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Choose me! Optionality in wh-fronting and copy deletion: evidence for overt-covert movement in Valdôtain Patois

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In this paper, I discuss new data on wh-movement in the Francoprovençal language Valdôtain Patois (ValPa) in support of overt-covert movement: overt movement with pronunciation of a lower copy. Wh-phrases in ValPa can either be fronted or occur clause-internally. Based on empirical evidence from word order patterns and adverb placement, I argue that ValPa clause-internal wh-phrases do not appear in-situ, but rather are displaced to the Low Left Periphery at the edge of vP. Furthermore, using evidence from intervention effects, binding, inverse scope, and parasitic gaps, I argue that clause internal wh-phrases do not remain in the Low Left Periphery but overtly move to the position they take scope in. The different word-orders are then derived via a copy deletion mechanism, meaning that the optionality is not accounted for in narrow syntax.

1 Introduction

The inverted Y-model of grammar in **Figure 1** (Chomsky & Lasnik 1977) distinguishes between overt and covert movement. Overt movement happens in narrow syntax, before Spell-Out, and has syntactic, semantics, and phonological reflexes, (1). Covert movement has syntactic and interpretive effects but no phonological reflex, as it happens post Spell-Out, at Logical Form (LF) (Huang 1982; Sulemana, 2019 a.o.), as it is the case for *which book* in (1). Quantifier Raising is another instance of covert movement (Heim & Kratzer 1998; Barker 2020; a.o.).

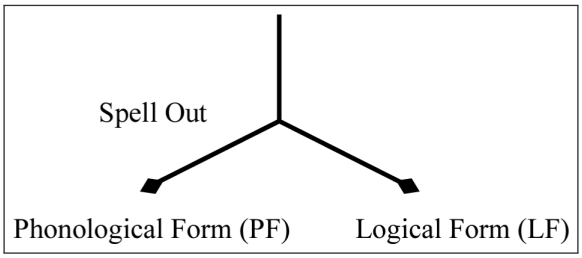
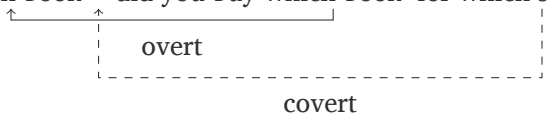


Figure 1: The inverted-Y Model of grammar (Chomsky & Lasnik 1977).

(1) Which book did you buy ~~which book~~ for which student ?



Any overt movement chain contains at least two copies, as in (1). Since Chomsky & Lasnik (1977) it was obvious that LF could choose which copy to interpret (as evidenced by the position the wh-phrase can be interpreted at LF, also known as reconstruction effects (Fox 1999; Lebeaux 2009)), while at Phonological Form (PF) the assumption was to pronounce the head of the chain. Starting in the '90s, however, the copy theory of movement has seen various evolutions, the most notable being Bobaljik's (1995) Single Output Syntax or T-model (**Figure 2**), building on Brody (1995). In the T-model, there is no distinction between overt and covert movement: all movement happens in narrow syntax. LF and PF then interpret and overtly realize one or more copies of the chain (Bobaljik 1995; Bobaljik 2002; Bošković 2002; Bianchi 2019; Amaechi & Georgi 2020; a.o.).[1] 'Old school' covert movement became overt-covert movement: movement in narrow syntax with deletion of higher copies of the chain.

The T-model proposes a more straightforward approach to movement, since all movement occurs in narrow syntax, with deletion of different copies. Nevertheless, adopting the T-model means loss of empirical coverage, and it becomes difficult to reconcile the differences between

[1] Another approach to wh-in situ would be to argue that wh-phrases move to the left periphery, with consequent remnant movement of the rest of the clause to a higher position (Kayne 1998 a.o).

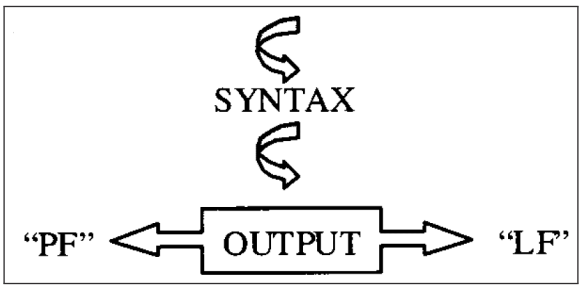


Figure 2: The T-model (Bobaljik 1995).

overt and covert movement. The latter, for instance, does not license parasitic gaps nor has effects on binding relations (see Huang 1982; Nunes 2004; Lin 2005; Sulemana 2019; a.o.), whereas overt movement does. Moreover, in the literature, there isn't that much data supporting overt-covert movement. The most prominent work on A'-movement comes from Bošković (2002) on multiple wh-fronting and Amaechi & Georgi (2020) on Focus movement in Igbo, who build their argument primarily on parasitic gap licensing. The properties of overt-covert movement thus remain under-explored.

This paper presents novel evidence in support of overt-covert movement from Valdôtain Patois, henceforth ValPa, (Glottolog: vall1249).[2] ValPa allows some degree of optionality in wh-fronting: while wh-fronting is the default (2a), wh-phrases can surface clause internally in certain pragmatic contexts, (2b).

(2) 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?

I argue that ValPa clause internal wh-phrases (CIwh-phrases) are not in situ, but surface at the edge of vP, in an area rich in A'-positions known as the Low Left Periphery (LLP) (Belletti 2004; Bonan 2019). Using various diagnostics, I show that CIwh-phrases do not remain 'frozen' in the Low Left Periphery, but move to the CP domain, or High Left Periphery. Crucially, I resort to parasitic gap licensing and binding to argue that this further leg of movement happens in narrow

[2] The name Valdôtain is used in the scarce literature on this language, e.g. Zanuttini (1997). I refer to it as Valdôtain Patois, as *patuoé* or *patois* is the name native speakers use to refer to their language. The use of this name is therefore a tribute to the inhabitants of Aosta Valley and their heritage. The data discussed in this paper has been collected through fieldwork done by the author. The main informants are two native speakers who use ValPa as the primary language in their daily life. Note that ValPa is a minority language and as such there are currently no monolingual speakers. However, most of the older speakers (>50 years of age), including the ones consulted for this study, were raised in families that only used ValPa at home and have been exposed to Italian (and French) in primary school, at the age of three at the earliest.

syntax, with deletion of different copies at PF (low-copy deletion = (2a); high-copy deletion = (2b)). Movement is not clause-bound: CIwh-phrases move to the position where they take scope in. The use of binding data to argue in favor of overt-covert movement is an absolute novelty. Together with parasitic gap licensing, they constitute a new and powerful argument in favor of overt-covert movement.

The paper is organized as follows. Section 2 introduces the language and the core data. Section 3 discusses previous theories on CIwh-phrases, while Section 4 demonstrates that ValPa CIwh-phrases *overtly* move to the matrix High Left Periphery. Section 5 sketches the proposed analysis, including implications and ensuing questions.

2 Background

ValPa is a language from the Francoprovençal group, spoken by around 60,000 speakers (Cavalli & Coletta 2003) in the northwest Italian region Aosta Valley (Brocherel 1958). Despite its small size (around 3000 square km), there is great linguistic variety in the region. The data here come from the variety spoken in Morgex, a town in the northwest part of the region. ValPa is an SVO (3) language and DO>IO is the default argument order (4).[3]

(3) Dz' ì reteri-à la machina. **SVO**
NOM.1SG have.PRS.1SG get.inside-PST.PTCP DET.F.SG car
'I put the car inside.'

(4) Dz ì baill-à la machina à Tcheunne. **DO>IO**
NOM.1SG have.PRS.1SG give-PST.PTCP DET.F.SG car to Tcheunne
'I gave the car to Tcheunne.'

Similarly to other Romance languages (see Ledgeway & Lombardi 2005; Schifano 2018, and references therein), all verbal elements move out of the vP. By looking at their position relative to adverbs (Cinque 1999), we see that finite verbs and auxiliaries surface between *de couteumma* 'usually' and the negation *pò* (5), which in ValPa above T (Zanuttini 1997). Following this evidence, I will assume that the verb moves to T. Active past participles in ValPa move to a position above vP, as shown by their positions with regard to low manner adverbs, like *bien* 'well' (6), one of the lowest in Cinque's (1999) hierarchy. Note, however, that past participles do not move particularly high, as they surface below termporal adverbs like *todzor* 'always', as in (6).

[3] In (3) I only show the word-order with a definite object; definiteness may affect the word-order. Thereby, here definite NPs are used consistently.

(5) **De couteumma** l’ atisit-e (*de couteumma) **pò** lliu lo
usually CL.NOM.3SG buy-PRS.3SG NEG NOM.3SG DET.M.SG
pan.
bread
‘Usually he does not buy the bread.’

(6) *(Todzor) l’ è **todzor** (*bien) allé-é **bien** à l’
always NOM.1SG be-PRS.3SG well go.PST.PTCP-F.SG to DET.F.SG
écoula.
school
‘She always did well in school.’

The position of verbs in ValPa is not central to the present research, but nonetheless relevant, as we will see in the next section.

2.1 Question formation in Valdôtain Patois

ValPa allows for optionality in wh-fronting: wh-phrases can occur fronted (7a) or clause internally (7b). While (7b) could at first sight appear to be an echo-question, it differs in word-order, pragmatics, and intonation from echo-questions (7c), in which the wh-phrase is accented. Wh-phrases in echo-questions are assumed to surface in situ (Huang 1982; Chomsky 2014; Bobaljik & Wurmbrand 2015; a.o.).

(7) a. **À qui** t’ à baill-à lo livro su le tseâ?
to who CL.NOM.2SG have.PRS.2SG give-PST.PTCP the book on the horse.PL
‘To whom did you give the book on horses?’
b. T’à baillà **à qui** lo livro su le tseâ?
c. T’à baillà lo livro su le tseâ **À QUI**?

(7a) and (7b) are truth-conditionally equivalent, but differ pragmatically. Wh-fronting, (7a), is the default word-order for wh-questions, while the word-order in example (7b), similarly to French (Chang 1997; Boucher 2010: a.o.) and some northern Italian dialects (Munaro & Poletto 2023), is pragmatically marked for highly presuppositional contexts (Chang 1997; Boucher 2010). In (8) the speaker strongly presupposes that the interlocutor has bought something. As evidence of this, only the fronted version can be contained in an alternative question like (9a), whereas the wh-question with the CIwh cannot (9b). See Seguin (In press c) for an analysis of the pragmatics of these constructions.

(8) **Context:** it is market day in your town. Your partner always visits the market to buy fresh vegetables and fruits, cheese, meat, and so on. During breakfast, you ask them:
T' atsit-e **dequé** ì martsà voui?
CL.NOM.2SG buy-PRS-2SG what at.the market today
'What will you buy at the market today?'

(9) a. **Dequé** t' à atsit-ò ì martsà où t' à pò atsit-ò ren?
What CL.NOM.2SG have.PRS-2SG buy-PST.PTCP at.the market or CL.NOM.2SG have.PRS-2SG NEG buy-PST.PTCP nothing
'What will you buy at the market or is it the case that you won't buy anything?'
b. #T'à atsitò **dequé** ì martsà où t'à pò atsitò ren?

In ValPa, any wh-phrases can occur clause internally, be it an argument as in (7b), or an adjunct, as in (10b).

(10) a. **Quan** te me lo port-e lo livro su le tseâ?
when CL.NOM.2SG CL.DAT.1SG CL.ACC.3.M.SG bring.PRS.2SG the book on the horse.PL
'When are you gonna bring me the book on horses?'
b. Te me lo porte **quan** lo livro su le tseâ?

The optionality extends to D-linked wh-phrases (11). The only interrogative phrase disallowed in clause internal position is *perqué* 'why' (12), which is expected if 'why' interrogative wh-phrases are externally merged in the High Left Periphery of the clause (Rehg 1981; Rizzi 2001; a.o.).

