

The periphery of ν P in the theory of wh-in situ

Word count: 14739

Abstract This article outlines an implementation of Cable's (2010) Grammar of Q that considers the role played by the periphery of ν P, hitherto unexplored in this framework. Empirically, I offer a new example, in a new language family, of a known manifestation of wh-in situ: I argue that Trevisan, a Northern Italian dialect, displays compulsory clause-internal focus movement of both wh-elements and contrastive foci. Theoretically, I use the Trevisan data to present a new, tweaked application of previously proposed approaches whereby wh-elements do not contribute to clause-typing and Q-particles are cross-linguistically needed in the computation of answer-seeking wh-questions. My claim is that wh-in situ languages are characterised not only by language-specific choices between projection and adjunction of Q and overt vs covert movement of Q, but also in terms of the *loci* where the features relevant to wh-questions, [q] and [focus], are checked: while some languages check both in C, others make use of the clause-internal ν P-periphery to check [focus]. The theory developed in this article provides an innovative understanding of the mechanisms involved in Northern Italian wh-in situ that reduces all core properties to different combinations of the setting of simple, universal micro-parameters related to interrogative wh-movement.

Keywords: syntax; wh-in situ; focus; q-particles; feature scattering.

1 Introduction

This work deals with the phenomenon of optional wh-in situ in a variety of Romance in which clause-internal wh-elements are moved within the clausal domain: in this variety, wh-elements surface either in the left-periphery of the clause (HLP) or in the periphery of ν P (LLP). Low movement of wh-elements in answer-seeking interrogatives is a robust phenomenon in languages of Indo-European, Indo-Aryan, Dravidian and Niger-Congo origins at the very least, yet one that has rarely been considered in the Romance literature. Here, I wish to draw the attention of my fellow Romance specialists to a body of research on the topic, and then present an innovative understanding of these empirical facts.

The main aim of this piece of research is to provide a framework for the study of the phenomenon of optional wh-in situ in Romance that can also be extended, with minimal language-specific modifications, to languages which display wh-in situ of the 'pure' type. My claim is that a new typology of wh-in situ can be established if both the importance of (phonetically realised and silent) Q-particles and the role of the LLP are taken into account, crucially one that distinguishes between languages in which wh-in situ is the by-product of covert wh-movement (e.g., Sinhala as described in Slade 2011), and languages

in which the clause-internal wh-element surfaces either in its external-merge position (Chinese, Japanese, some northern Italian dialects (NIDs), etc.) or in a derived position in the LLP (Trevisan, Persian, Aghem, Hindi-Urdu, etc.), while the connection with the HLP is done by means of the Q-particle alone, à la Cable (2010). Furthermore, based on the low movement patterns that I study, I propose an extension of the notion of ‘feature scattering’ (as opposed to ‘bundling’) à la Giorgi & Pianesi (1997) to wh-interrogatives. These mechanisms will give rise to neat predictions about the types of wh-in situ that can plausibly exist.

It must be noted that the derivation of Northern Italian wh-in situ has been under debate for about twenty years. The most influential syntactic investigations adopt two opposed stances: clause-internal wh-elements are either taken to be moved into a low specifier in the HLP (Munaro et al. 2001, Poletto & Pollock 2015) or to stay in their external-merge position (Manzini & Savoia 2005;2011). Here, I shall not address this debate any further: both approaches have empirical weaknesses that make them unsuitable for a general theory of wh-in situ that goes beyond the facts observed in NIDs, the greatest being the fact that none acknowledges the existence of Q-particles and of low movement of wh-elements in the computation of wh-interrogatives (refer to Bonan 2021:165 for a critical survey). In contrast, this article delivers a theory of Romance wh-in situ based on empirical facts that exceed the Indo-European picture.

1.1 *Of moved wh-in situ, and its theoretical consequences*

Scholars acknowledge the existence of at least two main types of wh-in situ of the answer-seeking type, namely one which constitutes the only possible strategy of question-formation, as illustrated in the Chinese examples in (1), and one which co-exists peacefully with total wh-fronting into the HLP, as in the French examples in (2):

(1) Chinese (Huang 1982: 253)

- a. Ni kanjian-le **shei**?
you see.ASP who
- b. * **Shei**_i ni kanjian-le ___i?
who you see.ASP
‘Who did you see?’

(2) French

- a. T’as vu **qui**?
you.SG=have seen who
- b. **Qui**_i t’as vu ___i?
who you.SG=have seen
‘Who did you see?’

Canonical instances of languages of the first type are Asian languages such as Chinese, Korean, and Japanese, while the second type, which is commonly referred to as ‘optional wh-in situ’ is typically found in the Romance languages, although not exclusively.

However, there exists at least another type of ‘wh-in situ’, in which the clause-internal wh-element must move to a low internal-merge site. A movement of this type is observed in Eastern Trevisan (henceforth, ‘Trevisan’ for short), a Northern Italian dialect spoken in the Veneto region. An example is provided in (3):¹

- (3) ge 'gatu 'dato a ki_i a 'teʃa ____i?
 3.DAT have=you.SG given to who the saucepan
 ‘Who did you give the saucepan to?’

In Trevisan, apparent wh-in situ co-exists with total wh-fronting into the HLP, as in (4):

- (4) a ki_i ge 'gatu 'dato a 'teʃa ____i?
 to who 3.DAT have=you.SG given the saucepan
 ‘Who did you give the saucepan to?’

In the Romance literature, a low focalisation would typically be analysed as unmoved, with everything that follows it linearly either non-clitic right-dislocated or ‘marginalised’, in the sense of Cardinaletti (2001) and Samek-Lodovici (2015). However, I claim that this cannot be correct for orderings like (3), which are better analysed as a by-product of the movement of the wh-element, done under [focus] agreement. This low movement is a cross-linguistically robust phenomenon, but to the best of my knowledge has never been proposed for Romance before. My claim that there can be low focus movement is thus not new *per se*, given that it has been made in several other contexts and supported by work on numerous languages (§2.3), but it is new for Romance, and has never been addressed within the framework that I adopt here.

1.2 *Why Q-particles? Why a new understanding?*

The key contribution of this article is that it provides robust empirical evidence of low focus movement in Romance and analyses the phenomenon of Northern Italian wh-in situ in an innovative and cross-linguistically valid way, namely by implementing Cable’s (2010) work on the syntax of Q-particles in answer-seeking wh-interrogatives. This

¹ The examples in this article are from the variety of Trevisan described in Bonan (2021). The data were gathered first from the author’s native intuitions and checked using two on-line questionnaires that asked for Likert-scale evaluations, then refined during many sessions involving one-to-one grammaticality judgements on the most complex structures. All informants, twenty-two in total, live in the Ponte di Piave area, have all been exposed to Trevisan since birth, and use the language daily.

results in a framework for the study of *wh-in situ* that is not language- or family-specific, in contrast to what has been done in the Northern Italian/Romance literature so far. With minor modifications, my adaptation of Cable's theory can explain the morphosyntax of clause-internal *wh*-elements in Indo-European, Indo-Aryan, Dravidian, Niger-Congo, Sino-Tibetan, Koreanic and Japonic varieties, at the very least.²

I will indeed build on the low movement of Trevisan clause-internal *wh*-elements to claim that the languages of the world can basically be split into two macro types: those that allow feature-bundles in the HLP, and those that scatter the features relevant to interrogative *wh*-movement between the LLP and the HLP. Accordingly, while some languages check both [focus] and [q] in the HLP, other languages first check [focus] in the LLP, and then only [q] in the HLP.³ Whether the two types of languages display or not overt fronting of *wh*-elements is regulated by a movement parameter.

Following Cable (2010), I also assume that among these two major types two sub-types exist: that of languages in which the Q-particle projects, and that of languages in which Q adjoins to *wh*-elements in interrogatives. I then explain the optionality in the alternation between *wh-in situ* and *wh-ex situ* in languages of the 'optional' type in terms of the existence of various steps of a generalised linguistic evolution towards unmoved *wh-in situ* followed by overt movement of Q – a claim supported by the diachronic development of *wh-in situ* languages such as Chinese, Japanese and Sinhala (§4.2).

At first glance, to posit the existence of silent Q-particles in Trevisan might seem totally *ad hoc*. However, there are theoretically and empirically valid reasons why Q-particles ought to be cross-linguistically implemented in the derivations of answer-seeking *wh*-questions, including those of Romance.⁴ First, given that in the cartographic enterprise

² The treatment of Trevisan Q that I present in what follows is not wholly new in the northern Italian literature: a similar claim has already been made in Munaro (1999) for Pagotto, before the author developed and fully embraced the 'remnant-IP movement analysis' (Munaro et al. 2001). At the time, for Munaro all intervention effects observed in Pagotto were a consequence of the movement of a silent operator which started out IP-internally and moved overtly into the CP to determine the scope of the clause-internal *wh*-word. In a way, Munaro's operator can be viewed as a Q-particle à la Cable *ante litteram*.

³ Technically, two additional logical configurations should be possible, namely one in which both features are bundled and checked in the LLP, and one in which [q] is checked in the LLP, and [focus] in the HLP. However, as I discuss in §3.4.2, languages of these sorts are unlikely to exist.

⁴ A reviewer suggested using the existing data on Venetan discourse particles as a testing ground for the validity of my theory. However, the *interrogative* particles of NIDs (higher elements of 'wh-doubling' as in Poletto & Pollock 2015; invariable elements such as Pagotto *po* as in Munaro 1999, etc.) are of a different type with respect to the particles discussed here. Bonan (2021:134) claimed that *wh*-doubling elements are different from Q-particles because they carry a [wh] feature and move into a lower left-peripheral

the existence of a functional head in one language is sufficient to posit the existence of that very same head in all languages, the attested availability of phonetically-realised Q-particles cannot be ignored. Second, Trevisan data on the interrogative strategy of subject-clitic inversion (SCLI) in the presence of long wh-extraction and of syntactic islands empirically support this theoretical implementation, as I claim in §3.2.1.

It must be noted that, derivations of the kind presented here are firmly anchored on the theoretical assumption that wh-elements are not inherently interrogative, and do not take part in clause-typing (Aboh & Pfau 2011). In this framework Cable's (2010) proposal for an extension of interrogative Q-particles to all languages should be embraced not only for the sake of universality, but also because Q-particles are cross-linguistically needed for clause-typing.⁵ Accordingly, all previous analyses of (moved or unmoved) wh-in situ cannot be maintained, hence the importance of the theory that I develop here.

The paper is organised as follows. I first present and discuss novel data from Trevisan that support the existence of low movement of both wh-elements and contrastive foci in Romance, and then discuss cross-linguistic evidence that low focus movement is a robust phenomenon in many languages (§2). Subsequently, I provide an overview of the main ingredients of Cable's (2010) work on Q-particles and propose an extension of it to Trevisan (§3).⁶ A close comparison between the morphosyntax of wh-movement and focus movement in Trevisan and standard Italian will then constitute the foundation of my theory of 'interrogative feature scattering' vs 'feature bundling' (§4). Finally, I propose an implementation of Cable's interrogative parameters and outline an initial diachronic typology of wh-interrogatives in the languages of the world (§4).

2 On low focus-movement

I wish to claim that Trevisan has focus-driven low movement of both wh-elements and contrastively-focused constituents, thus providing empirical and theoretical arguments to previous empirically-unsupported claims that the LLP plays a central role in the derivation of Romance wh-in situ (Kato 2013, Manzini 2014). This low movement, already discussed for modern Indo-Aryan languages (Jayaseelan 1996, Cheng & Bayer 2017), Bantu (Aboh 2006) and Persian (Kahnemuyipour 2001), has never been empirically demonstrated in Romance.

projection (Rizzi & Bocci's 2017 QembP), at least in indirect wh-questions. In contrast, particles such as Pagotto *po* are better understood as instantiations of Rizzi's (2001) Int^o.

⁵ *Contra* Aboh & Pfau (2011), the pronunciation of the left-peripheral attracting head (such as *wè* in Gungbe) cannot be enough for clause-typing purposes, and an extension of Q-particles ought to be sought for all languages. Whether a functional head is pronounced merely depends on the setting of a spell-out parameter (see Rizzi 2017, Bonan 2021c), and it thus appears conceptually wrong to imply that a pronounced head has different properties with respect to its silent counterpart.

⁶ Details on how this model can be extended to other Romance languages can be found in Bonan (2021:183, 203).

