Explaining and Unifying Optional Wh-Movement[1]

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Abstract

This paper seeks to propose that optional wh-movement is, contrary to popular belief, compatible to current Minimalist syntax. Despite the fact that the Minimalist Programme eschews optionality, studies have shown numerous wh-movement languages such as French, English, Portuguese, Greek, Spanish and more display grammatical non-echo in-situ options. The claim in this paper is that question particles are far more prevalent in languages than previously assumed to be, and these particles take wh-phrases as their complements forming a larger constituent. Optionality arises naturally by the satisfaction of the EPP feature on C by raising the wh-phrase, the particle or the wh-phrase/particle constituent. Such an approach allows us to explain the wh-optionality of several of the above languages and makes predictions about scope assignment and appears to also account for Left Branch Extraction cases.

1. Introduction

Languages are seen to be parameterised between wh-movement (English, Portuguese etc.) and wh-in-situ (Chinese, Japanese etc.). Given current Minimalist syntactic approaches, movement must be driven by features in the derivation, and if these features are present, movement is triggered and obligatory. In the case of wh-movement, the common approach is to assume that in wh-movement languages, there exists an EPP feature on C which requires movement of a wh-phrase into its specifier for satisfaction. In turn, this means that languages which possess an EPP feature on C (wh-movement languages) are obliged to raise the wh-phrase to [Spec,CP] and are not predicted not to show any form of optionality between wh-in-situ and wh-movement. Empirical evidence shows otherwise. In this paper, I will offer an alternative line of analysis to account for optional wh-movement that is not only theoretically plausible and compatible with the current Minimalist framework, but also one which necessarily falls out from the current model of syntax without further stipulation. Specifically, this paper focuses on wh-in-situ strategies found in languages which are traditionally seen to be wh-movement languages; that is, languages which bear an EPP feature on C. In Section 2, I provide a brief review of several different analyses of optional wh-movement across several languages, English, Brazilian Portuguese, Babine-Witsuwit'en and Spanish. In Section 3, I present some original data from Singapore English (SgE), a creolised English dialect spoken Singapore and (to some extent Malaysia). SgE is interesting because it displays far more flexibility than English when it comes to wh-in-situ, presumably because of its heavy Chinese substrate influence. Section 4 presents the analysis, briefly mentioning optional wh-movement in French and moving on to present the theoretical framework to account for the data facts in SgE as well as the other languages mentioned in

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this paper. Section 5 concludes, with a brief speculator remark on how LBE constructions in languages like Polish can naturally be derived from the account presented here.

2. Some Background on Optional Wh-movement

It is well known that in wh-movement languages such as English, wh-words move to the front of the sentence to form questions, while in-situ versions of the type (1b) are ungrammatical.

(1) a. What$_i$ did you eat t_i?
b. You ate what?

Questions of the (1b) type are traditionally known as echo questions which do not possess interrogative force. However, this is not true as we shall see. In the languages discussed in this paper English, Brazilian Portuguese, Babine-Witsuwit'en, Spanish and French all display non-echo in-situ variation. These facts will be addressed in more detail over this section, except French which we will take up again in Section 4. On the other hand, in an in-situ language like Chinese, wh-words remain in-situ in question formation, and also (optionally), a question particle is used.

(2) a. ni chi shenme (ne)
you eat what prt
b. *shenme ni chi (ne)
`What did you eat?'

Moving a wh-word to the front in Chinese as shown in (2b) renders the sentence ungrammatical. The most obvious option available to us which would explain wh-in-situ in English, or any wh-movement type language for that matter, would be to adopt the standard EPP attracting, wh-movement into [Spec,CP] analysis for wh-ex-situ constructions while adopting a Chinese type analysis involving Q-insertion or covert LF movement analysis for wh-in-situ constructions. While plausible, such a solution appears to me to be less than ideal. If typological differences of the simplest sort (at least where wh-movement is concerned) are to be explained by parameterization, the first step would be to first establish what the setting of the wh-parameter is in any given language. Obvoiusly, since we are looking at wh-movement, the simplest question to ask would be: in any given language L, do wh-phrases move to a clause initial position? Roberts (2007) captures this succinctly:

(3) Wh-movement parameter
Does a wh-phrase move to the specifier of an interrogative CP? (Roberts 2007: 83)

Since the movement of a wh-phrase to [Spec,CP] is driven by an EPP feature on C, we can rewrite this parameter as:

(4) Wh-movement parameter
Does interrogative C possess an EPP feature?

