Clause internal wh-words are actually fronted: evidence from Valdôtain Patois

Luisa Seguin

Abstract

In this paper, I present and analyze the syntax of wh-movement in the Franco-Provençal language Valdôtain Patois (ValPa), an understudied variety spoken in the Aosta Valley (Italy). Wh-words in ValPa can either be fronted or occur clause-internally. Based on extensive empirical evidence, I argue that ValPa clause-internal wh-words do not appear in-situ, but rather are displaced to the Low Left Periphery at the edge of vP. Unlike previously argued for standard Italian and several Northern Italian Dialects (Rizzi, 1997; Bonan, 2019), ValPa clause-internal wh-words do not target a dedicated Focus position, but a more general A'-position at the edge of the Low Left Periphery. Based on intervention effects and parasitic gaps, I then present data in favor of an overt movement analysis of clause internal wh-words to the High Left Periphery. The different word orders are then derived via a PF copy deletion mechanism à la Bošković (2002). The optionality in wh-fronting is thus accounted for at PF.

1 Introduction

The postulation of an area rich in A' elements at the edge of vP dates back to work on clause internal wh-words by Jayaseelan (1996) and Kahnemuyipour (2001), as well as the cartographic analysis of Topics and Foci by Belletti (2004, 2006). Given the parallel nature to the High Left Periphery in the CP domain (Rizzi, 1997; Rizzi and Bocci, 2017), this area came to be known as the Low Left Periphery (LLP). Recent work on Northern Italian Dialects, in particular Trevisan (Bonan, 2019), has further confirmed earlier accounts according to which clause internal wh-

words target a focus position in the LLP, FocP. It is thus widely assumed in cartographic literature that wh-words and Contrastive Foci (CF) are mutually exclusive (Rizzi, 1997; Bonan, 2019).

In this paper I will present data from an understudied Romance language, Valdôtain Patois, where wh-fronting is to some extent optional (1),[1] and challenge previous accounts on clause internal wh-words (CIwh-words). More specifically, I will show that in Valdôtain Patois CIwh-words do not target a focus position in the LLP, but rather a separate position, and can co-occur with Focus.

(1) a. **Quan** te v-a en vacanse?
when NOM.2SG go-PRS.2SG in holiday
'When are you going on holiday?'

b. Te va **quan** en vacanse?

Using various diagnostics, I will show that CIwh-words in this language do not stop in the LLP, but rather overtly move to the HLP. The different word orders, as in (1) are then the results of a PF copy deletion mechanism, à la Bošković (2002).

The paper is structured as follows. Section 2 describes Valdôtain Patois and Section 3 reviews previous literature on the topic. Section 4 will outline the main data points and start sketching the analysis. Section 5 will introduce several diagnostics for movement to the HLP and Section 6 will outline the proposal in depth.

2 Valdôtain Patois

Franco-Provençal Valdôtain (Glottolog code vall1249), or Valdôtain Patois (ValPa), is a language from the Francoprovençal, or Arpitan, family, which includes various languages spoken in France, Switzerland, and Italy (Figure 1). ValPa is spoken by 61.000 speakers (in 2003 (Cavalli and Coletta, 2003)) in the northwest Italian region Aosta Valley (Brocherel, 1958). Despite its small size (roughly around 3000 km^2), Aosta Valley displays rich linguistic variety. For the present research, I will make reference to the variety spoken in Morgex, a town in the northwest part of the region.

This section will outline some characteristics of the language that will be relevant for the present research: word order, including Topicalization and Focalization, and verb movement.

[1] For the glosses, I am following the Leipzig Glossing Rules. A list of the abbreviations used is given at the end of the paper.

Figure 1: The geographical distribution of the Franco-Provençal languages across France, Switzerland, and Italy (Source: Charvex, Public domain, via Wikimedia Commons, after (Tuaillon, 1992, p. 337)).

2.1 Word order

The unmarked word order in ValPa is SVO (2), DO-IO being the default argument order (3).[2]

(2) Dz'ì atist-ò lo pan. **SVO**
NOM.ISG-have.PRS.ISG buy-PST.PTCP DET.M.SG bread
'I bought the bread.'

(3) Dz'ì baill-à la machina à Tcheunne. **DO-IO**
NOM.ISG-have.PRS.ISG give-PST.PTCP DET.F.SG car to Tcheunne
'I gave the car to Tcheunne.'

[2] In (2) I only show the word order with a definite object, but definiteness may affect the word order. Nevertheless, how definiteness affects word order is not the focus of this paper, thus I leave this question open for further research.

There are two strategies that heavily influence word order: Topicalization and Focalization. The former is very common: Topics in ValPa can be either fronted to the Left Periphery or appear clause-internally (4)[3]. In both cases, the presence of the resumptive clitic pronoun *lo* is obligatory, which suggests that the word order in (4) is a case of Clitic Left Dislocation (Cecchetto, 2000).

(4) a. Marco *(lo) encontr-o à l'ecoula deman.
Marco CL.ACC meet-PRS.ISG at DET-school tomorrow
b. *(Lo) encontro Marco à l'ecoula deman.

'Marco, I will meet him at school tomorrow.'

Focalization is another strategy that influences word order. Just like Topics, Contrastive Foci (CF) can be either fronted or appear clause internally (5). New Information Focus, however, can only surface clause internally. To illustrate, in the answer to question (6), *lo fromadzo* 'the cheese' is new information in the discourse and as such must appear postverbally (6a).

(5) a. MARCO dze encontr-o deman, pò Yuri.
Marco NOM.ISG meet-PRS.ISG tomorrow, NEG Yuri
b. Dze encontro MARCO deman, pò Yuri.

''I will meet Marco tomorrow, not Yuri.'

(6) Dequé t'atsit-e ì martsà?
what NOM.2SG-buy.PRS-3SG at.DET.M.SG market
'What will you buy at the market?'

a. Dz'atsito lo fromadzo.
NOM.ISG-buy.PRS-ISG DET.M.SG cheese
'I will buy cheese.'

b. *Lo fromadzo dz'atsito.

2.2 Verb movement

Much like other Romance languages (see Ledgeway and Lombardi (2005), Schifano (2018) and references therein), both finite and non-finite verbs move out of the vP. Previous research on the

[3] *Marco* in (4) is a familiar Topic. (Frascarelli and Hinterhölzl, 2007) show that Topics are subject to hierarchical ordering: while Aboutness and Contrastive Topics are restricted to the High Left Periphery, Familiar Topics can appear in both peripheries.

topic has focused on the position of the verb with respect to Cinque's (1999) hierarchy, outlined in (7). As shown in (8), the finite verb *vo* 'go' must precede the temporal adverb *todzor* 'always' (cfr. 1a-b).

(7) a. **High Adverb Space**: [frankly $\text{Mood}_{speechact}$ [unfortunately $\text{Mood}_{evaluative}$ [apparently $\text{Mood}_{evidential}$ [probably $\text{Mod}_{epistemic}$ [now $\text{T}_{(past/future)}$ [perhaps $\text{Mood}_{irrealis}$ [necessarily $\text{Mod}_{necessity}$ [usually $\text{Asp}_{habitual}$ [again $\text{Asp}_{repetitive(event)}$ [often $\text{Asp}_{frequentative(event)}$ [intentionally $\text{Mod}_{volitional}$ [slowly $\text{Asp}_{celerative(event)}$

b. **Low Adverb Space**: [not $\text{Neg1}_{presuppositional}$ [already $\text{T}_{(anterior)}$ [anymore $\text{Asp}_{terminative}$ [still $\text{Asp}_{continuative}$ [always $\text{Asp}_{perfect}$ [hardly Neg2 [just $\text{Asp}_{retrospective}$ [soon $\text{Asp}_{proximative}$ [briefly $\text{Asp}_{durative}$ [typically $\text{Asp}_{generic/progressive}$ [almost $\text{Asp}_{prospective}$ [completely $\text{Asp}_{SgCompletive(event)}$ [everything $\text{Asp}_{PlCompletive}$ [well Voice [fast $\text{Asp}_{celerative(process)}$ [again $\text{Asp}_{repetitive(process)}$ [often $\text{Asp}_{frequentative(process)}$ [completely $\text{Asp}_{SgCompletive(process)}$ [vP ...]...]

Adapted from (Cinque, 1999, p. 106) and (Schifano, 2018, p. 2)

Assuming such temporal adverbs are located in the lower adverbial space (7) (see Schifano (2018) for further details), hence below the Tense projection (Cinque, 1999; Schifano, 2018), the word order in (8) is evidence that the finite verb has risen to T. Yet, it does not move to C, as it must follow high habitual adverbs, like *de couteumma* 'usually' (9).

(8) a. Dze v-o todzor à l'écoula à pià.
NOM.1SG go-PRS.1SG always to DET.F.SG-school on foot
'I always walk to school.'

b. *Todzor dze v-o à l'écoula à pià.

(9) a. De couteumma dze v-o à l'écoula à pià.
usually NOM.1SG go-PRS.1SG to DET.F.SG-school on foot
'Usually I go to school on foot'

b. *Dze vo de couteumma à l'écoula à pià.

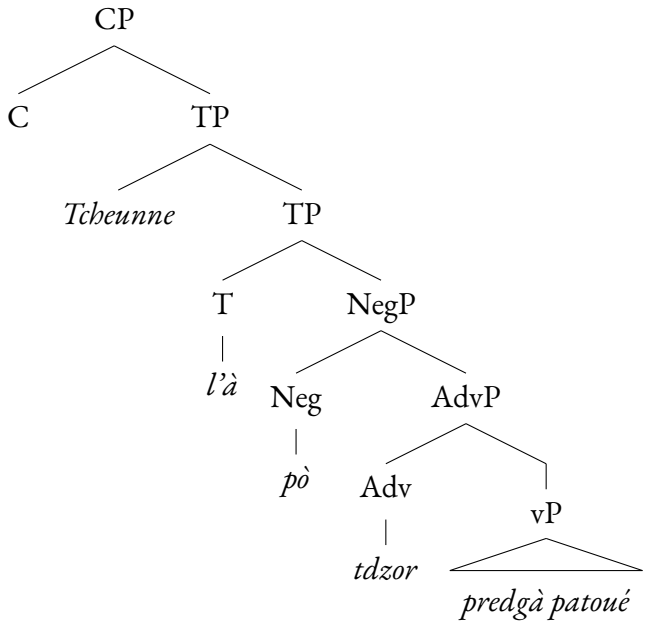
Furthermore, in (10) *à* must precede the negation *pò*. As (Zanuttini, 1997) has shown, in ValPa, *pò* is merged in the specifier of a NegP just below T, (11).

(10) a. Tcheunne l'à pò todzor prédg-à patoué
Tcheunne NOM.2SG-have.PRS.3SG NEG always speak-PST.PTCP patois.

b. *Tcheunne todzor l'à pò prédgà patoué.

'Tcheunne hasn't always spoken patois.'

(11)



Similarly to other Romance languages (Cinque, 1999; Ledgeway and Lombardi, 2005; Schifano, 2018), active past participles in ValPa rise to a position above vP. In (12-13), it appears just before *bien*'well', one of the lowest adverb in Cinque's hierarchy (Cinque, 1999; Ledgeway and Lombardi, 2005). Nevertheless, they do not raise past the adverb *todzor* 'always', located just below T (7) (12 and representation in 14).[4].[5]

(12) a. L'à **todzor** tsant-ò **bien**.
NOM.3SG-have.PRS.3SG always sing-PST.PTCP well
'(S)he always sang well.'

b. *L'à tsantò **todzor bien**.

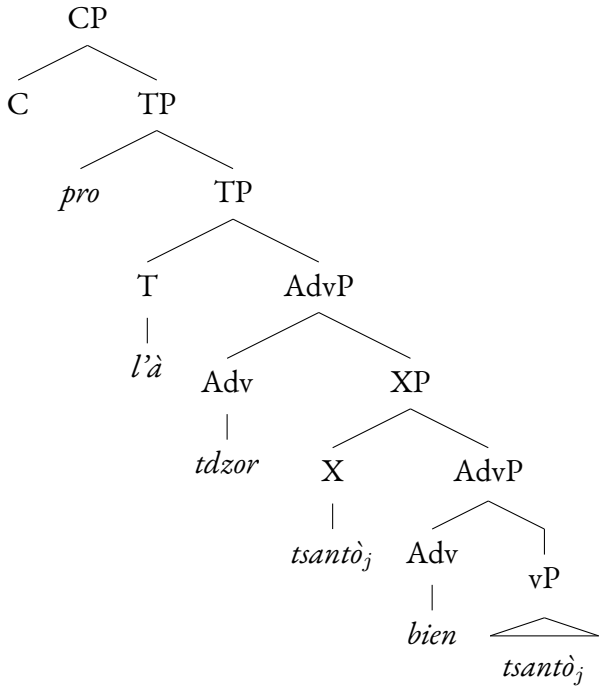
(13) a. L'à **todzor** aprist-ò **bien** la polenta.
NOM.3SG-have.PRS.3SG always prepare-PST.PTCP well DET.F.SG cornmeal
'(S)he always prepared cornmeal well.'

[4]I suspect that, just like many other Romance languages (Schifano, 2018; Ledgeway and Lombardi, 2005), the movement of past participles is optional in ValPa. Nevertheless, since this is orthogonal to the goal of the paper I leave the topic for future research.

[5]Here I am representing *l'à* in T for ease of exposition, leaving aside for the time being where auxiliaries might be externally merged in the derivation.

b. *L'à apristò **todzor bien** la polenta.

(14)



The data in (8-12) show that both finite verbs and -active- past participles move out of the vP. The finite verb moves to T, while past participles move to an undefined position above vP (XP in (14)). While the goal of the present research is not to investigate the location of such projection, nor the nature of the movement, it is reported here for completeness and in order to anticipate readers' questions on the position of the verb with regard to clause internal wh-words.

3 Theoretical background

Crosslinguistically, considering only monoclausal questions, we can distinguish four types: regular wh-questions (15a), discourse or D-linked (15b), aggressively non-D-linked (15c), and Echo questions (15d). For the present research, I will focus on regular wh-questions of the type in (15a).

(15) a. What did you buy?

b. Which cheese did you buy?

c. What the hell did you buy?

d. You bought WHAT??

Languages vary in how they form wh-questions and can be roughly divided into four groups. Languages like English and Italian are wh-fronting languages and, except in Echo questions, wh-words are obligatorily fronted (16), albeit this is restricted to just one wh-word (16c). On the other side of the spectrum, we find languages like Mandarin, where wh-words must remain in situ (17)[6] (Huang, 1982; Lu et al., 2020). Languages like English are traditionally defined as *overt* wh-movement languages, while languages like Mandarin as *covert* wh-movement languages. In the present paper, I will use the word *overt* to refer to movement that happens in narrow syntax, before Spell-Out (Lasnik, 1999; Kayne, 1998), whereas I will use the term *covert* movement to refer to movement that happens not in the narrow syntax, but at Logical Form (LF) (Huang, 1982; Nissenbaum, 2000; Richards, 1997).

(16) a. **Where** are you going?

b. *You are going **where**?

c. ***Who where** is going?

(17) a. Lisi mai-le **shenme**?
Lisi buy-ASP what
'What did Lisi buy?'

b. ***Shenme** Lisi maile?

Further still, some languages are multiple wh-fronting languages, like Bulgarian (18) (Bošković, 2002), which will be discussed in Section 3.3, and some languages display optionality in wh-fronting, like French (19), Trevisan (Section 3.2.1), and ValPa.

(18) a. **Koj kakvo** e kupil?
who what is bought
'Who bought what?' (Bošković, 2002, p. 358)

b. ***Koj** e kupil **kakvo**?

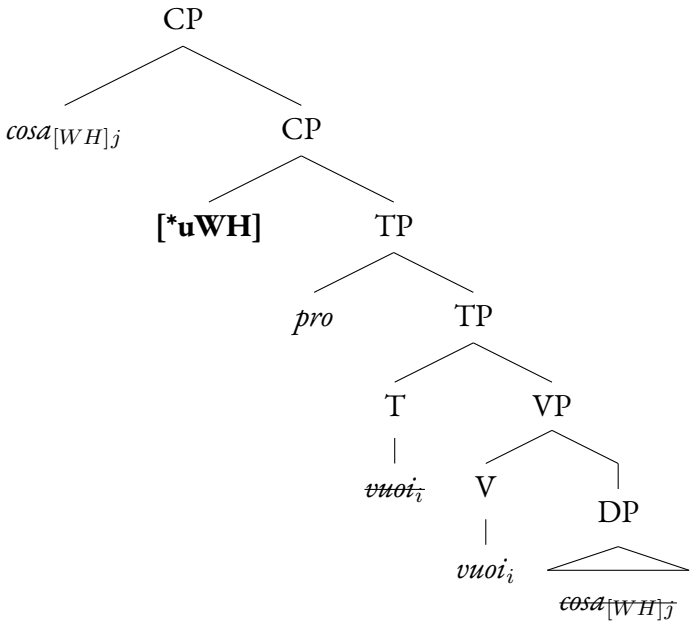
(19) a. **Qui** as-tu vu?
who have.PRS.2SG-NOM.2SG see.PST.PTCP
'Who did you see?'

b. Tu as vu **qui**?