2.1 *More than just overt vs covert wh-movement*

Since Huang (1982), pure in situ languages like Chinese and Japanese have been argued to have real wh-in situ, i.e., wh-elements surface in their external-merge position and are generally incompatible with overt wh-fronting. Wh-elements are commonly understood as operators which bind variables at LF. Like other quantifiers, wh-operators must be split across two positions to be interpretable, one which serves as the operator and one as the variable. The implication of this understanding is that all wh-elements *must* move to create the relevant operator-variable configuration before interpretation. In wh-fronting languages like standard English, for instance, the configuration is obtained in overt syntax, as in (5):

- (5) Standard English
Who_i did you see ____i?

Conversely, for Huang (1982) and related, in languages like Chinese the correct operator-variable configuration is obtained in covert syntax. The movement of the wh-element is done after Spell-Out, at the level of interpretation (LF). Accordingly, while overt wh-fronting is illicit in pure in situ languages, covert wh-fronting *does* take place, as in (6):

- (6) Chinese (Huang 1982: 253)
LF: [[**Shei**]]_i [ni kanjian-le ____i]]?
who you see.ASP

Huang's influential proposal faces at least two sorts of problems. First, despite being subject to the same interpretative scope as their moved counterparts, clause-internal wh-elements are constrained differently than overtly fronted wh-elements in terms of sensitivity to islands and intervention effects. Despite various explanations within the Principles and Parameters approach, the difficulty of dealing with these challenges in the framework of a simple 'LF vs Surface-structure' phrasal-movement parameter led researchers to pursue alternative paths for capturing the differences between wh-in situ and overt wh-movement (refer to Cheng 2003 for a survey). A second problem posed by Huang's generalisation is that there is an asymmetry between wh-movement languages such as English and wh-in situ languages like Chinese. Indeed, while the latter lack any vestiges of overt wh-movement, the former do not eschew the wh-in situ strategy. English cannot be said to manifest only the positive setting of the movement parameter, since wh-in situ is not only possible, but in limited cases even compulsory in the language, notably in multiple wh-questions. Therefore, more than a mere alternation between overt and covert wh-movement must be involved in wh-interrogatives.

2.2 *Low focus movement in Romance: evidence from Trevisan*

In contrast to *wh*-in situ languages like modern Chinese, those Romance languages that allow *wh*-elements to surface clause-internally also display the option of total *wh*-fronting into the HLP, albeit to different extents. Although *wh*-fronting is always possible, *wh*-in situ can be limited to certain *wh*-elements, and its availability varies intra- and cross-linguistically. Optional in situ languages include French, NIDs, and partially also Spanish and Portuguese. The phenomenon of Romance *wh*-in situ is made intriguing by the morphosyntax of Trevisan, in which the alternation between *wh*-fronting and ‘*wh*-in situ’ features compulsory movement of clause-internal *wh*-elements, as in (3), repeated as (7):

- (7) ge 'gatu 'dato a ki_i a 'teʃa _____i?
 3.DAT have=you.SG given to who the saucepan
 ‘Who did you give the saucepan to?’

Examples like (7) support my claim that *wh*-in situ in this variety is only apparent. Significantly, an equivalent instance of low movement can also be observed in the case of clause-internal contrastively focused constituents, as in (8):⁷

- (8) ge 'go pres'ta a 'tɔni_i el 'libro _____i, no a 'pjero!
 3.DAT have.1PS lent to Toni the book NEG to Piero
 ‘I lent the book to Toni, not to Piero!’

That the position targeted by the low movements in (7) and (8) lies at the edge of *vP* is straightforward. First, since *vP* is acknowledged to be a phase (Chomsky 2001), it is likely to have a periphery. Second, the Trevisan active past participle can be demonstrated to surface in a derived position outside *vP* (§2.2.2), whence the observed ‘past participle > *wh*-element’ order. Significantly, that low focus movement of *wh*-elements and/or contrastive foci is a robust phenomenon in many languages of the world (§2.3), will further argue against an analysis of *wh*-in situ as a mere instance of covert *wh*-movement. I shall therefore claim that the parallelism between the clause-internal movement of focused elements and that of *wh*-elements indicates that the latter are inherently focused and undergo low movement for focus purposes.

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⁷Note that, in contrast to *wh*-elements, clause-internal contrastive foci are not obligatorily moved from their external-merge position. I discuss this in §2.3.2.

analysis of *wh-in situ* as a mere instance of covert *wh-movement*. I shall indeed claim that the parallelism between the clause-internal movement of focused elements and that of *wh-elements* indicates that the latter are inherently focused and undergo low movement for focus purposes. Therefore, while the data discussed in this paper do not make Trevisan exceptional or unexpected in the bigger cross-linguistic picture, the fact that a movement of this sort has never been empirically demonstrated in Romance makes it both typologically and theoretically relevant for the general understanding of *wh-in situ*.

My aims in the following sub-sections are twofold: first, to claim that the low movement under consideration is compulsory for *wh-elements*; second, to show that the targeted position is *Foc*, a criterial projection in the LLP.

2.2.1 *Low movement of clause-internal wh-elements in Trevisan*

In proposing an account of questions such as (7), it is necessary to prove that the clause-internal *wh-element* is moved from its external-merge site. Whether the material that follows the *wh-element* is external to the clause, i.e., dislocated or marginalised (Cardinaletti 2001, Samek-Lodovici 2015, a.o.), is indeed a legitimate question, but I will argue that an analysis along these lines would be incorrect.

Trevisan is an SVO language in which the ordering of arguments and adverbials (ADV) in unmarked declaratives is strictly as in (9):

(9) V > DO > IO > ADV_{Time} > ADV_{Place}

The ordering sketched in (9) is rigidly fixed and cannot be modified, as in (10) and (11):

(10) a. 'ge 'go 'dato i 'pomi_{DO} a 'džani_{IO}.
 3.DAT have.1PS given the apples to John
 b. * 'ge 'go 'dato a 'džani_{IO} i 'pomi_{DO}.
 3.DAT have.1PS given to John the apples
 'I gave the apples to John'

(11) a. 'go ma'na 'nɔki_{DO} 'jeri 'sera_{TIME} a 'sagra_{PLACE}.
 have.1PS eaten gnocchi yesterday night at festival
 b. ? 'go ma'na 'nɔki_{DO} a 'sagra_{PLACE} 'jeri 'sera_{TIME}.
 have.1PS eaten gnocchi a festival yesterday night
 c. * 'go ma'na {'jeri 'sera_{TIME}} {a 'sagra_{PLACE}} 'nɔki_{DO}.
 have.1PS eaten yesterday night at festival gnocchi
 'I ate gnocchi yesterday evening at the festival'

However, (9) is not observed in ‘wh-in situ’ interrogatives, as in (12) and (13):⁸

- (12) a. 'ge 'gatu 'dato a 'ki_{IO} i 'pomi_{DO}?
 3.DAT have=you.SG given to whom the apples
 b. * 'ge 'gatu 'dato i 'pomi_{DO} a 'ki_{IO}?
 3.DAT have=you.SG given the apples to whom
 ‘To whom did you give the apples?’
- (13) a. 'gatu ma'na 'kwando_{wh-ADV} 'jɔki_{DO} a 'sagra_{ADV}?
 have=you.SG eaten when gnocchi at festival
 b. * 'gatu ma'na 'jɔki_{DO} a 'sagra_{ADV} 'kwando_{wh-ADV}?
 have=you.SG eaten gnocchi at festival when
 ‘When did you eat gnocchi at the festival?’

In answer-seeking interrogatives such as those in (12) and (13), the clause-internal IO precedes the DO, as do wh-ADVs. This suggests that Trevisan clause-internal wh-elements obligatorily move out of their external-merge position, to a functional projection outside vP. A movement analysis along these lines will of course have to be extended also to movements that are not phonetically detectable, such as that of the DO in (14):

- (14) 'gatu 'visto 'ki_i ____i 'jeri 'sera?
 have=you.SG seen who yesterday night
 ‘Who did you meet last night?’

Importantly, if the material that follows the clause-internal wh-element in clauses like (13) and (14) was right-dislocated, low movement of the wh-element would be ruled out. However, what follows the wh-element is not dislocated. Trevisan indeed requires dislocated constituents to be phrased as independent intonational phrases, with obligatory realisation of a clitic (if available) in the extraction site, co-indexed with the dislocated element. Additionally, with analytic verb forms, gender and number must be realised on the past participle, as in (15):

- (15) 'ge i_j 'gatu 'dati a 'ki, i 'pomi_j?
 3.DAT they= have=you.SG given.M.PL to who # the apples
 ‘The apples, who did you give (them) to?’

In the absence of any of the three above properties, dislocation fails. The felicity of the low movement hypothesis is further supported by the observation that, with a clause-internal wh-ADV, the following DO can only precede the IO in the absence of dislocation,

⁸ All examples with a clause-internal wh-element discussed here would be equally felicitous if the wh-element underwent total fronting into the HLP.

and is free to either precede or follow it when clitically right-dislocated. Observe the examples in (16) and (17), where the IO *a:* *ma'ria* of the ditransitive verb *'dar* is able to precede the DO *'la,nɛl* only when the latter is properly right-dislocated:

- (16) a. * 'ge 'gatu ,regae'a 'kwando a: ,ma'ria 'la,nɛl?
 3.DAT have=you.SG gifted when to.the Mary the.ring
 b. 'ge 'gatu ,regae'a 'kwando 'la,nɛl a: ,ma'ria?
 3.DAT have=you.SG gifted when the.ring to.the Mary
 ‘When did you give Mary the ring?’
- (17) a. 'ge o_j 'gatu ,regae'a 'kwando, a: ,ma'ria, 'la,nɛl_j?
 3.DAT it= have=you.SG gifted when # to.the Mary # the.ring
 b. 'ge o_j 'gatu ,regae'a 'kwando, 'la,nɛl_j, a: ,ma'ria?
 3.DAT it= have=you.SG gifted when # the.ring # to.the Mary
 ‘The ring, when did you give (it) to Mary?’

Since the unchangeable declarative orderings seen in (10) and (11) also exclude the possibility of Italian-style marginalisation of the material that follows the clause-internal wh-element, I will maintain that the distributional patterns followed by Trevisan clause-internal wh-elements are due to movement of the wh-element itself.

2.2.2 On the structural position targeted by low movement of wh-elements

On the assumption that the finite verb undergoes V-to-C movement,⁹ the relative order between clause-internal wh-elements and the past participle superficially challenges the hypothesis that Trevisan clause-internal wh-elements target the LLP. Observe (18):

- (18) 'gatu ma'na 'kwando_i e ,sa'reze ___i?
 have=you.SG eaten when the cherries
 ‘When did you eat the cherries?’

If the wh-ADV *'kwando* moves into a specifier in the LLP, the active past participle could be expected to follow it linearly, yielding the order *'kwando ma'na* (‘when eaten’). Significantly however, substantial cross-linguistic evidence suggests that ADVs are located in the specifiers of rigidly-ordered functional projections (FP) within the inflection field, as in (19), and that in Italian the “(active) past participles must move to the head to the left of tutto [‘all’]” (Cinque 1999: 46). This claim also stands in Trevisan, as in (20):

⁹ *Contra* much work on NIDs that takes SCLI to be the result of overt movement of *phrasal* chunks (Munaro et al. 2001 and related).

(19) LOCATION OF ADVERBIALS WITHIN IP
 ... [TP T° [FP *adverbial* F° ... [vP V° [vP V°]]]]

- (20) a. a 'ga ma'ɲa 'tuto
 she= has eaten all
 'She ate everything'
 b. * a 'ga 'tuto ma'ɲa
 she= has all eaten

Given (19), the active past participle in (20a) must move to the head of the functional projection merged immediately above the one where *'tuto* is generated, as in (21):

(21) MOVEMENT OF THE PAST PARTICIPLE PAST *TUTO*
 ... [IP T° [FP2 **past participle**; [FP1 'tuto F° ... [vP V° ___j [vP V°]]]]]]

Given (21), the order in examples like (18) follows straightforwardly, as in (22):

(22) CLAUSE INTERNAL MOVEMENTS OF WH-ELEMENTS AND THE PAST PARTICIPLE
 'gatu ... [FP2 ma'ɲa_j ... 'kwando_i [vP V° ... [vP ___j ___i]]]]?