If we accept that languages are parameterized for wh-movement along the lines of (3) and (4), conflating the analyses for Chinese and English wh-in-situ constructions would be less than ideal, unless we want to say that a language is parametrically set one way in some cases and another way in others. What seems to me to be the best way to approach this issue is to first strictly adhere to the stipulation of the wh-parameter; the ideal goal would be to develop an analysis that allows us to maintain the presence of the EPP feature on an interrogative C while allowing wh-in-situ variation to emerge. Let us now review several existing accounts of optional wh-movement in the literature.

2.1 Different Complementizers

Pires and Taylor (2007) propose that for languages like English and Brazilian Portuguese (BP), discourse-pragmatic conditions, which they term as the Common Ground (CG) along the lines of Stalnaker (1978, 2002), can permit wh-in-situ in non-echo, single wh-phrase questions. CG information must be extractable from context or the discourse, or from an extralinguistic context. CG consists of propositions or presuppositions which are shared by both hearer and speaker. If CG conditions are satisfied, they list four different conditions under which wh-in-situ is permitted in English and BP. All examples in this section are from Pires and Taylor.

Firstly, wh-in-situ is permitted in questions which are termed [+specific]Qs, which request more specific information about something mentioned immediately prior in the discourse. These questions require special rise-fall intonation and focal stress.

(5) a. A: I made desserts.
b. B: You made [what↑kind of desserts↓]?
c. B: Você fez [que ↑tipo de sobremesa↓]?

Secondly, wh-in-situ is also permitted in expect-Qs, which occur when further questioning of new information is expected.

(6) a. A: I made many different kinds of desserts.
b. B: So, you made [how many cookies↓]?
c. (e) você fez [quantos biscoitos↓]?

Thirdly, reference-questions request a repetition of an immediately prior antecedent. Some scholars such as Ginzburg and Sag (2001) argue that reference-Qs are a type of echo question, however Pires and Taylor believe that they are subsumed under wh-in-situ questions in general.

(7) a. A: I did not sell those strange pictures.
A: Eu não vendi aquelas pinturas estranhas.
b. B: You did not sell what ↑↓strange pictures↓?
c. B: Você não vendeu que ↑↓pinturas estranhas↓?

Finally, extralinguistic contexts can also permit wh-in-situ.

(8) a. B sees his friend reading something (extra-linguistic CG)

b. B: You're reading what?
c. B: Você (es)tá lendo o quê?

The main thrust of the analysis is that wh-in-situ in English and BP is licensed when requested information is expected (part of the presuppositions of CG). What is important is that Pires and Taylor (2007) account for the syntax of these constructions by arguing that in English and BP, a [+wh, +Q] complementizer is present which *does not* trigger wh-movement.

Moreover, they claim that there is no LF movement either, citing an example in Japanese from Lasnik and Saito (1992) which shows that wh-adjuncts are not permissible in islands, even in a wh-in-situ language like Japanese, unlike the examples from English and BP in (9). They argue that a [+wh, +Q] C is inserted overtly in wh-in-situ questions in English and BP, allowing true wh-in-situ without movement (overt or LF) and thus is able to escape island violations.

(9) a. A: A man won the lottery this year. Another one did it last year.
b. B: E aí, você vao entrevistar o homem que ganhou na loteria quando?
c. B: So, you will interview the man that won the lottery when?

Essentially, what is being said here is that English and BP, both wh-movement languages, possess a complementizer which lacks an EPP feature, which is selected when certain discourse (CG) conditions are met, thus allowing wh-in-situ constructions. While the description of the distribution of the wh-in-situ phenomena seem to be correct, the facts of the distribution itself are insufficient to motivate or explain why an wh-interrogative C without an EPP feature exists in English and BP in constructions which are claimed to be clearly interrogative, given the fact that these languages are seen to be wh-movement languages, whose defining characteristic feature is to possess an EPP feature on C, thus motivating movement.