(11) a. **Avouë quint-a feuille** t' à predg-à ier?
with which-F.SG girl CL.NOM.2SG have.PRS.2SG speak-PST.PTCP yesterday
'With which girl did you speak yesterday?'
b. T' à predgà **avouë quinta feuille** ier?

(12) a. **Perqué** te m' à port-ò lo livro su le tseâ?
why CL.NOM.2SG CL.DAT.1SG have.PRS.2SG bring-PST.PTCP the book on the horse.PL
'Why did you bring me the book on horses?'
b. *Te m' à portò **perqué** lo livro su le tseâ?

Aggressively non-D-linked wh-phrases are quite limited in ValPa; speakers prefer expressing such questions via emphatic intonation. Swear words, which are common in aggressively non-D-linked wh-words, are mostly borrowed from Italian, (13). Yet, speakers report that wh-phrases like *que cazzo* are disallowed clause internally (13), which is expected if this position is limited to highly presuppositional contexts.

(13) a. **Que cazzo** te fei bà lè?
what dick CL.NOM.2SG do.PRS.2SG down there
'What the hell are you doing down there?'
b. *Te fei **que cazzo** bà lè?

CIwh-phrases are also possible in embedded clauses, both finite (14b) and non-finite (15b). In both cases, wh-phrases have matrix scope, just like their fronted counterparts in (14a) and (15a).

(14) a. **Dequé** l' on pens-ò [que n'
what CL.NOM.3PL have.PRS-3PL think-PST.PTCP COMP CL.NOM.1PL
ari-en atsit-ò pe Tsalende]?
have.COND.PRS-3PL buy-PST.PTCP for Christmas
'What did they think we would buy for Christmas?'
b. L' on pensò [que n' arien atsitò **dequé** pe Tsalende]?

(15) a. **Yeui** te pens-a-e [d'all-é en vacanse ci tsaten]?
where CL.NOM.2SG think-PST-2SG to-go-INF on holiday DEM.M.SG summer
'Where were you thinking of going on holiday this summer?'
b. Te pensae [d'allé **yeui** en vacanse ci tsaten]?

The following section will discuss previous theories of CIwh-phrases crosslinguistically.

3 Previous analyses of CIwh-phrases

CIwh-phrases are relatively common cross-linguistically. In Persian (Indo-Iranian), wh-phrases are not fronted, yet they do not appear in situ either (16b). The unmarked word-order in the language is DO>V>PP (16a), yet wh-phrases surface in an immediate preverbal position, but must follow low manner adverbs (16b). This led Kahnemuyipour (2001) to argue that wh-phrases in Persian target a FocusP just above vP (16c).

(16) a. Æli ketab-o arum gozašt ru miz. **Persian**
Ali book-DO gently put.PST on table
'Ali gently put the book on the table.'

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

c. [$_{TP}$ Æli [$_{XP}$ ketabo [$_{AdvP}$ arum [$_{FocP}$ **koja**$_{j}$ [$_{vP}$ [$_{VP}$ gozašt ~~koja~~]]]]]]

The same has been argued, among other languages, for Malayalam (Dravidian) (Jayaseelan 1996; 2001) and Hindi-Urdu (Indo-Aryan) (Kidwai 2000; Manetta 2010).

CIwh-phrases are also quite widespread in Romance languages. French displays optionality in wh-fronting in a more allowing manner than ValPa (Baunaz 2016; Baunaz et al. 2023; Larrivée 2019; Garassino 2022; Seguin In press c). Following Jayaseelan (1996; 2001) and Kahnemuyipour (2001), Belletti (2006) argues that the CIwh-phrase in (17b) is surfacing in a Focus position at the edge of vP. More generally, this position is situated in the Low Left Periphery (LLP). The LLP is an area, postulated by Belletti (2004), rich in A'-position and situated just above vP, in (18). Its structure and purpose resembles that of the High Left Periphery (henceforth HLP) postulated by (Rizzi 1997) and then refined by Rizzi & Bocci (2017) among others, hence the term *Low* Left Periphery. However, unlike the HLP, the LLP is more contained, and comprises a dedicated FocusP, targeted by New Information Foci (NIF) and Contrastive Foci (CF), and iterable Topic projections.

(17) a. **Où** tu va-s? **French**
where CL.NOM.2SG go-PRS.2SG
'Where are you going?'
b. Tu vas **où**?

(18) [$_{TP}$ [$_{TopP}$ [$_{FocusP}$ NIF/CF [$_{TopP}$ [$_{vP}$ [$_{VP}$]]]]]]

Similarly, several languages spoken in Northern Italy display optionality in wh-fronting (Munaro 1999; Manzini & Savoia 2007; Bonan 2018; Munaro & Poletto 2023). Trevisan, a Venetan Language spoken in Treviso (Bonan 2018; 2019), is of particular importance for the present study because of the similarities in wh-fronting patterns between Trevisan and ValPa. In (19), the wh-phrase *chi* 'who' can freely occur fronted (19a) or clause internal (19b).

(19) a. **Chi** ga-tu catà? **Trevisan**
who have-CL.2SG met
'Who have you met?'
b. Ga-tu catà **chi**? (Bonan 2019: 15)

Based on evidence from word-order and Subject Clitic Inversion (SClI), Bonan argues that CIwh-phrases in Trevisan are not in situ. Just like in ValPa, the unmarked word-order in Trevisan is

DO>IO (20), yet in (21a), the IO wh-phrase *a chi* 'to who' surfaces to the left of the DO *i pomi* 'the apples'. The word-order as in (21b) is licit in echo-questions.

(20) a. Ghe go dato i pomi$_{DO}$ a Gianni$_{IO}$. **Trevisan**
DAT have.1SG given the apples to John
'I gave the apples to John.'
b. *Ghe go dato a Gianni$_{IO}$ i pomi$_{DO}$. (Bonan 2019: 61–62)

(21) a. Ghe ga-tu dato a chi$_{IO}$ i pomi$_{DO}$? **Trevisan**
DAT have-2SG given to whom the apples
'I gave the apples to John.'
b. *Ghe ga-tu dato i pomi$_{DO}$ a chi$_{IO}$? (Bonan 2019: 62)

Trevisan questions, polar or wh-questions, obligatorily display SClI, as shown by (22b), contrasted to the declarative in (22a). As (19b) shows, the question with the CIwh-phrase triggers SClI just like the fronted counterpart (19a). Bonan argues that Trevisan CIwh-phrases move to the FocusP in the LLP (23).

(22) a. Ti te ga zà senà. **Trevisan**
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: 14)

(23) [$_{TP}$ [$_{TopP}$ [$_{FocusP}$ wh-phrases [$_{TopP}$ [$_{vP}$ [$_{VP}$]]]]]]

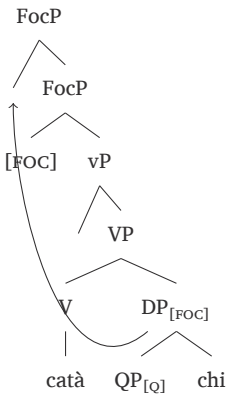
Trevisan CIwh-phrases are felicitous inside islands, in red parentheses in (24), which led Bonan to conclude that CIwh-phrases do not move further up than the LLP. Nevertheless, the wh-phrase has matrix scope.

(24) **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:
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: 194)

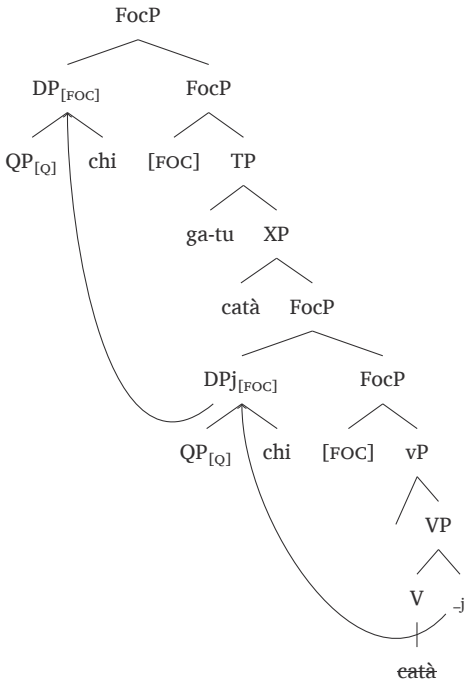
The matrix scope of the wh-phrase is obtained by movement of a silent Q particle à la Cable (2010), which Bonan (2019) argues is adjoined to Trevisan wh-phrases. Q-adjunction is what

accounts for the optionality in wh-fronting. FocP in the LLP always hosts a [FOC] feature, hence forcing movement of wh-phrases to the LLP (25).

(25)



(26)



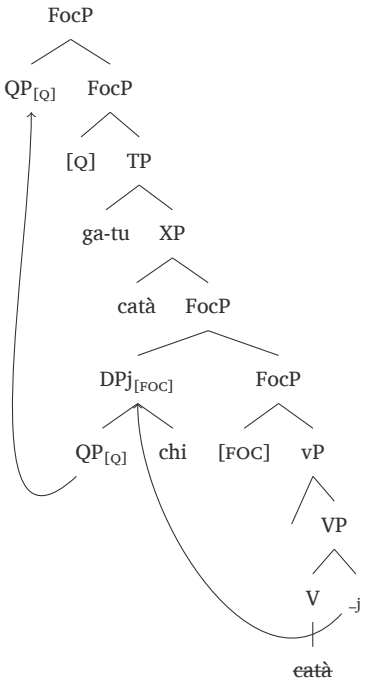
FocP in the HLP, on the other hand, either hosts a [FOC] or a [Q] feature. A [FOC] feature will attract the entire wh-phrase, as in (26).[4] This will then result in wh-fronting, (19a). If FocP in the HLP carries a [Q] feature, only the adjoined silent Q particle moves to the HLP, leaving the wh-phrase *chi* 'who' frozen in the LLP.[5] This is shown in (27) for (19b).

[4] The past participle *catà* also moves out of vP to a position below T: XP in (26).

[5] Note that sub-extraction in (27) is not problematic. When wh-phrases move to criterial positions, sub-extraction is felicitous, as argued by Rizzi (1997), Rizzi & Shlonsky (2007), and Bonan (2019). See also Bošković (2021) on evidence against the freezing ban.

There are two main takeaways of Bonan's (2019) account. First, the lowest leg of movement to the LLP is obligatory: driven by a [FOC] feature in the head of FocP, wh-phrases move to Spec,FocP. The different word-orders, fronted vs clause internal, are established by the feature hosted in FocP in the HLP: a [FOC] feature forces fronting of the whole wh-phrase, which pied-pipes QP, while a [Q] feature only drives movement of QP, leaving the wh-phrase in the LLP. The optionality is thus only apparent and Trevisan in fact displays structural ambiguity, which depends on the feature hosted in FocP in the HLP.

(27)



The following section will discuss the complete derivation of wh-questions in ValPa and ultimately show that Bonan's analysis is untenable for ValPa.

4 The movement path of wh-phrases in Valdôtain Patois

As mentioned in Section 2, CIwh-phrases, like in (28b), are pragmatically and intonationally distinct from wh-phrases in echo-questions (28c), assumed to be in-situ.[6] The question that needs to be addressed is whether CIwh-phrases, as in (28b) are in- or ex-situ. Verbal elements always occur to the left of CIwh-phrases. Given verb movement (cf. Section 2) we cannot resort to verb placement as a diagnostics, but we can make use of other word-order patterns. Recall that the default word-order in ValPa is DO>IO (4).

[6] See, however, Badan & Crocco (2021) for an ex-situ analysis of wh-phrases in echo-questions in Italian.