To summarise, Trevisan licenses instances of clause-internal wh-elements moved from their external-merge position. There are clauses in which the wh-element does not seem displaced, but the regularity of the displacement is made plain when we consider the evidence in which canonical declarative word orders are not followed

2.3 'A typologically interesting type'

That the position targeted by Trevisan clause-internal wh-elements is vP-peripheral, as discussed in §2.2.2, supports Manzini's (2014) intuition that the low left-peripheral Foc is involved in the derivation of Northern Italian wh-in situ. Interestingly, in many languages what looks like wh-in situ has been claimed to be overt wh-movement to a low position to the left of vP. These languages have been described as a "typologically interesting and significant type between full moving and in-situ languages" (Cheng & Bayer 2017: 21), and authors such as Kahnemuyipour (2001) understand the low movements of wh-elements and foci as driven by a focus requirement. I survey some significant works in what follows; for a thorough review, see Bonan (2021: 91).

2.3.1 Malayalam

Malayalam is a Dravidian SOV language. Assuming an underlyingly head-initial VP directly dominated by a focus projection, Jayaseelan (1996) argues for overt clause-

internal wh-movement in this language: wh-elements are intrinsically focused and move into SpecFocP to check a [foc]-feature, as in (23).

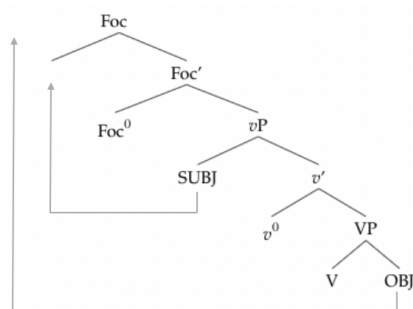
- (23) Malayalam (Jayaseelan 1996: 7)
 awan *ewiDe* pooyi?
 he where went
 ‘Where did he go?’

Jayaseelan’s claim is empirically motivated by the observation that the unmarked SOV word order changes into OSV when the subject is a wh-element, as in (24):

- (24) Malayalam (Jayaseelan 1996: 7)
 a. * *aar nin-ne talli?*
 who you=ACC beat_{PAST}
 ‘Who beat you?’
 b. *nin-ne aar talli?*
 you=ACC who beat_{PAST}

On this account, the wh-subject moves to the clause-internal SpecFocP while the object moves higher, in what Jayaseelan calls a ‘VP-vacating movement’.¹⁰ Accordingly, the felicitous example in (24) is derived along the lines of (25):

- (25) DERIVATION OF SUBJECT QUESTIONS IN MALAYALAM (Jayaseelan 1996:9(8))



Other South Asian SOV languages seem to be less strict than Malayalam. Nonetheless, most of them are argued to display a strong tendency to Spell-Out the wh-element to the immediate left of the verb (Cheng & Bayer 2017).

2.3.2 Hindi-Urdu

The word order for wh-elements in SOV Hindi-Urdu is not as strict as in Malayalam (Mahajan 1990, Dayal 2017). The language does not show any indication of an active

¹⁰ For the motivations behind this movement, refer to Jayaseelan (1996).

HLP in extraction, and when wh-elements move, they stop at the clause-internal SpecFoc: there is evidence that wh-elements can move higher than the pre-verbal position to which constituents normally move. Consider the cases in (26) and (27), where the wh-element is in pre-verbal position in the (a) examples, but in the neutral position for subjects and indirect objects in (b). For Dayal, both orders are acceptable, with a preference for the immediately pre-verbal position.

(26) Hindi-Urdu (Dayal 2017: 160)

- a. yeh kavitaā *kis-ne* likhii?
this poem who-ERG wrote
'Who wrote this poem?'
- b. *kis-ne* yeh kavitaā likhii?
who-ERG this poem wrote

(27) Hindi-Urdu (Dayal 2017: 160)

- a. tum-ne paisaa *kis-ko* diyaa?
you-ERG money who-DAT gave
'Who did you give the money to?'
- b. tum-ne *kis-ko* paisaa diyaa?
you-ERG who-DAT money gave

For Manetta (2010), the pre-verbal position to which wh-elements move is a focus position at the edge of ν P, with the alternative orders derived through scrambling. She posits the derivation in (38) for mono-clausal subject-interrogatives such as (29):

(28) Hindi-Urdu (Manetta 2010: 8)

- hamid-ko *kis-ne* ma:ra:?
hamid-ACC who-ERG hit
'Who hit Hamid?'

(29) DERIVATION OF HINDI-URDU SUBJECT QUESTIONS (Manetta 2010: 8)

- [_{CP} C ... hamid-ko_j [_{ν P} **kis-ne**_i [_{VP} v ___i ___j ma:ra:]]]

In (29), the observed word order results from the movement of the wh-element to the pre-verbal position, and successive scrambling of the object. When the questioned element is the object, Manetta argues that the derivation follows the same path, except that the subject is to be scrambled to yield the right word order.

2.3.3 Bantu languages

Since Hyman (1979), it has been known that certain foci occur immediately after the verb ('IAV') in numerous Bantu languages. Aboh (2007) argues for a focus-movement

analysis of non-subject wh-elements in Aghem. According to him, the IAV-position is Belletti's (2004) Foc, in the LLP.

The Aghem IAV-position can host any focused constituent or wh-element. Observe the unmarked declarative order of Aghem in (30), summarized in (31):

- (30) Aghem (Aboh 2007: 89)
 Tí-bvú tì-bìghà mô zì kí-bé né.
 dogs two P1 eat fufu today
 'The two dogs ate fufu today'

- (31) AGHEM: UNMARKED DECLARATIVE WORD ORDER
 S > Aux > V > (Focus) > O > Adj

Now observe the position occupied by the focused constituents in (32):

- (32) Aghem (adapted from Aboh, 2007: 90)
- a. Énáó mò án 'sóm zì **bé-kó**.
 Inah PAST in farm eat fufu
 'Inah ate FUFU on the farm'
 - b. Á mò zì **énáo** bé-kó án 'sóm.
 EXPL PAST eat Inah fufu in farm
 'INAH ate fufu on the farm'
 - c. Tí-bvú tì-bìghà mô zì **né** bé-kó.
 dogs two PAST eat today fufu
 'The two dogs ate fufu TODAY'
 - d. Fil a-mo-zi **ang wo** bé-ko.
 friends SM-P2-eat with hand fufu
 'It was WITH (THEIR) HANDS that the friends ate fufu'

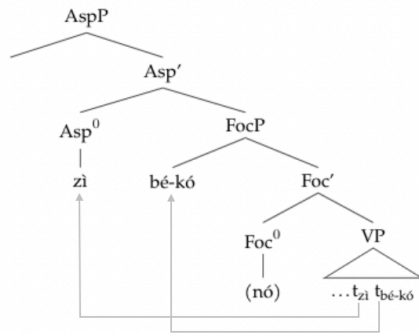
Compared to its unmarked counterpart in (30), (32a) illustrates that a contrastively focused object needs to follow the verb. The subject occurs in the canonical pre-verbal position, while the locative adjunct *án 'sóm* is displaced to a pre-verbal position: this forces the object to surface last in the sentence. In contrast, the position of the focused subject in (32b), which follows the verb and precedes the theme and the locative PP, suggests that the focus position is not a clause-final one. Note that in (32b) the canonical subject position is filled by the expletive *á*, which is never realised when the subject of the utterance occupies this position. The examples in (32c) and (32d) show that also focused ADVs and PPs follow the verb immediately. In both cases, the focused constituent surfaces in a different position than the unmarked declarative one.

Aghem also displays the low focus marker *nó*, which optionally realises the post-verbal focus head (Foc°). *Nó* scopes over the element immediately to its left, as in (33), where it scopes over the verb and the object, respectively:

- (33) Aghem (Aboh 2007: 91)
- a. Tí-bvú tì-bìghà mô zì **nó** bé-kó.
 dogs two PAST eat FOC fufu
 ‘The two dogs ATE fufu’
- b. Zi bé-kó **nó**.
 eat fufu FOC
 ‘Eat FUFU’

According to Aboh, that the Bantu verb precedes the focused element follows the requirement for the verb to raise to an aspect position, as illustrated in (34):

- (34) DERIVATION OF EXAMPLE (33b) (Aboh 2007: 94)



Aghem wh-elements surface in the same focus position, as in (35):

- (35) Aghem (Aboh 2007: 90)
- a. Tí-bvú tì-bìghà mô zì **zín** bé-kó?
 dogs two PAST eat when fufu
 ‘When did the two dogs eat fufu?’
- b. À mò zì **ndúghó** bé-kó né à?
 EXPL PAST eat who fufu today Q
 ‘Who ate fufu today?’

For Aboh, a subject-question such as the one in (35b) is derived as in (36):

- (36) DERIVATION OF AGHEM SUBJECT QUESTIONS (adapted from Aboh 2007: 99)
- ... [TP À [Asp mò [Asp zì_j [FocP **ndúghó**_i [VP ____i ____j bé-kó]]]]]

In (36), the wh-subject (*ndúghó*) checks a [foc]-feature in Foc^o, while the expletive in *à* checks the EPP in T. The data reported in this section therefore support the claim that the clause-internal Foc is indeed at play in the derivation of wh-interrogatives in Aghem.

2.3.4 Persian

Kahnemuyipour suggested a classification of Persian with languages in which wh-elements undergo focus movement into the same position targeted by contrastive foci, i.e., “directly above vP” (Kahnemuyipour 2001: 41).

At first glance, wh-elements in SOV Persian might seem located in the position in which they are externally-merged, as in (37):

(37) Persian (Kahnemuyipour 2001: 46)

- a. Æli ye ketab xær-id.
Ali a book bought
‘Ali bought a book’
- b. Æli **ci** xær-id?
Ali what bought
‘What did Ali buy?’

However, the situation changes with wh-ADV_s, as illustrated in (38):

(38) Persian (Kahnemuyipour 2001: 46)

- a. Æli ye sa’ætpis ræft xune.
Ali an hour.ago went home
‘Ali went home an hour ago’
- b. Æli **key** ræft xune?
Ali when went home
‘When did Ali go home?’
- c. Æli ye sa’ætpis **koja** ræft?
Ali an hour.ago where went
‘Where did Ali go an hour ago?’

While a wh-ADV of time surfaces pre-verbally also in declaratives, an ADV of place is first externally-merged post-verbally, and then surfaces pre-verbally, as in (38c). Wh-ADV_s of place are therefore argued to undergo a movement along the lines of that in (39):

(39) Æli ye sa’æt pis **koja**_i ræft ____i?

This movement is also observed with post-verbal arguments such as the IO of ditransitive verbs, as in (40):

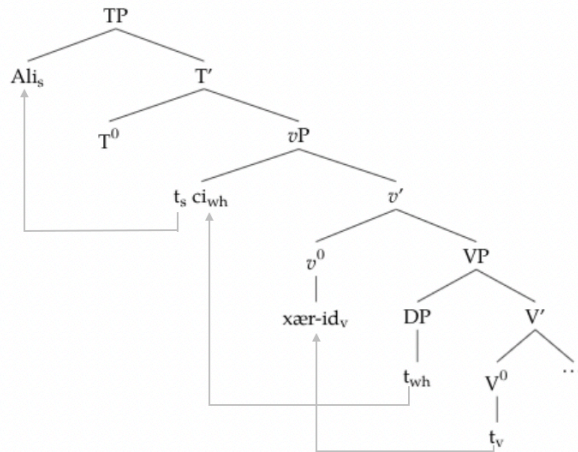
(40) Persian (Kahnemuyipour 2001:47-48(10))

- a. Hæsæn ketab-o dad (be) æli.
Hassan book-OM gave (to) Ali
‘Hassan gave the book to Ali’
- b. Hæsæn ketab-o **be ki** dad?

Hassan book-OM to who gave
 ‘Who did Hassan give the book to?’

Because of the movement pattern of post-verbal wh-elements, Kahnemuyipour argues for generalised movement of wh-elements to a pre-verbal position above ν P, in his terms Spec ν P. This is illustrated in (41):

(41) MOVEMENT OF PERSIAN CLAUSE-INTERNAL WH-ELEMENTS



Kahnemuyipour claims that the movement under consideration is triggered by a focus feature (as opposed to a wh-feature, which he claims is responsible for total fronting to the HLP). Observe (42), where the IO *be æli* is contrastively focused:

- (42) Persian (adapted from Kahnemuyipour 2001:49(12b))
 Hæsæn ketab-o (be) æli dad.
 Hassan book-OM (to) Ali gave
 ‘Hassan gave the book TO ALI (and not, for example, to Hossein)’

(42) illustrates that contrastively-focused IOs move from the position in which they are externally-merged to the pre-verbal position, as wh-IOs do: Kahnemuyipour therefore maintains that the movement of wh-elements in Persian is focus movement.