[6] Here and throughout the paper, glosses are reported as in the original.

Wh-movement is generally assumed to be triggered by a [WH] feature hosted in C, which forces the movement of an XP bearing the same feature. Since the early minimalist days (Chomsky, 1995), the theory got revisited and features strength was introduced in the picture. Hence, the presence of a *strong* uninterpretable feature in the C head, [*uWH], forces overt movement to its specifier of a goal carrying an interpretable [WH] feature, as outlined in (20b) for the Italian example (20a). Weak [uWH] features, on the other hand, do not force movement of a [WH] goal in the syntax, but rather *overtly* at LF (Huang, 1982; Chomsky, 1995).

(20) a. **Cosa** vuoi?
what want.PRS.2SG
'What do you want?'

b. 

The feature strength system accounts for Mandarin and English type languages. As far as multiple wh-fronting languages are concerned, one analysis is the one put forth by Bošković (1999), who proposed an attract-all-F account, whereby one feature attracts all goals carrying that feature. I will partly discuss the analysis in Section 3.3, but will not dwell here on the details of the attract all-F account and refer the reader to Bošković (1999). Finally, since optionality in wh-fronting is the core topic of this paper, and I will discuss an existing analysis of optionality in Trevisan in Section 3.2.1. The goal of this Section is to introduce the most relevant theories for the present research, including cartography (Section 3.1). Section 3.2 will discuss accounts of A'-movement

to the periphery of vP, which will be foundational for the analysis of the ValPa data. Finally, Section 3.3 will discuss phonological constraints in multiple wh-fronting languages, crucial for the development of a new analysis of optionality in wh-fronting.

3.1 Cartography of A' movement

The origin of cartography lies in the idea, dating back at least to Bresnan (1970), that every clause is introduced by a C projection, which in English hosts complementizers like *that*. Building on this, Rizzi (1997) proposed that every clause, be it matrix or embedded, presents a detailed and hierarchical periphery, which came to be known as the High Left Periphery (HLP), sketched in (23). The upper boundary of the HLP is ForceP, which encodes the illocutionary force of the clause, e.g. declarative or imperative. The head Force hosts finite complementizers, like the Italian *che* and the English *that*. Its nature as upper boundary is seen by the fact that Topics belonging to the embedded clause must follow *che* (21).

(21) a. Pens-o [che **il** **formaggio** lo mangi-o domani.]
think-PRS.1SG COMP DET.M.SG cheese ACC.M.SG eat-PRS.1SG tomorrow
'I think that, this cheese, I will eat it tomorrow.'

b. *Penso **il formaggio** che lo mangio domani.

The low boundary of the HLP is FinP, which encodes the finiteness of the clause and hosts non-finite complementizers, like the Italian *di*. Several A' projections are comprised between these two boundaries. Topic projections, TopP, can freely adjoin between the two boundaries as shown in (21) and (22). In the Romance literature, examples like (21-22) are known as Clitic Left Dislocation (Cecchetto, 2000), although there is no agreement on whether they are base generated (Cinque, 1977; Anagnostopoulou, 1997) or rather moved to the HLP (Cecchetto, 2000; Angelopoulos and Sportiche, 2021).

(22) a. Pens-o [**il** **formaggio** di mangi-ar-lo domani.]
think-PRS.1SG DET.M.SG cheese COMP eat-INF-ACC.M.SG tomorrow
'The cheese, I think I will eat it tomorrow.'

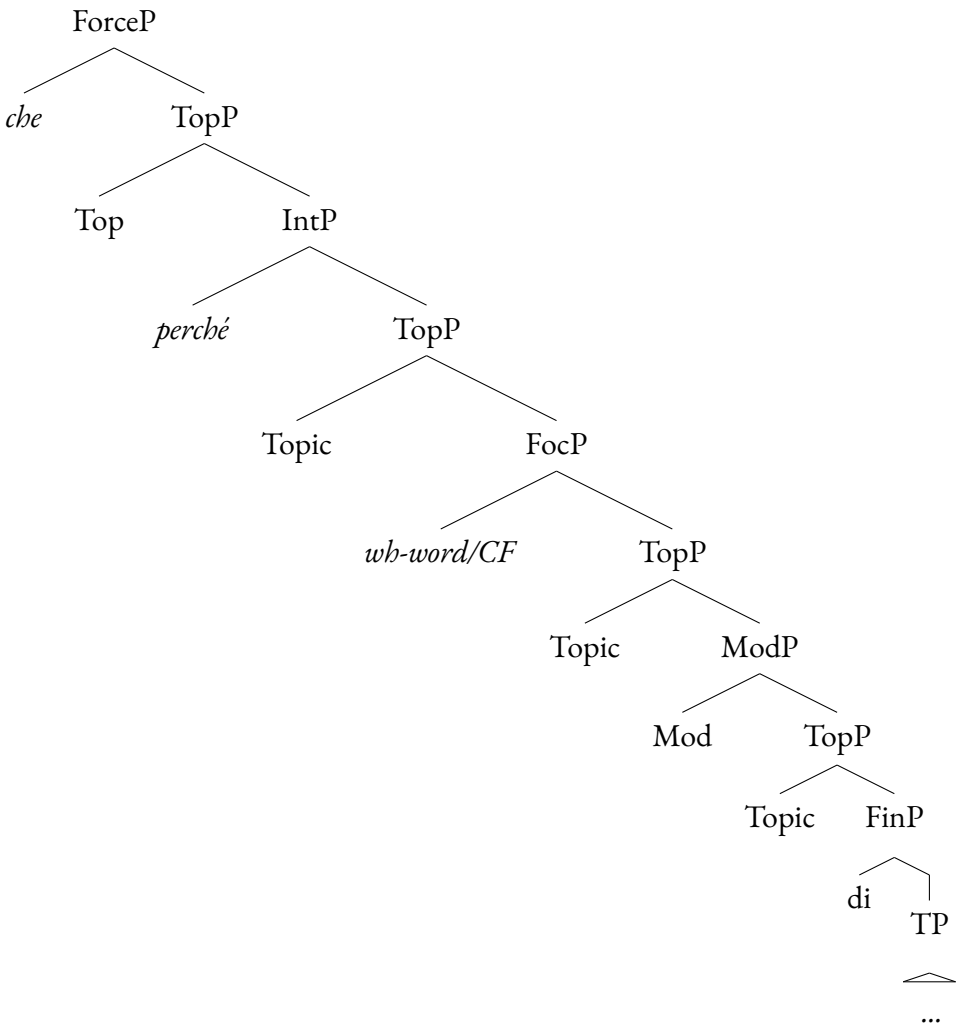
b. *Penso di **il formaggio** mangiarlo domani.

Other two projections in the HLP are IntP, which hosts interrogative complementizers like *se* 'if' as well as interrogative wh-words like *perché* 'why' (Rizzi, 2001), and ModP, which can be targeted

by certain adverbs, like *rapidamente* 'quickly'.[7]

The projection, which is of greatest interest for this research is FocP, or FocusP (23), which is targeted by both wh-words and Contrastive Foci (CF). This representational decision stems from the observation made by Rizzi (1997) and Rizzi and Bocci (2017) of the mutual exclusivity, regardless of the order, of wh-words and CF (24)[8] hence the postulation of a single projection for both wh-words and CF, FocP, hosting a [FOC] feature (25).

(23)



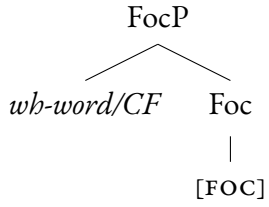
[7] I refer the reader to Rizzi (1997) and Rizzi and Bocci (2017) for a full analysis of these two projections and supporting evidence.

[8] As a speaker of Italian, I disagree with Rizzi's (1997) judgments. Provided the right context, I can have both a CF and wh-word in matrix clauses, but only in the order Foc-wh, as in (24b). Nevertheless, the goal of the present paper is not to investigate the coexistence of wh-words and Foci in Italian, nor the structure of the HLP. I thus report Rizzi's (1997) judgments and leave this question open for further research.

(24) a. *A GIANNI che cosa hai detto, non a Piero?
to Gianni what have.PRS.2SG say.PST.PTCP, NEG to Piero
'What did you say to Gianni, not to Piero?'

b. *Che cosa A GIANNI hai detto, non a Piero? (Rizzi and Bocci, 2017, p. 8)

(25)



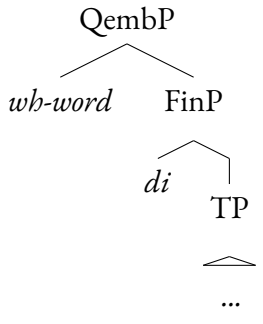
Such mutual exclusivity is, nevertheless, confined to matrix clauses. In fact, in embedded clauses, wh-words and CF can coexist, yet their order is fixed (26).[9]

(26) a. ?Mi domand-o A GIANNI che cosa abbia-no detto, non
REFL.ISG ask.PRS-ISG to Gianni what have.SUBJ.PRS-3PL say.PST.PTCP, NEG
a Piero.
to Piero
'I wonder to Gianni what they have said, not to Piero.'

b. *Mi domando che cosa A GIANNI abbiano detto, non a Piero. (Rizzi and Bocci, 2017, p. 8)

Data like (26) lead Rizzi (2004) to "assume a special position for wh-elements only in embedded clauses, distinct from and lower than the contrastive focus position" (Rizzi and Bocci, 2017, p. 8). This position, originally labeled WhP in (Rizzi, 2004), is now commonly referred to as Qemb and is located just above FinP. The structure of the HLP can thus be updated as in (28).

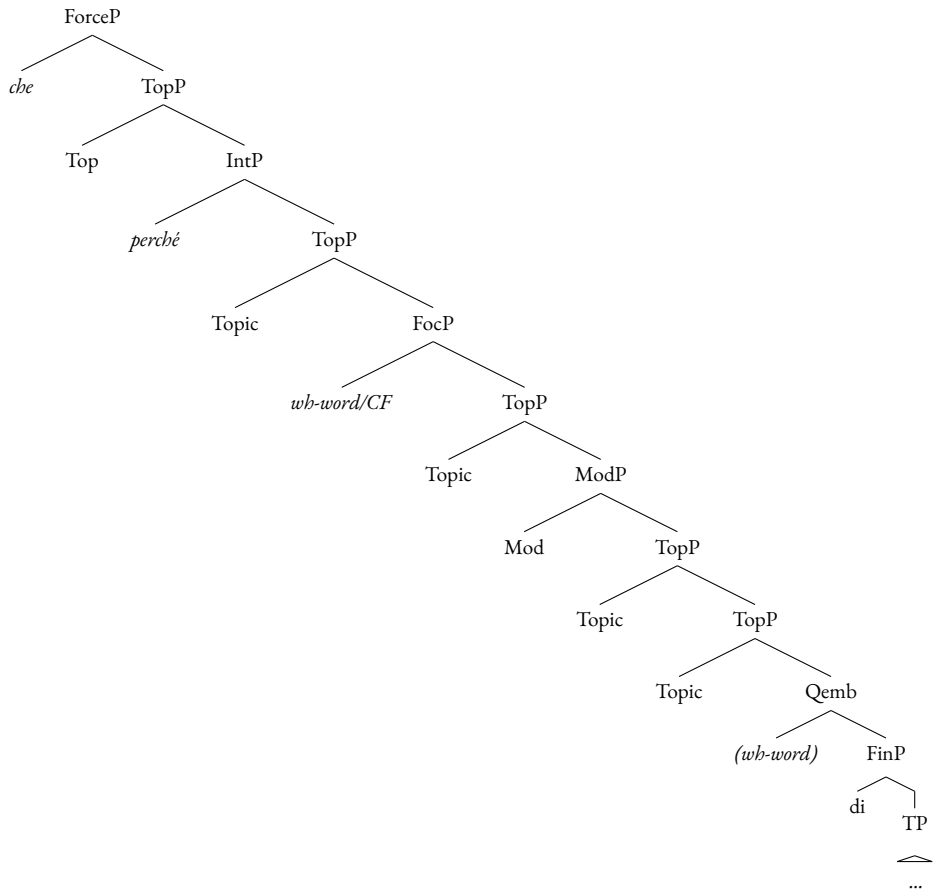
(27)



[9]Here again, I disagree with Rizzi's judgments and fully accept (26a). However, I repeat the judgments as reported in Rizzi and Bocci (2017) as they are useful in outlining the cartographic argumentation.

There has been a conspicuous body of research on the cartography of the HLP since the 90's, including several crosslinguistic studies that support the hierarchy in (28), in particular, Krapova and Cinque (2008) on Slavic languages, Puskás (2000) on Finno-Ugric, Shlonsky (1997, 2014) on Semitic, Aboh (2004) and Hager (2014) on African languages, and Jayaseelan (2008) on Dravidian. Moreover, a recent research on Topics in Italian and German by Frascarelli and Hinterhölzl (2007) shows that Topics must also appear in a hierarchical structure in the HLP: Aboutness Topics are the highest adjoining Topics, followed by Contrastive and Familiar Topics.

(28)



The present section merely sketched the structure, potential, and shortcomings of a cartographic approach to the HLP. However, one particular point will be relevant for the analysis of ValPa wh-words put forth in Section 4.2, namely the mutual exclusivity of wh-words and CF in matrix clauses. The next Section will discuss another area in the tree rich in A' position just above vP: the Low Left Periphery.

3.2 The Low Left Periphery and clause internal wh-words

Shortly after Rizzi's (1997) work on the HLP, Belletti (2004) proposed for Italian a structure parallel to the HLP at the edge of vP: the Low Left Periphery (LLP). Belletti's (2004) LLP comprises a dedicated focus position, FocP, targeted by New Information Focus (NIF). Given the question in (29), only the order in (29a) is acceptable, with the NIF *Gianni* appearing post-verbally.

(29) Chi ha chiama-to?
who have.PRS.2SG call-PST.PTCP
'Who called?'

a. Ha chiama-to Gianni.
have.PRS.2SG call-PST.PTCP Gianni
'Gianni called.'

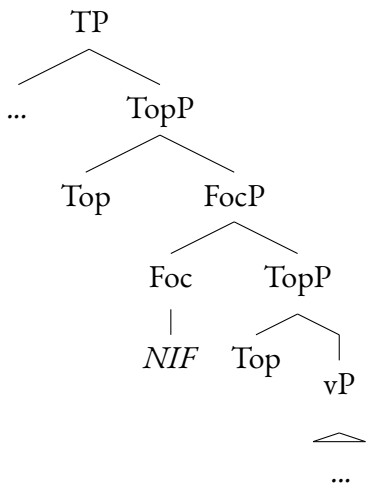
b. *Gianni ha chiamato.

Besides FocP, the LLP includes freely iterable Topic projections. In (30a), *il prosciutto* 'the ham' is tropicalized in the LLP (the presence of the resumptive clitic pronoun is obligatory for topicalized DO and IO) and so is *Gianni* in (30b). Frascarelli and Hinterhölzl (2007) furthermore show that only Familiar Topics can occur in the LLP, while Abountness and Contrative Topics are confined to the HLP. The structure of the LLP proposed by Belletti (2004) is sketched in (31).

(30) a. *(Lo) ha porta-to *il* *prosciutto* per i
CL.ACC.M.AG have.PRS.3SG bring-PST.PTCP DET.M.SG ham for DET.M.PL
panin-i.
sandwich-PL
'He brought the ham.'

b. Chissà cosa fa-rà *Gianni* un domani.
who.knows what do-FUT.3SG Gianni DET.INDEF.M.SG tomorrow
'Who knows what Gianni will do in the future.'

(31)



3.2.1 Clause internal wh-words

In the late 90's and leaping into the new millennium, researchers started to suggest that in certain languages wh-words move to a clause internal position just above vP, much in line with Belletti's (2004) LLP. Among the earliest accounts describing this phenomenon, I would like to mention Kahnemuyipour's (2001) on Persian, a Western Iranian language, and Jayaseelan's (1996; 2001) on Malayalam, a Dravidian language.

In Persian, wh-words, except for *why* and subject wh-words, can surface clause internally (32). Kahnemuyipour (2001) claims that they target a focus position at the edge of vP: FocP. A similar analysis has been put forth for Malayalam (33) (Jayaseelan, 2001, 2008).

(32) a. Æli ketab-o arum **koja** gozašt?
Ali book-DO gently where put.PST
'Where did Ali gently put the book?' (Kahnemuyipour, 2001, p. 50)

b. Æli **či** xær-id?
Ali what buy-PAST.3SG
'What did Ali buy?' (Kahnemuyipour, 2001, p. 46)

(33) a. awan **ewiTe** pooyi?
he where went
'Where did he go?'

b. ewiTe awan pooyi? (Jayaseelan, 2001, p. 40)

Clause internal wh-words are relatively common in Romance languages as well. As mentioned above, French allows optionality in wh-fronting (34) and it has been proposed that the wh-word in (34b), which is not an Echo question, is not in situ but rather targets a Focus position at the edge on vP (Belletti, 2006). The order with the wh-word surfacing clause internally is only, however, pragmatically restricted to highly presuppositional contexts. The same has been proposed for Brazilian Portuguese (Kato, 2003, 2013).