(28) a. **À qui** t' à baill-à lo livro?
to who CL.NOM.2SG have.PRS.2SG give-PST.PTCP the book
'To whom did you give the book?'
b. T'à baillà **à qui** lo livro ? **whIO>DO**
c. T'à baillà lo livro À QUI?

In (28b), the word-order is whIO>DO, thus differing from the default DO>IO (4). The same pattern is witnessed with PP arguments: the unmarked word-order in declarative sentences is DO>PP (29), but in the interrogative (30), the whPP surfaces to the left of the DO. The opposite order, as in (31), is only licit in echo-questions. This is initial evidence that CIwhs are not in situ.

(29) Dz' ì bett-ò le gneu su la tabla. **DO>PP**
CL.NOM.1SG have.PRS.1SG put-PST.PTCP the walnut.PL on the table
'I put the walnuts on the table.'

(30) T' à bett-ò **yeui** le gneu? **whPP>DO**
CL.NOM.2SG have.PRS.1SG put-PST.PTCP where the walnut.PL
'Where did you put the walnuts?'

(31) T' à bett-ò le gneu YEUI? **DO>whPP**
CL.NOM.2SG have.PRS.1SG put-PST.PTCP the walnut.PL where
'You put the walnuts WHERE??'

The next piece of evidence against an in-situ analysis of ValPa CIwh-phrases comes from parasitic gaps, whose occurrence is dependent on the existence of another gap (Engdahl 1983), as in (32a). In (32a), the parasitic gap in the adjunct clause is licensed by the A'-chain of *which book* (Engdahl 1983; Culicover 2001; Nunes 2004: a.o.). Covert A'-movement chains do not license parasitic gaps, as the English (32b) shows (see also Lin 2005 for a discussion of parasitic gaps in Mandarin, a wh-in situ language, and Nissenbaum (2000) for a different approach).

(32) a. Which book did you review ~~which book~~ [without reading *pg*] ?
b. *Who reviewed which book [without reading *pg*]?

ValPa allows parasitic gaps. In (33) we see that the parasitic gap in the adjunct clause is licensed in the presence of an A'-movement chain in the main clause. In the absence of an A'-movement chain, the parasitic gap is not licensed (34).

(33) **Dequé** l' à medg-à ~~dequé~~ [sensa tseid-é *pg*]?
what CL.NOM.3SG have.PRS.1SG eat-PST.PTCP without warm.up-INF
'What did (s)he eat without warming up?'

(34) L’ à medg-à-lo [sensa *(lo)
CL.NOM.3SG have.PRS.1SG eat-PST.PTCP-CL.ACC.M.SG without CL.ACC.M.SG
tseid-é]?
warm.up-INF
‘(S)he ate it without warming it up.’

In the example pair in (35), the CIwh-phrases *à qui* licenses the parasitic gap in the adjunct clause *apré ai baillá le tartiffle* (35a), precisely as its fronted counterpart (35b) (baseline in (36)).

(35) a. L’ à regal-ò **à qui** l’ olio ~~à qui~~ [apré ai
CL.NOM.3SG have.PRS.3SG gift-PST.PTCP to whom the oil after have.INF
dza baill-à *pg* le tartiffl-e]?
already give-PST.PTCP the potatoes
‘To whom did (s)he gift the oil after having already given the potatoes?’
b. **À qui** l’à regalò l’olio ~~à qui~~ [apré ai dza baillà *pg* le tartiffle]?

(36) L’ à regal-ò l’ olio à Nelly [apré ai dza
CL.NOM.3SG have.PRS.3SG gift-PST.PTCP the oil to Nelly after have.INF already
baill-à-*(lei) le tartiffl-e].
give-PST.PTCP-CL.DAT.3 the potatoes
‘(S)he gifted the oil to Nelly after having already given her the potatoes.’

The parasitic gap data provide evidence that ValPa CIwh-phrases are not in-situ. The next question concerns the position of CIwh-phrases. As shown in (37), the CIwh-phrase must follow the low manner adverb *bien* ‘well’, one of the lowest adverbs in Cinque’s (1999) hierarchy, located just above vP. This means that ValPa CIwh-phrases are displaced to a position just above vP, (37c).

(37) a. T’ aprist-e bien **dequé** avouë le loufi-e?
CL.NOM.2SG prepare.PRS-2SG well what with the blueberrie-PL
‘What do you prepare well with the blueberries?’
b. *T’apriste **dequé** bien avouë le loufie?
c. [$_{TP}$ t’apriste [$_{AdvP}$ bien [$_{LLP}$ **dequé** [$_{vP}$ avouë le loufie ~~apriste dequé~~]]]]

In this section, I have presented evidence that CIwh-phrases are not in-situ; they are displaced to a position between low manner adverbs and vP. The analysis discussed here allows locating the surfacing position of CIwh-phrases in ValPa in the LLP at the edge of vP, here labeled whP:[7]

[7] See Seguin (In press b) for the detailed structure of the ValPa LLP.

(38) $[_{HLP}\ [_{TP}\ [_{AdvP}$ manner adverb $[_{LLP}$ wh-phrase $[_{vP}\ [_{VP}$ ~~wh-phrase~~]]]]

The next section will discuss the whole derivation and movement path of wh-phrases.

4.1 Overt movement to the matrix HLP

In the previous section, I have shown that ValPa CIwh-phrases move to the LLP. However, it is not yet clear what the derivations are for (39a) and (39b). There are two possibilities: either (39a) and (39b) are structurally identical or they differ in their derivation.

(39) a. **À qui** t' à baill-à lo livro?
to who CL.NOM.2SG have.PRS.2SG give-PST.PTCP the book
'To whom did you give the book?'
b. T'à baillà **à qui** lo livro?

In this section, I will analyze the structure of the constructions in (39) and consider two hypotheses.

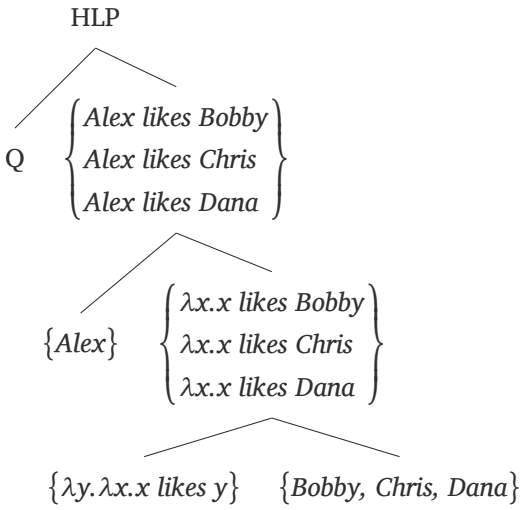
(40) **Hypothesis 1**: What You See Is What You get (WYSIWYG)
Clause Internal wh-phrases in ValPa move to the LLP and remain 'frozen' there
a. The wh-phrase is interpreted via Focus Alternatives
b. The wh-phrase is interpreted via Q-movement, à la Bonan

(41) **Hypothesis 2**: Further movement up
Clause Internal wh-phrases in ValPa move to the LLP and then to the position they take scope in
a. The second leg of movement happens covertly: CIwh-phrases move overtly to the LLP and then covertly to the (matrix) HLP
b. The second leg of movement happens overtly: CIwh-phrases move overtly to the LLP and then to the (matrix) HLP. The different word-orders are then the result of the pronunciation of different copies

The first hypothesis (40) is that VlaPa CIwhs remain in the LLP, meaning that optionality is accounted for in the syntax and (39a) and (39b) are derivationally different. There are, then, two possibilities to interpret the wh-phrase. The first possibility (40a) is that there is an interrogative operator in the HLP, and the wh-phrase is interpreted via Focus Alternatives (or Hamblin semantics), as argued for wh-in-situ by several researchers (Hamblin 1973; Rooth 1985; 1992; Beck 2006; Bruening & Tran 2006; Kotek 2016). In this mechanism, the denotation of the wh-phrase is a set of alternatives, as illustrated in the simplified (42) for the toy English example *Alex likes who?* At the TP level, the resulting set of alternative propositions combines with a question

operator (Q), which can pick out of the set of alternatives the possible answer(s). The semantics of the questions is, thus, derived without the need for the wh-phrase to move, in narrow syntax or at LF. For ValPa, the derivation is sketched in (43): the wh-phrase moves to the LLP (here to a position labeled whP), where it is interpreted via Focus alternatives.

(42)



(Adapted from (Kotek 2014: 23))

(43) **Focus Alternatives**: [$_{whP}$ [Q] [$_{TP}$ [$_{whP}$ **wh-phrase** [$_{vP}$ [$_{VP}$ ~~wh-phrase~~]]]]]

The second possibility is to resort to Q-adjuction (Cable 2010; Bonan 2019) and argue that in (39b) the Q-particle gets fronted and the wh-phrase remains in the LLP.

(44) **Q-adjunction**: [$_{whP}$ [$_{QP}$ Q] [$_{TP}$ [$_{whP}$ [$_{DP}$ ~~[$_{QP}$ Q]~~ **wh-phrase**] [$_{vP}$ [$_{VP}$ ~~[$_{DP}$[$_{QP}$ Q] wh-phrase]~~]]]]]

The second hypothesis (41) is that wh-phrases do not remain frozen in the LLP (contra Bonan (2019)), but move up to the position where they take scope. This hypothesis in turn contains two sub-hypotheses, as movement could be covert, that is happening at LF, or take place in narrow syntax. In this latter case, (39a) and (39b) would be derivationally identical and only differ in which copy of the chain gets pronounced (Bobaljik 1995; Bošković; 2002; Amaechi & Georgi 2020; a.o.)

I will resort to four diagnostics, intervention effects, inverse scope, binding, and parasitic gaps, and argue in favor of Hypothesis 2b (41b). CIwh-phrases do not remain frozen in the LLP, but *overtly* move to the position they take scope in. The different word-orders (39) are the result of the deletion of different copies in the chain.

4.2 Intervention effects

Intervention effects (IEs) (Beck 1996; Ouhalla 1996; Beck & Kim 1997; Bošković 1998; Mathieu 1999; Beck 2006) occur when a wh-phrase remains in the scope of a quantificational operator (45), such as negation. In these cases, fronting of the wh-phrase becomes obligatory.

(45) **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:
*[Op … [Op … [variable]]] (Mathieu 1999: 445)

Fronting, overtly or covertly (Kotek 2016; Sulemana 2019; a.o.) allows the wh-phrase to move and take wide scope over the intervener. On the other hand, wh-in-situ that do not undergo any movement are subject to IEs: both the Focus Alternative and Q-movement are subject to IEs (Pesetsky 2000; Beck 2006; Kotek 2016; Sulemana 2019).

German provides a relevant example, as wh-phrases that have undergone partial movement are subject to IEs (Beck 1996). The wh-phrase *wen* 'whom' can be fronted (46a) or undergo partial movement (46b) to the HLP of the embedded clause, while a non-contentive wh-phrase *was* 'what', here 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' via Focus Alternatives (cfr. (47a) and (47b)), and fronting of the wh-phrase is necessary (47c).[8]

(46) a. **Wen** glaubt Uta dass Karl ~~wen~~ 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** Karl ~~wen~~ 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: 449)

(47) a. *Was glaub-st du nicht **mit wem** Hans ~~mit wem~~
WH believe.PRS-2SG NOM.2SG NEG with who.DAT Hans speak.PST.PTCP
gesprochen ha-t?
have.PRS-3SG
'Who don't you believe that Hans has spoken to?'
b. Was glaubst du **mit wem** Hans ~~mit wem~~ gesprochen hat?
c. **Mit wem** glaubst du nicht dass Hans ~~mit wem~~ gesprochen hat? (Beck 1996: 3)

Going back to the hypotheses under consideration here, the predictions are as follows. Hypothesis 1 (WYSIWYG) predicts CIwh-phrases in ValPa to be subject to IEs, as they remain in the scope of the negation, just like in German. Hypothesis 2 (Further movement up), on the other hand,

[8] Glosses are my own.

predicts that ValPa CIwh-phrases are not subject to IEs, as they move over the negation, either in narrow syntax or at LF.