The parallelism between the movement of focused elements and that of wh-elements as seen in this section has traditionally been taken to suggest that the latter are focused. This will constitute a major argument in favour of a treatment of the movement of Trevisan clause-internal wh-elements as focus-driven, i.e., not as proper wh-movement.

2.4 The wh-/focus- parallel in Trevisan

In Trevisan, contrastively-focused constituents surface clause-internally, mostly moved from their external-merge position, as in (43) and (44). Unmoved contrastive foci are not ungrammatical, but they are slightly unnatural. In this respect, it is possible that Trevisan

speakers are influenced by standard Italian in their judgements, given that the language allows contrastive foci both in situ and fronted to the HLP (see Bianchi 2013 and related).

- (43) A: 'sɔ ke te 'ge 'ga pres'ta el to 'libro a 'pjero.
 know.1PS that you.SG= 3.DAT have lent the your book to Piero
 'I know that you lent your book to Piero'
 B: 'ge 'gɔ pres'ta a 'tɔni el 'libro __i, no a 'pjero!
 3.DAT have.1PS lent to Toni the book __i, NEG to Piero
 B': ? 'ge 'gɔ pres'ta el 'libro a 'tɔni, no a 'pjero!
 3.DAT have.1PS lent the book to Toni NEG to Piero
 'No, I lent the book TO TONI, not to Piero'
- (44) A: 'sɔ ke te 'si n'da: al 'ʃirko 'jeri.
 know.1PS that you.SG= are gone.F to.the circus yesterday
 'I know that you went to the circus yesterday'
 B: 'son 'da: 'sabo al 'ʃirko __i, no 'jeri!
 am gone.F Saturday to.the circus NEG yesterday
 'No, I went to the circus ON SATURDAY, not yesterday'
 B': ? 'son 'da: al 'ʃirko 'sabo, no 'jeri!
 am gone.F to.the circus Saturday NEG yesterday

The first hypothesis suggested by the movement in (43b) and (44b) is that Trevisan corrective foci target a low focal projection in the LLP, Belletti's (2004) Foc, as in (45):

- (45) a. [TP *pro* 'ge 'gɔ [FP2 pres'ta [Foc a tɔni_{IO} [VP ... [VP ... el 'libro ___{IO}]]]]
 b. [TP *pro* 'son [FP2 'da: [Foc sabo_{ADV} [VP ... [VP ... al 'ʃirko ___{ADV}]]]]

Significantly, total fronting of contrastive foci is marginal in Trevisan and, in non-matrix environments, it requires the realisation of a co-indexed clause-internal clitic (when available), i.e., it is further topicalised into the HLP. Observe the contrast between a fronted and a clause-internal focus in (46):

- (46) a. me ,do'mando 'sto 'libro ki ke *(o) 'ga 'lɛto.
 REFL ask.1PS this book who che it has read
 'this book I wonder who read'
 b. me ,do'mando ki ke (*o) 'ga 'lɛto 'sto 'libro.
 REFL ask.1PS who that it has read this book

What constructions like (46) suggest is that the functional projection relevant to focus of any type is always Foc in Trevisan, not Rizzi's (1997) left-peripheral FocusP: foci naturally move to the low peripheral focus position and, to be fronted into the HLP, require further topicalisation.

Horvath (1986) argued that whenever a language displays a specialised projection for contrastively-focused constituents, the same projection is also available for wh-elements. Horvath explained this property on the basis of the interpretational similarities displayed by focus and wh-elements: in contrast to informational focus, contrastive focus operates over a closed set and, in a similar fashion, the value of wh-elements is drawn from an inferable (hence closed) set of items, inherently delimited by the truth value of the question itself. An extension of the movement paradigm sketched in (45) to clause-internal wh-elements is thus straightforward, and appears justified semantically. That Trevisan contrastive foci make use of the LLP constitutes evidence that clause-internal wh-elements do undergo focus movement in this language, as in the non-Romance languages overviewed in (§2.3).

This low movement of wh-elements, which I shall henceforth refer to as Wh-to-Foc, has non negligible consequences for the theory of wh-in situ, as I discuss in what follows.

3 Of Q-particles in wh-interrogatives

The existence of languages like Trevisan in which clause-internal wh-elements surface in an internal-merge site within the LLP supports the claim that more ingredients are needed than a simple alternation between overt and LF-movement à la Huang (1982) to capture the wide amount of cross-linguistic variation observed in interrogatives.

Although the common consensus is that what the HLP targets in wh-interrogatives is the wh-element, recent advances in the morphosyntax of wh-questions suggest that this is in fact not the case. For Aboh & Pfau (2011), for instance, the displacement of wh-elements is not necessarily determined by clause typing reasons but by different factors, whence the need to dissociate wh-movement from interrogative force. Accordingly, wh-elements are not inherently interrogative, and are cross-linguistically only required for the identification of the content of the question. Indeed, one of the core theoretical arguments of the strong view of the cartographic approach is that functional projections are the *locus* of interpretable features that are visible at the interfaces: according to Aboh & Pfau, this view is challenged by a paradox, as two functional heads with different properties (Rizzi's 1997 FocusP and Rizzi's 2001 IntP) are taken to encode the same discourse information, i.e., interrogative force. For the authors, the head of FocusP is not inherently interrogative, since it unselectively attracts both wh-operators and focused constituents, whence it is not possible to take wh-operators to be attracted into SpecFocusP just for the sake of interrogative force.

The present article adheres to this understanding of wh-questions fully, and my modelling of wh-in situ will be based on the assumptions that the focus feature on the wh-element is checked in a functional projection that is not necessarily left-peripheral, while the scope of clause-internally stranded wh-elements and everything related to clause typing is determined left-peripherally by the Q-particle. In §3.1, I summarise Cable's main claims about the grammar of Q-particles and then, in §3.2, I propose an adaptation of his original theory to the interrogative morphosyntax of Trevisan. In §3.3,

a comparison between the distribution of wh-elements and contrastive foci in Trevisan vs. standard Italian results in a further implementation of the theory, and a parametrisation of the *loci* where interrogative features are encoded in the functional spine.

3.1 Cable's (2010) 'Grammar of Q'

Cable (2010) argued that, for numerous phenomena surrounding wh-operators, the locus of explanation does not lie in wh-operators themselves, but rather a distinct element bearing a special semantic and/or syntactic relationship to the wh-operator, namely the Q-particle. Despite significant disagreement over many issues related to interrogative wh-movement, the literature indeed exhibits a common consensus: that the interrogative fronting of wh-elements directly results from a property borne by the wh-element itself, and that wh-questions where there is fronting of a phrase reveal the existence of pied-piping. To Cable's understanding, the wh-questions of Tlingit strongly challenge this classic stance, and a model is required where wh-fronting is *not* triggered by any properties of the wh-element but rather targets the features of the Q-particle. This treatment has important consequences for the general theory of wh-in situ.

In Tlingit wh-questions, the wh-element precedes the main predicate, and is typically clause-initial. The wh-element is construed with the Q-particle *sá*, which directly follows either the wh-element or a larger phrase that contains it. The remaining material in the sentence follows the wh-element, as illustrated in (47):

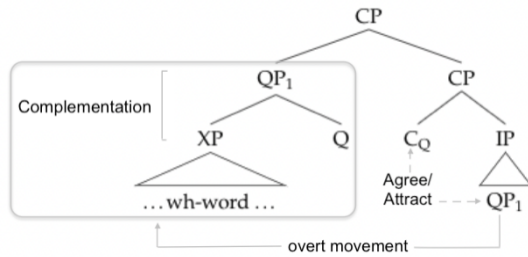
- (47) Tlingit (Cable 2010: 3)
Wáa sá sh tudinookw i éesh?
 how Q he feels your father
 'How is your father feeling?'

Cable argues that wh-fronting is an instance of fronting of the Q-particle that results in somewhat parasitic pied-piping of the wh-element. In his account, fronted wh-elements have the composite structure in (48):

- (48) Q-PROJECTION
-

Accordingly, in Tlingit the Q-particle *sá* takes its sister as a complement, with the result that a QP node immediately dominates both the Q-particle and its sister, the wh-element. Attraction of the Q-feature to the HLP thus entails that the entire QP is moved overtly, as in (49) (throughout, dashed arrows are used for covert movement and Agree relations):

- (49) WH-FRONTING AS A SECONDARY EFFECT OF Q-MOVEMENT (Cable 2010: 39)



The analysis in (49) is empirically supported by the fact that the felicity of a Tlingit wh-question depends only upon the locality of the Q-particle to the HLP, while the locality of the wh-element appears to be irrelevant. Observe for instance the islands in (50):

(50) Tlingit (Cable 2010: 7-8)

- a. [[**Wáa** kwligeyi_{CP}] xáat_{NP}] **sá** i tuwáa sigóo?
 how it.is.big.REL fish Q your spirit it.is.glad
- b. * [[**Wáa** **sá** kwligeyi_{CP}] xáat_{NP}] i tuwáa sigóo?
 how Q it.is.big.REL fish your spirit it.is.glad
- Literally: ‘A fish that is how big do you want?’

In a Tlingit wh-question, the wh-element can surface inside an island *iff* the Q-particle surfaces outside of the island, as in (50a). If the Q-particle is located inside the island, as in (50b), the sentence is ungrammatical. The pattern in (50) argues that the rules for forming wh-questions are only sensitive to the surface position of the Q-particle, meaning that only the features of the Q-particle can be referenced by those rules. Therefore, Cable suggests that what is usually understood as ‘pied-piping’ of wh-elements is rather an instance of QP-fronting that results in parasitic movement of the wh-element to the HLP. This, for Cable, is true of all languages, including those which lack phonetically-realised Q-particles.

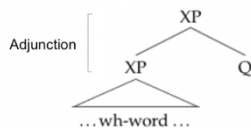
Based on the understanding of overt QP-fronting sketched here in (49), Cable formulates a new typology of wh-in situ whereby wh-in situ languages comprise at least two distinct syntactic types:

- i. Q-ADJUNCTION LANGUAGES: languages where the Q-particle adjoins to its sister (i.e., the wh-element) and then moves to the HLP alone (such as Japanese, or Korean);
- ii. Q-PROJECTION LANGUAGES: languages where the Q-particle takes the wh-element as complement, as in QP-fronting languages, but the QP moves covertly (Sinhala).

In Q-adjunction languages, the Q-particle and the wh-elements are sisters. The node which immediately dominates the Q-particle and the wh-element is not a QP, but rather of the same type as the wh-element, as outlined in (51):¹¹

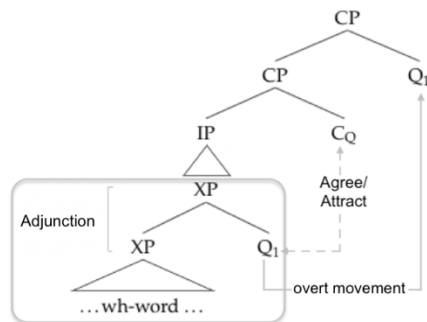
¹¹ ‘Adjunction’ of Q could probably be dispensed with using a cartography-friendly concept such as that of a free morpheme able to move alone to the HLP (vs an affixal

(51) Q-ADJUNCTION



For Q-adjunction languages, Cable adopts Hagstrom’s (1998) treatment of Japanese wh-questions, along the lines of the diagram in (52):

(52) HAGSTROM’S ANALYSIS OF JAPANESE WH-QUESTIONS (Cable 2010: 39)



In the presence of Q-adjunction, attraction by the Q-feature into the HLP entails only that the Q-particle moves while the wh-element is stranded clause-internally. In languages of this type, the Q-particle is therefore fronted to the HLP alone, as in the Japanese and Korean examples in (53) and (54):

(53) Japanese (Cable 2010: 89)

John-ga **nani-o** kaimasita **ka?**
 John-NOM what-ACC bought.polite Q
 ‘What did John buy?’