(34) **Où** va-s-tu?
where goPRS.2SG-2NOM.SG
'Where are you going?'

Tu vas **où**?

Furthermore, there has been consistent work on clause internal wh-words in Northern Italian Dialects. Bellunese (a Venetan language), for example, disallows fronting of bare wh-words (Munaro, 1999) (35), whereas D-linked wh-words cannot surface clause internally (36). The Lombard variety spoken in La Strozza Valle Imagna (Lombardy), on the other hand, displays optionality (Manzini and Savoia, 2007): the wh-word can surface clause internally or fronted (37a-b). Moreover, it is possible to spell out both copies (37c). No differences in interpretation are reported.

(35) a. A-tu parecià **che**?
have=you2PS prepared what
'What did you prepare?'

b. ***Che** à-tu parecià? (Adapted from (Munaro, 1999, p. 50))

(36) a. *A-tu sièlt **che vestito**?
have=you2PS chosen what dress
'What did you prepare?'

b. **Che vestito** à-tu sièlt? (Munaro, 1999, p. 14))

(37) a. **ki** tamet?
who you.call
'Who are you calling?'

b. tamet **ki**?

c. **ki** tamet **ki**? (Manzini and Savoia, 2007, p. 16))

The following section will discuss recent research on clause internal wh-words in another Northern Italian Dialect, Trevisan (Bonan, 2018, 2019), which will be particularly relevant for the present research.

3.2.2 Clause internal wh-words in Trevisan

Tevisan, or Trevigiano, is a Venetan Language, spoken in the Italian town Treviso. Similarly to French (19) and the Lombard variety spoken in La Strozza (37), Trevisan displays optionality in wh-fronting. In (38), the wh-word *chi* 'whom' either appears fronted (38a) or clause internal (38b). However, unlike in French, there is no semantic or pragmatic difference between the two orders.

(38) a. **Chi** ga-tu catà?
who have=cl2PS met
'Who have you met?'

b. Ga-tu catà **chi**? (Bonan, 2019, p. 15)

Bonan argues that wh-words like *chi* in (38b) are not in situ, but rather have moved to a clause internal position, making use of two crucial pieces of evidence: word order and Subject Clitic Inversion (SClI). The unmarked word order in Trevisan is DO-IO (39), yet in (40), the IO wh-word *a chi* 'to whom' surfaces to the left of the DO *i pomi* 'the apples'.

(39) a. Ghe go dato i pomi$_{DO}$ a Gianni$_{IO}$.
DAT have$_{1PS}$ given the apples to John
'I gave the apples to John.'

b. *Ghe go dato a Gianni$_{IO}$ i pomi$_{DO}$. (Bonan, 2019, p. 61-62)

(40) a. Ghe ga-tu dato a chi$_{IO}$ i pomi$_{DO}$?
DAT have=you given to whom the apples
'I gave the apples to John.'

b. *Ghe ga-tu dato i pomi$_{DO}$ a chi$_{IO}$? (Bonan, 2019, p. 62)

Furthermore, Trevisan questions obligatorily display Subject Clitic Inversion, as shown by (41b) as opposed to the declarative counterpart in (41a). As it can be seen in (38a), the question with the wh-word surfacing clause-internally triggers SClI (38b) just like wh-fronting (38a).

(41) a. Ti te ga zà senà.
you cl2PS have already had.dinner
'You already had dinner.'

b. Ti ga-tu zà senà?
you have=cl2PS have already had.dinner
'Have you had dinner already?' (Bonan, 2019, p. 14)

Based on the evidence from word order and SCII, Bonan argues that in Trevisan wh-words move to FocP in the LLP. This position is the same targeted by Contrastive and Corrective Foci, as in (43a). Given a statement like (43), the IO CF appears to the left of the DO. The fact that both A' elements target the same position is in line with Horvath's (1986) argument that if a language possesses a position for contrastively-focused constituents, then that position must also be available for wh-words. It follows that wh-words and CF must be mutually exclusive, even if the wh-word is fronted (44).[10]

(43) I me gà dito che te ghe gà prestà el to libro a Piero.
they me have told that cl_{2PS} DAT have lent the your book to Piero
'I've been told you lent your book to Piero.'

a. No, ghe gò prestà A TONI el libro, no a Piero.
No, DAT $have_{1PS}$ lent TO TONI the book, not to Piero.
'No, I lent the book TO TONI, not to Piero.' (Bonan, 2019, p. 110)

(44) a. ?? Cuando ghe ga=tu dato I POMI a Gianni?
when DAT have=cl_{2PS} given THE APPLES a Gianni
'When did you give the apples to Gianni?

b. ?? Cuando ghe ga=tu dato i pomi A GIANNI?' (Bonan, 2019, p. 178)

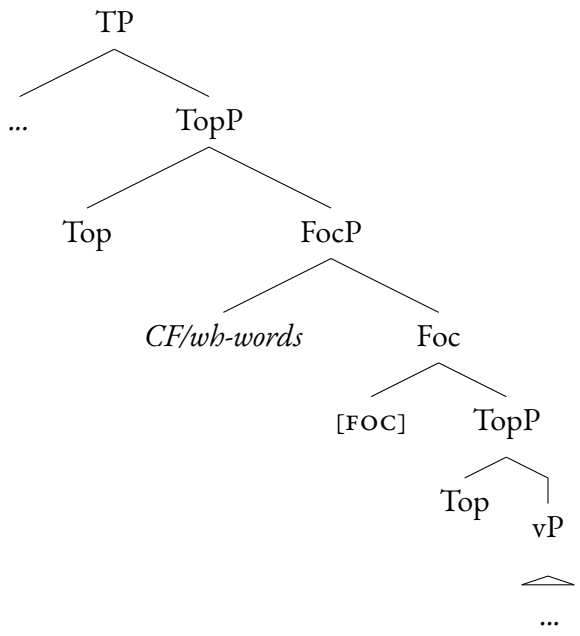
Therefore, in Bonan's analysis, wh-words always carry a [FOC] feature and move to SpecFocP in the LLP, in what she defines *Wh-to-Foc* movement.

[10] Actually, Bonan (2019) reports that CF can also remain in situ, as shown in (42) as an answer to (43).

(42) No, ghe gò prestà el libro A TONI, no a Piero.
No, DAT $have_{1PS}$ lent TO TONI the book, not to Piero.
'No, I lent the book TO TONI, not to Piero.'

Nevertheless, no account is provided of the possible coexistence of a CF in situ and a wh-word in FocP in the LLP.

(45)



Furthermore, the felicity of wh-words inside islands (46) suggests that Trevisan clause internal wh-words do not move further up than the LLP, but rather get 'frozen' in FocP.

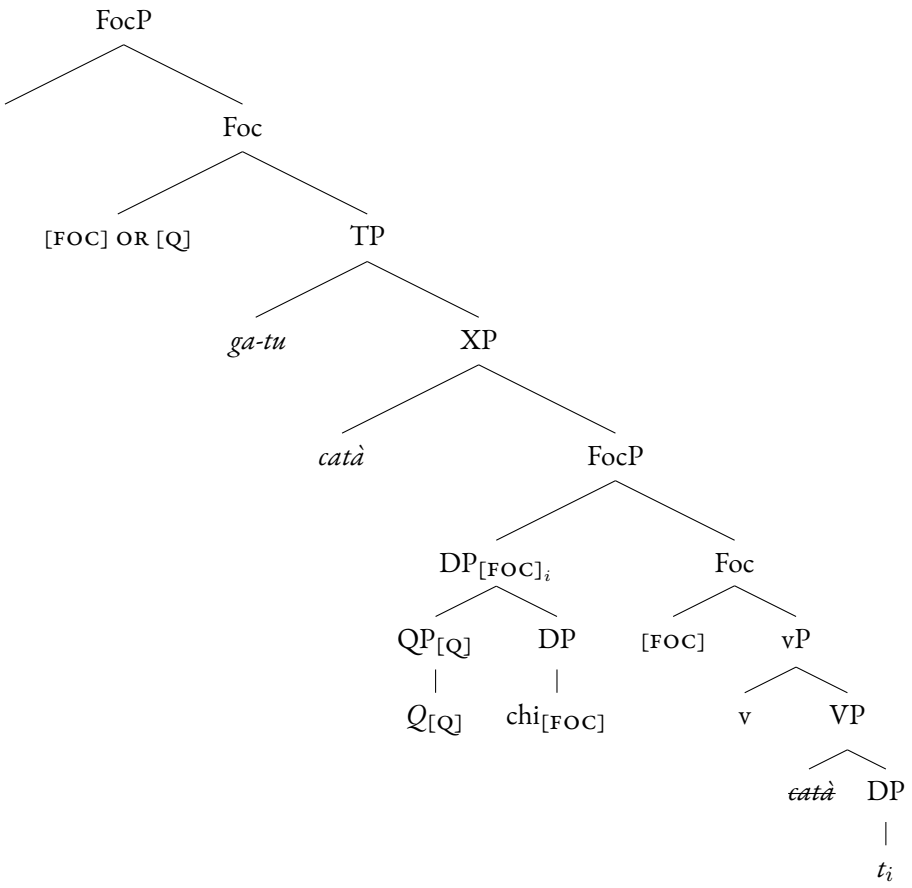
(46) **Context**: A friend of yours went to the animal fair last weekend, as he does every year. He's a cattle raiser who attends the fair just to bid and try to buy the heaviest pig - and usually succeeds. You meet him at the bar and ask:

a. Eora, te ga comprà [[un porsel che pesa **cuanto**]] ?
so, CL.2SG have bought a pig that weighs how.much
'What is the weight of x, where x is a pig and you bought x?' (Bonan, 2019, p. 194)

The matrix scope of the wh-word is thus obtained by movement of a silent Q particle à la Cable (2010), which Bonan (2019) proposes to be adjoined to Trevisan wh-words. Q adjunction also allows us to account for the different word orders. While FocP in the LLP always hosts a [FOC] feature, hence forcing movement of wh-words to the LLP (47), FocP in the HLP can either carry a [FOC] or a [Q] feature. A [FOC] feature in the HLP would force the entire wh-word to front, whereas the presence of a [Q] feature would only front the silent Q particle, leaving the wh-word clause internal.

Let us unpack the derivation. First the wh-word *chi* 'who' moves to SpecFocP in the LLP, as shown in (47) for example (38).

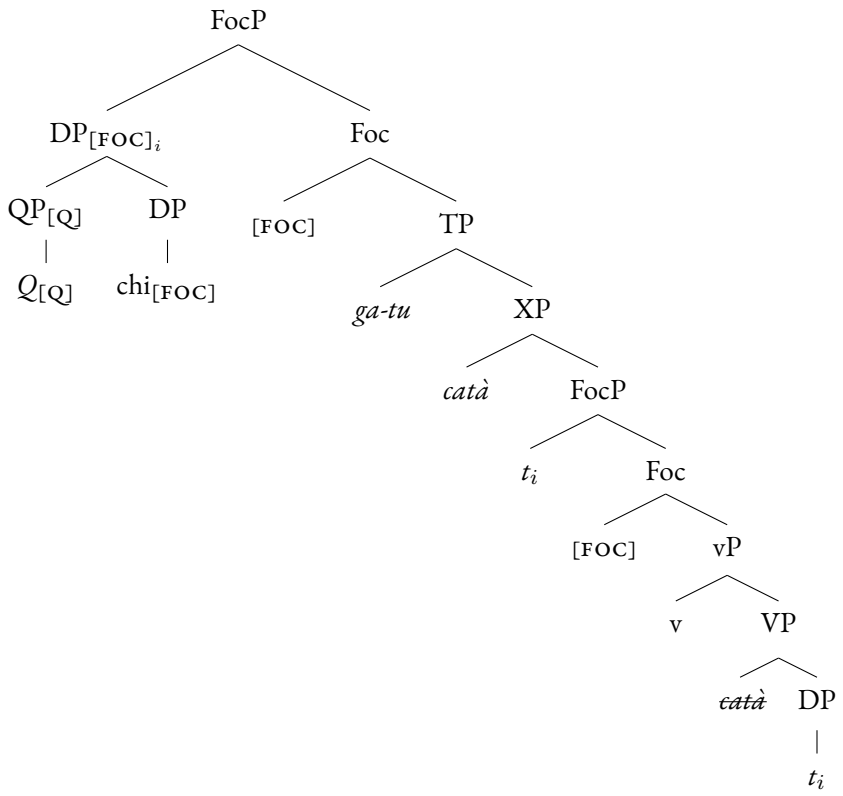
(47)



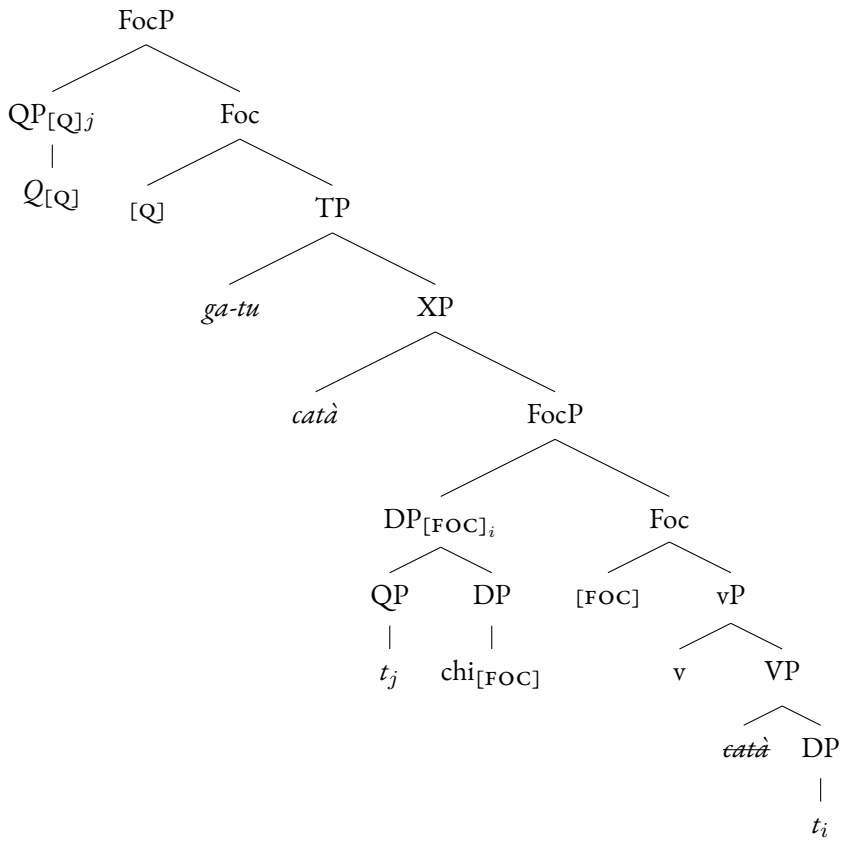
At this stage, if FocP in the HLP carries a [FOC] feature, the feature forces movement of the wh-word, thus resulting in wh-fronting, as outlined in (48) for (38a).[11] On the other hand, if FocP in the HLP carries a [Q] feature, only the silent Q particle adjoined to the wh-word moves to the HLP, thus leaving the wh-word *chi* 'who' frozen in the LLP. This is outlined in (49) for (38b).

[11] At first sight, (48) looks problematic, as normally extracting out of a moved constituent is assumed to be impossible. Nonetheless, Bonan (2019) argues that this is not the case. Wh-words move to criterial positions, namely functional projections where the encoding of scope-discourse features happens, regulated by *Criteria* (see Rizzi (1997, 2004) for more details). Following Rizzi (1997), Bonan (2019) argues that while extraction of the whole frozen element is systematically disallowed, sub-extraction out of frozen elements is felicitous (Rizzi and Shlonsky, 2007).

(48)


FocP
DP[FOC]i
Foc
QP[Q]
DP
[FOC]
TP
Q[Q]
chi[FOC]
ga-tu
XP
catà
FocP
ti
Foc
[FOC]
vP
v
VP
~~catà~~
DP
ti

(49)



There are two main takeaways of Bonan's (2019) analysis of clause internal wh-words that will be relevant in my analysis. First, wh-words, driven by a [FOC] feature in the head Foc, undergo focus movement to Spec.FocP in the LLP. Second, clause internal wh-words remain frozen in the LLP. The different word orders are then established by the feature hosted in FocP in the HLP: [FOC] forces wh-fronting, while [Q] only drives movement of the adjunct silent Q particle, hence leaving the wh-word in the LLP. Therefore, the optionality is only apparent and Trevisan in fact displays structural ambiguity, which depends on the feature hosted in FocP in the HLP. Table 1 summarizes the key points of Bonan's analysis. As we will see in Sections 4 and 5, this analysis is not entirely suitable for ValPa clause internal wh-words, which do not target FocP and do not remain frozen in the LLP.