In ValPa, CIwh-phrases can surface in the scope of the negation *pò* (48b), which is situated just below T (Zanuttini 1997; Cinque 1999). Thus, despite surfacing clause internally, at some point in the derivation the CIwh-phrase *dequé* has moved over the negation, and can thus take scope over the entire clause (48c), like its fronted counterpart (48a). The same is witnessed in embedded clauses (49).

(48) a. **Dequé** t' à pò atsit-ò ì martsà?
what CL.NOM.2SG have.PRS.2SG NEG buy-PST.PTCP at.the 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?

(49) a. **Dequé** l' à pò deut [que l'
what CL.NOM.3SG have.PRS.2SG NEG say-PST.PTCP COMP CL.NOM.3PL
ari-on atsit-ò]?
have.COND-3PL buy-PST.PTCP
'What didn't he tell that they would buy?'
b. L'à pò deut [que l'arion atsitò **dequé**]?
c. ~~Dequé~~ l'à pò deut [que l'arion atsitò **dequé**]?

Mathieu (1999) also discusses other interveners, among which Universal Quantifiers and the temporal adverbs *souvent* 'often' and *toujours* 'always', which are situated below T (Cinque 1999). The interaction between wh-phrases and quantifiers will be discussed in Section 4.3. Regarding temporal adverbs, no IEs are witnessed: the CIwh-phrase is licensed in the scope of the adverb (50b). Once again, this is evidence that at some point in the derivation, *dequé* has moved over the adverb to take wide scope over the whole clause (50c).

(50) a. **Dequé** t' atsit-e soèn/todzor ì martsà?
what CL.NOM.2SG buy.PRS-2SG often/always at.the market
'What do you often/always buy at the market?'
b. T'atsite soèn/todzor **dequé** ì martsà?
c. ~~Dequé~~ t'atsite soèn/todzor **dequé** ì martsà?

The prediction from Hypothesis 2 is borne out: CIwh-phrases in ValPa are not subject to IEs from negation and temporal adverbs. This means that they move outside the scope of such elements, which are located below T but above vP (cf. Zanuttini (1997) and (Cinque 1999)), to a wh-position in the HLP, albeit it is not clear yet if the movement happens in narrow syntax or at LF.

4.3 Quantifiers and inverse scope

We can also resort to scope of wh-phrases with regard to quantifiers to diagnose the movement path of wh-phrases in ValPa. Languages vary in the types of scope configurations they allow (May 1978; Hayashishita 2013). ValPa, like English, has both surface and inverse scope: inverse scope readings are hard to access, yet not ruled out. The main reading of (51) is the one in (51a). However, if we construct an example where the surface scope reading goes against the speaker's knowledge of the world, then the inverse scope one becomes available. The knowledge of the world suggests that it is unlikely that there exists a kid big enough to be sleeping in front of every house in (52b). At LF, *tsaque meison* QRs to a position where it takes scope over the quantified expression in subject position.

(51) Eun garçon l' à medg-à tsaque biscuit.
a boy CL.NOM.3SG have.PRS.3SG eat-PST.PTCP every biscuit
'A boy has eaten every biscuit.'
a. There is an x and x is a boy and x ate every ∃ > ∀
b. For every x and x is a biscuit, a boy ate x ∀ > ∃

(52) Eun mèinou drumm-e devan tsaque meison.
a kid sleep.PRS.3SG in.front.of every house
'A kid sleeps in front of every house.'
a. There is an x and x is a child and x sleeps in front of every house ∃ > ∀
b. For every x and x is a house, a child sleeps in front of x ∀ > ∃

Beck (1996) and Mathieu (1999) argue respectively that German partial wh-phrases and French wh-in-situ cannot take wide scope over a quantifier in subject position, as shown in (53) for French.[9] This is because Focus Alternatives and Q-movement do not allow for a wide scope reading of the low wh-phrase. On the contrary, in Bùlì, the *ká* headed wh-phrase undergoes covert movement to the HLP, where it takes scope over the quantifier, hence the felicity of (54) (cf. also Pesetsky 2000).

(53) Tout le monde aime **quoi**? **French**
all the people likes what?
What does everybody like?'
a. ?'for which pair <x, y>, everybody (x) likes (y)?'
b. *'for which thing (x), everybody likes that thing (x)?' (Mathieu 1999: 447)

[9] Mathieu (1999) reports that the slightly marginal status of (53a) is due to independent reasons without however delving deeper into the topic.

(54) Wāi-mē:nā dìg **ká bwā:**? **Bùlì**
person-all cook Q what
'What did every one cook?' (Sulemana 2019: 14)

The prediction for Hypothesis 1 (WYSIWYG) is that CIwh-phrases in ValPa cannot take scope over a quantifier in subject position, while Hypothesis 2 (Further movement up) predicts that CIwh-phrases can take scope over a quantifier in subject position.

ValPa CIwh-phrase can take wide scope over a quantifier phrase in subject position: (55). Moreover, in (56), both the surface scope reading (56a) and the inverse scope one (56b) are available. ValPa, therefore, patterns with Bùlì.

(55) L' on tcheutte port-ò **dequé**?
NOM.3PL have.PRS.3PL all bring-PST.PTCP what
'What did everyone bring?'
a. 'for which pair <x, y>, everyone (x) brought y?'
b. 'for which thing (x), everyone brought x?'

(56) Eun mèinou drumm-e devan **quint-e** **meison**?
a kid sleep.PRS-3SG in.front.of which-F.PL house.PL
'A kid sleeps in front of which houses?'
a. There is an x and x is a child and x sleeps in front of which houses ∃ > wh
b. For which x and x are houses, a child sleeps in front of x wh > ∃

The evidence in (56) shows that the CIwh-phrases can scope over quantifiers in subject position, hence proving that -at some point in the derivation- CIwh-phrases move to a position where they can take wide scope over the whole clause, therefore moving higher than the LLP (Hypothesis 2). The evidence provided so far is not helpful in determining the time movement happens, i.e. in narrow syntax or at LF. However, the next two diagnostics will.

4.4 Binding

Binding Conditions can be satisfied at any intermediate point in the movement chain, hence an anaphor contained in a DP may be bound by an antecedent in its surface position, base-position, or any intermediate position (Barss 1986; Lebeaux 2009). For example, in the declarative (57a), the reflexive can only be bound by the DP *the Queen*, as the other possible binder, *the Princess*, is outside *herself*'s binding domain, the embedded clause. On the other hand, the reflexive in the D-linked wh-phrase *which painting of herself* in (57b) can be bound both by *the Queen*, while in its base-position, and *the Princess*. On its way up to the HLP of the main clause, the wh-phrase transits in the embedded HLP, where it can be bound by *the Princess*.

(57) a. The Princess$_j$ thinks [that the Queen$_i$ liked this painting of herself$_{i/*j}$].
b. [Which painting of herself$_{i/j}$]$_k$ does the Princess$_j$ think _$_k$ [that the Queen$_i$ liked _$_k$]?

Only *overt* movement gives rise to new binging configurations; covert (LF) movement, including Quantifier Raising (QR), does not. In (58), the anaphor contained in the in situ wh-phrase is free, as there is no suitable antecedent to bind it in its binding domain. In-situ-wh in English undergo covert movement at LF (Pesetsky 2000; Kotek 2016), but LF is too late for the binding principles to be satisfied. The same is witnessed with QR (59).

(58) *Who did the Princess$_i$ tell ~~who~~ [that the King likes **which painting of herself$_i$**]?

(59) The King$_i$ said [the Queen$_k$ will sell every painting of herself$_k$/*himself$_i$].

We can thus resort to binding to diagnose the movement path of ValPa CIwh-phrases. ValPa behaves like English. In the declarative (60), there is no suitable antecedent to bind the reflexive in the embedded clause, as *Ivana* is feminine. The quantifier phrase *tsaque fotografia de sè memo* 'every picture of himself' at LF will undergo QR, yet this does not allow for the reflexive to be bound by *Marco* in the matrix clause, as LF movement does not give rise to new binding configurations. On the other hand, (61) is felicitous, as the reflexive gets bound by *Marco* in the matrix clause, as the wh-phrase *quinte fotografie de sè memo* transits through the embedded HLP on its way to the matrix HLP.

(60) *Marco$_i$ di [que Ivana$_j$ llam-e tsaque fotografia de **sè$_i$ memo**].
Marco say.PRS-3SG COMP Ivana like.PRS-3SG every picture of REFL.M.SG
'Marco says that Ivana likes every picture of himself.'

(61) [Quint-e fotografie de **sè$_i$ memo**]$_k$ Marco$_i$ di [_$_i$ que Ivana$_j$ llam-e _$_k$] ?
which-F-PL pictures.PL of REFL.M.SG Marco say.PRS-3SG COMP Ivana like.PRS-3SG
'Which pictures of himself does Marco say that Ivana likes?'

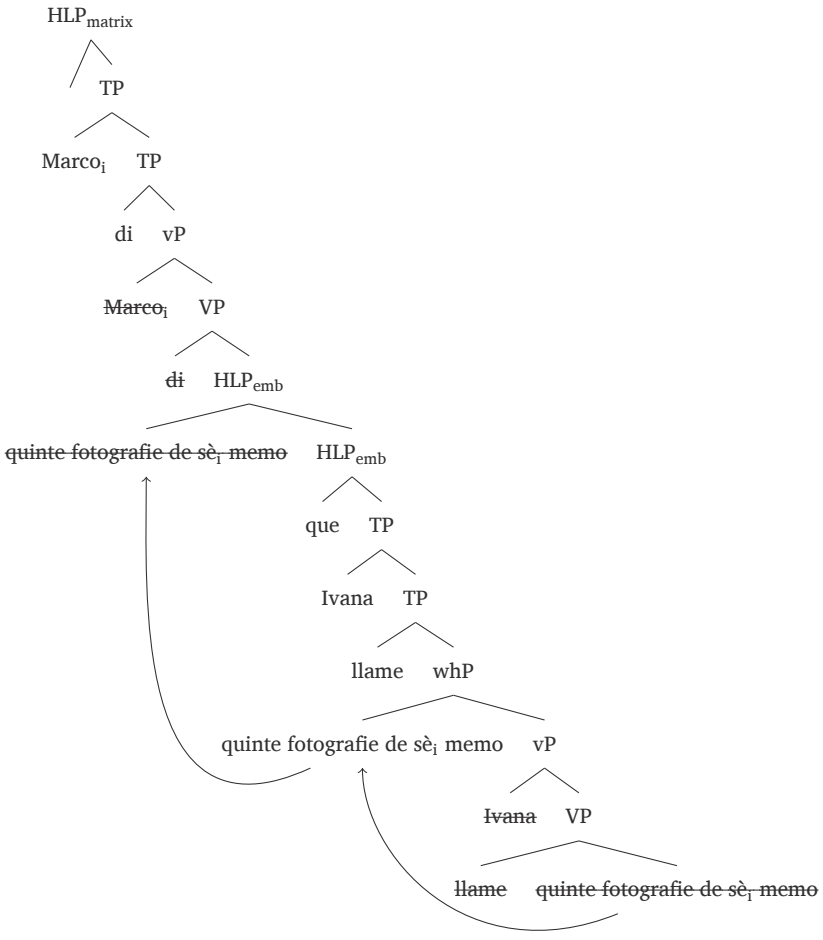
The example with a CIwh-phrase (62a) is also felicitous. Like in (60), there is no suitable antecedent for the reflexive in the embedded clause -the Binding Domain of *sè memo*-, thus the only way that the reflexive in (62b) can be bound is if the CIwh-phrase at some point in the derivation moves -at least- to the HLP of the embedded clause, as outlined in the simplified (63).[10]

[10] Note that both in (62b) and (63), I am sketching a derivation where the wh-phrase is moving out of the embedded clause. Therefore, the transit position of the wh-phrase would be structurally higher than the position where the complementizer *que* surfaces. If we were to adopt Rizzi's (1997) terminology, *que* would be in the head of the highest position in the HLP, ForceP, whereas the wh-phrase would transit through SpecForceP on its way up, hence the configuration in (63). The same reasoning applies to other long distance derivation, where within the HLP the wh-phrase surfaces to the left of the finite complementizer *que*.