Ultimately, the only difference between the types of constructions discussed above and canonical wh-questions is the conditions imposed on CG. It is not apparent how these semantic-pragmatic effects have any impact on whether an EPP feature is present on C or not. Chomsky himself states in Stemmer (1999) that syntax should be "autonomous" of pragmatics. This however, it not what the discussion at hand is about, suffice to say that aspects of narrow syntax such as formal features should not be governed by pragmatics. This leaves semantics.

Suppose we adopt a Hamblin (1973)/Karttunnen (1977) type semantics for questions, where questions denote the set of all possible answers. The CG constraints as discussed by Pires and Taylor (2007) are described as the set of all possible answers being part of the CG, that is, they are presupposed. I have no contention with such an analysis of when and where these wh-in-situ questions can occur, rather, if the CG governed wh-in-situ and its canonical wh-ex-situ constructions are minimal pairs, differing only in the absence of an EPP feature, the question is whether the presence or absence of an EPP feature alone can bear this semantic burden when the derivation is passed on to the syntax-semantic interface. My inclination with regards to this is to remain true to the fact that wh-movement languages are as described as in (4), strictly possessing an EPP feature. All variations of the PF outputs of wh-interrogatives, in-situ or otherwise should be established around this.

2.2 Optional Selection of C

The second account for optional wh-movement is proposed by Denham (1997, 2000), who argues that in Babine-Witsuwit'en (BW), an Athabaskan language spoken in British Columbia, optional wh-movement exists. She show that this optional fronting of wh-elements in BW is not a case of topicalisation, clefting or focus movement while possessing the island constraints of moved constituents. BW is an SOV language and wh-in-situ and wh-moved pairs can be seen in (10) below with no difference in interpretation:

(10) a. Lillian ndu yunkët?
Lillian what 3s.bought.3s
b. ndu Lillian yunkët?
`What did Lillian buy?'

By contrast, non-wh NPs are not able to be fronted in this way. If an object is to be fronted, it must be focalised and possess a corresponding focus marker:

(11) a. Lillian dus yunkët
Lillian cat 3s.bought.3s
b. *dus Lillian yunkët
`Lillian bought a cat'
c. dus'iy George yunkët
cat-FOC George 3s.bought.3s
`It is a cat that George bought'

In complex questions, wh-phrases can occur in-situ, in an intermediate or fronted position, wh-phrases are in bold:

(12) a. George [Lillian **ndïtnï book** yik'iyelhdic] yilhnï?
George Lillian which book 3s.read(opt).3s 3s.told.3s
b. George [**ndïtnï book** Lillian yik'iyelhdic] yilhnï?
c. **ndïtnï book** George [Lillian yik'iyelhdic] yilhnï?
`Which book did George tell Lillian to read?'

There are several other data facts which I will exclude here for the sake of brevity which include island phenomena (extraction is impossible) and those which point to the fact that wh-fronting and NP-focalisation are distinct phenomena. These include fronted wh-phrases and focussed NPs and the ungrammaticality of multiply focussed and fronted non-wh NPs.

Denham (2000) accounts for the optionality in wh-constructions as a result of lexical selection. According to the Minimalist thinking at that time, where strong and weak features still determined whether movement took place or not, Denham observes that allowing a feature to be either strong or weak would not be a satisfactory account of movement, given that according to Chomsky (1993), feature strength was a crucial factor in cross–linguistic variation. She cites Chomsky (1995) and argues that since there is no good reason why one numeration should be chosen over another, it is completely plausible that C can be chosen in one numeration but not another. Thus the problem is simply rectified, in the cases where there is wh-movement, an interrogative C is selected which motivates

movement and in the cases where there is no wh-movement, no C is selected in the numeration.

