalmente/?até/só (‘J. smokes cigars and especially/chiefly/even/only’) | |

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The cartography of (non-active) voice: Insights from Albanian

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Taking our cue from Kallulli & Trommer (2011), henceforth K&T, we provide an alternative account of the morphosyntax of non-active voice in Albanian, a language which, similar to Latin, has two distinct conjugational voice paradigms, namely active and non-active (Rivero 1990). The Albanian non-active conjugation displays an even more complex alternation than the Latin passive conjugation, employing three distinct morphosyntactic patterns, namely: (i) affixation (as in Latin); (ii) cliticization; and (iii) auxiliary choice (again as in Latin). As detailed in K&T, this three-way morphological alternation (i.e., affix, clitic, auxiliary choice) is determined by the broader morphosyntactic context in which the non-active occurs. Specifically, auxiliary selection, namely the Albanian counterpart of the verb ‘to be’, is used if the clause contains a Perfect form; the affix is used if the clause contains a Tense form other than the Aorist, but not Admirative, Optative or Imperative mood; and the clitic *u*, derived from the Indo-European reflexive *sue* (Demiraj 1986), is used in all other contexts. Given the inventory of functional elements in Albanian and assuming (1) as its clause structure (cf. K&T), the distribution of the different means to realize non-active voice follows the complex default pattern in (2):

(1) [Clitic [Tense_{PR/IMP} [Aspect_{AOR}/Mood_{ADM/OPT/IMPER} [Perfect [Voice v-V]]]]]

(2) Distribution of non-active realization (K&T: 284)

1. **If** the clause contains Perfect:
express Non-active by choice of the auxiliary
2. **Else: If** the clause contains Tense but not Admirative:
express Non-active by an inflectional affix
3. **Else:** express Non-active by a clitic

K&T successfully reduce the complexity of the Albanian non-active voice system to a very simple set of Agree and impoverishment relations, with the implicational choices in (2) reduced to local c-command (essentially Relativised Minimality): Perfect is realized when activated in preference to Tense or Clitic, since it is the closest c-commander of Voice; (non-Admirative) Tense is realized in preference to Clitic when Perfect is not activated, since it is the next-closest, and Clitic is realized when neither Tense nor Perfect is activated (K&T: 284-6). K&T rely on a version of Agree which distinguishes valuation and interpretability. Our goal here is to reduce their version of Agree to just valuation of missing features, thereby achieving a significant simplification of K&T’s analysis.

We treat formal features (FFs) as Attribute-Value pairs: [Att: Val]. An FF is uninterpretable iff it has no value: [Att: ---]. Such an FF is a Probe, whose Goal provides a Value, copied into the blank slot by Match, making the Probe interpretable. Assume Voice in Albanian (and perhaps universally) is intrinsically specified as Active or Non-Active, hence it is interpretable and so can be Goal and Perfect has the feature [Voice: ---] and so is uninterpretable. Then Match copies the Non-Active value to Perfect’s [Voice: --] and this head is realised as ‘be’. K&T’s account of the implicational preferences in (2) in terms of local c-command carries over, but we have to prevent cyclic Agree in a situation like (3): Tense [Voice: --] Perfect [Voice: --] [Voice: Non-Active]

K&T (p. 287) propose an impoverishment rule for this. In a similar spirit, we propose the impoverishment rule in (4):

(4) [Voice: --] → ∅ / [X [Voice: ---]]

(4) states that a head with an unvalued Voice deletes wherever it c-commands another head with an unvalued Voice feature. This makes Voice a defective Goal for the head it Agrees with in terms of Roberts (2010); this may trigger verb (v/V+Voice) movement to the probing head unless that head is intrinsically a free morpheme (see Roberts 2019: 380, n. 41). In Albanian, Perfect and Tense are bound morphemes and therefore trigger verb-movement where v/V+Voice is a defective Goal, but the Clitic head (realized as *u*) is a free morpheme, and so surfaces as proclitic rather than suffixal/enclitic. This approach can be extended to English, assuming Agr c-commands Tense: if Tense has a Past feature then this blocks realisation of Agr features on V. In the configuration in (5) the impoverishment rule in (6) applies and deletes Agr:

(5) [Agr: ---] ... [T: ---] ... [V: Past]

(6) [Agr: --] → ∅ / [X [F: Past]]

Note the close formal similarity between the impoverishment rules in (4) and (6), suggesting that more cross-linguistic investigation of such rules is necessary in order to determine and restrict their possible forms.