3.3 Multiple wh-fronting languages and PF copy deletion

Serbo-Croatian (SC), like Romanian and Bulgarian, is a multiple wh-fronting language (Bošković, 2002; Franks, 2017; Rudin, 1988): multiple wh-words are possible and fronting is obligatory for

Table 1: Bonan's analysis

Topic	Proposed analysis
Type of movement	focus movement
Position targeted by wh-words	FocP in the LLP
How is optionality accounted for	different features in FocP in HLP

all of them (50). The head of FocP in the HLP hosts an attract all-F feature, forcing movement of all elements carrying a Focus feature (Bošković, 1999, 2002), the only exception being in the case of homophonous wh-words. In such cases, spelling out the second wh-word clause in the clause-initial position is impossible (51a-b).[12]

(50) a. **Ko šta** kupuje?
who what buys
'Who buys what?'

b. *__Ko__ kupje **šta**? (Bošković, 2002, p. 355)

(51) a. **Šta** oslovjava **šta**?
what conditions what
'What conditions what?' (Bošković, 2002, p. 364)

b. *__Šta šta__ oslovjava?

The restriction is a purely phonological one, as inserting an adverb between the two wh-words interrupts the sequence of homophonous wh-words, hence avoiding the violation (52a). In this case, spelling out the lower copy of the chain is impossible (52b). Similar data is reported for Bulgarian and I refer the reader to Bošković (2002) for the detailed discussion.

(52) a. **Šta** neprestano **šta** oslovjava?
what constantly conditions what
'What constantly conditions what?'

b. *__Šta__ neprestano oslovjava **šta**? (Bošković, 2002, p. 364)

[12]Note that such restrictions are not the result of Superiority, as SC only exhibits Superiority effects in certain contexts, such as embedded clauses, long-distance movement, and questions with an overt complementizer, but not in null complementizer matrix question, like the examples reported here (Bošković, 2002).

Bošković (2002) claims that at PF, just like at LF, there is a strong preference to pronounce the head of the chain, namely the highest copy. Yet, a lower copy of a given chain can be pronounced instead "iff pronunciation in the head position would lead to a PF violation, provided that the violation can be avoided by pronouncing the lower member of the chain" (Bošković, 2002, p. 368). The sentence in (51a) would thus have the derivation in (53).

(53) Šta$_i$ ~~šta$_j$~~ oslovjava ~~šta$_i$~~ šta$_j$?

Bošković (2002) further discusses Romanian, a language in which fronting is obligatory for all wh-words, also in echo questions (54) (Comorovski, 2013). Just like SC and Bulgarian, Romanian disallows sequences of homophonous wh-words (55).

(54) a. *Ion a adus CE?
Ion has brought what
'Ion has bought WHAT??' (Bošković, 2002, p. 370)

b. CE Ion a adus? (Elena Soare, pers. comm.)

(55) a. **Ce** precede **ce**?
what precedes what
'What precedes what?'

b. ***Ce ce** precede? (Bošković, 2002, p. 365)

Furthermore, in Romanian wh-words that surface low can license Parasitic Gaps (PGs) (56a), which as we'll see in more details in Section 5.5 can only be licensed by overt A' movement. In (56b), both wh-words are fronted in the syntax, hence the PG licensing, with pronunciation of the lower copy of *ce* 'what' in order to avoid a PF violation.

(56) a. Ce precede **ce** fără să influenţeze *pg*?
what precedes what witout SUBJ.PART influences
'What precedes what without influencing?' (Niinuma, 2010, p. 163)

b. Ce ~~ce~~ precede **ce** fără să influenţeze *pg*?

Unlike Trevisan, SC, Bulgarian, and Romanian do not display optionality: wh-words must be fronted. Yet, a lower copy of the wh-chain can be spelled out in order to avoid a PF violation. The key takeaway is that while the preference is to spell out the head of the chain, the grammar does not prohibit the pronunciation of a lower copy. PF constraints 'have a say' in the production

Table 2: Bošković's analysis

Topic	Proposed analysis
Type of movement	focus movement, attract all-F
Position targeted by wh-words	FocP in HLP
How the different orders are accounted for	deletion of different copy at PF

of a wh-chain and can, in fact, force the pronunciation of a lower copy, which on the surface might look like overruling obligatory wh-fronting imposed by the syntax. This narrow syntax-PF interaction will be relevant for the analysis put forth for ValPa CIwh-words.

3.4 Interim summary

When talking about clause internal wh-words, there are at least two subfamilies of languages. In Trevisan, there seems to be optionality: the wh-word first moves to the LLP, where it can either remain frozen or further move to the HLP. On the other hand, in SC, Bulgarian, and Romanian *all* wh-words must overtly move to the HLP, yet lower copies can be pronounced in order to avoid PF violations, more specifically sequences of homophonous wh-words.

In this section, I have outlined data of both language families and introduced two analyses of clause internal wh-words that will be of great relevance for the research presented here: Bonan's (2019) and Bošković's (2002), summarized in Table 3.

Table 3: Bošković's and Bonan's analyses compared

Topic	Bonan's analysis	Bošković's analysis
Movement type	focus movement	focus movement, attract all-F
Position targeted	FocP in the HLP	FocP in LLP
Mechanism	different features in the HLP	deletion of different copy at PF

ValPa shares some characteristics with both Trevisan and SC. In the following sections, I will show that ValPa clause internal wh-words move to the LLP, albeit not to FocP. However, unlike in Trevisan, they move further up to the HLP and the different word orders are obtained by deleting different copies at PF, similarly to what happens in SC, Bulgarian, and Romanian.

4 Clause internal wh-words in ValPa

Recall that in ValPa, there are two strategies for forming wh-questions: while the default strategy is wh-fronting (57a), the wh-word can also appear clause internally (57b). Note that the language does not have any morphological marking of question formation, as it can be seen in the polar question in (58), reported for completeness.

(57) a. **Dequé** t'atsit-e ì martsà ?
What NOM.2SG-buy.PRS-2SG at.DET.M.SG market
'What will you buy at the market ?' **Fronted**

b. T'atsite **dequé** ì martsà? **Clause internal**

c. T'atsite ì martsà DEQUÉ?? **Echo**

(58) Te v-a à l'ecoula à pià?
NOM.2SG go.PRS-2SG to DET-school on foot
'Do you walk to school?'

While (57b) could at first sight appear to be an echo question, it differs in both word-order and intonation from the echo question in (57c). Furthermore, it can be uttered out of the blue and it requires an answer. Nevertheless, as it has been shown for similar structures in French (Chang, 1997), (57b) is pragmatically marked and can only be uttered in strong presuppositional contexts. In uttering (57b), not only the speaker presupposes that the interlocutor will buy something, knowledge that is part of the common ground, but also presupposes that the content of the question itself is on the mind of the interlocutor. In spelling out (57a), the speaker presupposes at most that the question has an answer. As evidence of this difference, (57a) but not (57b)[13] can be embedded in an alternative question (59), which would lead to presupposition failure.

(59) a. **Dequé** t'atsit-e ì martsà où t'atsit-e
What NOM.2SG-buy.PRS-2SG at.DET.M.SG market or NOM.2SG-buy.PRS-2SG
ren?
nothing
'What will you buy at the market or is it the case that you won't buy anything?'

b. #T'atsite **dequé** ì martsà où t'atsite ren?

[13] Here I am using the # following the convention in the pragmatic literature.

Furthermore, a clause internal wh-word cannot be uttered in a context like the one in (60), in which the wh-word must be fronted (60a). (60b) is infelicitous in this context.

(60) **Context**: It's January and you are in the library studying for the finals with your friend. At one point you break the silence and point-blank ask him: (60a).

a. **Yaou** v-a Tcheunne en vacanse ci tsatèn?
Where go-PRS.3SG Tcheunne in holiday DEM.M.SG summer
'Where is Tcheunne going on holidays this summer?'

b. #Va **yaou** en vacanse Tcheunne ci tsatèn?

Finally, a question with a fronted wh-word like (61a) can receive a negative answer, like (61b), whereas its counterpart with the wh-word clause internal cannot (62) (cfr. Boeckx (1999), Boucher (2010) on French).

(61) a. **Qui** t'à encountr-ò ì martsà?
who NOM.2.SG-have.PRS.2.SG meetPST.PTCP at.DET.M.SG market
'Who did you meet?'

b. Gneun.
nobody
'Nobody.'

(62) a. T'à encountr-ò **qui** ì martsà?
who NOM.2.SG-have.PRS.2.SG meetPST.PTCP at.DET.M.SG market
'Who did you meet?'

b. #Gneun.
nobody
'Nobody.'

The CIwh-word is also used in contexts that are associated with surprise or confusion on part of the speaker, for example, (63b) is felicitous in the context provided in (63a).

(63) **Context:** This year, you and all the people living in your area have been harvesting blueberries like crazy. Of the endless supply of blueberries you harvested, you have made jam, pies, put them under spirit and frozen them for future use. Yet, you have a few extra kilos. You try to gift them, but nobody you know wants them, as everyone is in the same situation as you, so you store them in the cellar, hoping to find a recipient soon. A few days

later, you go to the cellar to pick up a bottle of wine and the blueberries are not there. Puzzled, you go back up and ask your partner:

a. T'à baill-à **à qui** le loufi-e?
NOM.2SG-have.PRS.2SG give-PST.PTCP to whom DET.PL blueberry-PL
'To whom did you give the blueberries?'

Except *perqué* 'why' (64), all wh-words can appear clause internally, be they arguments (57b, 65a), adjuncts (65b), bare (65a-b), or D-linked wh-words (65c).[14]

(64) *Te va **perqué** ì martsà?
NOM.2SG go. PRS.2SG why to.DET.M.SG market
'Why do you go to the market?'

(65) a. Te baill-e **à qui** t-on livro?
NOM.2SG give.PRS.2SG to who POSS.2SG-M.SG book
'To whom will you give your book?'

b. Te par **quan** en vacanse?
NOM.2SG leave.PRS.2SG when on holiday
'When will you leave for holidays.'

c. Te port-e **quin** **livro** en vacanse?
NOM.2SG bring.PRS.2SG which.M.SG book in holiday
'Which book will you bring on holidays?'

Note, however, that multiple wh-words are never allowed, regardless of the word order:

(66) a. *Te baill-e **à qui dequé**?
NOM.2SG give.PRS.2SG to who what
'To whom what will you give?'

b. ***Dequé** te baille **à qui**?

c. ***À qui dequé** te baille?

d. ***À qui** te baille **dequé**?

e. ***Dequé** te baille **à qui**?

[14] Although they can also surface clause internally, D-linked wh-words display slightly different patterns than bare wh-words, displaying certain characteristics of Topics. This paper will not dwell on the discrepancies between these two types of wh-words, which I leave for future research.

CIwh-words are not limited to root clauses: in (67), the wh-word *yaou* surfaces clause internally in the embedded clause, yet it has matrix scope.

(67) a. Te pens-a-e [d'allé **yaou** en vacanse cit an]?
NOM.2SG think-PST-2SG to-go.INF where on holiday DEM.M.SG year
'Where were you thinking of going on holidays this year?'

b. For which *x* do you think this year you will go on holiday to *x*?

Moreover, wh-words can also appear clause internally in finite embedded clauses (68a), with the reading in (68b).

(68) a. Te pens-e [que l'à fà **dequé** lo méinoo]?
NOM.2SG think.PRS.2SG that NOM.3SG-have.PRS.3SG do.PST.PTCP what DET.M.SG kid
'What do you think the kid has done?'

b. For which *x* you think the kid has done *x*?

The present section has shown that, in highly presuppositional contexts, ValPa wh-words can surface clause internally, both in matrix and embedded clauses. The following section will present evidence that CIwh-words do not surface in their base position, but in the LLP at the edge of vP.

4.1 Evidence for movement

As outlined in section 2, the unmarked order of arguments in ValPa is DO-IO (69a). Thus, the word order in (69b) is initial evidence that the wh-word *à qui* is not in its base position.

(69) a. Marco baill-e lo livro à Ivana.
Marco give.PRS-3SG DET.M.SG book to Ivana
'Marco will give the book to Ivana.'

b. Marco baill-e [**à qui**]$_k$ lo livro t$_k$?
Marco give.PRS-3SG to who DET.M.SG book
'To whom will Marco give the book?'

Further evidence that the wh-word in (69b) is not in situ comes from Weak Crossover Effects and Parasitic Gaps. Weak Crossover (WCO) is obtained when a quantifier variable, e.g. a wh-word, moves 'over' a coindexed possessive pronoun and lands in a position where it c-commands

the possessive (Postal, 1993; Koopman and Sportiche, 1982; Lasnik and Stowell, 1991), precisely as in the case with a fronted wh-phrase (70c), where the WCO effect is proof of movement.

(70) a. L'à baill-à s-on$_i$ livro à Ivana$_i$.
NOM.3SG-have.PRS.3SG give-PST.PTCP POSS.3SG-M.SG book to Ivana
'He has given her$_i$ book to Ivana$_i$.'

b. *L'à baill-à [**à qui**$_i$]$_k$ s-on$_i$ livro t$_k$?
NOM.3SG-have.PRS.3SG give-PST.PTCP to who POSS.3SG-M.SG book
'To whom$_i$ will he give her$_i$ book?'

c. *À **qui**$_i$ l'à baillà t$_i$ son$_i$ livro?

As originally described by (Engdahl, 1983), a Parasitic Gap (PG) is "a gap that is dependent by the existence of another gap" (Engdahl, 1983, p. 5). Furthermore, as shown in (71), PG can only be licensed by *overt* A' movement of the wh-word *which book* (71a-b) (Engdahl, 1983; Culicover, 2001; Nunes, 2004), which thus becomes the antecedent of the real gap, t$_k$, and licenses the *pg* in the adjunct clause.

(71) a. Which book$_i$ did you review t$_i$ [without reading *pg*] ?

b. *Who reviewed which book [without reading *pg*].

(72a) provides good evidence that the wh-word *qui* 'who' has moved from its base position, leaving behind a trace that can then license the PG in the adjunct clause, similarly to (72b). This is in line with the Romanian data mentioned in Section 3.3 (Bošković, 2002), where wh-words that surface in situ licence PGs, excellent evidence that "the wh-in-situ undergoes movement in overt syntax despite being pronounced in situ" (Bošković, 2002, p. 375).

(72) a. T'à salu-ò **qui** doanque ai baill-á *pg* de
2SG-have.PRS.2SG greet-PST.PTCP who before have-INF give-PST.PTCP PART
soou?
money
'Whom did you greet before having given money?'

b. T'à mand-ò à catqu-é **qui** enco doanque discut-é *pg* ?
2SG-have.PRS.2SG send-PST.PTCP to shit-INF who even before argue-INF
'Who did you tell to fuck off before even arguing?'

The data presented in this section on word order, WCO, and PGs show that CIwh-words are not *in situ*, but have overtly moved to a clause internal position. The next step is to locate this landing position. As we see in (73a-b), CIwh-words must follow the past participle, which in turn must follow the relatively low temporal adverb *todzor* 'always' (see Section 2.2).

(73) a. T'à v-u **qui** ì martsà?
NOM.2SG-have.PRS.2SG see-PST.PTCP who at.DET.M.SG market
'Whom did you see at the market?'

b. *T'à **qui** vu ì martsà?

Nonetheless, the landing position of CIwh-words is very low, as the wh-word must follow low manner adverbs such as *bien* 'well' (74), one of the lowest adverb in Cinque's hierarchy (Cinque, 1999), reported in (7).

(74) a. T'aprist-e bien **dequé** avouë le loufie?
NOM.2SG-prepare.PRS-2SG well what with DET.PL blueberrie-PL
'What do you prepare well with the blueberries?'

b. *T'apriste **dequé** bien avouë le loufie?

Given the present examples, we can firmly state that CIwh-words land in a position just above vP, yet below low manner adverbs, which is in line with previous theories on clause internal A' elements (Belletti, 2004; Bonan, 2019; Jayaseelan, 2001; Kahnemuyipour, 2001), as sketched in (75).

(75) [$_{TP}$ [$_{MannerAdvP}$ [wh-word [$_{vP}$ ...]]]]

The following section will be dedicated to pinning a precise landing position for ValPa CIwh-words in the LLP and their coexistence with other A' elements.

4.2 ValPa wh-words in the Low Left Periphery

This section will present data on the different A' elements that can surface in the LLP and, using these data, outline a detailed structure of the LLP of ValPa, showing why previous cartographic theories (Belletti, 2004; Bonan, 2018, 2019) are untenable in ValPa for this language. I will propose a modification of the LLP structure discussed in Section 3 and repeated below in (76).

(76) [$_{TP}$ [$_{(TopP)}$ [$_{FocP/whP}$ CF/wh-word [$_{(TopP)}$ [$_{vP}$ ...]]]]]

As shown in Section 2, in ValPa both Topics[15] and Contrastive Foci (CF) can appear clause internally (77). The topicalized *À Techeunne* requires a resumptive clitic pronoun, *lei*, while CI LIVRO does not. The presence of a resumptive clitic pronoun for a CF is actually impossible (77b).