This solves the problem of the varying positions of the wh-phrase in the overt syntax of any given derivation. However, another problem arises. The burden of clausal typing and scope marking can no longer be borne by the wh-word or its agreement with C, since in wh-in-situ constructions, Denham's analysis claims that no C is selected. In order to solve this, Denham postulates the existence of a separate phrasal projection TyP above CP (when present) which serves to type clauses and mark scope. This works such that "if wh-question features are present ([Sc,wh]), then a Spec position is projected and an operator appears there" (Denham 2000: 216n17).

The problem with this analysis is that current Minimalist thinking has done away with strong and weak features and has defined CP as a strong phase and being a necessary landing site for successive cyclic movement. As such, this weakens Denham's arguments for abandoning an obligatory CP projection. The projection of TyP is also superfluous. Denham's analysis trades one projection for another, by no means an economical move. The ideal solution would be one which maintains the integrity and consistency of the clausal spine (maintaining the CP projection), keeping the number of extra projections to a minimum while capturing the correct facts about scope marking and the multiple positions of wh-phrases.

2.3 Remnant Movement

A third possible analysis for wh-in-situ is that of remnant movement. Such an account is given for Spanish in Uribe-Etxebarria (2002). The main thrust of such an analysis is that wh-movement does still occur to [Spec,CP], followed by movement of the TP (or IP) to a position above CP, yielding the same surface word order. (13) illustrates this:

(13) a. Qué compró Juan?
what bought John
b. [y] Juan compró qué?
`[and] what did John buy?'

In fact, in certain cases, raising the wh-word degrades the sentence and wh-in-situ is greatly preferred. These are shown in (14). What is interesting however is that if there is a pause after the wh-word in the raised construction, the sentence becomes grammatical, as shown by # in (14c).

(14) a. tú le diste la guitarra a quién?
you CL gave the guitar to who
b. */?? tú le diste a quién la guitarra?
c. tú le diste a quién # la guitarra?
`Who did you give the guitar to?'

A simplified derivation for (13b) is shown in (15), which illustrates remnant movement:

(15) a. $[_{IP}$ Juan compró qué]
b. $[_{CP}$ qué$_i$ $[_{IP}$ Juan compró $t_i]]$

c. $[_{XP}\ [_{IP}$ Juan compró $t_i]_j\ [_{CP}$ qué$_i$ $t_j]]$

Reglero (2005, 2007) argues stronly against the remnant movement approach. The first of these being that wh-in-situ within an island should be ungrammatical. This is not true, she cites (16) as an example:

(16) a. te has enamorado del hombre que vive con quién?
You have fallen-in-love of-the man that lives with who
`Who have you fallen in love with the man that lives with?'
b. *$[_{CP}$ con quién$_i$ $[_{IP}$ te has enamorado del hombre que vive $t_i]]$?

What is expected if we adopt a remnant movement analysis is that (16a) should also be ungrammatical as it involves a prior overt movement into [Spec,CP] and subsequent movement of the IP. However, in (16b), it is clearly shown that extraction of *con quién* from within an island into [Spec,CP] is impossible, rendering further remnant movement of the IP to a higher position impossible.

The second problem with a remnant movement analysis for Spanish arises from multiple wh-in-situ constructions. Reglero cites (17) as an example:

(17) Iván le pidió qué a quién?
Ivan CL asked what to who
`What did Ivan ask to who?'

The default way of expressing a multiple wh-question in Spanish is found in (18), which shows one fronted wh-phrase and another left in-situ. However, if in-situ constructions are a result of remnant movement, multiple fronting of both wh-phrases are a necessary intermediate step before remnant movement to yield (17). (18) shows that this however, is clearly impossible.

(18) a. *a quién qué le compró Iván?
to who what CL bought Ivan
b. a quién le compró Iván (el) qué?
to who CL bought Ivan (the) what
`Who did Ivan buy what?'

What Reglero proposes instead is that wh-phrases do not move, and instead, phonological properties such as stress assignment are responsible for the in-situ effects in Spanish couple with the Copy Theory of movement. The details of the entire analysis are too lengthy to include in this paper and interested readers are directed to Reglero's paper. The main issue I have with such an analysis is that this analysis requires knowledge of the boundaries of the intonational phrases at the level of narrow syntax *before* spell-out. While not implausible, depending on the theory of spell-out and the syntax-phonlogy one wishes to adopt, if a simpler account can be developed which can constrain the word order facts to within narrow syntax, so much the better.