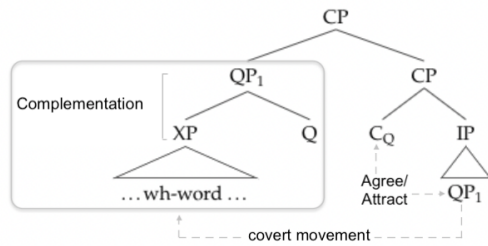
(54) Korean (Cable 2010: 89)

Eti-ey sensayng-nim-i ka-sipni-**kka?**
 where.to teacher-HON-NOM go-HON-Q
 ‘Where did the teacher go?’

In contrast, in wh-in situ languages with Q-projection, the structure of the wh-element is the same as that previously posited for Tlingit. The only difference with respect to Tlingit lies in the timing of movement, which takes place in covert syntax here, as in (55):

(55) COVERT QP-MOVEMENT AS A SOURCE OF WH-IN SITU (Cable 2010:86(3))

element in the case of Q-projection). For now, I will keep the original formulation for the sake of simplicity, but I nonetheless maintain that Cable’s analysis is not incompatible with basic cartographic assumptions.



An example from SOV Sinhala is provided in (56):

- (56) Sinhala (Cable 2010: 31, *apud* Kishimoto 2005)
 Chitra **monawa da** gatte?
 Chitra what Q buy
 ‘What did Chitra buy?’

In what follows, I argue that an extension of the theory elaborated by Cable to Romance, coupled with the predictions of Wh-to-Foc, allows the formulation of a theory of wh-in situ which is anchored on three theoretical pillars that are central to any investigation done within any framework of generative grammar: Universality (the assumption that structures are not language-specific but rather fixed across languages); Uniformity (Chomsky’s 2001 invitation to explain cross-linguistic variations as restricted to easily detectable properties of utterances); and Economy (the attempt to explain languages using structures which are as uncomplicated and learner-friendly as possible). The result will be a universal yet uncomplicated answer to the composite phenomenon of (pure and optional) wh-in situ in terms of different combinations of micro-parametric settings.

3.2 *Why Q-particles in Trevisan?*

Cable’s proposal for a cross-linguistic implementation of Q-particles in answer-seeking wh-interrogatives is perfectly compatible with the work of the cartographic enterprise, into which the present article falls. If the existence of one functional head in one single language is enough to posit the existence of such head in all languages, then the existence of phonetically-realised Q-particles in many languages must be acknowledged and posited cross-linguistically.

Remember that Trevisan allows both wh-fronting into the HLP and low focus movement into the LLP, as seen in (3) and (4). On Cable’s assumptions discussed in §3.1, this type of alternation can only be explained if Trevisan is a mixed Q-projection/Q-adjunction language with silent Q-particles: accordingly, wh-fronting is parasitic on QP-fronting, while Wh-to-Foc results from the presence of Q-adjoining structures (see §3.4 for details). That the Trevisan alternation between high and low wh-fronting is not derived with QP-projection alone coupled with an alternation in the timing of movement, i.e., overt QP-movement vs covert QP-movement, is witnessed by the fact that SCLI signals the presence of overt V-to-C movement in the interrogatives of Trevisan.

3.2.1 *The theoretical significance of Trevisan subject-clitic inversion*

Most existing contributions on wh-in-situ in Romance are characterised by the common assumption that there is a connection between the clause-internal wh-element and a null operator in the HLP layer. Therefore, as a mindful reviewer points out, it might be challenging to understand what distinguishes empirically and conceptually the overt movement of a silent Q-particle that I am positing here from the licensing of a silent interrogative operator in the same peripheral position.

By looking at the phonetic string alone, it might seem impossible to determine whether the silent Q-element under consideration starts out TP-internally, as a Q-particle in the sense of Cable, or is a more standard operator base-generated in the HLP. One of the core reasons to adopt Cable’s analysis, treating the Trevisan Q as an element that starts out clause-internally, is that the realization of SCLI displays a close link to the presence of overt interrogative movement into the HLP (Bonan & Shlonsky 2021). Here, ‘interrogative movement’ stands for the movement of any element that makes a sentence interrogative regardless of its featural specification: clause-internal polar particles as in Holmberg (2015), Q-particles and wh-elements/QPs à la Cable (2010), long-extracted left-peripheral wh-elements such as Trevisan *par'ke* (‘why’).

Trevisan *par'ke* is a regular why-word (in the sense of Rizzi 2001, Stepanov & Tsai 2008, a.o.): it can only surface in the HLP, where it is generated, and is incompatible with subject-inversion (Bonan & Shlonsky 2021: 45), as in (57):

- (57) a. **par'ke** i perse'geri i 'buta?
 why the peach.trees =they blossom
 b. * par'ke 'but-ei i perse'geri?
 why blossom=they the peach.trees
 ‘Why are the peach trees blossoming?’

With regular wh-elements, SCLI is otherwise always compulsory in matrix answer-seeking contexts. Observe now the behaviour of *par'ke* in the biclausal questions in (58):

- (58) a. **par'ke** te 'dizi [ke a te 'ga fja'ma]?
parké you.SG= say that she= you.SG has called
 ‘What is the *x*, *x* a reason, such as *x* makes you say that she called you?’
 b. * par'ke_i te 'dizi [ke ____i a te 'ga fja'ma]?
parké you.SG= say that she= you.SG has called
 ‘What is *x*, *x* a reason, such as you’re saying that she called you because *x*?’

(58) shows that *par'ke* can be interpreted as questioning the matrix verb of a long-distance question (here, *'dizi*), but not the embedded verb (*fja'ma*). However, long construals of *par'ke* become possible when SCLI takes place, as in (59):

- (59) **par'ke**_i 'dizi-tu [ke ____i a te 'ga f'a'ma]?
par'ké say=you.SG that she= you.SG has called
 ‘What is *x*, *x* a reason, such as you’re saying that she called you because *x*?’

Given the incompatibility of *par'ke* in constructions with SCLI, one would normally not expect (59) to be felicitous. For Bonan & Shlonsky (2021), interrogative SCLI is not triggered in the absence of interrogative movement through FinP (in our case, in matrix questions in which *par'ke* is externally-merged directly in the HLP, such as (58a)). Differently, in the context of long extraction in which *par'ke* is externally-merged in the embedded HLP and then extracted into the matrix HLP, passage through SpecFin is present and SCLI is triggered, as in (59). Empirical evidence of this type argues that, in Trevisan matrix wh-questions with a clause-internal wh-element, obligatory SCLI diagnoses the presence of overt (albeit phonetically undetectable) interrogative movement to the HLP. In this article, I characterise this as the movement of a silent Q-particle coming from the clausal domain.

Related empirical evidence in support of the implementation of silent Q-particles in Romance comes from the syntax of Trevisan islands to extraction. In this variety, total fronting of strong islands is possible provided SCLI is realised, as in the contrasts in (60), further demonstrating that interrogative movement into the HLP is needed for this question-formation strategy to be triggered.

- (60) a. te 'ga kon'pra [[un por'sel ke 'peza 'kwanto]]?
 you.SG= have bought a pig that weighs how.much
 b. [?] [[un por'sel ke 'peza 'kwanto]]_j 'ga-tu kon'pra ____j?
 a pig that weighs how.much have=you.SG bought
 c. * [[un por'sel ke 'peza 'kwanto]]_j te 'ga kon'pra ____j?
 a pig that weighs how.much you.SG= have bought
 ‘What is *x*, *x* an amount, such as you bought a pig whose weight is *x*’

However, the topic of in-island wh-in situ and its relation to Q is beyond the scope of this paper. For a more complete investigation, see Bonan (2021:147).

The discussion carried out in this section, coupled with the theoretical advances on wh-questions put forth in Cable (2010) and Aboh & Pfau (2011), clearly argues that all existing understandings of (real and apparent) wh-in situ in terms of a mere alternation between covert and overt wh-movement are unable to capture the complexity of the phenomenon, as are all analyses in which the felicity of in-island wh-in situ is simply attributed to an ability to correctly establish Agree relations across island boundaries. I therefore maintain that an implementation of silent Q-particles into the computation of northern Italian and more generally Romance wh-in situ is unavoidable.

3.3 *Trevisan vs Italian: of scattering and bundling*

A comparison of the movement properties of *wh*-elements and foci in Trevisan and Italian sheds light on the *loci* where the features relative to interrogative movement are encoded in the functional spine, with intriguing repercussions for the theory of *wh*-in situ.

In languages like standard Italian, contrastively focused constituents naturally occupy a low position, where the sentence stress falls. However, these can also move to a left-peripheral position, where they bear a particular pitch accent, as illustrated in (61):

(61) Standard Italian (adapted from Bianchi 2013: 193)

A: Gianni ha invitato Lucia.

John has invited Lucy

‘John invited Lucy’

B: Ha invitato **Marina!**

has invited Marina

‘He invited Marina’

B': **Marina** ha invitato!

Marina has invited

‘Marina he invited’

It is commonly assumed that focus in the low position, as in (61b), can either carry new information or be used in contrastive contexts, while the high position in (61c) can only be used contrastively. Regardless of the reasons behind this apparent optionality, the functional projection that encodes [focus] in standard Italian is a left-peripheral one, since clause-internally moved foci and *wh*-elements are not licensed, as in (62) and (63):

(62) Standard Italian

a. Gianni ha invitato Lucia alla sua festa.

John has invited Lucy to.the his party

‘John invited Lucy to his party’

b. Ha invitato Lucia **alla mia festa**, non alla sua!

has invited Lucy to.the my party NEG to.the his

‘He invited Lucy TO MY PARTY, not his’

b'. * Ha invitato alla mia festa_i Lucia ____i, non alla sua!

has invited to.the my party Lucy NEG to.the his

(63) Standard Italian

a. ^{??} Gianni ha invitato Lucia a **quale festa?**

John has invited Lucy to which party

‘To which party did John invite Lucy?’

b. * Gianni ha invitato a quale festa_i Lucia ____i?

John has invited to which party Lucy

Significantly, while the total fronting of contrastive foci can be delayed to LF in standard Italian, as illustrated in (62b), wh-fronting must be done overtly, along the lines of (64):

- (64) Standard Italian
A quale festa ha invitato Lucia?
 to which party has invited Lucy
 ‘To which party did he invite Lucy?’

Since Rizzi (1997), much work has taken focus-fronting and wh-fronting to compete for the same left-peripheral specifier, SpecFocusP. This is argued to justify the complementary distribution of the two constructions, at least on syntactic grounds. Given the semantic and syntactic similarities between the two constructions, it is legitimate to wonder why standard Italian can delay focus-fronting until LF, while covert wh-fronting is systematically disallowed. It is possible to explain this alternation as another intermediate diachronic stage, i.e., that Italian is slowly acquiring the possibility to encode [focus] in the LLP (see also the discussion of Italian wh-in situ in Badan & Crocco 2020).

Given Cable’s claim that all instances of fronting of wh-elements are triggered by [q], coupled with the observation that interrogative words in wh-interrogatives are inherently focused, and hence carry both [q]- and [foc]-features (encoded by the the Q-particle and the wh-element, respectively), the observed differences between Trevisan and standard Italian can be explained in terms of the *loci* where the two features are realized in the functional spine: while Trevisan ‘scatters’ the two features between the HLP and the LLP (in the sense of Giorgi & Pianesi 1997), standard Italian realises them as a bundle in the HLP. This is illustrated in Table 1:

		Trevisan	Italian
Foc° (LLP)	[q]	-	-
	[foc]	+	-
	[EPP]	+	-
Focus° (HLP)	[q]	+	+
	[foc]	-	+
	[EPP]	+	+

In Table 1 and throughout, I use the EPP as a formal requirement for overt movement.

3.4 *Extending the theory of Q to Trevisan (and beyond)*

Let me now outline the computations responsible for Wh-to-Foc and QP-fronting in Trevisan, and then survey some broader empirical predictions of my theory.

3.4.1 *WH-TO-FOC vs QP-fronting in Trevisan*

Let us go back to the instance of Wh-to-Foc seen in example (3), repeated here as (65):

- (65) ge 'gatu 'dato a ki_i a 'tef_a _____i ?
 3.DAT have=you.SG given to who the saucepan
 ‘Who did you give the saucepan to?’