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

b. Marco$_i$ di [$_{HLP}$ [quinte fotografie de **sè$_i$ memo**]$_k$ que Ivana$_j$ llame $_{-k}$] ?

(63)



One legitimate question that could arise at this point is whether the binding relation available in (62b) is the result of the reflexive being focalized and therefore interpreted through a logophoric reading (Pollard & Sag 1992; Reinhart & Reuland 1993; Safir 2004; Reuland 2011; Varaschin 2020). Logophoricity can be defined as the use of a marked form of pronominal reference, such as the reflexive form, to refer to a discourse participant. This would mean that, in (62b), the

reflexive is not syntactically licensed, but rather interpreted as co-referenced with a discourse participant.

However, if this were the case, (60) should be grammatical, contrary to facts. What matters is the scope of the wh-phrase. In (64a), the wh-phrase takes again matrix scope and both *Marco* and *Gianni* can bind *sè memo*, in the HLP2 and HLP3 respectively.

(64) a. [$_{HLP1}$ Marco$_j$ l' à deut [$_{HLP2}$ que Gianni$_k$
Marco NOM.3.SG have.PRS.3SG say.PST.PTCP COMP Gianni
so [$_{HLP3}$ que Ivana l' à atsitò quinta
know.PRS.3SG COMP Ivana NOM.3.SG have.PRS.3SG buy.PST.PTCP which
fotografia de **sè$_{j/k}$ memo**]]] ?
picture of himself
'Which picture of himself did Marco say that Gianni knows that Ivana bought?'

b. [M.$_j$ l'à deut [que G.$_k$ so [que I. l'à atsitò quinta fotografia de **sè$_{j/k}$ memo** ?]]]

On the contrary, in (65a) the wh-phrase only moves to the HLP3, where it takes scope and only *Gianni* can bind *sè memo*.

(65) a. [$_{HLP1}$ Marco$_j$ l' à deut [$_{HLP2}$ que Gianni$_k$
Marco NOM.3.SG have.PRS.3SG say.PCT.PTCP COMP Gianni
so [$_{HLP3}$ quinta fotografia de **sè$_{k/*j}$ memo** Ivana l'
know.PRS.3SG which picture of himself Ivana NOM.3.SG
à atsitò.]]]
have.PRS.3SG buy.PST.PTCP
'Marco said that Gianni knows which picture of himself Ivana bought.'

b. [Marco$_j$ l'à deut [que G.$_k$ so [quinta fotografia de **sè$_{k/*j}$ memo** I. l'à atsitò _]]]

This data is strong evidence that ValPa CIwh-phrases do not remain frozen in the LLP, but move to the position they take scope in. This movement must happen in narrow syntax, as covert (LF) movement does not create new binding configurations, which speaks in favor of Hypothesis 2b (further movement up in narrow syntax). Furthermore, example (64a) shows that the movement of the wh-phrase is not clause bound. Finally, these patterns provide evidence that pronouns like *sè memo* 'himself', even when contained inside another DP, are anaphors through and through, as argued by Charnavel & Sportiche (2016) and ultimately Chomsky (1986).

Finally, before moving to parasitic gaps in the next subsection, a brief discussion on successive-cyclic movement is in order. Examples like (64) show that the CIwh-phrase containing the anaphor moves in a successive-cyclic fashion (Chomsky 1973; 1977; McCloskey 2000; Abels 2012; Georgi

2014a; van Urk 2015; van Urk & Richards 2015). This means that, instead of moving in one fell swoop from its base-position to the matrix HLP, the wh-phrase transits through the HLP of each embedded clause on its way to the matrix HLP, as sketched in (63) for (62). This evidence speaks in favor of Hypothesis 2b (further movement up in narrow syntax). This means that questions like (62) have the exact same derivation as (61), but not necessarily the other way around: it does not show that wh-phrases *do* stop in the LLP on their way up to the HLP. It might be that from their base position CIwh-phrases, (62), are scrambled to the LLP with subsequent operator-driven movement to the HLP, whereas in examples with the fronted wh-phrase (61) the latter is moved to the HLP in one fell swoop. The second scenario seems unlikely given what we know about A'-movement and previous studies on cyclicity (McCloskey 2000; van Urk & Richards 2015; among many others), but it is nonetheless important to empirically establish whether (61) and (62) have the same derivation.

The Lebeaux effect is a phenomenon described by linguist David Lebeaux (2009) and consists of an asymmetry in the interpretation of arguments and adjuncts of wh-phrases. Wh-phrases containing an argument (66a) must be interpreted in base-position at LF, whereas those containing an adjunct (66b) need not. In (66a), 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, as the wh-phrase must be interpreted in base-position, where *Yuri* gets bound by *he*. In (66b), on the other hand, co-reference between *Yuri* and *he* is possible as the wh-phrase containing the adjunct need not be interpreted in base-position. This is because the relative clause containing the R-expression in (66b) can, since it is an adjunct, be merged 'late', namely after the wh-phrase has escaped the c-command domain of the pronoun, while this is impossible for arguments, as in (66a).

(66) a. So, [which pictures of Yuri_j]$_k$ did $\text{he}_{i/*j}$ hang on the wall $\__k$?
b. So, [which pictures that Yuri_j took]$_k$ did $\text{he}_{i/j}$ hang on the wall $\__k$?

Constructing examples following Fox (1999) with an R-expression and a bound variable, we can diagnose the movement path of wh-phrases. Let's first look at the declarative baseline (67), with the R-expression *Ivana* and the bound variable *l'* 'he', which needs to be bound by *tsaque garson*. This bound reading is possible in (67) since the DP *la fotografie que l'à fà à Ivana* is in base-position and *l'* is bound by *tsaque garson* 'every boy'. However, co-reference between *Ivana* and the benefactive *'llie* is impossible due to a Principle C violation.

(67) Tsaque garson_j l' à stamp-ò per $\text{'llie}_{i/*k}$ la fotografia
every boy CL.NOM.3SG have.PRS.3SG print-PST.PTCP for ACC.F.SG the picture
que l_j' à f-à à Ivana_k.
COMP CL.NOM.3SG have.PRS.3SG do-PST.PTCP to Ivana
'Every boy_j printed for her_k the photo that he_j has made for $\text{Ivana}_{i/*k}$. '

If we look at the interrogative counterpart of (67) with a CIwh-phrase, (68), we see that the bound reading is possible without incurring a Principle C violation. This is expected since CIwh-phrases surface in the LLP and thus higher than the benefactive.

(68) Tsaque garson$_j$ l' à stamp-ò [$_{LLP}$ [quin-ta fotografia
every boy CL.NOM.3SG have.PRS.3SG print-PST.PTCP which-F.SG picture
que l$_j$' à f-à à Ivana$_k$]$_i$ per 'llie$_k$ _$_i$]?
COMP CL.NOM.3SG have.PRS.3SG do-PST.PTCP to Ivana for ACC.F.SG
'Which photo that he$_j$ has made for Ivana$_k$ has every boy$_j$ printed for her$_k$?'

Now, let's turn to an example with a fronted wh-phrase, (69). Here, for the bound reading to be possible, the wh-phrase *quinta fotografia que l'à fà à Ivana* needs to be interpreted low enough for *tsaque garson* to bind *l'*, namely in the LLP (marked in the example as ^{ok}_). It cannot be interpreted in base-position, otherwise we would stumble upon a Principle C violation (marked with *_). The sentence with the bound reading is acceptable, which means that the wh-phrase has been interpreted in the LLP, which in turn means that it must have transited through the LLP on its way to the HLP.

(69) [$_{HLP}$ Quin-ta fotografia que l$_j$' à f-à à
which-F.SG picture COMP CL.NOM.3SG have.PRS.3SG do-PST.PTCP to
Ivana$_k$]$_i$ tsaque garson$_j$ l' à stamp-ò [$_{LLP}$ ^{ok}_$_i$ per
Ivana every boy CL.NOM.3SG have.PRS.3SG print-PST.PTCP for
'llie$_k$ *_$_i$]]?
ACC.F.SG
'Which photo that he$_j$ has made for Ivana$_k$ has every boy$_j$ printed for her$_k$?'

Finally, if we construct an example with long distance wh-movement, where both the binder for *tsaque garçon* and the potential binder for *Ivana* are in the main clause, like (70), the bound reading is still possible. This means that the fronted wh-phrase has been interpreted in the matrix LLP (marked as ^{ok}_ in LLP1 in (70)), which in turn is evidence that the wh-phrase has transited through the matrix LLP on its way up.

(70) [$_{HLP1}$ [Quin-ta fotografia que l$_j$' à f-à à Ivana$_k$]$_i$
which-F.SG picture COMP CL.NOM.3SG have.PRS.3SG do-PST.PTCP to Ivana
tsaque garson$_j$ l' à demando [$_{LLP1}$ ^{ok}_$_i$ à 'llie$_k$ [$_{HLP2}$
every boy CL.NOM.3SG have.PRS.3SG ask-PST.PTCP to DAT.F.SG
de port-é [$_{LLP2}$ *_$_i$ à meison *_$_i$]]]] ?
COMP bring-INF to home
'Which photo that he$_j$ has made for Ivana$_k$ has every boy$_j$ asked her$_k$ to bring home?'

The data presented in this section is important as it shows two things: that CIwh-phrases overtly move to their scope position, therefore speaking in favor of Hypothesis 2b, and that wh-phrases move successive-cyclically (pace van Urk & Richards (2015)) through every LLP and HLP on their way to their scope position. The following section will further confirm this.

4.5 Parasitic gaps

Parasitic gaps offer another useful diagnostics. They allow identifying the length of movement as well as its timing, as only A'-chains formed in narrow syntax license parasitic gaps (Engdahl 1983; Culicover 2001; Nunes 2004). At the beginning of Section 4, I showed that CIwh-phrases license parasitic gaps, but I only provided examples where both the original licensing gap and the parasitic gap-containing adjunct clause were in a matrix clause (35). In order to establish whether the CIwh-phrase remains in the LLP or moves further up, we need to resort to an example with an embedded CIwh-phrase and a parasitic gap-containing adjunct that could be interpreted low (in the embedded clause) or high (in the matrix one). Since only overt A'-chains license parasitic gaps, both Hypothesis 1 (WYSIWYG) and Hypothesis 2a (Further movement up at LF) predict that embedded CIwh-phrases do not license parasitic gaps in structurally higher adjunct clauses. On the other hand, Hypothesis 2b (Further movement up in narrow syntax) predicts that embedded CIwh-phrases license parasitic gaps in structurally higher adjunct clauses.

In (71), the adjunct clause *apré ai tzeidò pg* modifies the embedded predicate.[11] The embedded CIwh-phrase licenses the parasitic gap in the adjunct clause, precisely as the fronted counterpart in (71b). Note that the gap in (71a) and (71b) is an actual parasitic gap and not a case of object drop: in the declarative baseline in (72), where there is no A'-chain, it is impossible to have a parasitic gap and a pronoun is necessary.