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Focused Hanging Topics

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In dialogue (1), the phrase *Mio MARITO*, in B, displays the distinctive properties of hanging topics (HTs). These properties include the presence of obligatory clitic doubling, here realized by *ci* (with him), and the dropping of prepositions normally selected by the verb for its arguments, here *con* (with) (Benincà 2001, Benincà and Poletto 2004). The phrase *Mio MARITO* is also contrastively focused, as shown by the presence of emphatic stress as well as by its interpretation, which expresses a corrective move as attested by the optional negative tag shown in parentheses (Leusen 2004). Nuclear stress is in small caps, emphatic stress in capitals, the subscript ‘HT’ marks HTs, and ‘F’ marks contrastive foci.

- (1) Speaker A: Tu non parli abbastanza con tua FIGLIA.
You not speak enough with your daughter
‘You do not speak enough with your daughter.’
- Speaker B: Mio MARITO_{i,HT,F}, non ci_i parlo abbastanza! (NON mia figlia).
My husband, (I) not cl speak enough! (Not my daughter)
‘I do not speak enough with my HUSBAND! (Not my daughter.)’

The existence of focused HTs challenges our understanding of the cartography of the left-periphery. Corrective foci are maintained to obligatorily move to a left-peripheral FocusP projection (Rizzi 1997, Rizzi and Cinque 2016, Rizzi and Bocci 2017, Bianchi 2019). But HTs are typically analysed as base-generated in a higher position than FocusP (Benincà 2001, Benincà and Poletto 2004, Giorgi 2015). Together, these claims exclude the existence of focused HTs because their focalization would require downward movement, a banned operation. The presence of clitic doubling is also challenging, as all other left-peripheral focused phrases – e.g. fronted focused objects – disallow clitic doubling. Focused HTs appear to be the only exception to this generalization.

My talk addresses these issues. First, I will further examine the syntax of *Mio MARITO* and similar expressions and further corroborate the claim that they are genuine HTs. Specifically, I will show that they display the same properties of unfocused HTs, including occurring to the left of CLLD-topics, lacking reconstruction, and being insensitive to islands. For example, island insensitivity is visible in (2), where the focused HT *MARTHA* in B binds the clitic *le* across a complex NP island.

- (2) Speaker A: Maria_{i,HT}, conosciamo tutti l’insegnante che non le_i parla MAI.
Mary, know all the-teacher that not cl speaks ever
‘Mary, we all know the teacher who never speaks to her.’
- Speaker B: MARTA_{i,HT,F}, conosciamo tutti l’insegnante che non le_i parla mai. (NON Maria).
Martha, know all the-teacher that not cl speaks ever. (Not Mary).
‘MARTHA, we all know the teacher who never speak to her. (Not Mary.)’

Second, I will address the theoretical issues raised by focused HTs. Building on Ott (2014) – but see also Haegemann (1991), Shaer and Frey (2004), Shaer (2009), and Giorgi (2018) – I will propose a biclausal analysis where HTs are generated in a separate clause with all duplicated material elided, as in (3).

- (3) [_{TP} ~~pro non parlo abbastanza con~~ mio MARITO_{F,i}] [_{TP} *pro* non ci_i parlo abbastanza]

This analysis has two welcome properties. First, it preserves the generalization that focused phrases disallow clitic-doubling because in structure (3) the phrase *mio MARITO* is not clitic-doubled within its own clause. Second, it dissolves the issue of downward movement because in (3) *mio MARITO* remains able to target a left-peripheral FocusP projection in its clause.

If correct, the analysis also affects the modelling of the left-periphery because the projection dedicated to HTs would no longer be necessary.

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Reducing and enriching syntactic structures during development.