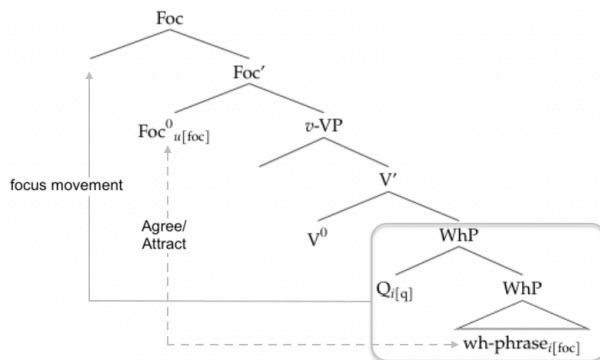
I have claimed that Wh-to-Foc is done in the presence of Q-adjunction: a wh-element integrates the [q]-feature needed in wh-interrogatives in a structure of the same category as the one that the wh-element projects, a WhP or a PP, as the one in (66):

- (66) Q-ADJUNCTION



I have also claimed that low focus movement of wh-elements is possible because wh-elements are inherently focused, and the Trevisan LLP encodes a syntactically active [foc]-feature. It can therefore be suggested that the first step of the derivation of Trevisan questions such as (65b) is done along the lines of (67):

- (67) FOCUS-AGREEMENT + FOCUS-MOVEMENT OF THE WH-ELEMENT TO THE LLP

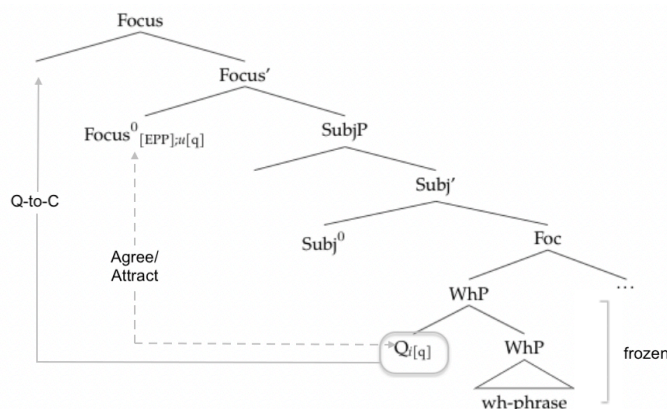


In the Trevisan LLP, the functional head Foc° carries an uninterpretable focus feature, $u[foc]$. This Agrees with the interpretable focus feature of the focused phrase, $i[foc]$. As such, a relation of Focus-agreement is created. Since movement of clause-internal wh-elements is compulsory in Trevisan, the presence of an EPP-feature in Foc° must also be posited, which triggers focus movement into SpecFoc.

It must be noted that (67) can only be a partial version of the derivation of Wh-to-Foc: a connection between the Q-adjointing wh-element and the HLP must also be established, and the Q-particle must move to Rizzi's (1997) Focus. In light of Rizzi's (2004) discussion of Criteria, the wh-element in SpecFoc can be considered 'frozen-in-place', i.e., unable to move further. However, according to Rizzi & Shlonsky (2007), sub-extraction of material out of it should be permitted. Thus, it can be assumed that once the

low focus movement sketched in (67) has taken place, the uninterpretable [q]-feature in Focus° is able to probe the adjoined Q-particle. Since the Q-particle carries an interpretable [q]-feature, an Agree relation is created with the uninterpretable [q]-feature in the high focus head. Subsequently, the EPP-feature in Focus° attracts the matching [q]-feature into its Spec. A proper spec-head configuration is created and the Q-Criterion (or ‘Wh-Criterion’ in Rizzi’s 1996 terms) is satisfied. A sketch is provided in (68):

(68) Q-AGREEMENT + MOVEMENT OF THE Q-PARTICLE INTO THE HLP



Remember that, for Cable, in the presence of Q-adjunction, movement of Q can be done overtly or covertly. Here, I take Trevisan Q-movement to be overt because of the activation of the HLP signalled by the presence of SCLI.¹²

It must also be maintained that there is no such thing as proper wh-fronting of wh-elements, which are never bare in the computation of wh-interrogatives and enter so-called Q-projection structures such as the one in (69) (Cable 2010):

(69) Q-PROJECTION



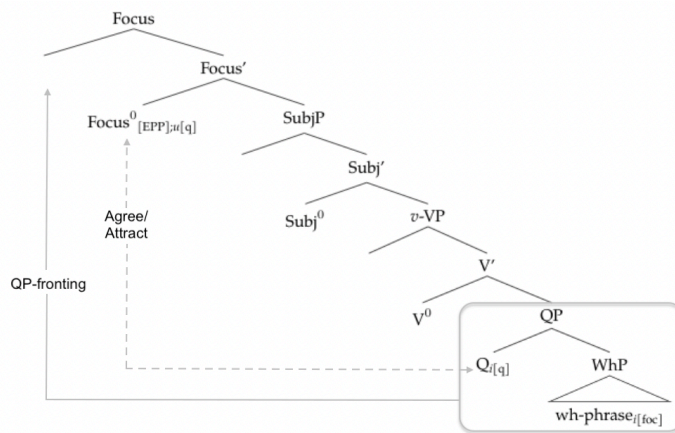
QPs are structures that never split during the derivation. While in the case of Q-adjunction the Q-particle does not head a dedicated maximal projection, in Q-projection Q heads a QP that selects the wh-element. Consider now the example previously seen in (4), repeated here as (70):

¹² A reviewer observes that the presence of the EPP and [focus/q] features in the functional heads under consideration here should interfere with verb movement to the HLP. Their main concern is how the inflected verb can raise to Focus° to satisfy the Q-criterion if that head already hosts the formal features responsible for the displacement of the wh-element. To my understanding, it is perfectly possible for a head to encode both a criterial and a movement-triggering feature.

- (70) a **ki**_i ge 'gatu 'dato a 'tefa _____i ?
 to who 3.DAT have=you.SG given the saucepan
 'Who did you give the saucepan to?'

In (70) the uninterpretable [q]-feature in the interrogative Focus^o probes for a matching goal; QP carries an interpretable [q]-feature, hence an Agree relation between the two is established. An EPP-feature in Focus^o attracts QP into SpecFocus, i.e., into the HLP. A proper spec-head configuration is created, and the Q(/Wh)-Criterion is satisfied. (71) illustrates this:

- (71) Q-AGREEMENT + QP-FRONTING INTO THE HLP



The status of focus-agreement cannot be easily established in the case of QP-fronting. On the one hand, it could be that [foc] is irrelevant to QP-fronting, and therefore not checked: the focus-feature on the wh-element could be inactive when it lacks an Output Effect (in the sense of Chomsky 1995 and related). Nonetheless, assuming that movement of wh-elements proceeds successive-cyclically through all phase-edges that it crosses, it is plausible that Trevisan QPs first undergo focus-movement to the LLP, and then they are totally fronted to the HLP. On the assumption that a QP moved to the LLP for reasons of focus is frozen in SpecFoc, the possibility of moving it further to the HLP should not be completely discarded, given that the two triggering movements are of different natures, i.e., they satisfy different Criteria, and the second part of the derivation would not ‘undo’ the frozen goal (in line with Rizzi’s 2018 version of Criterial Freezing).

3.4.2 *Wh-to-Foc and its predictions*

I wish to suggest that the alternation between interrogative ‘feature bundling’ and ‘feature scattering’ posited in this article is parametrised. An analysis of the differences between the interrogative syntax of standard Italian and Trevisan along these lines logically predicts the existence of at least three types of languages:

- i. languages in which both features are bundled in Focus^o (Standard Italian);

- ii. languages in which both features are bundled in Foc° ;
- iii. languages with the two features scattered between Focus° and Foc° (Trevisan).

I am not aware of any language with a $[\text{q};\text{foc}]$ feature bundle in Foc° , nor of languages that realise $[\text{q}]$ in the LLP and $[\text{focus}]$ in the HLP. Indeed, $[\text{q}]$ seems to be an exclusively left-peripheral feature, as witnessed by the movement properties of phonetically-realised Q-particles. This plausibly happens for semantic reasons: Q-particles need to raise to the HLP at the latest at LF to determine the scope of the wh-element and do the clause typing.

Along with the variations in (i)-(iii), variations in the presence of overt focus- and Q-movement are also expected, which depend on the setting of the EPP in the heads relevant to interrogative movement. The (i) and (ii) languages will therefore either display an EPP-feature on the head in which the interrogative features are bundled, or not. In the first case, overt movement to the specifier of the dedicated head will be triggered (QP-fronting in languages with the feature-bundle in Focus° , or Wh-to-Foc if the interrogative features are bundled clause-internally), while in the absence of the EPP no movement will be present (real wh-in situ).¹³

For languages which display feature scattering, as in (iii), three possible behaviours can be predicted. If no EPP is present on any of the heads involved in the derivation of interrogatives, wh-elements will not move overtly. If the EPP is only present in Focus° , in the HLP, then movement of Q is expected, while low focus-movement is not. If the EPP is in Foc° , in the LLP, then we expect focus-movement, but not Q-movement.

The situation is summarised in Table 2. NE means that a setting is ‘non expected’:

		BUNDLING		SCATTERING			
		CASE I	CASE II	CASE I		CASE II	
		Focus°	Foc°	Focus°	Foc°	Focus°	Foc°
		$[\text{+Q};\text{+foc}]$	$[\text{+Q};\text{+foc}]$	$[\text{+Q}]$	$[\text{+foc}]$	$[\text{+foc}]$	$[\text{+Q}]$
EPP	+	total fronting	NE	fronting of Q	WH-TO-FOC	NE	
	-	wh-in situ	NE	no fronting of Q	wh-in situ	NE	

In ‘bundling Case I’, the presence of the EPP triggers overt fronting of the QP (as for instance in Standard Italian). In a language with an overt Q-particle, such as Tlingit, both the wh-element and the Q-particle surface in the HLP. In the absence of the EPP, both the wh-element and the Q-particle are expected in the external-merge position, such as in Sinhala as discussed in Cable (2010). ‘Bundling case II’ is not expected for the reasons outlined above.

‘Scattering Case I’ gives rise to a more complex picture. If there is an EPP feature in the LLP, the language will display overt Wh-to-Foc; this low movement will be followed

¹³ Note that the differences which I attribute here to the presence or absence of the EPP could be also understood in terms of AGREE+MOVE vs AGREE alone. However, for the sake of coherence I prefer to adopt Cable’s original formulation.

by total fronting of Q in case the EPP is also realised on Focus^o, in the HLP, or no Q-fronting in the absence of the EPP. No Wh-to-Foc is expected if there is no EPP in the LLP.

The variables appreciated in my theory, coupled with the scenario predicted by their combinations in Table 2, have the theoretical advantage of providing a model for the study of wh-in situ which is derivationally economical and reduces the possible cross-linguistic variation to a minimum, by assuming that the functional spine is universal, and that languages are maximally uniform. Of course, while the presence of low focus movement is easily detectable in the phonetic string, the presence of Q-fronting is more easily detected in languages where Q is phonetically realised. Since the status of low focus movement was not considered in any of the languages analysed by Cable, further work on languages with phonetically realised Q-particles is needed to confirm the predictions of Table 2, more specifically to determine the role played by the LLP.

In the next section, I provide some peripheral evidence of the existence of languages with both Q-projection and Q-adjunction.

3.4.3 *On mixed QP-projection / Q-adjunction languages*

The idea of optionality has animated a lot of literature on Romance interrogatives. To my understanding, the peaceful co-existence of semantically-identical lexical or syntactic strategies, such as Q-selection and Q-adjunction in the model developed here, is not troublesome, as it merely functions as an indicator of an intermediate diachronic stage. Accordingly, like all intermediate ‘optional’ stages, this free alternation will eventually end, leading to the generalisation of one or the other strategy, or to a semantic specialization of each. Although I am at present unable to substantiate this prediction with Trevisan data from previous stages witnessing the direction of the ongoing diachronic process, my claim is not entirely speculative. Evidence from Aldridge (2009;2010), Watanabe (2003), Slade (2011) and Dadan (2019) suggests that this type of evolution (from Q-projection to unmoved Q-adjunction, passing through intermediate stages featuring both strategies) is indeed attested in the diachrony of Mandarin Chinese, Japanese, and Sinhala (§4.2). Linguistic stages characterised by optionality are in fact widely acknowledged in many works on historical and synchronic linguistics, and their existence is far from being troublesome. Outside of the Romance domain, what has been described as a mixed picture of wh-movement and wh-scoping (and everything in-between) is common, possibly more so than in Romance, and has been accounted for without considering it a theoretical issue.