2.4 Interim Summary

In this section we have considered three different analyses accounting for different strategies wh-in-situ question construction in different languages. Each of these approaches has been shown to be lacking in various theoretical and empirical ways. In order to be true to our strict formulation of the wh-parameter, the claim that I will make at this point is that all the languages discussed above possess an interrogative C head with an EPP feature; that is to say, these languages are all typologically wh-movement languages. What remains to be done is to show how these languages are able to accommodate wh-in-situ constructions without the derivation crashing – how can the EPP can satisfied without wh-movement? Before I present the proposal, let us consider some original data.

3. Some Data from Singapore English

Singapore English (SgE) is seen to be a creolised form of English with heavy Chinese substrate influence[2] spoken by roughly four million speakers in Singapore (and possibly more in Malaysia who speak a similar variety). When questioned about SgE, native speakers would often informally term it a "mix of English and Chinese". As far as we are concerned, this "mix" extends into the domain of question formation. SgE, while possessing all the English strategies of question formation, also exhibits traits usually ascribed to wh-in-situ languages such as Chinese when it comes to question formation. These include the use of question particles, wh-in-situ and special A-not-A-like yes/no question construction. Where questions are concerned, there are two defining characteristics of SgE which differ from that in Standard English (henceforth English).

The first, as mentioned above is that wh-in-situ questions are completely acceptable and are not necessarily echo questions. This means that questions of the type (1b) above are perfectly fine as a non-echo question. This actually does not come as a surprise, even in English, studies have shown that wh-in-situ questions are shown above by Pires and Taylor (2007) to be possible in non echo-question contexts. Although little work in general has been done on SgE, other scholars (Bao 2001, Gupta 1994, Yip and Matthews 2007) have also noted that wh-movement is optional in SgE.

The second characteristic of SgE wh-questions is that, like Chinese, the use of question particles is possible in both wh and yes/no questions. More interestingly, since wh-movement is also a valid strategy in SgE, this particle can be sentence final or pied-piped to the front of the sentence with the wh-word, but crucially not sentence initial, leaving the wh-word in-situ. The sentences in (19) illustrate this. (19a) is of a parallel construction to Chinese, shown in (20):

(19) a. You eat **what** (**ah**)?
you eat what PRT
b. **What** you eat (**ah**)?
c. **What ah**, you eat?
d. ***Ah** you eat what?
`What did you eat?'

(20) ni chi-le shenme (ne)?

[2] For a good overview of the grammatical features of Singapore English, interested readers are referred to Lim (2004).

you eat-ASP what PRT
`What did you eat?'

In complex questions the data shows an interesting distribution. First let us consider constructions without the question particle:

(21) a. You think I go **where**?
b. You think **where** I go?
c. **Where** you think I go?
`Where do you think I went?'

All positions seem to be possible; including the intermediate partially moved one. However, with the particle *ah*, the distribution is very interesting. It is worthwhile to note that the headings I have for each subpart of data is purely descriptive, it is not meant to describe what happens in the syntax, the analysis of which will be given in Section 4:

(22) Default position
a. You think I go **where ah**?
you think I go where PRT
`Where do you think I went?'

Raising *where*, *ah* in sentence final position
b. You think **where** I go **ah**?
c. **Where** you think I go **ah**?

Raising *ah*, *where* in-situ
d. *You think **ah** I go **where**?
e. ***Ah** you think I go **where**?

Raising *where ah*
f. ??/*You think **where ah** I go?
g. **Where ah** you think I go?

Raising either *where* or *ah* from (22f)
h. **Where** you think **ah** I go?
i. ***Ah** you think **where** I go?