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There are stages in development in which children appear to use somewhat reduced expressions. This is the case, for instance, of what happens in the stage known as the Root Infinitive stage in which young children make use of non-finite verbal forms in root clausal expressions, indicating access to truncated clausal structures (Rizzi 1993/94). Not all forms of reduction, however, appear to be equally accessible to the young children's developing grammar; this is the case, for instance, of the documented late access to reduced relative clauses by young children acquiring Italian (Contemori & Belletti 2014). The issues of what different kinds of reduction amount to, accounting for their different treatment in development, will be a central topic investigated in the talk.

Not only is it the case that young children access some, but not all kinds of reduced structures during development, as just noticed. It also happens that apparently more complex, i.e. longer, expressions may be preferred in some cases. Young children's access in their productions to a-marked topics in early Italian is one such case, that contrasts with the lack – in the relevant syntactic environments – of the pre-theoretically simpler non-marked topics present in the adult grammar (Belletti & Manetti 2019, Belletti 2022). Similarly, early access to longer and apparently more complex types of passive (than e.g. the copular one), such as the *si*-causative passive in early Italian may be another case in point (e.g. Belletti 2017). In the talk, the simultaneous presence of reduced and enriched structures during development will be addressed. The different structures and derivations will be looked at through the cartographic lenses (Cinque & Rizzi 2010; Rizzi & Bocci 2017), under the 'growing trees' paths and the implicational route that they reveal (Friedmann, Belletti & Rizzi 2021), and, finally, according to the principled account offered by intervention locality in terms of featural Relativized Minimality (Starke 2001; Rizzi 2004; Friedmann, Belletti & Rizzi 2009 and much related work). In the end, coping with computational complexity turns out not to be a matter of reduction in number of words, clitics, affixes used; sometimes, enriching the structure may yield more readily accessible computations, in compliance with general grammatical principles, in a constrained variation space.

Strength of tone in cartography: exploring a new 3-dimensional CP zone

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1.Introduction: This paper explores novel research which showcases the enduring potential of cartography in the decades to come by demonstrating that the functional categories in the CP zone proposed by Rizzi (1997) has the tone strength and weakness, and suggest the possibility of constructing a new 3D model of cartography.

2. Background: Bayer and Obenauer (2011) propose that in German, the relationship between Force and particles is established by AGREE, where agreement is expressed by an arbitrary feature value like 1, 2, etc. that fills the empty slot, through the operation of feature sharing proposed by Pesetsky and Torrego (2007). Coniglio and Zegrean (2012) show that German particles function to regulate as many as five levels of intensity or aggression of the speaker's tone in imperatives.

3. Proposal: Based on these facts, I propose that the shared values 1, 2, etc. between Force and particles indicate how strongly the sentence type is uttered by the speaker on the scale of aggression, where the value 1 represents the weakest speaker tone, while the value 2 and 3, etc. represent stronger speaker tone. This suggests that the cartography of Force has a 3 dimensional, that is, Force with a high value like 3 represents the Force shaped like a high mountain, while the Force with a low value like 1 represents Force shaped like a low mountain.

4. Extensions. Using this idea, I will explore new possibilities for various functional heads in the CP zone to represent the strength of the speaker's tone by having high or low values. **(1) wh-expression:** while Pesetsky's (1987) aggressively non-D-linking expressions like *the hell*, *in the world*, etc, and *diavolo* (*lit: devil*) and *accidenti* (*a damn*) in Italian (Giorgi and Poletto 2019) have high values in the projection, while the element *pure* in Italian and the empathy particle *ne* in Japanese, which weakens the tone of command, has a low value in Force or imperative projection. **(2) comparative syntax:** While questioning elements for reasons is shown to occur in IntP in Italian by Rizzi (2001), questions asking for reason in Japanese have at least five levels of tone intensity, depending on the nature of final particles like *ka-na* (weak), *ka-yo* (strong), etc. **(3) diachronic syntax:** Belletti (2022) observes that topic elements with the preposition *a* in Italian have the feature [+empathy] or [+affective], the Japanese final particle *wa* has historically had the same semantic effect on the topic particle *wa* with a low value, both of which can be considered to be commonly base-generated in the same position in the topic projection. **(4) autism:** The rapid adjustment of the speaker's tone described by particles is difficult for autistic people (Watamaki 1997), which can be attributed to the fact that autistic people have narrow workspace (Itofuji 2022) due to the fact that blood flow in the prefrontal cortex, which controls switching and response inhibition, is low.