(77) a. Dz'ì baill-à-**lei** CI LIVRO *à Tcheunne*,
NOM.1SG-have.PRS.1SG give-PST.PTCP-DAT.3SG DEM.M.SG book to Tcheunne
(pò ci lè).
NEG DEM.M.SG there
'To Tcheunne, I gave THIS BOOK, not that one.'

b. *Dz'ì baill-à-**lei-lo** CI LIVRO *à*
NOM.1SG-have.PRS.1SG give-PST.PTCP-DAT.3SG-ACC.3SG DEM.M.SG book to
Tcheunne, (pò ci lè).
Tcheunne NEG DEM.M.SG there
'To Tcheunne, I gave THIS BOOK, not that one.'

As we can see in (78a), the CIwh-word *dequé* can co-occur with the Topicalized PP *à Yuri*, yet the order is fixed: the wh-word must precede the Topic (cfr. 78a-b). Multiple Topics are possible and their order is free, provided that they follow the wh-word (79).

(78) a. Te 'lli d-i **dequé** *à Yuri*?
NOM.2SG DAT.M.3SG say.PRS-2SG what to Yuri
'To Yuri, what will you say?'

b. *Te 'lli di *à Yuri* **dequé**?

(79) a. Te 'llie-lo 'll-i **quan** *lo livro ì*
NOM.2SG DAT.M.3SG-ACC.M.3SG read.PRS-2SG when DET.M.SG book to.DET.M.SG
méinou?
child
'To the child, when will you read the book?'

b. Te 'llielo 'lli **quan** *ì méinou lo livro*?

[15]Following the claim by Frascarelli and Hinterhölzl (2007) that only Familiar Topics can appear in the LLP, in the present examples I only included Familiar Topics. Nevertheless, further studies are needed to confirm the Topics hierarchy in the HLP, a question which I leave open for future investigation.

c. *Te 'llielo 'lli *lo livro* **quan** *ì méinou*?

d. *Te 'llielo 'lli *lo livro ì méinou* **quan**?

e. *Te 'llielo 'lli *ì méinou* **quan** *lo livro*?

Following current theories on the structure of the LLP (76) (Belletti, 2004; Bonan, 2019) and parallel work on the HLP (Rizzi, 1997; Rizzi and Bocci, 2017), the coexistence of CIwh-words and Topics (80) was expected. On the contrary, wh-words and Contrastive Foci (CFs) are widely claimed to be mutually exclusive within one periphery (see Rizzi (1997); Rizzi and Bocci (2017) a.o. for the HLP and Bonan (2019) for the LLP). Nevertheless, provided the right context (80a), CIwh-words and CFs can co-occur in the LLP (80b). When they co-occur, their order is fixed: the wh-word must precede the focalized constituent (80b-c). Topics are also allowed, yet again the order is strict: the wh-word must precede all other A' elements (81).

(80) **Context**: You have two cousins, Luca and David. While you are very fond of Luca, your parents strongly prefer David. During a dinner, they keep talking about how they want to gift David a flaming red mountain bike for Christmas. You know that they will still buy Luca a gift, even though it will not be as magnificent, so a little annoyed, you utter (80a).

a. Et no regal-en **dequé** À LUCA?
and NOM.IPL gift.PRS-IPL what to Luca
'To LUCA, what will we gift?'

b. *No regalen À LUCA **dequé**?

(81) a. Te 'lli 'll-i **quan** CI LIVRO *ì méinou*,
NOM.2SG DAT.M.3SG read.PRS-2SG when DEM.M.SG book to.DET.M.SG child
(pò ci lè)?
NEG DEM.M.SG there
'To the child, when will you read THIS BOOK, not that one?'

b. Te 'lli 'lli **quan** *ì méinou* CI LIVRO?

c. *Te 'lli 'lli CI LIVRO **quan** *ì méinou*?

d. *Te 'lli 'lli CI LIVRO *ì méinou* **quan**?

e. *Te 'lli 'lli *ì méinou* **quan** CI LIVRO?

As discussed in Section 2, I assume the clitic pronoun to be a sign of movement of the Topicalized constituents (78;81). Evidence from word order supports a movement analysis of the CF

as well. As we saw in Section 2, the default word order in ValPa is DO-IO (82a), yet the word order in (82b) is an indication that the CF *A MARCO* is not focalized in situ.[16]

(82) a. Dz'ì baill-à lo livro a Marco.
NOM.1SG-have.PRS.1SG give-PST.PTCP to Marco DET.M.SG book.
'I have given the book to Marco.'

b. Dz'ì baill-à A MARCO lo livro, pò à Luca.
NOM.1SG-have.PRS.1SG give-PST.PTCP to Marco DET.M.SG book, NEG to Luca
'I have given the book to Marco, not to Luca.'

All examples so far contain Contrastive Foci, yet the same pattern is observed with focalized elements introduced by a Focus particle, such as *renque* 'only': the wh-word must precede the focalized constituent (83a-b).[17]

(83) a. Te baill-e **dequé** renque à Ivana?
NOM.2SG give.PRS-2SG what only to Ivana
'What are you giving only to Ivana?'

b. *Te baille renque à Ivana **dequé** ?

The data presented in the section demonstrate that clause internal CFs and wh-words overtly move to two distinct positions of the LLP, hence their co-occurrence. This in turn points to the existence of a hierarchical structure of the LLP (84), similar to that assumed for the HLP (Rizzi, 1997; Rizzi and Bocci, 2017).

(84) wh-word - (Topic) - Focus - (Topic)

Based on the empirical evidence, we can conclude that the wh-word surfaces in the highest A' position in the LLP (85), labeled as whP for the time being, while the CF targets a lower projection in the LLP. It is unclear whether the latter is the result of clause internal scrambling (see Zubizarreta (1998) on Spanish, Büring (2001) on German, Ishihara (2001) on Japanese, and Poletto (2014) on Old Italian) or movement to a dedicated A' position carrying a [FOC] feature (e.g., Brody (1995)

[16] The reason why I am not resorting to WCO effects is that the results are not clear and speakers judgements vary greatly. As pointed out by Ruys (2000), WCO can arise when an operator takes scope over a pronoun, even when the pronoun and operator are not coindexed. For this reason, I decided to leave the interaction between WCO and Contrastive Focus for future research.

[17] We will not go into details in this paper on other types of Foci, such as Corrective, Mirative, and New Information Focus and refer the reader to Bianchi (2013); Bianchi et al. (2015); Badan and Crocco (2019) for recent studies on different kinds of focus.

and Kiss (1998) on Hungarian and Ortiz de Urbina (1995) on Basque). Topics, on the other hand, can freely adjoin (marked with parentheses in (85)) within the LLP.

(85) [$_{TP}$ [$_{MannerAdvP}$ [$_{whP}$ wh-word [$_{(TopP)}$ [$_{FocP}$ CF [$_{(TopP)}$ [$_{vP}$ ...]]]]]]]

The present section has established that ValPa clause internal wh-words undergo movement to the LLP, yet it is not clear what type of movement this is (I will discuss this in Section 6) nor if they stop in such position or whether they move further up to the HLP, which will be investigated in the following section.

5 Evidence for further movement up

As we have seen in Section 4.1, ValPa CIwh-words are not in situ, but rather move to a dedicated position at edge of the LLP. However, the entire movement path of ValPa CIwh-words is not yet clear and may be compatible with two possible scenarios. The first possibility is that the wh-word remains in the LLP (cfr. Bonan (2019)), as Hypothesis 1 (86) outlines. The second possible scenario is that the wh-word further moves up to the highest A' position in the HLP, as per Hypothesis 2 (87).

(86) **Hypothesis 1**: What You See Is What You get (WYSIWYG)
Clause Internal wh-word in ValPa move to the LLP and remain there

(87) **Hypothesis 2**: Further movement up
Clause Internal wh-word in ValPa move to the LLP and then, successive cyclically, to the HLP

In the present section, I will present empirical data on Islands, PGs, Intervention Effects, Inverse Scope, and Binging to argue in favor of Hypothesis 2: CIwh-words do not remain put in the LLP, but *overtly* move to the HLP. The different word orders (57) are then the result of a PF-copy deletion mechanism à la Bošković (2011).

5.1 CIwh-words inside Islands

The strongest piece of empirical data proposed by Bonan (2018) to argue that CIwh-words in Trevisan 'freeze' in the LLP was the felicity of CIwh-words inside islands (see Section 3.2.2) (Ross,

1967). As far as islands are concerned, ValPa seems to mirror Trevisan. Provided the right context (88), the argument CIwh-word *veu* 'how much' is felicitous in the relative clause (RC) island (88a) (signaled by double square brackets), while fronting of the wh-word leads to a very degraded sentence (88b).

(88) **Context**: A friend of yours is a vintage Vespa collector, and every year he goes to a Vespa fair in Tuscany and buys an old Vespa model that he then fixes to add to his collection. A week after the fair, you meet him at the bar and ask (88a):

a. Adon, ci coup t'à atsit-ò [[an
so, DEM.M.SG hit NOM.2SG-have.PRS.2SG buy-PST.PTCP DET.INDF.F.SG
Vespa que cout-e **veu**]] ?
Vespa COMP cost.PRS-3SG how.much
'So, this time you bought a Vespa that costs how much?'

b. *Adon, ci coup **veu** t'à atsitò [[an Vespa que coute]]?

The same pattern is witnessed with an adjunct wh-word (89), suggesting that RC are strong islands in ValPa: nothing can be overtly extracted from them (Ross, 1967; Szabolcsi and den Dikken, 2006).

(89) **Context**: A friend of yours is a vintage Vespa collector, and every year he goes to a Vespa fair in Tuscany and buys an old Vespa model that he then fixes to add to his collection, but it always takes him ages to receive the Vespas, which annoys him immensely. A week after the fair, you meet him at the bar and ask (89a):

a. Adon, ci coup t'à atsit-ò [[an
so, DEM.M.SG hit NOM.2SG-have.PRS.2SG buy-PST.PTCP DET.INDF.F.SG
Vespa que t'aru-e **quan**]] ?
Vespa COMP DAT.2SG-arrive.PRS-3SG when
'So, this time you bought a Vespa that you will receive when?'

b. *Adon, ci coup **quan** t'à atsitò [[an Vespa que t'arue]]?

perqué 'because' adjunct clauses behave similarly (132-133): extracting out of the island results in a very degraded sentence, regardless of the syntactic role of the extracted element.

(90) a. Luisa s'è enmaleuchei-e [[perqué t'à medg-à
Luisa REFL-be.PRS.3SG get.angry.PST.PTCP-3SG because NOM.2SG eat.PRS.3SG
dequé]]?
what

'Luisa got mad because you ate what?'

b. *__Dequé__ Luisa s'è enmaleucheie [[perqué t'à medgà]]?

(91) a. Luisa s'è enmaleuchei-e [[perqué t'à
Luisa REFL-be.PRS.3SG get.angry.PST.PTCP-3SG because NOM.2SG-have.PRS.3SG
copp-ò lo pan **avuoë dequé**]]?
cut-INF DET.M.SG bread with what
'Luisa got mad because you cut the bread with what?'

b. *__Avouë dequé__ Luisa s'è enmaleucheie [[perqué t'à coppò lo pan]]?

The overall status of Islands in ValPa is not straightforward and is beyond the goals of this paper. I report the full array of data in Appendix A, where the reader can get an idea of the patterns observed. For the present discussion, I am only considering relative clauses (88-89) and why-adjunct clauses (132-133), which are strong islands and do not allow extraction altogether. As far as these data are concerned, they suggest that ValPa CIwh-words do not move further up than the LLP, speaking in favor of the WYSIWYG analysis (Table 6).

5.2 Intervention Effects

Intervention Effects (IEs) (Mathieu, 1999; Ouhalla, 1996; Bošković, 1998) are a phenomenon whereby a wh-word cannot remain in the scope of a quantificational operator (92), such as a negation, and fronting of the wh-word becomes obligatory.

(92) a. **Intervention Effects**: A WH phrase in situ (i.e. a variable) in single WH questions cannot remain in the scope of other scopal elements/operators

b. *[Op ... [Op ... [variable]]]. (Mathieu, 1999, p. 445)

In German, for example, wh-words that have undergone partial movement are subject to IEs (Beck, 1996). The wh-word *wen* 'whom' can be fronted (93a) or undergo partial movement (93b) to the HLP of the embedded clause, while a non-contentive wh-word *was* 'what', glossed as WH, occupies the position in the matrix HLP. The presence of the negation blocks the licensing of the wh-phrase *mit wem* 'with whom' (cfr. 94a-b) and fronting of the wh-word is necessary (94c)[18]. Similar data is reported by Sulemana (2019) in Bùlì.

[18] Glosses are my own.

(93) a. **Wen**$_i$ glaubt Uta dass Karl t$_i$ gesehen hat?
who.ACC believe.PRS-3SG Uta COMP Karl see.PST.PTCP have.PRA-3SG
'Who does Uta believe that Karl saw?'

b. Was glaub-t Uta **wen**$_i$ Karl t$_i$ gesehen hat?
WH believe.PRS-3SG Uta who.ACC Karl see.PST.PTCP have.PRA-3SG
'Who does Uta believe that Karl saw?' (Mathieu, 1999, p. 449)

(94) a. *Was glaub-st du nicht **mit wem**$_i$ Hans t$_i$ gesprochen
WH believe.PRS-2SG NOM.2SG NEG with who.DAT Hans speak.PST.PTCP
ha-t?
have.PRS-3SG
'Who don't you believe that Hans has spoken to?'

b. Was glaubst du **mit wem** Hans t$_i$ gesprochen hat?

c. **Mit wem**$_i$ glaubst du nicht dass Hans t$_i$ gesprochen hat? (Beck, 1996, p. 3)

In ValPa, CIwh-words can surface in the scope of the negation *pò* (95b). Such evidence suggests that, despite surfacing clause internally, at some point in the derivation the CI *dequé* has moved over the negation and can thus take scope over the entire clause (95c).

(95) a. **Dequé** t'à pò atsit-ò ì martsà?
what NOM.2SG-have.PRS.2SG NEG buy-PST.PTCP at.DET.M.SG market
'What didn't you buy at the market?'

b. T'à pò atsitò **dequé** ì martsà?

c. ~~Dequé~~ t'à pò atsitò **dequé** ì martsà?

Mathieu (1999) also reports IEs from Universal Quantifiers, the focus particles (which he characterizes as adverbs) *seulement* 'only' and *même* 'even', and the temporal adverbs *souvent* 'often' and *toujours* 'always'. The interaction between wh-words and Universal Quantifiers will be discussed in Section 5.3, whereas I refer the reader to Mathieu (1999) for a detailed analysis of IEs in French and the interaction between wh-words and Focus particles. Regarding temporal adverbs, no IEs are witnessed: the CIwh-word is licensed in the scope of the adverb (96b). In fact, for (96), the order in (96b) is much preferred, especially with *soèn* 'often', as the question is highly presuppositional: it is understood that the interlocutor often/always buys things at the market.

(96) a. **Dequé** t'atsit-e soèn/todzor ì martsà?
what NOM.2SG-buy.PRS-2SG often/always at.DET.M.SG market

'What do you often/always buy at the market?'

b. T'atsite soèn/todzor **dequé** ì martsà?

The fact that CIwh-words in ValPa are not subject to IEs from negation and temporal adverbs suggests that the wh-words move outside the scope of such elements, which are located below T. This suggests that, despite surfacing in the LLP, CIwh-words move to a wh-position in the HLP.

5.3 Inverse scope

In early work on scope (Katz and Postal, 1967), it was noted that some readings do not follow from the surface scope of the elements of a given clause. In (97), the primary reading is the one in (97a). This is called a Surface Scope Reading (SSR), as it is derived from the scope relations 'on the surface'. The secondary reading (97b), also called Inverse Scope Reading (ISR) (May, 1978; Hayashishita, 2013), can be hard to access, as it is reported in (97) for English speakers. Scope relations vary cross-lingusitically, with languages only allowing a surface scope reading, like Mandarin (Huang, 1982; Aoun and Li, 1989, 2003).

(97) A dog loves every treat.

a. SSR: There is an x such that x is a dog and x loves every treat

b. ISR: For every x such that x is a treat, there is some dog that loves x

For ValPa speakers, ISRs are hard to access: the sentence in (98) has the reading in (98a). However, if we construct an example where the SSR goes against the speaker's knowledge of the world, then the ISR becomes available. In (99), the knowledge of the world suggests that it is unlikely that there will a kid big enough to be sleeping in front of every house, hence the ISR (99b) becomes available.