(22a,b,c) show a similar distribution as (21). The wh-phrase can be in an in-situ, intermediate and in a fronted position, with the particle *ah* in sentence-final position. In (22d,e), raising only the particle to an intermediate or initial position renders the sentence ungrammatical. In (22g), raising the wh-phrase/particle complex to an initial position is fine although leaving it in an intermediate position (22f) is not. (22h,i) involve first raising *where ah* to an intermediate position followed by raising of each element to a higher position. Only raising *where* is possible as shown in (22h).

(22f) requires a little more explanation. (22f) is not very grammatical for me, although an informant suggests that it might be possible in a heavily presupposed context:

(23) A parent sees her child return from school, very late and utters:
P: Why you come home so late?
`Why are you home so late?
C: No lah[3]! I go library study. You think **where ah** I go? Shopping?
`No! I was in the library studying. Where do you think I went? Shopping?'

Even with the discourse context in (23), although the ungrammaticality is mitigated, such an utterance is still rather marginal for me. It might however, be possible to construe such a question as a yes/no question "Do you think I went shopping?" rather than as a wh-question, since the speaker already provides the answer. What needs to be done then is to explain the distribution in (22). Clearly, from the distribution in (22), the positions of *where* and *ah* are constrained in some way. Not only that, they are not independent of each other; the movement of one restricts the other. This may not be immediately apparent but will be discussed at length below where I propose that the wh-phrase and the particle form a constituent. This will be fleshed out in greater detail the next section.

If we consider the distribution of wh-adjuncts, similar patterns arise with regards to the position of the particle:

(24) a. *You don't like him **why ah**?
b. **Why** you don't like him **ah**?
c. **Why ah** you don't like him?
`Why don't you like him?'

(25) Default position
a. *He think you don't like him **why ah**?

Raising *why*, *ah* in sentence final position
b. He think **why** you don't like him **ah**?
c. **Why** he think you don't like him **ah**?

Raising *ah*, *why* in-situ
d. *He think **ah** you don't like him **why**?
e. ***Ah** he think you don't like him **why?**

Raising *why ah*
f. *He think **why ah** you don't like him?
g. **Why ah** he think you don't like him?

Raising either *why* or *ah* from (25f)
h. **Why** he think **ah** you don't like him?
i. ***Ah** he think **why** you don't like him?

The distribution in (25) is similar to the distribution in (22), apart from the fact that *why* cannot be in-situ. This is not unexpected, considering that *why*-in-situ is ungrammatical in both English and Chinese:

[3] *Lah* is used as an emphatic particle here.

(26) a. *ta lai weishenme?
he come why
`Why did he come?'
b. weishenme ta lai?
c. ta weishenme lai?

What we do not find in SgE however, is a construction where the subject precedes *why* as shown by the Chinese data in (26). Uttering (27) with or without the particle is ungrammatical. Lin (1992) describes (22c) as having the pronoun *ta* topicalised to a position higher than CP, over the wh-word *weishenme*. I have little to say about why this is not possible in SgE, apart from the fact that perhaps SgE, unlike Chinese, lacks such a projection above CP.

(27) *He why come (ah)?
`Why did he come?'

Before we conclude this section, let us take a look at how yes/no and disjunctive questions are formed in SgE. SgE adopts several strategies when forming yes/no and disjunctive questions, most of them involving the use of a question particle, not unlike Chinese. This is shown in (28), where the use of the question particle *ma* turns a declarative into a yes/no question in Chinese:

(28) Ni hui jia ma?
you return home PRT
`Are you going home?'

Likewise, in SgE a similar strategy is adopted:

(29) a. You (are) going home ah2/meh/is it[4]?
you going home PRT
`Are you going home?'
b. Are you going home (*ah2/meh/is it)?

The use of auxiliaries in SgE is often optional but if it is used, inversion is not possible as shown in (29a). If auxiliary is present and inverted, the particle cannot be used. Chinese can also form disjunctive questions with a special A-not-A form:

(30) a. Ni hui jia haishi bu hui jia (ne)?
you return home or not return home PRT
b. Ni hui-bu-hui jia (ne)?