(71) **Context:** Your friend Clara is telling you about her picky colleague, who often warms up her lunch and then decides not to eat it. Clara knows her well and can see from her expression when she is about to throw the lunch away. You are really curious about what she did not eat this time, as her lunches are always very appetizing. So you ask her:

a. T' à compr-ei [que l' arie pò medg-à **dequé** [apré ai tzeid-ò *pg*]]?
NOM.2SG have.PRS.2SG understand-PST.PTCP COMP NOM.3SG have.COND.PRS.1SG NEG eat-PST.PTCP what after have.INF warm.up-PST.PTCP
'What did you understand she would not eat after having warmed up?'

b. **Dequé**$_k$ t'à comprei [que l'arie pò medgà $\__k$ [apré ai tzeidò *pg*]]?

[11] I assume, following Hewett (2023), that the temporal clause is an adjunct to vP, see (74).

(72) T’ à compr-ei [que l’ arie
NOM.2SG have.PRS.2SG understand-PST.PTCP COMP NOM.3SG have.COND.PRS.1SG
pò medg-à la seuppa [apré ai tzeid-ei-*(la)]].
NEG eat-PST.PTCP the soup after have.INF warm.up-PST.PTCP.F.SG-CL.ACC.F.SG
‘You understood she would not eat the soup after having warmed it up.’

At this point, we can modify the context to force a matrix interpretation of the parasitic gap-containing adjunct clause, as in (73). Here, *apré ai tzeidò parasitic gap* modifies the matrix predicate (73a), which means that the parasitic gap is structurally higher than the wh-phrase *dequé* ‘what’, surfacing in the embedded LLP. Thus, in order to license the parasitic gap, *dequé* needs to move out of the embedded clause and into the matrix one, as in the wh-fronting example (73b).

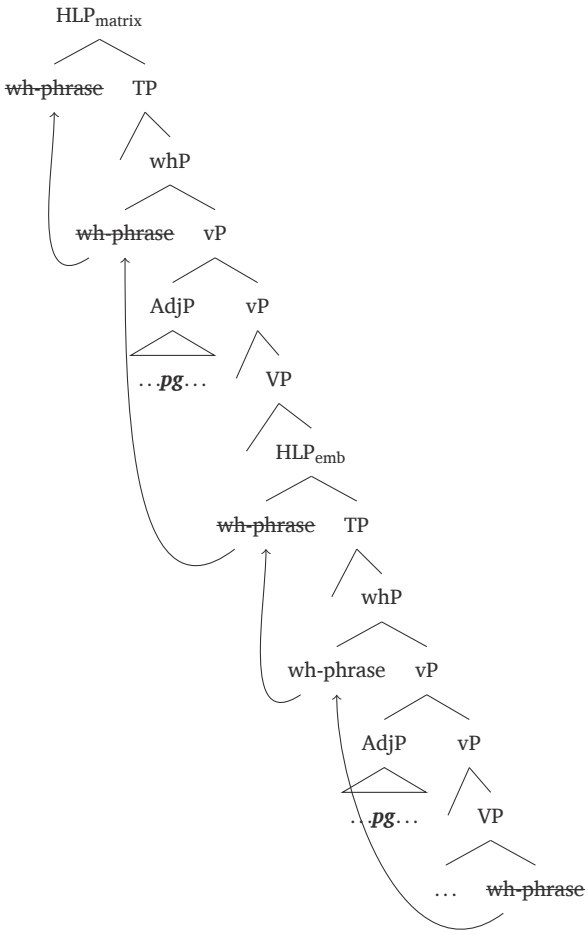
(73) **Context:** You are venting to your mother about your picky kid refusing to eat the leftovers you had warmed up for dinner last night. Curious about what food annoyed her grandson this time, your mother asks:

a. T’ à compr-ei [que l’ arie
NOM.2SG have.PRS.2SG understand-PST.PTCP COMP NOM.3SG have.COND.PRS.1SG
pò medg-à **dequé**] [apré ai tzeid-ò *pg*]?
NEG eat-PST.PTCP what after have.INF warm.up-PST.PTCP
‘What did you understand he would not eat after having warmed up?’

b. **Dequé**$_k$ t’à comprei [que l’arie pò medgà $_{-k}$] [apré ai tzeidò *pg*]?

The evidence in (73) is crucial for three reasons. First, it converges with the binding evidence discussed in Section 4.4 and speaks in favor of an overt movement analysis of CIwh-phrases, as only overt A’ movement license parasitic gaps. Furthermore, it shows that movement is not clause-bound: in (62a) *dequé* moves to the position it takes scope in, in the matrix HLP. This means that (71a) and (71b) are structurally identical: *dequé* has moved to the matrix HLP in narrow syntax, then deletion of the higher copies results in the output in (71a). Finally, this evidence further confirms that movement is successive-cyclic, as discussed in Section 4.4, as we see that ValPa CIwh-phrases license parasitic gaps anywhere between the position they surface in, namely the embedded LLP, and the one position where they take scope, as exemplified in (74). This piece of evidence provides further confirmation for Hewett’s (2023) claim that long-distance A’ dependencies license parasitic gaps at any vP edge position along their dependency path.

(74)



4.6 Ad interim summary

After having established that CIwh-phrases in ValPa are not in situ but surface in a clause internal position in the LLP, I have discussed two possible hypotheses. Hypothesis 1 (WYSIWYG) is ruled out by all diagnostics, summarized in **Table 1**, that show that ValPa CIwh-phrases do not remain frozen in the LLP.

The diagnostics speak in favor of Hypothesis 2b: CIwh-phrases move further up than the LLP in narrow syntax. The evidence from binding and parasitic gaps show that movement is not clause-bound: CIwh-phrases move to the position they take scope in and movement proceeds successive-cyclically through every LLP and HLP. Moreover, since only overt A'-movement is able to create new binding opportunities and license parasitic gaps (Engdahl 1983; Culicover 2001; Nunes 2004), the binding and parasitic gap licensing data is evidence that CIwh-phrases move to their scope position in narrow syntax, not at LF. Binding and parasitic gaps, therefore, provide new and compelling evidence for overt-covert movement and the T-model (Bobaljik 1995).

	Evidence for WYSIWYG	Evidence for further movement up
Intervention effects	No	Yes (overt/covert)
Inverse scope	No	Yes (overt/covert)
Binding	No	Yes (overt)
Parasitic gaps	No	Yes (overt)

Table 1: Summary of the diagnostics.

5 Chain realization

In the previous section, I have presented evidence that CIwh-phrases (75b) do not remain in the LLP, but overtly move to their scope position in a successive-cyclic fashion. This means that (75a) and (75b) are derivationally equivalent. Therefore, there is no optionality in wh-fronting strictly speaking: the different word orders are accounted for post-syntactically. In narrow syntax, the wh-phrases *dequé* moves to the HLP (76), then different copies can be pronounced: either the highest copy (76a) or the copy in the LLP gets pronounced (76b). Note that pronouncing more than one copy in the chain is impossible, (76c).

(75) a. **Dequé** t' à deut à Maria ?
what CL.NOM.2SG have.PRS.2.SG say.PST.PTCP to Maria
'What did you say to Maria?'
b. T'à deut **dequé** à Maria?

(76) a. [$_{HLP}$ **Dequé** t'à deut [$_{LLP}$ ~~dequé~~ à Maria [$_{VP}$ ~~dequé~~]]]? **Fronted**
b. [$_{HLP}$ ~~Dequé~~ t'à deut [$_{LLP}$ **dequé** à Maria [$_{VP}$ ~~dequé~~]]]? **Clause-internal**
c. *[$_{HLP}$ **Dequé** t'à deut [$_{LLP}$ **dequé** à Maria [$_{VP}$ ~~dequé~~]]]?

Bošković (2002) argues that in Serbo-Croatian, Bulgarian, and Romanian lower copies of wh-chains can be spelled out in specific circumstances. Romanian, like Serbo-Croatian and Bulgarian, is a multiple wh-fronting language (Rudin 1988; Bošković 2002; Franks 2017): multiple wh-phrases are possible and fronting is obligatory for all of them (77). The head of FocP in the HLP hosts an attract all-F feature, forcing movement of all Focus-marked elements (Bošković 1999; 2002).

(77) a. **Cine unde ce** a adus? **Romanian**
who where what have brought
'Who brought what where?'
b. *__Cine unde__ a adus __ce__? (Bošković 2002: 369)

Romanian disallows sequences of homophonous wh-phrases: in (78) spelling out the second wh-phrase in the clause-initial position is impossible. In order to avoid the violation of the PF constraint responsible for ruling out (78b), a lower copy of the chain gets spelled out, resulting in (78a). The same happens in Bulgarian and Serbo-Croatian (Bošković 2002; Franks 2017).

(78) a. **Ce** precede **ce**? **Romanian**
what precedes what
'What precedes what?'
b. *__Ce__ **ce** precede? (Bošković 2002: 365)

Further evidence for narrow syntactic movement with subsequent deletion of higher copies comes from the fact that low wh-phrases license parasitic gaps.

(79) **Ce** precede **ce** [fără să influențeze *pg*]? **Romanian**
what precedes what without SUBJ.PART influences
'What precedes what without influencing it?' (Bošković 2002: 374)

Bošković (2002) a.o. shows that, although the head of the chain is the default copy to spell out, choosing to pronounce a lower copy is not ruled out *a priori*. In Serbo-Croatian, Bulgarian, and Romanian lower copies of a wh-chain can be pronounced to save a derivation that would otherwise crash. In Bošković's account, it is PF to 'decide' to spell out a lower copy of a chain to avoid a PF constraint. While entirely outsourcing to PF the choice of what copy to spell out (cf. Bošković 2002) is tempting, it is unsuitable for ValPa. In the latter, pronunciation of a lower copy of the chain is not a rescue mechanism: the head of the chain can always be pronounced, yet in highly presuppositional context a lower copy *can* be pronounced instead. Furthermore, it would just relegate the issue to another component, without providing a solution. There are two questions that arise at this point, namely *how* this is computed by the grammar and *why* only these two copies can be chosen. I address these in the following section.

5.1 Copy pronunciation as a reflex of successive-cyclic movement

In Section 4, I have shown that ValPa does not display structural ambiguity and the different word orders in wh-questions are in fact the result of pronunciation of different copies in the chain. Moreover, wh-phrases in ValPa undergo successive-cyclic movement from their base-position to the one they take scope in. In matrix questions, (75a) and (75b), excluding the one in situ, the chain counts two copies, both of which can be spelled out. We, therefore, need to look at examples with at least one level of embedding. In (80), the chain counts four copies, as in (81). Yet, only

two copies can be spelled out: the head of the chain (81a) and the one in the LLP of the embedded clause (81d), namely wh-phrases 1 and 4 in (82).[12] Pronouncing any of the other copies leads to unacceptable results, as in (81b) and (81c).

(80) a. **Dequé** Gianni à deut à Maria [que te
what Gianni have.PRS.3SG say.PST.PTCP to Maria COMP NOM.2SG
de-i atsit-é pe Tsalende]?
must-PRS.2SG buy-INF for Christmas
'What did Gianni tell Maria that you must buy for Christmas?'

b. Gianni à deut à Maria [que te dei atsité **dequé** pe Tsalende]?

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

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

(82) [$_{HLP}$ **wh-phrase$_1$** [$_{LLP}$ ~~wh-phrase$_2$~~ [$_{HLP}$ ~~wh-phrase$_3$~~ [$_{LLP}$ **wh-phrase$_4$** [$_{VP}$ ~~wh-phrase$_5$~~]]]]]?

Syntactic features driving successive-cyclic movement can affect spell-out in several different ways, among which stranding (McCloskey 2000; van Urk & Richards 2015), agreement (McCloskey 2001; Georgi 2014a), and stress assignment. Moreover, Georgi (2014b;a) shows that languages also vary in where they display reflexes of movement. For instance, Wolof displays reflexes of long-distance movement in every embedded HLP but not in the matrix, whereas Chamorro only displays them in the matrix HLP.