To the best of my knowledge, no work on wh-in situ of the optional type has so far tried to implement the presence of Q-particles in the derivation of wh-interrogatives. Ideally, my claim about Trevisan could be further supported by the existence of mixed varieties with phonetically-realised Q-particles where Q-projection and Q-adjunction co-exist, although I have not encountered any such variety yet. Nonetheless, it would not be unsurprising for a variety to have an overt Q-particle construed within QPs and a silent

one which adjoins to wh-elements, or the other way round. Supporting evidence in favour of this prediction is provided by Ancash Quechua (Cole & Hermon 1994) in (72):

- (72) Ancash Quechua (adapted from Cole & Hermon 1994: 240)
- a. **May-man-taq**_i [José munan [María ____i aywanan-ta]]?
 where-to-Q José wants María will-go-ACC
 ‘Where does José want María to go?’
- b. [José munan [María **may-man** aywanan-ta]]?
 José wants María where-to will-go-ACC

(72) illustrates that wh-fronting is construed with the Q-particle *taq* in this language, whereas wh-in situ is inconsistent with *taq*. Following the discussion developed so far, and on Cable’s assumption that wh-elements are never bare in wh-questions, it is plausible to assume that Ancash Quechua wh-fronting is overt QP-fronting, while clause-internal wh-elements adjoin a silent Q-particle, as illustrated in (73):

- (73) ANCASH QUECHUA AS A MIXED LANGUAGE
- a. Q-projection
 [QP [WhP may-man] **taq**]
- b. Q-adjunction
 [WhP [WhP may-man] \emptyset]

It cannot be that Ancash Quechua has optionality in the timing of movement to the HLP, otherwise the presence of a QP-projecting wh-element with a phonetically realised particle *taq* would also be expected clause-internally, contrary to fact. Instead, an analysis of Ancash Quechua as a mixed Q-projection/Q-adjunction language with overt movement to the HLP is supported by the data on ECP effects and island-extraction in (74) and (75):

- (74) Ancash Quechua (adapted from Cole & Hermon 1994: 247)
- a. * **Pi-taq**_i Fuan musyan [____i tanta-ta ruranqan-ta]?
 who-Q Juan knows bread-ACC made-ACC
- b. Fuan musyan [**pi** tanta-ta ruranqan-ta]?
 Juan knows who bread-ACC made-ACC
 ‘Who is *x* such that Juan knows that *x* made bread?’

- (75) Ancash Quechua (adapted from Cole & Hermon 1994: 245)
- a. * **Ima-ta-taq**_i (qam) kuya-nki [____i suwaq nuna-ta]?
 what-ACC-Q you love-2PP steal man-ACC
 ‘What is *x* such that you love the man who stole *x*?’
- b. (Qam) kuya-nki [**ima-ta** suwaq nuna-ta]?
 you love-2PP what-ACC steal man-ACC

If Ancash Quechua is understood as a mixed language, the contrast in (74) follows. QP-fronting is blocked by the ECP, therefore the *wh*-element stays clause-internally and is a Q-adjointing one, as predicted. Even more unsurprisingly, QP-fronting out of a strong island is banned, as in (74a), while *wh*-in situ is felicitous in this same environment. On the assumption that Ancash Quechua derives *wh*-in situ through Q-adjunction, the question in (75b) must involve adjunction to the whole island (see Cable 2010 for a discussion of syntactic islands). For a *wh*-element within an island to adjoin the Q-particle at a more embedded level, i.e., within the island, is untenable on the assumption that QP-fronting and Q-to-C movement are undeniably done overtly in Ancash Quechua.

I shall not discuss Ancash Quechua further. However, this unusual presence of a phonetically-realised Q-particle in the case of fronting but not with *wh*-in situ argues that Q-projection and Q-adjunction can indeed co-exist. I therefore maintain that a treatment of Trevisan as a mixed Q-projection/Q-adjunction language is legitimate. By extension, the whole phenomenon of Romance *wh*-in situ can be understood as such, with cross-linguistic variation explained in terms of different microparametric settings (see Bonan 2021 for a discussion).

4 Cable's (2010) typology and parameters, amended

Cable posited the existence of a few variations in his Q-based grammar, which he formulated in terms of the following Parameters (I shall not discuss the 'Multiple Wh-' and 'Agreement' parameters, as they are not strictly relevant to this discussion).

PROJECTION PARAMETER: Q-projection vs. Q-adjunction

In Q-adjunction languages, Q adjoins to its sister and their mother is of the same category as the sister (in most cases, a Wh-projection). In Q-projection languages, Q takes its sister as complement, and so the node minimally dominating the Q and its sister is a QP.

Q-MOVEMENT PARAMETER: Overt movement vs. Covert movement

In overt Q-movement languages, the highest syntactic copy of a Q-particle is pronounced. In covert Q-movement languages, the lowest syntactic copy of a Q-particle is pronounced. [...] We can tentatively attribute the setting of this parameter to the presence or absence of EPP in C.

Q-PRONUNCIATION PARAMETER: Phonetically-realised vs. Silent

In some languages, like Tlingit, the Q-particle has phonological content. In other languages, the Q-particle is phonologically null.

4.1 *New parameters related to interrogative movement of wh-elements*

Considering my discussion of the Trevisan facts, I wish to suggest that the projection parameter ought to be modified as follows:

PROJECTION PARAMETER (AMENDED)

In Q-adjunction languages, Q adjoins to its sister and their mother is of the same category as the sister (in most cases, a Wh-projection). In Q-projection languages, Q takes its sister as complement, and so the node minimally dominating the Q and its sister is a QP. Some languages have both Q-adjunction and Q-projection.

The major consequence of the parameter above is that only one kind of total fronting exists, namely that of Q-projection languages that move QP overtly. According to Cable, the existence of QPs should also be posited in languages with silent Q-particles. Here, I have argued that Trevisan SCLI supports Cable's claim empirically. In contrast to Cable (2010) though, I have claimed that there are languages with both Q-projection and Q-adjunction, a property that explains the apparent optional in situ/ex situ alternation of Trevisan and more generally NIDs, and is supported by the interrogative morphosyntax of Ancash Quechua. On these assumptions, the fact that in some 'optional in situ languages' not all wh-elements can surface either clause-internally or sentence-initially (see, for instance, Munaro's 1999 discussion of Pagotto) can be assumed to be related to: (i) either special properties of the wh-elements under consideration (for example, *why*-words externally-merged directly in the HLP) or (ii) the fact that, in intermediate stages in linguistic evolution, it is unsurprising for Q-projection and Q-adjunction not to apply to all types of wh-elements homogeneously.

Another prediction of Cable's approach is that there can be basically three types of wh-in situ languages: (a) Q-projection languages that move QP covertly, (b) Q-adjunction languages that move Q covertly, and (c) Q-adjunction languages that move Q overtly. I have argued that the apparent optionality of Trevisan (and Romance in general) can be better explained if it is assumed to derive from the exceptional existence of both Q-projection (responsible for total fronting) and Q-adjunction (responsible for wh-in situ). Because of the presence of SCLI in Trevisan, both in constructions with QP-fronting and with wh-in situ, I have claimed that this language is of the (c) type, and that it has an EPP-feature both in the LLP and in the HLP.

I also identified a special type of movement of clause-internal wh-elements that has not been discussed by Cable, which I call Wh-to-Foc. This movement is linked to the need to check a [foc]-feature in the LLP, and is then triggered by an EPP-feature. Considering the theory of Wh-to-Foc developed here, an additional parameter ought to be added to Cable's:

INTERROGATIVE FEATURES PARAMETER: bundling vs. scattering

There exist languages in which all features related to interrogative wh-movement are bundled in the HLP, and languages in which these features are scattered between the HLP and the LLP.

In languages of the 'scattering' type, low movement of wh-elements is observed in case the language has an EPP feature in the LLP.

In what follows, I suggest possible evolutionary paths that the grammar of Q, coupled with my discussion and some relevant diachronic data, predicts for the cross-linguistic morphosyntax of single wh-questions.

4.2 *Evolution(s) towards unmoved wh-in situ*

Works on pure wh-in situ illustrate that there exist languages which underwent interesting typological changes. For instance, Watanabe (2003) claimed that Japanese, which is today a Q-adjointing language, went from overt wh-fronting into the HLP during the Nara period (8th century) to unmoved wh-in situ. Examples of wh-fronting in Old Japanese are provided in (76):

- (76) Old Japanese (adapted from Watanabe 2003: 182)
- a. *nani-wo-ka-mo mikari-no hito-no ori-te kazasa-mu?*
 what-ACC-Q-mo hike-GEN person-NOM pick-CONJ wear.on.the.hair-will
 ‘What should hikers pick and wear on the hair?’
 - b. *izuku-yu-ka imo-ga iriki-te yume-ni mie-tsuru?*
 where-throught-Q wife-NOM enter-CONJ dream-LOC appear-PERF
 ‘From where did my wife come and appear in my dream?’

Considering Cable’s (2010) assumption that wh-fronting is systematically QP-fronting, (76) could be taken as proof that the linguistic evolution goes from QP-fronting to unmoved Q-adjunction, passing through a phase characterised by optionality, such as the one observed today in Romance. Significantly, Watanabe claimed that, in Japanese, wh-fronting co-existed with wh-in situ in the Heian period (9th-12th century).

A different evolutionary path is actually suggested by Aldridge’s (2009) analysis of the Old Japanese examples in (76). According to her, Watanabe’s claim is partly based on his assumption that genitive subjects are in the canonical subject position, and hence he analyses a preceding wh-element as having been raised out of TP. In contrast, for Aldridge genitive subjects do not exhibit the behaviour of nominative subjects in SpecTP, and their distribution is better understood if we assume that they do not move from SpecvP. If the genitive subject occupies a very low position, then a Wh-to-Foc movement analysis becomes available for clause-internal wh-elements such as those in (76). It is therefore possible that Japanese was never a QP-language, and Old Japanese should rather be analysed as a Q-adjunction language, like the contemporary variety. Accordingly, the presence of an EPP-feature in the LLP, no longer present today, triggered overt movement in Old Japanese.

Similarly, Aldridge’s (2010) work on Archaic Chinese (Warring States period, 5th-3rd century BCE) suggests that Chinese went from having clause-internally moved wh-elements, as shown in (77), to present day unmoved wh-in situ:

- (77) Archaic Chinese (adapted from Aldridge 2010: 2)
- a. Tianxia zhi fu gui zhi qi zi **yan**_i [_{VP} wang ____i]?
 world GEN father settle here 3.GEN son where go
 ‘If the fathers of the world settled here, where would their sons go?’
- b. Wu **shei**_i [_{VP} qi ____i]?
 I who deceive
 ‘Who do I deceive?’

Aldridge’s works therefore suggest that both Japanese and Chinese moved from what looks like Trevisan-style Wh-to-Foc to modern-day unmoved in situ.

Based on the evolutionary patterns that I have sketched here, I wish to suggest that the evolution of wh-interrogatives goes from overt QP-fronting to either covert QP-fronting or unmoved Q-adjunction. I discussed these cases here to open my analysis of Trevisan to the investigation of other optional and pure in situ languages. Indeed, these patterns do constitute an interesting starting point for future research on single wh-interrogatives.

5 Conclusions

In this article, I have provided evidence from Trevisan, a Venetan dialect, that the LLP is involved in the derivation of Romance wh-in situ. Similar theoretical claims had already been put forward for Brazilian Portuguese (Kato 2013), and NIDs (Manzini 2014), although low movement patterns such as those that I have discussed here had never been observed in Romance (but are quite robust in many non-Romance languages). I have indeed argued that Trevisan displays systematic movement of both wh-elements and contrastive foci within the clausal domain. Because of the interpretive similarities between contrastively focused elements and wh-elements, and of previous works on the topic of low focus movement (Mahajan 1990, Jayaseelan 1996, Kahnemuyipour 2001, Aboh 2007, Manetta 2010, Dayal 2017, a.o.), I have proposed that the feature responsible for the low movement under investigation, which I call Wh-to-Foc, is [focus]. This feature is encoded by a focal head in the LLP, Foc.