[4] The different particles have different pragmatic usages, a discussion of which is beyond the scope of this paper. Interested readers are directed to Wong (2004) for a discussion of the different discourse particles in SgE. Reason why *ah2* is marked differently from the previous *ah* is because *ah2* has a low tone whereas *ah* in wh-questions has a rising tone. They are simply just different question particles and is not particularly relevant to the discussion at hand. *Meh* is used to challenge the proposition being questioned and *is it* what I believe to be a lexicalized question particle which is used when the speaker presupposes the answer is true.

you return-not-return home PRT

In SgE, disjunctive questions are formed with *or not* much like English.

(31) a. You going home or not (ah)?
you going home or not PRT
`Are you going home?'
b. Are you going home or not (*ah)?

Like (29), inversion is not possible with the use of the particle. The crucial difference between English and SgE is that *or not* can be used in declaratives in SgE to form a question but in English, *or not* alone is insufficient to ensure that a question is being asked; do-support/inversion must first apply. There is good reason to believe that as with wh-phrases and *ah*, *or not ah* forms a complex. Compare (32) and (33), in Chinese, the disjoined form is separable from the particle but in SgE, it is not.

(32) ni qu-bu-qu xuexiao (ne)?
you go-not-go school PRT
`Are you going to school?'

(33) a. You going to school or not (ah)?
b. *You going or not to school ah?
`Are you going to school?

If we use a temporal adverb, we find that the position of the adverb is very flexible, expect that it cannot be in between *or not* and *ah*.

(34) a. You going **or not ah** later?
b. You going later **or not ah**?
c. You later going **or not ah**?
d. Later you going **or not ah**?
e. *You going **or not** later **ah**?

In this section, we have looked at some data from SgE, and examined the distribution of wh-phrases and the question particle, as well as the distribution of the particle in yes/no and disjunctive questions. I have attempted to show that the wh-phrase or yes/no markers and the particle are not independent from each other.

A kind reviewer questions whether it is possible that *ah* heads a distinct projection in SgE. The answer to this question is not straightforward. If we are talking about a distinct functional projection in the clausal spine, the answer is no. Instead, the particle takes the wh-phrase as its complement and forms a constituent. For wh-phrases, either the wh-phrase or the particle can be extracted or the entire complex pied-piped to a higher position. For yes/no questions the particle is used with a declarative without inversion to form a question. For disjunctives, *or not* and the particle form an inseparable complex.

Returning to the issue, I do believe however, that there is a functional projection in the clausal spine whose specifier acts as a landing site for discourse particles to reside in when they end up in sentence-final position. I have shown above that there are a many

parallels between SgE and Chinese where discourse particles are concerned. I will thus assume that there is a right branching functional projection above CP, which hosts sentence final particles. Let us call this projection PrtP. PrtP is optionally projected only when necessary. The simplified structure of a sentence in (22) might look something like (35):

(35) a. [$_{PrtP}$ [$_{CP}$ you think [$_{CP}$ I go [$_{DP}$ where *ah*]]]]
b. [$_{PrtP}$ [$_{CP}$ you think [$_{CP}$ I go [$_{DP}$ where t_i]]] ah_i]

(35a) is the default structure and ultimately, if a particle ends up being sentence final, it raises to [Spec, PrtP]. I will describe this analysis in detail in the next section below.

4. Analysis

In this section, I will present a proposal which attempts to unify and to account for the optionality of wh-movement. In previous sections, we established the data on which the analysis will be built on. The specific claim is that the presence of question particles are a language universal, even in wh-movement languages. The framework I will develop here will attempt to account for the languages discussed above as well as those which appear to be far more flexible in their wh-strategies such as Babine-Witsuwit'en and SgE.

4.1 A Typological Overview

Previously, it was assumed that only wh-in-situ languages adopt the use of question particles. Cheng (1991) explores these issues at great length which led her to forming her Clausal Typing Hypothesis (CTH), which predicts that there are no optional wh-fronting languages, or as Bruening (2007) observes, no question particles in wh-movement languages. This seems to be too strong a typological claim to make.