Of particular relevance for this research is Bocci & Cruschina (2018)'s (and subsequent Bianchi et al. (2018) and Bocci et al. (2021)) study of Nuclear Pitch Accent (NPA) assignment in long-distance wh-questions in Italian. As opposed to declarative clauses, where the NPA falls on the rightmost element, in wh-questions the NPA is assigned to the main verb (Calabrese 1982), in bold in (83).

[12] As already stated earlier in the paper, I am assuming that in long distance wh-movement the wh-phrase moves through a structurally higher position than the position where the complementizer *que* surfaces. This is why in (81) the wh-phrase appears to the left of the finite complementizer *que* in the embedded HLP.

(83) Chi ha **chie-sto** un aumento?
who have.PRS.3SG ask-PST.PTCP a rise
'Who asked for a pay rise?' (Bocci & Cruschina 2018: 468)

Bocci & Cruschina (2018) resort to a production experiment to investigate the placement of NPA in wh-questions with one level of embedding. In cases of short wh-extraction, (84a), the NPA is always assigned to the main verb, *pensa*. In cases of long wh-extraction, on the other hand, the NPA is primarily assigned to the embedded main verb *presentare*, (84b).[13] The authors argue that NPA assignment in Italian is a phonological reflex of successive-cyclic wh-movement (see also Bianchi et al. 2018 and Bocci et al. 2021). The NPA assignment is triggered by the wh (or focus) feature shared by the wh-phrase and the phase head it transits through on its way to the matrix HLP. However, since Italian does not allow pronunciation of any copy other than the head of the chain, the NPA cannot fall on clause internal wh-phrases and, therefore, falls on the structurally closest overt element: the verb.

(84) a. Chi_k **pens-a** $_k$ che ti dov-r-ei presenta-re a-l
who think-PRS.3SG COMP CL.ACC.2SG must-COND-1SG introduce-INF to-the
direttore?
director
'Who thinks that I should introduce you to the director?'

b. Chi_k pens-i che dov-r-ei **presenta-re** $_k$ a-l direttore?
who think-PRS.2SG COMP must-COND-1SG introduce-INF to-the director
'Who do you think I should introduce to the director?'
(Bocci & Cruschina 2018: 482)

A controlled prosodic experiment would be necessary to properly compare the NPA assignment in ValPa to that described by Bocci & Cruschina (2018), but I would still like to provide preliminary descriptive results. In matrix clauses, ValPa patterns like Italian: as opposed to declaratives (**Figure 3**), in wh-fronting questions the NPA is assigned to the main verb (**Figure 4**). Yet, with CIwh-phrases, the NPA is assigned to the wh-phrase, (**Figure 5**).[14]

In cases of long distance embedding, we see the same pattern as that reported by Bocci & Cruschina (2018). When the head of the chain is pronounced, the NPA falls on the embedded verb, as in **Figure 6**. On the other hand, if a lower copy is pronounced (the one in the most embedded LLP), then the NPA is assigned to that copy, as in **Figure 7**.

[13] NPA assignment to the matrix main verb is clearly dispreferred by participants, but not entirely impossible.
[14] The speaker and who provided the sample is a male and one of the two primary consultants for the study.

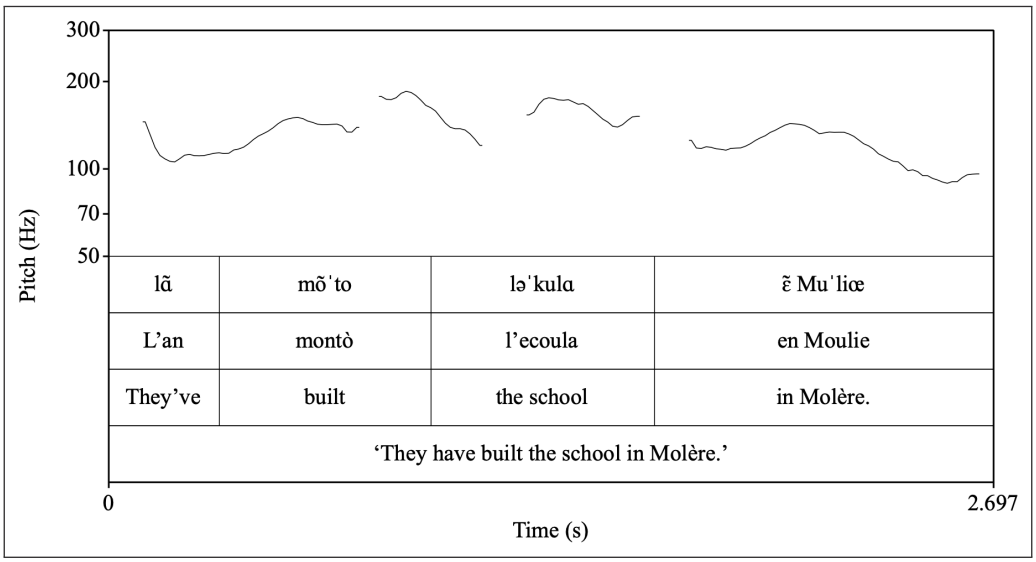


Figure 3: NPA assignment in declarative.

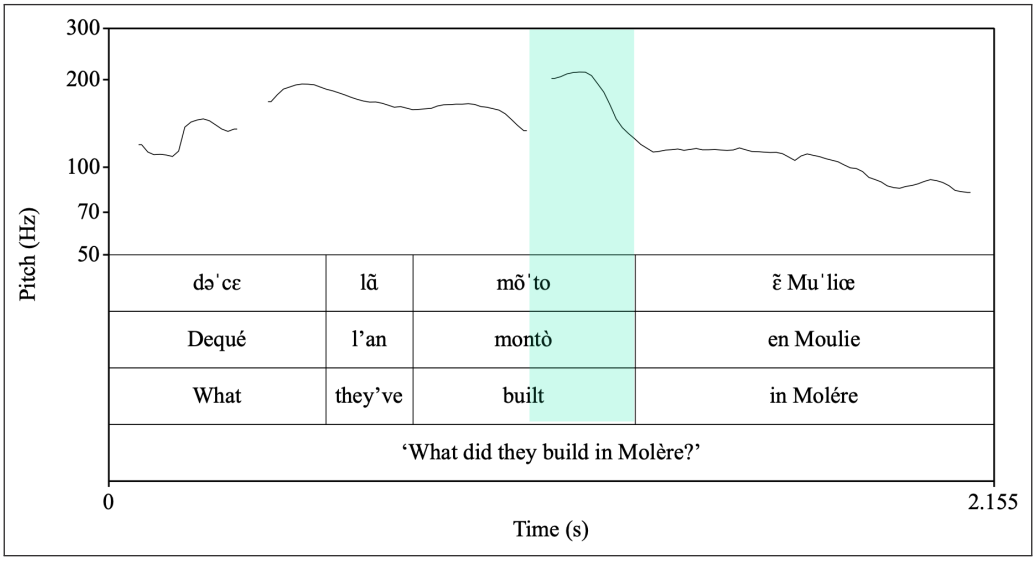


Figure 4: NPA assignment with a fronted wh-phrase.

This preliminary evidence confirms that in ValPa, like in Italian, the 'special' position is the one in the immediately local LLP, that is the LLP closest to the extraction site, see (85). Successive-cyclic movement through this position has phonological reflexes, whereas movement through the other intermediate positions does not. Unlike in Italian, in ValPa, the copy in the most local LLP can be phonologically realized and therefore can bear the NPA. It thus follows that wh-movement through the most local LLP has two different phonological reflexes: copy pronunciation and NPA

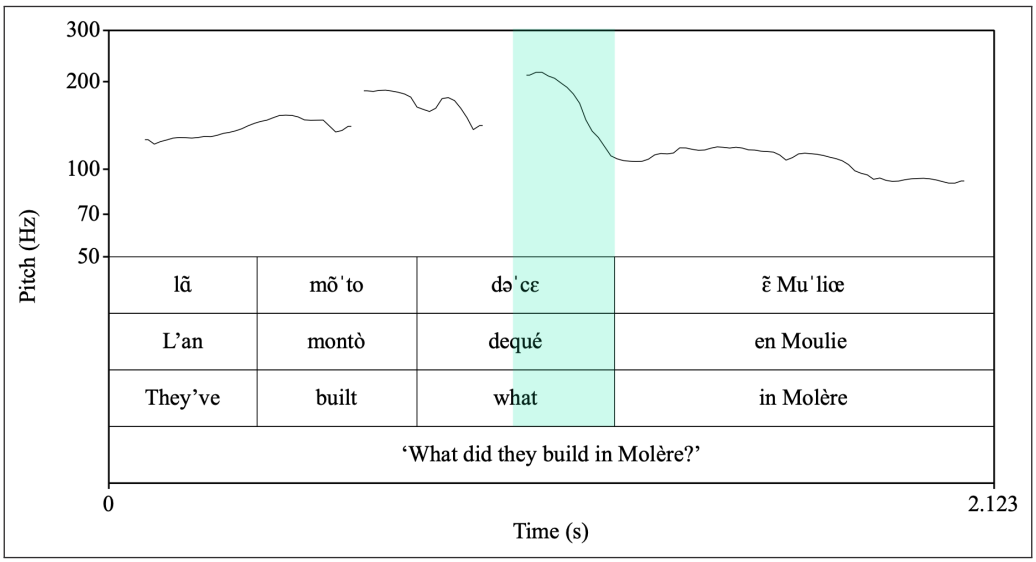


Figure 5: NPA assignment with a CIwh-phrase.

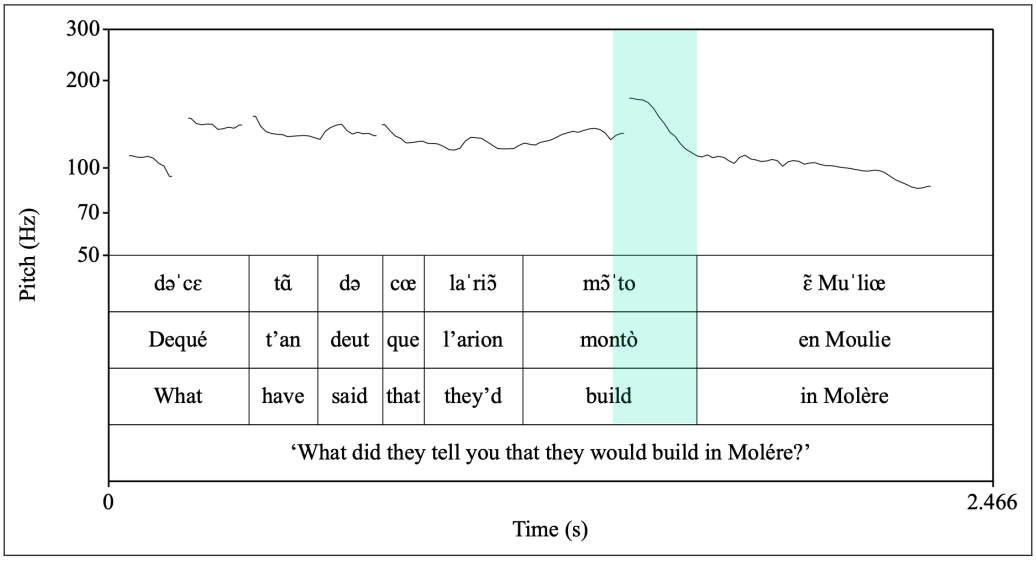


Figure 6: NPA assignment in long-distance wh-extraction and fronted wh-phrase.

assignment. If the copy in the LLP gets pronounced, it is assigned the NPA. On the other hand, if the head of the chain is pronounced, then the NPA is assigned to the main verb. It is not clear at this stage *why* the most embedded LLP is special and displays reflexes of successive-cyclic movement, whereas other intermediate positions do not, a question that should be addressed in future research.