(98) Eun garçon l'à medg-à tsaque biscuit.
a boy NOM.3SG-have.PRS.3SG eat-PST.PTCP every biscuit
'A boy has eaten every biscuit.'

a. SSR: There is an x such that x is a boy and x ate every

b. ISR: For every x such that x is a biscuit, a boy ate x

(99) Eun mèinou drumm-e devan tsaque meison.
DET.M.SG kid sleep.PRS-3SG in.front.of every house
'A kid sleeps in front of every house.'

a. SSR: There is an x such that x is a child and x sleeps in front of every house

b. ISR: For every x such that x is a house, a child sleeps in front of x

The data in (98-99) show that, albeit the Surface Scope remains the preferred reading for ValPa speakers, the ISR is accessible if needed. In parallel examples with a CI-word (100), we notice that both the SSR (100a) and the ISR (100b) are available.

(100) Eun mèinou drumm-e devan quint-e meison?
DET.M.SG kid sleep.PRS-3SG in.front.of which-F.PL house.PL
'A kid sleeps in front of which houses?'

a. SSR: There is an x such that x is a child and x plays in front of which houses

b. ISR: For which x such that x are houses, a child plays in front of x

The evidence in (100) shows that the CI-word can scope over the existential quantifier in subject position, hence suggesting that *quinte meison* 'which houses' has -at some point in the derivation- moved to a position where it can take wide scope over the whole clause.

5.4 Binding

As shown by Lebeaux (1998, 2009); Belletti and Rizzi (1988); Barss (1986), Binding Conditions can be satisfied at any stage of the derivation, hence an anaphor contained in a DP may be bound by an antecedent in its surface position, base position, or any of its intermediate movement sites. In the declarative (101a), the reflexive can only be bound by the DP *the Queen*, as the other possible binder, *the Princess*, is outside *herself*'s binding domain. On the other hand, the reflexive in the D-linked wh-word *which painting of herself* in (101b) can be bound both by *the Queen*, in its base position, and *the Princess*: on its way up to the HLP of the main clause, the wh-word transits in the HLP of the embedded HLP, where it can be bound by *the Princess*.

(101) a. The Princess$_j$ thinks that the Queen$_i$ liked this painting of herself$_{i/*j}$

b. So, [which painting of herself$_{i/j}$]$_k$ does the Princess$_j$ think t$_k$ that the Queen$_i$ liked t$_k$?

We can thus rely on such contexts to test the movement path of ValPa CIwh-words. The ValPa pattern is identical to the one outlined for English (101). In (102a), the reflexive is free in its binding domain, hence the degraded status of the sentence. On the other hand, in (102b), the reflexive in

the D-linked wh-word *quinte fotografie de sè memo* gets bound by *Marco* as it transits through the HLP of the embedded clause.

(102) a. *Marco$_i$ pens-e [que Ivana$_j$/ llam-e cett-e fotografi-e de
Marco think.PRS-3SG COMP Ivana like.PRS-3SG DEM-F.PL pictures-PL of
sè$_i$ **memo**].
REFL
'Marco thinks that Ivana likes these pictures of himself.'

b. [Quint-e fotografi-e de **sè**$_i$ **memo**]$_k$ Marco$_i$ pens-e [t$_k$ que Ivana$_j$
which-F-PL pictures-PL of REFL Marco think.PRS-3SG COMP Ivana
llam-e t$_k$] ?
like.PRS-3SG
'Which pictures of himself does Marco think that Ivana likes?'

The parallel example with the wh-word surfacing clause internally (103a) is also felicitous. Since, as we saw in (102a), there is no suitable antecedent for the reflexive in the embedded clause -the Binding Domain of *sè memo-*, the only way that the reflexive in (103a) can be bound is if the CIwh-word overtly moves -at least- to the HLP of the embedded clause, then the higher copy is deleted (103b).

(103) a. Marco$_i$ pens-e [que Ivana$_j$ llam-e quint-e fotografi-e de
Marco think.PRS-3SG COMP Ivana like.PRS-3SG which-F-PL pictures-PL of
sè$_i$ **memo**] ?
REFL
'Which pictures of himself does Marco think that Ivana likes?'

b. Marco$_i$ pense [~~[quinte fotografie de **sè**$_i$ **memo**]~~ que Ivana$_j$ llame [quinte fotografie de **sè**$_i$ **memo**]] ?

While one could argue that the binding relation available in (103) is the result of logophoric reading of the reflexive (Charnavel and Sportiche, 2016), together with the other data outlined in this section it provides good evidence that CIwh-words do not remain in the LLP, but move to the HLP of the clause they are externally merged in. In Section 6, I will make further use of Lebeaux's (1998) binding analysis and reconstruction effects, while the following subsection will provide empirical proof that CIwh-words move 'as high as they can go'.

5.5 Parasitic Gaps

As outlined in Section 4.1, CIwh-words license Parasitic Gaps (PGs). Nevertheless, we previously only looked at examples where the original licensing gap was in a matrix clause (72). In order to establish whether the CIwh-word remains in the LLP or moves further up, we need to resort to an example with a high PG-containing adjunct and a structurally lower CIwh-word. In (104), the wh-word *qui* 'who' is generated in the VP of the embedded clause, yet the *pg* is in an adjunct clause modifying the matrix verb, structurally higher. It thus follows that in order to license the *pg*, *qui* needs to move out of the embedded clause and into the matrix one, as in the wh-fronting example (104a). It is worth noting that the *pg* is also licensed in (104b), even though the wh-word surfaces in the LLP of the embedded clause. The only way in which this could be possible is if *qui* had moved to the HLP of the matrix clause, as in (104c).

(104) **Context:** You are happy and in love, with some lipstick smudges of a nice coral color, when you meet your friend for ice cream. He sees you walking on clouds and has a strong suspicion that it's because you kissed his sister Daniela, who wears a nice coral color lipstick and whom he is very protective of. He confronts you about your happiness, then points out you have some lipstick traces on your face, barely containing his anger. You are not pleased about this confrontation and realize that he might suspect you kissed Daniela already before you started arguing about it, so you push him to confess and say:

a. **Qui**$_i$ [[t'à pens-ò [que
who NOM.2SG-have.PRS.2SG think-PST.PTCP COMP
dz'uch-o beij-à t$_i$]] [doanque commenhi-é à
NOM.1SG-have.SUBJ.PRS-1SG kiss-PST.PTCP before start-INF to
deuscut-é *pg*]]?
argue-INF
'Who did you think I had kissed before starting to argue?'

b. T'à pensò que dz'ucho beijà **qui** doanque commenhié à deuscuté?

c. ~~Qui~~ t'à pensò que dz'ucho beijà **qui** doanque commenhié à deuscuté?

Furthermore, such movement has to be overt, as covert movement does not license PGs (Chomsky, 1982; Culicover, 2001; Nunes, 2004), with consequent deletion of the highest copy, which results in the output in (104b).

5.6 Interim summary

In the present section, I have discussed two hypotheses regarding the derivation of CIwh-words in ValPa. The first hypothesis, What You See Is What You Get (WYSIWYG), advocated that CIwh-words do not move further up than the LLP, whereas the second hypothesis that CIwh-words move to a higher A' position in the HLP of the clause. In order to establish which hypothesis is borne out, I have introduced five diagnostics for movement, summarized in Table 4.

Except for the islands data, all the tests unequivocally speak in favour of Hypothesis 2 *Further movement up* (87). ValPa CIwh-words do stop in LLP, from where they move further up, *at least* to the HLP of the clause they are generated in. Furthermore, evidence from the licensing of PGs (Section 5.5) demonstrates that embedded CIwh-words overtly move to the HLP of the main clause. Hence, the clause-internal wh-question in (105a) has the exact same structure as the fronted one in (105b). The wh-word *dequé* successive cyclically moves to whP in the LLP and then to the HLP (105), with deletion of different copies at PF. The following Section will outline the proposal in details.

(105) a. T'atsit-e **dequé** ì martsà?
NOM.2SG-buy.PRS-2SG what at.DET.M.SG market
'What will you buy at the market?'

b. **Dequé** t'atsite ì martsà?

c. [$_{HLP}$ **Dequé** [$_{TP}$ t'atsite [$_{wP}$ **dequé** [$_{vP}$ ì martsà [$_{VP}$ **dequé**]]]]]

The island data (Section 5.1), on the other hand, seems to support Hypothesis 1 *WYSIWYG* (86). While this might appear to be contradictory evidence, we will see in Section 6.3 that it needn't be and that the proposal put forward can account for all the data put forth in this section.

Table 4: Summary of the movement diagnostics

	Evidence for WYSIWYG	Evidence for further movement up
Islands data	Yes?	No?
Intervention Effects	No	Yes
Inverse Scope	No	Yes
Binding	No	Yes
Parasitic Gaps	No	Yes

6 The analysis

In Section 4.1, I showed that ValPa CIwh-words are not surfacing in their base position but rather in the LLP, more precisely at the higher edge of the periphery. Furthermore, in Section 5, I provided evidence that CIwh-words do not stop in the LLP, but overtly move to the HLP, with consequent deletion of different copies at PF. What still needs to be established is the nature of the landing position of wh-words in the LLP and, hence, of the movement. In order to answer this question, we will consider two hypotheses. Hypothesis 1 (106) states that wh-words in ValPa are locally scrambled at the edge of the phase, where their pragmatic role can be interpreted (cfr. Poletto (2014)). On the other hand, according to Hypothesis 2 (107), CIwh-words move to a dedicated operator A' position at the higher edge of the LLP, carrying an A' feature.

(106) **Hypothesis 1**: Clause internal wh-words are the result of local scrambling

(107) **Hypothesis 2**: Clause internal wh-words move to an operator position

The present section will outline the main properties of scrambling (Section 6.1) and introduce evidence from word order, optionality, Weak Crossover (WCO), Parasitic Gaps (PGs), and reconstructions effect that rule out a scrambling analysis of CIwh-words in ValPa (Section 6.2).

6.1 Scrambling

Scrambling is a typically clause-bound phenomenon of -relatively free- rearrangement of constituents for stylistic reasons, without any substantial differences in meaning (Ross, 1967; Chomsky and Lasnik, 1977; Hoekstra, 1984), as outlined in (108) for Persian.

(108) a. man ketâb-â-ro be Sepide dâd–am
I book-pl–Acc to Sepide gave-1sg
'I gave the books to Sepide.' S O IO V

b. ketâb-â-ro be Sepide man dâd–am O IO S V

c. be Sepide ketâb-â-ro man dâd–am IO O S V

Persian (Karimi, 1999, p. 160)

Subsequent work (see Saito and Fukui (1998) on Japanese and Karimi (1999, 2003) on Persian a.o.) has shown that scrambling is not driven by stylistic needs but is a syntactic phenomenon,

with specific semantic and discourse related properties, that can encompass clause boundaries. As far as the nature of the phenomenon, two major theories have been proposed in the literature: base generation and movement. According to the base generation analysis (Van Riemsdijk, 1989; Fanselow, 1990; Chocano, 2007), scrambled elements are base generated in an IP-adjoined position (Bošković and Takahashi, 1998) and undergo LF movement -in most cases lowering- to the positions where they receive theta roles. Other authors have analyzed scrambling as the result of movement. Clause internal scrambling had been mostly labeled as A-movement (Fanselow, 1990; Santorini, 1990; Deprez, 1994) and long-distance scrambling as A'-movement (Mahajan, 1990; Saito, 1992), whereas some have proposed a mixed account (Webelhuth, 1992). I refer the reader to (Karimi, 2008) for an overview of the scrambling accounts put forward in recent decades.

Given the movement evidence presented in Section 4.1, I will disregard the base generation approach and, following Poletto (2014), Fanselow (1990), and Deprez (1994), consider local scrambling as free adjunction of XPs at the edge of vP. The following section will present data in favor of Hypothesis 2 and movement to a dedicated A' position.

6.2 Clause internal wh-words target a dedicated A' position

In this section, I will outline data from word order, optionality, WCO, PGs, and reconstruction effects to show that CIwh-words are not locally scrambled, but rather moved to an operator position.

Scrambling is normally not restricted to a single instance and scrambling of multiple elements is widely observed in the literature (Fukui and Saito, 1992; Kuroda, 1992). Moreover, the scrambled constituents are not subject to a pre-established word order (Kornfilt and Bayer, 1994). As outlined in Section 4, unlike Topics, multiple wh-words are not allowed in ValPa, regardless of the order (109). The impossibility of any of the orders in (109) suggests that the occurrence of multiple wh-words might be due to a lower-level restriction in the language. Nevertheless, the argument is reported here for completeness.

(109) a. *Te baill-e **à qui dequé**?
NOM.2SG give.PRS-2SG to who what
'To whom what will you give?'

b. ***Dequé** te baille **à qui**?

c. ***À qui dequé** te baille?

d. *__À qui__ te baille __dequé__?

e. *__Dequé__ te baille __à qui__?

Furthermore, (see Section 4.2), CIwh-words cannot freely occur in any IP internal position, but are confined between low manner adverbs, like *bien* 'well', and other A' elements, like Topics (110), which can freely adjoin (see Section 2.1), and Foci.

(110) a. Te 'lli 'lli bien __dequé__ *ì méinou*?
NOM.2SG DAT.M.3SG read.PRS-2SG well what to.DET.M.SG child
'To the child, what will you read well?'

b. *Te 'lli 'lli __dequé__ bien *ì méinou*?

c. *Te 'lli 'lli bien *ì méinou* __dequé__?

Another property often ascribed to scrambling is optionality (Saito and Fukui, 1998; De Hoop, 2003), albeit there is no firm consensus in the literature (see Karimi (2008) for an overview). In ValPa, as stated in Section 4, there is no true optionality. Wh-fronting is the default question formation strategy (111a), while CIwh-words are pragmatically marked and only uttered in highly presuppositional contexts. Nonetheless, ValPa speakers never have the choice to leave the wh-word *in situ*: aside from Echo questions (111d), displacing the wh-word, at least to the LLP, is obligatory (111a-b). If CIwh-words were the result of local scrambling, then we would expect speakers to have a choice to either leave the wh-word in situ or scramble it in the LLP. However, since speakers cannot leave the wh-word in situ (111c), it is unlikely that CIwh-words are scrambled.

(111) a. __Dequé__ t'atsit-e ì martsà ? **Fronted**
What NOM.2SG-buy.PRS-2SG at.DET.M.SG market
'What will you buy at the market ?'

b. T'atsite __dequé__$_{[+presuppositional]}$ ì martsà? **Clause internal**

c. *T'atsite ì martsà __dequé__? **In situ**

d. T'atsite ì martsà DEQUÉ?? **Echo**

Furthermore, it has been shown that local scrambling does not trigger Weak Crossover effects (Deprez, 1994), nor licenses Parasitic Gaps. Yet, as outlined in Section 4.1, CIwh-words do give rise to both; examples are repeated here as (112) and (113).

(112) a. L'à baill-à s-on$_i$ livro à Ivana$_i$.
NOM.3SG-have.PRS.3SG give-PST.PTCP POSS.3SG-M.SG book to Ivana
'He has given her$_i$ book to Ivana$_i$.'

b. *L'à baill-à [**à qui**$_i$]$_k$ s-on$_i$ livro t$_k$?
NOM.3SG-have.PRS.3SG give-PST.PTCP to who POSS.3SG-M.SG book
'To whom$_i$ will he give her$_i$ book?'

c. *À qui$_i$ l'à baillà son$_i$ livro?

(113) T'à atsit-ò **dequé** ì martsà t$_k$ [san agout-é *pg*]?
2SG-have.PRS.2SG buy-PST.PTCP what at.DET.M.SG market without taste-INF
'What did you buy at the market without tasting?'

The final piece of evidence against a scrambling analysis of CIwh-words in ValPa comes from reconstruction effects of fronted wh-words. If the LLP of ValPa has a dedicated wh-position, then fronted wh-words can make use of such intermediate stop in their successive cyclic movement path to the HLP, which means that they should be able to reconstruct in such position. Under a local scrambling analysis of CIwh-words, on the other hand, such position is inserted *ad hoc* and there is no clause internal position for fronted wh-words to transit and reconstruct in, forcing them to reconstruct in base position. Let us unpack reconstruction effects before moving to the empirical data.

In Section 5, we saw that binding can be satisfied at different stages of the derivation. Furthermore, Lebeaux (2009) pointed out that there is an asymmetry in the reconstruction of arguments and adjuncts. More specifically, wh-phrases containing an argument (114a) must reconstruct in base position, whereas those containing an adjunct (114b) need not. In example (114a), co-reference between the R-expression *Yuri* in the fronted wh-phrase and the pronoun *he* leads to a violation of Principle C of the Binding Theory: the wh-phrase must reconstruct in base position, where *Yuri* gets bound by *he*.

(114) a. So, [which pictures of Yuri$_j$]$_k$ did he$_{i/*j}$ like t$_k$?

b. So, [which pictures that Yuri$_j$ took]$_k$ did he$_{i/j}$ like t$_k$?

In (114b), on the other hand, co-reference between *Yuri* and *he* is possible as the wh-phrase containing the adjunct need not reconstruct in base position.