I have also argued that the structural *locus* where [focus] is encoded is parametrised and varies cross-linguistically. My claim is that languages like standard Italian have a [q;foc] feature bundle in Focus^o in interrogatives, while languages like Trevisan scatter the two features between the HLP and the LLP. This claim has intriguing consequences for the typology of wh-in situ, and should push scholars working on Romance wh-in situ and/or foci to (re)consider the role played by the LLP in the derivation of these structures, crucially taking into consideration a prediction raised by the theory that I have developed here: that, along with wh-in situ languages that check both [q] and [foc] in Focus^o at LF, there must also exist languages which check [foc] clause-internally, regardless of whether or not there is an EPP feature in the LLP that is able to trigger Trevisan-style clause-internal movement of wh-elements and foci.

Differently from previous works on Romance, I have implemented the theory of low focus movement with the analysis of interrogative Q-particles developed in Cable (2010). The presence of these elements in the computation of wh-interrogatives is supported by previous works such as Cable's but also Aboh & Pfau's (2011), and by the Trevisan data on SCLI discussed in this article. Also, theoretically, an element that checks the interrogative force of the interrogative clause is independently needed in a system like the one presented here, in which Q-adjoining wh-elements are sent to interpretation from the low Foc, a criterial projection, and do not move to the HLP at any moment in the derivation.

Future research is needed to refine my analysis and to articulate its technical implementations, not only synchronically but also in diachrony. Nonetheless, the approach developed here has the theoretical advantage of proposing an understanding of the composite phenomenon of (Romance) wh-in situ which is derivationally economical, and of treating the wh-interrogatives of natural languages as being maximally uniform and characterised by the presence of a universal functional spine.

Abbreviations

ACC = accusative; ASP = aspect; DAT = dative; ERG = ergative; EXPL = expletive; F = feminine; FOC = focus; GEN = genitive; HON = honorific marker; M = masculine; NEG = negation; NOM = nominative; OM = object marker; PAST = past; PP = person plural; PS = person singular; Q = question (marker); REFL = reflexive; REL = relative; SG = singular.

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Competing interests

The author has no competing interests to declare.

References

- Aboh, Enoch Oladé & Roland Pfau. 2011. What's a Wh-Word Got to Do with It? In Paola Benincà & Nicola Munaro (eds.), *Mapping the Left Periphery: The cartography of syntactic structures 5*: 91–124. Oxford: Oxford University Press. DOI:10.1093/acprof:oso/9780199740376.003.0004
- Aboh, Enoch Oladé. 2007. Leftward Focus versus Rightward Focus, the Kwa-Bantu Conspiracy. In Nancy C. Kula & Lutz Marten (eds.), *SOAS working papers in linguistics 15*: 81–104.
- Aldridge, Edith. 2009. Short Wh-movement in Old Japanese. In Shoishi Iwasaki, Hajime Hoji, Patricia M. Clancy, and Sung-Ock Sohn (eds.), *Japanese/Korean Linguistics 17*: 549–563. University of Chicago Press.
- Aldridge, Edith. 2010. Clause-internal Wh-movement in Archaic Chinese. *Journal of East Asian Linguistics* 19(1): 1–36. Springer. DOI:10.1007/s10831-009-9054-z.
- Badan, Linda & Claudia Crocco. 2021. Italian wh-questions and the low periphery. *Linguistics: An Interdisciplinary Journal of the Language Sciences* 59 (3): 757–784. De Gruyter. DOI:10.1515/ling-2021-0059.
- Belletti, Adriana. 2004. Aspects of the low IP area. In Luigi Rizzi (ed.), *The Structure of CP and IP. The Cartography of Syntactic Structures 2*: 16–51. Oxford: Oxford University Press.
- Bianchi, Valentina. 2013. On 'focus movement' in Italian. In Victoria Camacho-Taboada, Ángel L. Jiménez-Fernández, Javier Martín-González & Mariano Reyes-Tejedor (eds.), *Information Structure and Agreement*, 193–216. John Benjamins. DOI:10.1075/la.197.07bia.
- Bonan, Caterina & Ur Shlonsky. 2021. 'Why' in situ in Northern Italian dialects: evidence from Trevisan. In Gabriela Soare (ed.), *Why is 'why' unique? Its syntactic and semantic properties*. De Gruyter. DOI:10.1515/9783110675160-003.
- Bonan, Caterina. 2021. *Romance Interrogative Syntax: Formal and typological dimensions of variation*. *Linguistik Aktuell/Linguistics Today* 266. John Benjamins. DOI:10.1075/la.266.
- Bonan, Caterina. 2021b. From Northern Italian to Asian wh-in situ: A theory of low focus movement. *Isogloss: Open Journal of Romance Linguistics* 7: 1–59. DOI: 10.5565/rev/isogloss.108.
- Bonan, Caterina. 2021c. 'Pronounce-phi': 'Number' clitics in a non-redundant null-subject system. *Cambridge Occasional Papers in Linguistics* 13: 1–34. University of Cambridge.
- Cable, Seth. 2010. *The Grammar of Q: Q-Particles, Wh-Movement, and Pied-Piping*. Oxford: Oxford University Press. DOI:10.1093/acprof:oso/9780195392265.001.0001.
- Cardinaletti, Anna. 2001. A second thought on Emarginazione: Destressing vs. Right Dislocation. In Guglielmo Cinque & Giampaolo Salvi (eds.), *Current Studies in Italian Syntax*, 117–135. Brill.
- Cheng, Lisa Lai-Shen & Joseph Bayer. 2017. Wh-in-situ. In Martin Everaert & Henk van Riemsdijk (eds.), *The Blackwell Companion to Syntax*: 376–438. DOI:10.1002/9780470996591.ch77.

- Cheng, Lisa Lai-Shen. 2003. Wh-in-situ. *Glott International* 7 (4): 103–109. Blackwell.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, MA: The MIT Press.
- Chomsky, Noam. 2001. Derivation by Phase. In Michael Kenstowicz (ed.), *Ken Hale: A Life in Language*. 1–52. Cambridge, MA: The MIT Press. DOI:10.7551/mitpress/4056.003.0004.
- Cinque, Guglielmo. 1999. *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford: Oxford University Press.
- Dadan, Macin R. 2019. *Head Labeling Preference and Language Change*. PhD dissertation. University of Connecticut.
- Dayal, Veneeta. 2017. Does Hindi-Urdu Have Feature-Driven Wh-Movement to Spec,vP? *Linguistic Inquiry* 48 (1): 159–172. DOI:10.1162/LING_a_00238.
- Giorgi, Alessandra & Fabio Pianesi. 1997. *Tense and Aspect: from Semantics to Morphosyntax*. New York: Oxford University Press.
- Hagstrom, Paul Alan. 1998. *Decomposing questions*. PhD Dissertation. MIT.
- Horvath, Julia. 1986. *Focus in the theory of grammar and the syntax of Hungarian*. Studies in Generative Grammar. De Gruyter.
- Huang, James Cheng-Teh. 1982. *Logical Relations in Chinese and the Theory of Grammar*. PhD dissertation. MIT.
- Hyman, Larry. 1979. Phonology and noun structure. In Larry Hyman (ed.), *Aghem Grammatical structure*. 1–72. University of Southern California.
- Jayaseelan, Karattuparambil Achuthan. 1996. Question-word movement to focus and scrambling in Malayalam. *Linguistic Analysis* 26: 63–83.
- Kahnemuyipour, Arsalan. 2001. On Wh-Questions in Persian. *Canadian Journal of Linguistics* 46 (1/2): 41–51. DOI:10.1017/S000841310001793X.
- Kato, Mary. 2013. Deriving “wh-in-situ” through movement in Brazilian Portuguese. In Victoria Camacho-Taboada, Ángel L. Jiménez-Fernández, Javier Martín-González & Mariano Reyes-Tejedor (eds.), *Information Structure and Agreement*, 175–192. John Benjamins. DOI:10.1075/la.197.06kat.
- Kishimoto, Hideki. 2005. Wh-in-situ and movement in Sinhala questions. *Natural Language & Linguistic Theory* 23 (1): 1–51. DOI:10.1007/s11049-004-6574-0.
- Mahajan, Anoop Kumar. 1990. *The A/A' Distinction and Movement Theory*. PhD Dissertation. MIT.
- Manetta, Emily. 2010. Wh expletives in Hindi-Urdu: The vP phase. *Linguistic Inquiry* 41 (1): 1–34. DOI:10.1162/ling.2010.41.1.1.
- Manzini, Maria Rita & Leonardo Maria Savoia. 2005. *I dialetti italiani e romanci. Morfosintassi generativa I-III*. Edizioni dell’Orso.
- Manzini, Maria Rita & Leonardo Maria Savoia. 2011. Wh- in situ and wh-doubling in Northern Italian varieties: Against remnant movement. *Linguistic Analysis* 37 (1): 73–113.
- Manzini, Maria Rita. 2014. Grammatical categories: Strong and weak pronouns in Romance. *Lingua* 150: 171–201. DOI:10.1016/j.lingua.2014.07.001.

- Munaro, Nicola & Cecilia Poletto & Jean-Yves Pollock. 2001. Eppur si muove! On comparing French and Bellunese wh-movement. In Pierre Pica (ed.), *Linguistic Variation Yearbook* 1, 147–180. Amsterdam: John Benjamins. DOI:10.1075/livy.1.07mun.
- Munaro, Nicola. 1999. *Sintagmi interrogativi nei dialetti italiani settentrionali*. Rivista di Grammatica Generativa: Monografie. Unipress.
- Poletto, Cecilia & Jean-Yves Pollock. 2015. Arguing for remnant movement in Romance. In Günther Grewendorf (ed.), *Remnant Movement*, 135–178. De Gruyter Mouton. DOI:10.1515/9781614516330-006.
- Rizzi, Luigi & Giuliano Bocci. 2017. Left Periphery of the Clause: Primarily Illustrated for Italian. In Martin Everaert & Henk Van Riemsdijk (eds.), *The Wiley Blackwell Companion to Syntax II*.
- Rizzi, Luigi & Ur Shlonsky. 2007. Strategies of Subject Extraction. In Uli Sauerland & Hans-Martin Gärtner (eds.), *Interfaces + Recursion = Language?* Studies in Generative Grammar 89: 115–160. De Gruyter. DOI:10.1515/9783110207552.
- Rizzi, Luigi. 1996. Residual verb-second and the wh-criterion. In Adriana Belletti & Luigi Rizzi (eds.), *Parameters and functional heads*, 63-90. New York: Oxford University Press.
- Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In Liliane Haegeman (ed.), *Elements of Grammar*, 281–337. Dordrecht: Springer.
- Rizzi, Luigi. 2001. On the Position Int(errogative) in the Left Periphery of the Clause. In Guglielmo Cinque & Giampaolo Salvi (eds.), *Current Studies in Italian Syntax*. Linguistic Variations 59: 287–296.
- Rizzi, Luigi. 2004. Locality and Left Periphery. In Adriana Belletti (ed.), *Structures and beyond*. The Cartography of Syntactic Structures 3: 3–15. Oxford: Oxford University Press.
- Rizzi, Luigi. 2017. On the format and locus of parameters: The role of morphosyntactic features. In Simin Karimi & Massimo Piattelli-Palmarini (eds.), *Linguistic Analysis* 41 (3-4): 158–190.
- Rizzi, Luigi. 2018. Intervention effects in grammar and language acquisition. *Probus* 30 (2): 339–367. De Gruyter. DOI:10.1515/probus-2018-0006.
- Samek-Lodovici, Vieri. 2015. *The Interaction of Focus, Givenness, and Prosody. A Study of Italian Clause Structure*. Oxford University Press. DOI:10.1093/acprof:oso/9780198737926.001.0001.
- Slade, Benjamin M. 2011. *Formal and philological inquiries into the nature of interrogatives, indefinites, disjunction, and focus in Sinhala and other languages*. PhD dissertation. University of Illinois at Urbana-Champaign.
- Stepanov, Arthur & Tsai, Wei-Tien Dylan. 2008. Cartography and licensing of wh-adjuncts: A crosslinguistic perspective. *Natural Language and Linguistic Theory* 26 (3): 589–638. Springer. DOI:10.1007/s11049-008-9047-z.

Watanabe, Akira. 2003. Loss of overt wh-movement in Old Japanese. In David W. Lightfoot (ed.), *Syntactic effects of morphological change*, 179–195. Oxford: Oxford University Press. DOI:10.1093/acprof:oso/9780199250691.003.0010.