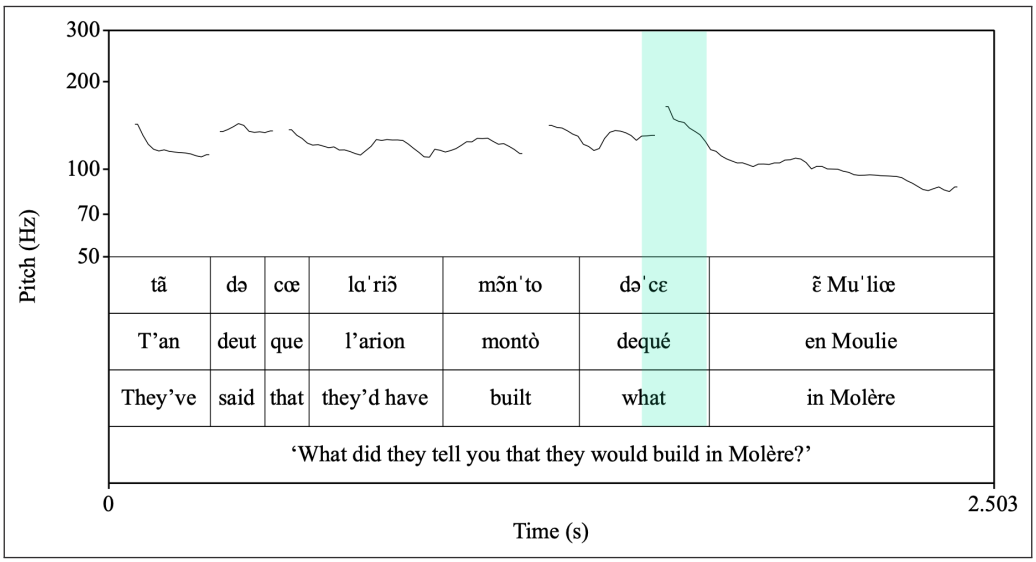
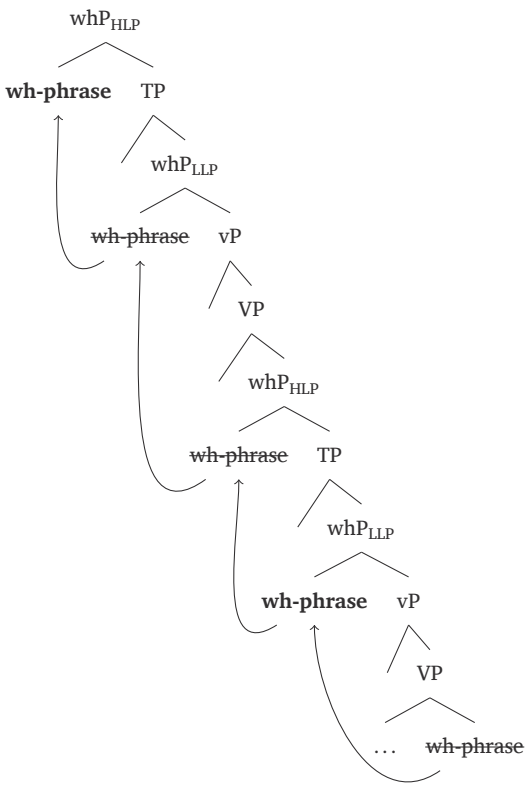


Figure 7: NPA assignment in long-distance wh-extraction and CI wh-phrase.

(85)



Finally, there is another aspect that might affect chain realization, namely pragmatics. Unlike in Trevisan and modern-day French, in ValPa there is no true optionality, (86). CIwh-phrases are only licensed in highly presuppositional contexts (see Section 2.1 and Seguin In press c for details).

The analysis I developed here does not account for that, but there are two main possibilities. One possibility is that syntax overgenerates and then undesirable outputs are filtered out (Chomsky & Lasnik 1977; Chomsky et al. 2019) by post-syntactic constraints or context.

(86) a. [$_{HLP}$ **wh-phrase$_1$** [$_{LLP}$ ~~wh-phrase$_2$~~ [$_{VP}$ ~~wh-phrase$_3$~~]]]? **default**
b. [$_{HLP}$ ~~wh-phrase$_T$~~ [$_{LLP}$ **wh-phrase$_2$** [$_{VP}$ ~~wh-phrase$_3$~~]]]? **marked**

The second possibility is to claim that there is some degree of communication between LF and PF, either as a communication channel between the two components (Amaechi & Georgi 2020) or by having a linear system in which LF in fact feeds PF (Bobaljik & Wurmbrand 2012; Bianchi 2019). Nevertheless, both these approached are potentially problematic, as the grammar strongly prefers interpreting the same copy at both LF and PF, which is almost never the case in ValPa. Throughout the paper, I have shown several instances where a lower copy of the chain is pronounced (with all the added pragmatic markedness), while the highest copy is interpreted for scopal purposes (see Sections 4.2 and 4.3 in particular). This topic raises important questions not only for the architecture of the grammar, but also on whether we need to disentangle interpretive and scopal properties from pragmatic markedness.

5.2 Island (in)sensitivity

Before moving to the conclusion, let me address island sensitivity. The analysis discussed in this section, supported by binding and parasitic gap evidence in Section 4, predicts that ValPa CIwh-phrases should display island sensitivity (different from Trevisan; compare Section 3). This is, however, not the case: *dequé* in (87a) has matrix scope, yet is felicitous in the adjunct clause, from which extraction is banned, (87b).

(87) a. Clara pleur-e [perqué t’ à ront-ù **dequé**
Clara cry-PRS.3SG because NOM.2SG have.PRS.3SG break.PST.PTCP what
bò lè]?
down there
‘What x is such that Clara cries because you broke x down there?’
b. *__Dequé__ Clara pleure [perqué t’à rontù ~~dequé~~ bò lè]?

The felicity of CI-wh phrases inside islands seems prima facie counterevidence for an overt-covert movement analysis. I contend that it is not problematic for my analysis, because partial deletion of structure can void island effects. The most well known case of ’salvation by deletion’ is sluicing (Ross 1967; Lobeck 1995; Merchant 2001; Ranero 2021). Sluicing constructions, like (88), involve the movement of a wh-phrases to the HLP and subsequent deletion of the complement, generally defined as TP. As Merchant (1999; 2008) a.o. pointed out, deletion of a TP that contains an island gets rid of the island effect, (89).[15] In ValPa, sluicing also ameliorates island effects, (90).

[15] See van Craenenbroeck & Lipták (2013), Ranero (2021), and Rodríguez (2022) a.o. for evidence in other languages.

(88) She is seeing someone, but I don't know [$_{HLP}$ who [$_{TP}$ ~~she is seeing who~~]].

(89) London got mad because my sister spoke with one of the students at the party but I don't know [$_{HLP}$ **which one** [$_{TP}$ ~~he got mad [because Linda spoke with which one~~]]].

(90) S' è emmaleuich-à perqué Clara l' à
REFL.3 be.PRS.3SG get.mad-PST.PTCP because Clara CL.NOM.3SG have.PRS.3SG
predg-à avouë eun rago de La Sala ma dze si pò avouë
speak-PST.PTCP with a boy of La Salle but NOM.1SG know.PRS.1SG NEG with
quin rago.
which boy
'(S)he got mad because Clara spoke with a boy from La Salle but I don't know which one.'

(91) S'è emmaleuichà perqué Clara l' à predgà avouë eun rago de La Sala ma dze si pò [$_{HLP}$ **avouë quin rago** [$_{TP}$ ~~s'è emmaleuichà [perqué Clara l' à predgà avouë quin rago]~~]]

Copy deletion is another, less commonly discussed, mechanism that voids island violations. In Romanian, for instance, spelling out a lower copy of the chain voids the island effect, as in (92) (Bošković 2002; Franks 2017).

(92) 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 ~~ce~~] ? (Bošković 2002: 374)

ValPa offers further empirical support for the claim that deletion of higher copies in the chain voids island effects. It is not clear, at this stage, *how* the amelioration occurs, but there are two main possibilities, on which I will briefly speculate. The first one is to argue, following (Bošković 2002), that what we see in ValPa (and Romanian) is not that different from what we see in sluicing constructions: the violation arises in the syntax, but then deletion (either of a piece of the structure or of higher copies in the chain) also deletes the island violation. Another possibility is that the violation arises post-syntactically: if islands are a PF phenomenon then they are influenced by PF processes, such as copy deletion and chain realization (Merchant 1999; Merchant 2008; Fox & Lasnik 2003; a.o.). I refer the reader to Seguin (In press a) for a more elaborate discussion of these possibilities and island constructions in the language. In any case, the crucial part for the present discussion is that an overt-covert movement analysis is not ruled out a priori by the island insensitivity of ValPa CIwh-phrases.

6 Conclusion

In this paper, I presented new data on apparent optionality in wh-fronting in the understudied Francoprovençal language Valdôtain Patois (ValPa). I have showed that clause internal wh-phrases (CIwh-phrases) are not in situ, but surface in the Low Left Periphery at the edge of vP. Subsequently, I have used four diagnostics (scope, intervention effects, binding, and parasitic gaps) to diagnose the length and 'time' of movement. Evidence from binding and parasitic gap licensing is crucial, as it shows that CIwh-phrases move to the matrix High Left Periphery, where they take scope, in narrow syntax, not at LF. Unlike Trevisan, ValPa does not display structural ambiguity, rather the different word-orders are the result of a copy deletion mechanism: high-copy deletion = CIwh-phrase; low-copy deletion = wh-fronting. The pronunciation of a lower copy of the chain appears to be the phonological reflex of successive-cyclic movement. Similarly to Italian, ValPa displays reflexes in the most embedded Low Left Periphery position. The exact mechanism is unclear, and more research is needed to understand why the most embedded Low Left Periphery position is 'special' in this respect and why languages differ in the positions they display phonological reflexes of successive-cyclic movement.

The biggest scientific contribution of the paper is the new and concrete evidence in favor of overt-covert movement, that is movement in narrow syntax with deletion of higher copies, and the Single Output Syntax or T-model (Bobaljik 1995; Chomsky 2000; Pesetsky 2000; Bobaljik 2002; Bošković 2002; Amaechi & Georgi 2020). The latter, despite being theoretically very appealing, was not supported by much empirical evidence so far. The data from binding discussed here is an utter novelty in the field and uncontroversially shows that we are dealing with movement in narrow syntax with deletion of higher copies. The licensing of parasitic gaps in structurally higher clauses similarly provides bullet-proof evidence for the need of overt-covert movement.

There are, of course, implications and questions that arise. Adopting the inverted Y-model of grammar would prevent us from accounting for the variation we see across natural languages, such as the ValPa patterns, as well as Focus realization in Igbo (Amaechi & Georgi 2020). On the other hand, adopting the T-model, crucial in describing the ValPa pattern, makes it hard to explain certain empirical points, like the lack of parasitic gap licensing with wh-in-situ. In the T-model, Mandarin, traditionally a wh-in-situ language, should behave like ValPa and license parasitic gaps, contrary to facts. There is no general ban on parasitic gaps in Mandarin, as topicalized wh-phrases do license them (Lin 2005), so either we need to maintain 'traditional' covert movement or there is another -yet undiscovered- explanation for these differences. A similar argument can be made for Quantifier Raising. In short, it seems that both the Y- and the T-model have great advantages, as well as shortage of empirical coverage, a big and important question that the field needs to address.

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Competing interests

The author has no competing interests to declare.

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