In order to establish whether this position in the LLP is an operator position, hence always present and used as a transit stop for successive cyclic movement of wh-words to the HLP, or

rather resorted to *ad hoc* for scrambling, we will, following Fox (1999), use reconstruction to trace the movement path of fronted wh-words. The wh-phrase in (115a) contains the R-expression *Ivana*, co-referenced with the pronoun *'llie* 'her', and the bound variable *l* 'he', which, in order to be interpreted, needs to be bound by *tsaque garson* 'every boy'. Hence, in order for this bound reading to be possible, the wh-phrase *quinta fotografie que l'à fà à Ivana* needs to reconstruct low enough for *tsaque garson* to bind *l'* (marked in the example as ^{ok}), yet not too low, otherwise we would incur in a Principle C violation (marked with a *). The sentence with the bound reading is acceptable, which means that the wh-phrase has reconstructed in a clause internal position in the LLP. The same pattern is observed with passive verbs (116): the fronted wh-phrase must reconstruct in the LLP.

(115) [Quin-ta fotografie que l_j'à f-à à Ivana$_k$]$_i$ tsaque
which-F.SG picture that NOM.3SG-have.PRS.3SG do-PST.PTCP to Ivana every
garson$_j$ l'à stamp-ò [$_{LLP}$ ^{ok}t$_i$ per 'llie$_k$ *t$_i$]?
boy NOM.3SG-have.PRS.3SG print-PST.PTCP for ACC.F.SG
'Which photo that he$_j$ has made Ivana$_k$ every boy$_j$ has printed for her$_k$?'

(116) [Quin-ta fotografie que l_j'à baill-à à Ivana$_k$]$_i$
which-F.SG picture that NOM.3SG-have.PRS.3SG give-PST.PTCP to Ivana
l'è et-é fet-a da tsaque garson$_j$ [$_{LLP}$ ^{ok}t$_i$
NOM-be.PRS.3SG be.PST.PTCP-F.SG make.PST.PTCP-F.SG by every boy
per 'llie$_k$ *t$_i$]?
for ACC.F.3SG
'Which photo that he$_j$ has given Ivana$_k$ was made by every boy$_j$ for her$_k$?'

Empirical data on word order, optionality, WCO, PGs, and reconstruction effects presented in this section proves Hypothesis 2 to be borne out: wh-words are not locally scrambled, but rather target a dedicated, operator A' position in the LLP.

6.3 The proposal

In Section 6.2, we saw that a scrambling analysis of CIwh-words (Hypothesis 1), albeit appealing in terms of economy (Chomsky, 1995) as it does not require the postulation of a dedicated A' position, is inadequate for ValPa. The data spoke in favor of Hypothesis 2: CIwh-words overtly move to the HLP. Hypothesis 2 also makes the most coherent predictions with respect to the PF component, as it will be discussed in this chapter. The present section will propose an analysis

that accounts for the choice, however limited, speakers have on which wh-copy to pronounce, as well as discuss possible theoretical concerns that might arise.

As hinted at in Section 5.6, the different word orders in wh-questions, namely the one with the wh-word fronted and the one with the wh-word surfacing clause internally, are the result of the deletion of different copies at PF. Nonetheless, putting aside echo questions, only two copies of the chain can be spelled out: the head of the chain and the copy in the LLP. While this seems straightforward as far as matrix clauses are concerned, where there are only two copies to choose from (117), in embedded contexts (118) the choice can be trickier. Let us look up close at a derivation.

(117) a. [$_{HLP}$ **Dequé** t'à deut [$_{LLP}$ ~~dequé~~ à Maria [$_{VP}$ ~~dequé~~]]]?
what NOM.2SG-have. say.PST.PTCP what to Maria what
'What did you say to Maria?'

b. [$_{HLP}$ ~~Dequé~~ t'à deut [$_{LLP}$ **dequé** à Maria [$_{VP}$] ~~dequé~~]]]?

In (118), excluding the copy in the base position inside VP, the chain counts four copies. Nonetheless, only the head of the chain (118a) and the one in the LLP of the embedded clause can be pronounced (118b), namely copy 1 and 4 in the simplified structure sketch in (119). Pronouncing any of the other copies leads to unacceptable results (118c-d).

(118) a. [$_{HLP}$ **Dequé** Gianni à deut [$_{LLP}$ ~~dequé~~ à Maria [$_{HLP}$
what Gianni have.PRS.3SG say.PST.PTCO what to Maria
que ~~dequé~~ te de-i atsit-é [$_{LLP}$ ~~dequé~~ pe Tsalende [$_{VP}$
COMP what NOM.2SG must-PRS.2SG buy-INF what for Christmas
~~dequé~~]]]]]?
what
'What did Gianni tell Maria that you must buy for Christmas?'

b. [$_{HLP}$ ~~dequé~~ Gianni à deut [$_{LLP}$ ~~dequé~~ à Maria [$_{HLP}$ que ~~dequé~~ te dei atsité [$_{LLP}$ **dequé** pe Tsalende [$_{VP}$ ~~dequé~~]]]]]?

c. *[$_{HLP}$ ~~dequé~~ Gianni à deut [$_{LLP}$ ~~dequé~~ à Maria [$_{HLP}$ **dequé** que te dei atsité [$_{LLP}$ ~~dequé~~ pe Tsalende [$_{VP}$ ~~dequé~~]]]]]?

d. *[$_{HLP}$ ~~dequé~~ Gianni à deut [$_{LLP}$ **dequé** à Maria [$_{HLP}$ que ~~dequé~~ te dei atsité [$_{LLP}$ ~~dequé~~ pe Tsalende [$_{VP}$ ~~dequé~~]]]]]?

(119) [$_{HLP}$ ~~dequé~~$_1$ [$_{LLP}$ ~~dequé~~$_2$ [$_{HLP}$ ~~dequé~~$_3$ [$_{LLP}$ **dequé**$_4$ [$_{VP}$ ~~dequé~~$_5$]]]]]?

Therefore, there must be something informing the PF component that the copy in the LLP can be spelled out, as an alternative to the head of the chain. Otherwise, nothing would prevent other intermediate copies to be spelled out (overgeneration) (118c-d) or having a too restrictive system, whereby only the head of the chain can be spelled out (undergeneration) (118a).

Several authors have argued in favor of a PF deletion of a lower copy of a chain (Pesetsky, 1997, 1998; Franks, 1998; Bobaljik, 2002). Following Bošković (2002), I, therefore, propose a similar account for CIwh-word in ValPa: the different surface orders are obtained by a PF copy deletion mechanism. Deletion of all copies but the highest one results in wh-fronting (120), while deletion of all copies but the one in the LLP results in the CIwh-word structure in (121).

(120) [$_{HLP}$ **Dequé** [$_{TP}$ t'atsite [$_{whP}$~~dequé~~ [$_{vP}$ì martsà [$_{VP}$ ~~dequé~~]]]]]? **wh-fronting**

(121) [$_{HLP}$ ~~Dequé~~ [$_{TP}$ t'atsite [$_{whP}$**dequé** [$_{vP}$ì martsà [$_{VP}$ ~~dequé~~]]]]]? **CIwh**

Nonetheless, while in SC, Bulgarian, and Romanian lower copies are only pronounced in order to save a derivation that would otherwise crash at PF, in ValPa pronunciation of a lower copy is not a rescue mechanism: the head of the wh-chain can always be pronounced, yet in highly presuppositional context a lower copy *can* be pronounced instead.

6.3.1 Features of whP

The previous sections have proposed an overt-movement analysis of CIwh-words in ValPa, with the deletion of different copies at PF. What remains to be established is what feature is hosted in the whP in the LLP, which I will here refer to as whP$_{low}$, and how that differs from the one hosted in the HLP, which I will label whP$_{high}$. For the time being, I will assume that whP$_{high}$ hosts a strong [WH] feature. There are a several possibilities.

The first one is that whP$_{low}$ carries a -strong- [WH] feature, like whP$_{high}$. This account is not ideal, as there would be no indication that the lower copy can *only* be spelled out in highly presuppositional contexts (see Section 4), possibly leading to overgeneration. I will come back to this possibility at the end of the Section.

The second possibility is that whP$_{low}$ carries an [EPP] feature, thus forcing movement of some XP in its specifier. This approach is, however, problematic for several reasons. First, an [EPP] feature is too generic and could technically get satisfied by any XP and not just by a wh-word. Note that, while adding a [WH] feature might circumvent this problem, it still does not inform

PF that the copy can be spelled out in certain contexts. Furthermore, we incur a similar issue of the previous proposal: what indicates that this copy can be spelled out and that it can do so only in highly presuppositional contexts? Surely, ascribing this to an [EPP] feature is not ideal. Finally, if whP_{low} does in fact carry an [EPP], then what about other similar positions that allow for successive cyclic derivation on long wh-movement? As seen in the previous section, it is not possible to spell out just *any* intermediate copy, so could we account for these differences? All in all, this possibility would give rise to several undesired consequences.

The final possibility is that whP_{low} carries a [PRESUPPOSITIONAL] feature, informing PF that the copy in its specifier can be spelled out in highly presuppositional contexts. This possibility does not lack shortcomings either. The first concern is theoretical and is related to encoding purely semantic or pragmatic features in the syntax, which is something that needs to be carefully pondered, while the second concern is empirical. In fact, fronted wh-words can also be uttered in highly presuppositional contexts (cfr. 122a and 122b). Hence, unless we resort to further mechanisms and features, we could face an undergeneration problem.

(122) **Context**: Your friend Léonie is a teacher and she is very adventurous. Every July she goes on an interesting vacation, backpacking, in faraway and remote lands. In early August you meet her at a party and, excited about her new travel stories, you ask:

a. Adon, **yaou** t'ì all-eie en vacanse cit an?
so where NOM.2SG-have.PRS.2SG go-PST.PTCP.F.SG in holiday DEM.M.SG year
'So, where are you going on holiday this year?'

b. Adon, t'ì alleie **yaou** en vacanse cit an?

Table 5: Summary of the possible features in whP in the LLP

	Feature	Potential issues
1	[WH]	overgeneration
2	[EPP]	overgeneration non specified for XP
3	[PRESUPPOSITION]	encoding of pragmatics in syntax undergeneration

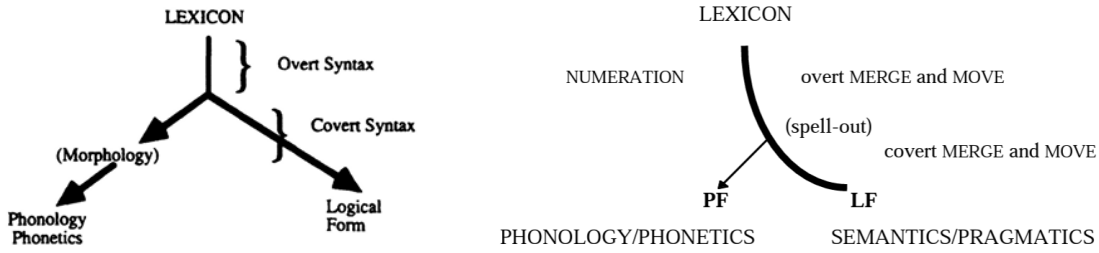
To sum up, accounting for the pragmatic characteristics of whP_{low} as well as its syntactic nature is challenging, for the reasons spelled out above and summarized in Table 5. Of the possibil-

ities discussed in this Section, the most appealing one is the first, namely the one where whP_{low} hosts a [WH] feature, despite potential overgenertion. The different word orders (fronted wh-word VS clause internal wh-word) might in fact not be accounted for in the syntax at all, but rather regulated by post-syntactic constraints, both phonological and semantic/pragmatic. In short, syntax overgenerates and undesirable outcomes are filtered out at LF and PF. The nature of the LF and PF constraints, as well as the possibility of there being some degree of communication between these two components of the grammar contra Chomsky and Lasnik's (1977) traditional inverted Y model of language (Figure **??**), are, nonetheless, still to be investigated and should be addressed in future research.

7 Discussion

The data on wh-movement in Valdôtain Patois (ValPa) presented in this paper is interesting for several reasons. It provides further evidence for the existence and the inner hierarchical structure of an area rich in A' positions at the edge of vP, the Low Left Periphery (LLP). Furthermore, despite surfacing cause internally, VaPa wh-words do not remain in the LLP, but *overtly* move further up to the highest A' position available. The different surface orders are thus obtained by a PF copy deletion mechanism. As outlined in section 6, deletion of all copies but the highest one results in wh-fronting, while deletion of all copies but the one in the LLP results in wh-word surfacing clause internally. This means that optionality is not accounted for in narrow syntax, but rather post-syntactically, at both PF and LF. This proposal raises several interesting and important questions, of which two are particularly relevant: the role of PF in the realization of an A'-chain and the distinction between *overt* and *covert* movement.

Chains are the results of syntactic computation and consist of sequences of copies of a given element, which has undergone one or more instances of internal merge, or more simply put at least one leg of movement. One crucial aspect is that, regardless of the length of the chain, only one position is typically interpreted or pronounced at the interfaces (LF and PF). The idea that at LF there is the possibility to choose which copy to interpret dates back to Chomsky (1993) and is widely accepted and acknowledged. In fact, reconstruction effects, e.g. the Lebeaux effect (1998) discussed in Section 6.1, suggest that the semantic component selects the copy of a given chain to interpret for scope and binding purposes. In the inverted Y model of grammar (Figure 2a), originally put forth by Chomsky and Lasnik (1977), both LF and PF branch off from the



(a) Chomsky and Lasnik's (1977) model (b) Kennedy's (2000) model

Figure 2: Different versions of the inverted Y model of language

same point. If the LF branch can choose which copy to interpret, it is not clear why wouldn't the same option be available in the PF branch. In the literature, starting with Chomsky (1993), the standard assumption, with some exceptions (Brody, 1995; Groat and O'Neil, 1996; Pesetsky, 1998; Bobaljik, 2002; Bošković, 2002), is that PF always selects the highest copy of the chain for pronunciation.

What is common among the different approaches to PF deletion is that *some* copies are deleted, the most common strategy being to spell just one copy, as in ValPa and English, as opposed to the Lombard variety spoken in La Strozza Valle Imagna (Manzini and Savoia, 2007), reported in Section 3.2.1. The deletion of copies of a given chain is a PF task (Chomsky, 1993; Bobaljik, 2002), meaning that PF needs to *choose* which copy to keep and which ones to discard. Whereas in Bošković's (2002) account of wh-fronting in BCS, Romanian, and Bulgarian the choice to spell out a lower copy is driven by the need to avoid a PF constraint, in ValPa there is no such constraint and it is yet unclear what drives the choice of one particular copy over another. As it was mentioned in Section 6, not every copy can be spelled out: the choice is limited to the copy in the LLP of the cause the wh-phrase was generated in and the one in the matrix HLP. All other copies must be deleted. One possibility, discussed in Section 6.3.1 and in line with the cartographic program, is that the projection target by wh-words in the LLP is a functional projection, carrying a specific feature 'labeling' the copy in its specifier as a potential spell out choice in highly presuppositional contexts. Incorporating purely pragmatic features, such as presupposition, in the narrow syntax is, nonetheless, a decision to be cautious about, as it might lead to undesired circumstances. Furthermore, in the cartographic approach (Rizzi, 1997; Rizzi and Bocci, 2017, a.o.), it is widely assumed that the copy at the head of the chain is the one to be pronounced, albeit -to

my knowledge- such assumption is never openly stated, nor discussed.

In short, it is not clear how chains, in particular A' chains, are realized at PF and what kind of constraints influence their realization. As discussed in this paper, previous theories on A' movement and chain formation, including cartographic approaches (Rizzi, 1997; Rizzi and Bocci, 2017, a.o.), do not provide substantial tools and insights to answer this question appropriately. What nonetheless appears clear, in the literature, is that crosslinguistically the head of the chain *seems* to be PF's preferred copy (Bobaljik, 2002; Bošković, 2002). The questions that, for the time being, remain unanswered are why this is the case and what regulates such choice. Moreover, as shown in Section 4, CIwh-words in ValPa are only felicitous in highly presuppositional contexts, meaning that PF is not the only post-syntactic component that has a saying in the interpretation of a wh-chain. While it is well established that at LF it is not mandatory to interpret the head of the chain (Lebeaux, 1998; Bobaljik, 1995, a.o.), it is not clear how exactly PF and LF interact, if they indeed do, in order to choose which copy to interpret in both components.

In fact, the analysis proposed here raises an interesting question on the structure of the grammar and the inverted Y model (Figure 2a), most specifically whether we need to revisit, contra e.g. Chomsky and Lasnik (1977), the idea that there exists one single point in the computation, Spell-Out, where the derivation parts into LF and PF and that the transmission of information in unidirectional: from narrow syntax to both LF and PF. A similar idea has already been explored by Uriagereka (1999), who proposed a slight revision of the traditional inverted Y model, which he calls CLASH (Conditions Liberating A Simple Hiatus). In CLASH, at Spell-Out the derivation still branches off, but narrow syntax and PF can communicate with each other, through what he defines 'factorized information', namely cycles. Another interpretation of the architecture of grammar questioning the existence of one fixed branching point has been proposed by Kennedy (2000). Following the minimalist program (Chomsky, 1995, 2000), Kennedy (2000) argues that the route from the lexicon to LF is one and universal (Figure 2b). Languages then differ in terms of the time in the derivation in which Spell-Out happens, which in some languages can actually be 'quite close to LF'. In this paper I am not proposing the adoption of one of these models (Figure 2), nor questioning the fundamentals of the -in broader terms- generativist model of language, but rather suggesting that the internal structure and directionality of the model itself might need toe revisited.

The second question that this analysis raises concerns the distinction between *covert* and *overt* movement. In Section 3, I specified that I would use the word *overt* to refer to movement that hap-

pens in narrow syntax, before Spell-Out (Lasnik, 1999; Kayne, 1998), whereas *covert* movement to refer to movement that happens not in the narrow syntax, but at Logical Form (LF) (Huang, 1982; Nissenbaum, 2000; Richards, 1997). In the present section, I have presented evidence that CIwh-words move further up than the LLP. Most of the diagnostics, namely lack of Intervention Effects, Binding, and Inverse Scope, do not per se speak in favor of *overt* movement. In fact, as Nissenbaum (2000), Pesetsky (2000), and Sulemana (2019) a.o. show, these phenomena can arise from *covert* movement alone. However, Parasitic Gaps speak in favor of an *overt* movement analysis of wh-words to the HLP.

Given the proposed analysis that wh-words move overtly to the HLP, with possible deletion of different copies, the question arises as to whether we still need the notion of *covert* movement. More specifically, the reader might wonder whether cases of covert movement previously argued for in the literature (Huang (1982); Sulemana (2019) a.o.) can be reduced to overt movement with consequent deletion of higher copies at PF, similarly to Bobaljik's (2002) analysis of A-movement and to mine and Bošković's (2002) proposals for A'-movement. While this question could by itself constitute an entire research program and as such could never be fully addressed in this paper, I will try to give an answer. By comparing the data presented and discussed in this section with data from languages like Mandarin Chinese, my preliminary answer ia that that we do in fact need a distinction between *overt* and *covert* movement.

As briefly discussed in Section 3, Mandarin Chinese is a wh-in-situ language, namely a language where wh-words do not undergo A' movement in the narrow syntax, but rather remain in their base position. Starting with Huang's (1982) work in the early 80's, it has been largely argued in the literature that wh-words in Mandarin Chinese undergo *covert* movement to the HLP at LF (Aoun and Li, 1993; Soh, 2005; Tsai, 1994). Even though wh-words in Mandarin Chinese do not undergo wh-movement, they can still be tropicalized, as it was shown by Lin (2005) (123).

(123) shenme yu$_i$, Laowang xihuan t$_i$?
what fish Laowang like
'What fish does Laowang Like?' (Lin, 2005, p. 300)

Lin (2005) shows that topicalized wh-words in Mandarin Chinese do license Parasitic Gaps (124a), whereas in-situ wh-words do not (124b).

(124) a. shei$_i$ Laowang [zai huijian pg$_i$ zhiqian] jiu kaichu-le e$_i$?
who Laowang at meet before already fire-ASP
'Which person is it who Laowang fired before meeting?' (Lin, 2005, p. 300)

b. *Laowang [zai huijian pg$_i$ zhiqian] jiu kaichu-le shei$_i$?
Laowang at meet before already fire-ASP
Laowang at meet before already fire-ASP who

'Who did Laowang fire before meeting?' (Ting and Huang, 2008, p. 38)

As mentioned previously, Parasitic Gaps can only be licensed by *overt* A'-movement (Nunes, 2004; Culicover, 2001). Therefore, the evidence in (124) demonstrates that non-topicalized Mandarin Chinese wh-words do not undergo any type of *overt* wh-movement, not even partial or 'short' movement to the LLP. It follows that the account proposed here of *overt* movement with consequent deletion of higher copies à la Bošković (2002) is not suitable for Mandarin Chinese, where wh-words do not move in the narrow syntax, but *covertly* at PF. Conversely, the analysis proposed for Mandarin Chinese is not suitable for the ValPa data outlined in this paper.

We can, therefore, conclude that, as opposed to Bobaljik's (2002) proposal (for A-chains), the current theory of grammar still needs a distinction between *overt* and *covert* movement. Whereas ValPa and Mandarin Chinese might seem similar on the surface, as a low wh-word is interpreted high at LF, there is a concrete difference. In ValPa, a 'low' wh-word is the result of *overt* movement with deletion of higher copies, whereas languages like Mandarin Chinese display true wh-in-situ: the wh-word remains in base position in narrow syntax, only undergoing movement at LF for interpretive and scope purposes.

7.1 About CIwh-words inside islands

In Section 5.1, I showed that in ValPa CIwh-words can surface inside relative clause (125a) and *why* adjunct islands, while fronting of the wh-word results in a very degraded sentence (125b). This pattern, at first sight, indicates that CIwh-words stop in the LLP.

(125) **Context**: A friend of yours is a vintage Vespa collector, and every year he goes to a Vespa fair in Tuscany and buys an old Vespa model that he then fixes to add to his collection. A week after the fair, you meet him at the bar and ask (**??**a):

a. Adon, ci coup t'à atsit-ò [[an
so, DEM.M.SG hit NOM.2SG-have.PRS.2SG buy-PST.PTCP DET.INDEF.F.SG
Vespa que cout-e **veu**]] ?
Vespa COMP cost.PRS-3SG how.much
'So, this time you bought a Vespa that costs how much?'

b. *Adon, ci coup **veu** t'à atsitò [[an Vespa que coute]]?

Similar evidence is found in Romanian. As mentioned in Section 3.3, Romanian requires fronting of wh-words also in echo questions (54) (Bošković, 2002). Yet, in the complex NP island (126a), the in-situ echo wh-word *ce* is felicitous. Given the obligatory nature of overt wh-fronting in Romanian, *ce* 'what' in (126) must have moved out of the island at some point in the derivation (126b), with consequent deletion of all higher copies. The same is witnessed with *why* adjunct islands (127).

(126) a. Ion a ausit [[zvonul că Petru a cumpărat CE]]
Ion has heard the-rumor tha Petru has bought what
'Ion has heard the rumor that Petru has bought what?'

b. *CE Ion a ausit [[zvonul că Petru a cumpărat]] ? (Bošković, 2002, p. 374)

(127) a. Ion s-a supărat [[pentru că Maria a mâncat CE]] ?
Ion REFL-has got.angry because that Maria has eaten what
'Ion got mad because Maria ate what?'

b. *CE Ion sa supărat [[pentru că Maria a mâncat]] ? (Elena Soare, pers. comm.)

While this analysis is problematic under the assumption that islands are syntactic in nature, it is not problematic if islands are a PF restriction. Several researchers proposed non-syntactic analyses of islands. Some have argued that islands are resulting from processing constraints (Sprouse et al., 2012b; Kluender and Kutas, 1993; Hofmeister and Sag, 2010), while others have proposed a PF account of island effects (Pesetsky, 1997, 1998; Lasnik, 2001), arguing that movement out of islands is not syntactically constrained; what is constrained is the choice of copy to pronounce. Given such PF analysis of islands, pronunciation of a lower copy of the chain, namely the one inside the "island", does not cause any PF violations, hence the acceptability of (126a) and of the ValPa CIwh-words inside relative clauses (125a) and *why* adjunct islands.

8 Conclusion

In the cartographic literature (Rizzi, 1997; Rizzi and Bocci, 2017; Bonan, 2018, 2019), it is widely assumed that wh-words and Contrastive Foci cannot co-occur, both in the High Left Periphery (HLP) and the Low Left Periphery (LLP). In this paper, based on data from the understudied

Francoprovençal Valdôtain, or Valdôtain Patois (ValPa), I have challenged this assumption and showed that in the LLP their co-occurrence is in fact felicitous, meaning that wh-words do not target FocP. Furthermore, CIwh-words in ValPa are not the result of local scrambling, but rather target a dedicated A' position at the higher end of the periphery, here labeled whP. Finally, I have put forth data showing that VaPa clause internal wh-words do not stop in the LLP: they overtly move further up to the highest A' position available. The different word orders are then derived through a PF copy deletion mechanism à la Bošković (2002) (128-129).

(128) $[_{whP}$ **wh-word** $[_{TP}$ $[_{whP}$~~wh-word~~ $[_{FocP}$ $[_{vP}$ $[_{VP}$ ~~wh-word~~]]]]]]? **fronted wh**

(129) $[_{whP}$ ~~wh-word~~ $[_{TP}$ $[_{whP}$**wh-word** $[_{FocP}$ $[_{vP}$ $[_{VP}$ ~~wh-word~~]]]]]]? **CIwh**

Analyzing ValPa data, I have challenged previous theoretical assumptions on wh-movement and proposed a new analysis of optionality in wh-fronting: what looks like optionality in wh-movement is in fact obligatory wh-fronting, with deletion of different copies at PF. What remains unclear for the time being is the nature of the feature hosted in whP in the LLP and how exactly the syntax informs the PF component about which copies can be spelled out in which contexts. One possibility briefly discussed is that the syntax actually overgenerates and the outcomes are then filtered out at PF and LF. However, the question of how the PF constraints on copy deletion operate and how semantics and pragmatics requirements at LF influence the spell-out of different copies remains to be addressed in future research.

A list of Leipzig Glossing Rules used in the paper:

1	first person	M	masculine
2	second person	NEG	negation, negative
3	third person	NOM	nominative
ACC	accusative	PASS	passive
AUX	auxiliary	PL	plural
COMP	complementizer	POSS	possessive
COND	conditional	PRS	present
DAT	dative	PST	past
DEM	demonstrative	PTCP	participle
DET	determiner	Q	question particle/marker
F	feminine	REFL	reflexive
FOC	focus	SBJV	subjunctive
FUT	future	SG	singular
IND	indicative	TOP	topic
INDF	indefinite		
INF	infinitive		

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A Appendix: More about Islands

This appendix provides more on the status of Islands in ValPa, summarized in Table 6 below. As discussed in Section 5.1, provided the right context (130a), the argument CIwh-word *veu* 'how much' is felicitous in the relative clause (RC) island (repeated below as 130b) (signaled by double square brackets), while fronting of the wh-word leads to a very degraded sentence (130c).

(130) Context: A friend of yours is a vintage Vespa collector, and every year he goes to a Vespa fair in Tuscany and buys an old Vespa model that he then fixes to add to his collection. A week after the fair, you meet him at the bar and ask (130a):

a. Adon, ci coup t'à atsit-ò [[an
so, DEM.M.SG hit NOM.2SG-have.PRS.2SG buy-PST.PTCP DET.INDF.F.SG
Vespa que cout-e **veu**]] ?
Vespa COMP cost.PRS-3SG how.much
'So, this time you bought a Vespa that costs how much?'

b. *Adon, ci coup **veu** t'à atsitò [[an Vespa que coute]]?

The same pattern is witnessed with an adjunct wh-word (131), suggesting that RC are strong islands in ValPa: nothing can be overtly extracted from them (Ross, 1967; Szabolcsi and den Dikken, 2006).

(131) Context: A friend of yours is a vintage Vespa collector, and every year he goes to a Vespa fair in Tuscany and buys an old Vespa model that he then fixes to add to his collection, but it always takes him ages to receive the Vespas, which annoys him immensely. A week after the fair, you meet him at the bar and ask (131a):

a. Adon, ci coup t'à atsit-ò [[an
so, DEM.M.SG hit NOM.2SG-have.PRS.2SG buy-PST.PTCP DET.INDF.F.SG
Vespa que t'aru-e **quan**]] ?
Vespa COMP DAT.2SG-arrive.PRS-3SG when
'So, this time you bought a Vespa that you will receive when?'

Table 6: Summary of the Island data

Type of clause	Type of XP	Fronted wh-word	CIwh-word	Island?
Relative clause	argument	*	ok	yes (strong)
Relative clause	adjunct	*	ok	yes (strong)
Non- finite adjunct	argument	?	ok	yes?
Non- finite adjunct	adjunct	ok	ok	no
Finite adjunct	argument	?/ok	ok/?	unclear
Finite adjunct	adjunct	ok	??	unclear
Conditional adjunct	argument	?	ok	yes?
Conditional adjunct	adjunct	?	ok	yes?
perqué adjunct	argument	*	ok	yes (strong)
perqué adjunct	adjunct	*	ok	yes (strong)

b. *Adon, ci coup **quan** t'à atsitò [[an Vespa que t'arue]]?

A similar pattern is observed with *perqué* 'because' islands (132-133), albeit extracting out of the island results in a very degraded sentence, regardless of the syntactic role of the extracted element.

(132) a. Luisa s'è enmaleuchei-e [[perqué t'à medg-à
Luisa REFL-be.PRS.3SG get.angry.PST.PTCP-3SG because NOM.2SG eat.PRS.3SG
dequé]]?
what
'Luisa got mad because you ate what?'

b. ***Dequé** Luisa s'è enmaleucheie [[perqué t'à medgà]]?

(133) a. Luisa s'è enmaleuchei-e [[perqué t'à
Luisa REFL-be.PRS.3SG get.angry.PST.PTCP-3SG because NOM.2SG-have.PRS.3SG
copp-ò lo pan **avuoë dequé**]]?
cut-INF DET.M.SG bread with what
'Luisa got mad because you cut the bread with what?'

b. ***Avouë dequé** Luisa s'è enmaleucheie [[perqué t'à coppò lo pan]]?

Adjunct islands, on the other hand, do not provide such clear evidence. Under the proper context (134a), the wh-word *dequé* in (134a) is felicitous inside the non-finite adjunct island [[*sensa payé dequé*]], precisely as reported by Bonan (2019) for Trevisan. Fronting the wh-word (134b) makes the sentence slightly degraded.

(134) Context: Sara is a very loving and caring person and everyone in the village likes her. However, she is always out of cash and often does not pay for her drinks at the bar. One morning, as you walk in, you see Sara leaving the bar and the bartender Ugo sighing, so you say (134a):

a. Ci coup l'è parti-a [[sensa pay-é
DEM.M.SG hit NOM.3SG-be.PRS.3SG leave-PST.PTCP.F.SG without pay-INF
dequé]]?
what
'This time she left without paying for what?'

b. ?Ci coup **dequé** l'è partia [[sensa payé]]?

On the other hand, adjunct wh-words are deemed acceptable both clause internally and fronted (135).

(135) Context: Sara is a very loving and caring person and always offers to pay for coffee for people she meets at the bar. However, she is always out of cash and often does not manage to pay for her friends. One morning, as you walk in, you see Sara leaving the bar and the bartender Ugo sighing, so you say (135a):

a. Ci coup l'è parti-a [[senza pay-é **pe**
DEM.M.SG hit NOM.3SG-be.PRS.3SG leave-PST.PTCP.F.SG without pay-INF for
qui]]?
who
'This time she left without paying for whom?'

b. Ci coup **pe qui** l'è partia [[sensa payé]]?

The slightly degraded status of (134b) and the acceptability of (135b) might be due to the non-finiteness of the clause. Yet, data from finite adjunct clauses is ambiguous. Given a sentence pair like (136), some speakers judged (136a) ok and (136b) slightly degraded, while other speakers' judgments were the exact opposite.

(136) a. Ci coup son parti-e [[senza que Sara
DEM.M.SG hit be.PRS.3PL leave-PST.PTCP.F.PL without that Sara
l'uch-e pay-à **dequé**]]?
NOM.3SG-have.SUBJ-3SG pay-PST-PTCP what
'This time they left without Sara paying for what?'

b. Ci coup **dequé** son partie [[sensa que Sara l'uche payà]]?

Furthermore, having the adjunct wh-word surface inside the adjunct clause has been deemed quite degraded (137a), while fronting it as perfectly acceptable (137b).

(137) a. ??Ci coup son parti-e [[senza que Sara
DEM.M.SG hit be.PRS.3PL leave-PST.PTCP.F.PL without that Sara
l'uch-e pay-à **pe qui**]]?
NOM.3SG-have.SUBJ-3SG pay-PST-PTCP for who
'This time they left without Sara paying for whom?'

b. Ci coup **pe qui** son partie [[sensa que Sara l'uche payà]]?

As opposed to other types of adjunct islands, conditional adjunct islands are not accounted for by appealing to processing difficulties (Sprouse et al., 2012a, 2016). The CIwh-word is felicitous inside the conditional island (138a), while fronting it leads to slight unacceptability (138b). Furthermore, there is no asymmetry between arguments and adjuncts (cfr. 138 and 139).

(138) a. Tcheunne s'enmaleuch-e todzor [[se te cont-e **dequé**]]?
Tcheunne REFLget.angry.PRS-3SG always if NOM.2SG tell.PRS.3SG what
'Tcheunne always gets mad if you tell what?'

b. ?**Dequé** Tcheunne s'enmaleuche todzor [[se te conte]]?

(139) a. Luisa s'enmaleuch-e todzor [[se te copp-e lo
Luisa REFL-get.angry.PRS-3SG always if NOM.2SG eat.PRS.3SG DET.M.PL
pan **avouë dequé**]]?
biscuit.PL with what
'Luisa always gets mad if you cut the bread with what?'

b. ?**Avouë dequé** Luisa s'enmaleuche todzor [[se te coppe lo pan]]?