We have already established that a wh-movement language is one that has an EPP feature on C and that wh-movement occurs as a result of satisfying this feature. All the languages discussed above display wh-movement with in-situ options, while SgE seems to possess many of the features of a wh-in-situ language while allowing for wh-movement: the presence of question particles, special constructions in yes/no questions and the use of both wh-movement and particles in questions. The predictions that the CTH makes are untenable.

In Cheng and Rooryck (2000), they claim that in French, optional movement can be explained by the merging of an underspecified Q morpheme followed by [wh] feature movement to C, accounting for wh-in-situ constructions. Optional wh-movement is shown in (36) while their basic analysis of wh-in-situ is shown in (37).

(36) a. Qu' est-ce que Marie a acheté?
What EST-CE QUE Marie has bought
b. Marie a acheté quoi?
Marie has bought what
`What has Marie bought?'

(37) a. Q[] Marie a acheté quoi?
Q Marie has bought what
b. Q[wh] Marie a acheté quoi?

What is this Q-morpheme classified as then? Surely it must be some kind of operator or particle. Likewise, Mathieu (1999, 2004) proposes a similar account to mine in that he describes a split-DP construction consisting of a null operator base-generated in [Spec,DP] of the wh-phrase which then moves into [Spec,CP], leaving the wh-phrase in-situ. We will return to the French data later in this section. The point of discussion is that a wh-movement language like French has been posited to have operator and wh-variable relationships of the kind which the CTH predicts only to exist in wh-in-situ languages.

Typologically speaking, Bruening (2007) provides evidence that wh-in-situ does not correlate with wh-indefinites or question particles, both supposedly unique traits of wh-in-situ languages. Bruening shows that this is not true. In fact, he shows in typological study of over 500 languages adapted from Dryer (2004), 60-70% of all languages, regardless of their wh-movement status, possess question particles. To investigate this myself, I turned to a more recent database, the World Atlas of Language Structures Online (wals.info), and cross-referenced the two variables Position of Interrogative Phrases in Content Questions and the Position of Polar Question Particles.[5] Since only wh-in-situ languages are assumed to have polar question particles (or question particles in general), if the CTH predictions are borne out, we would not expect a language to have an interrogative phrase in an initial position while possessing a question particle. I then tabulated the results below:

Table 1: Position of Interrogative Phrases vs. Position of Polar Question Particles

Interrogative Phrase Position	*Particle Position*	*Number of Languages*
Initial	Initial	59
Initial	Final	28
Initial	Second	23
Initial	Other	1
Initial	In either of two positions	7
Initial	No question particle	61
Non-initial	Initial	31
Non-initial	Final	184
Non-initial	Second	14
Non-initial	Other	6
Non-initial	In either of two positions	8
Non-initial	No question particle	155
Mixed	Initial	4
Mixed	Final	6
Mixed	In either of two positions	3
Mixed	No question particle	3

The results of the table above corroborate Bruening's findings. There are more languages which possess question particles than those which do not (374 vs. 219). Out of these, there are 59 languages which have initial interrogative phrases and particles, 28 which have initial interrogative phrases and final position particles and 31 others with particles in other

[5] A link to these results can be found at: http://wals.info/feature/combined?id1=93&id2=93&text=Position+of+Polar+Question+Particles&hidden=Position+of+Polar+Question+Particles

positions. Even for languages with interrogative phrases in initial position[6], the number of languages which have particles exceed those which do not. There are 155 wh-in-situ languages which do not have particles at all, directly contradicting the CTH, while there are 16 languages which have mixed positions for interrogative phrases. All in all, even with such a superficial tabulation of the behaviour of languages with respect to questions, the findings are not trivial. This seriously challenges the standing preconceptions about language typology; there is no correlation between particles and wh-movement. In this, Bruening was right to say that the CTH must be abandoned.

A reviewer asks if we would expect to see a more varied typology if we expected languages which display overt wh-movement to obligatorily show optionality of wh-movement. It must be noted that such optionality is not reported in the WALS database. Spanish, French and English are listed to have initial positions for interrogative phrases. German and Greek are also listed as wh-raising but have been reported to display wh-in-situ (Bayer 2006, Vlachos 2008 respectively). Brazilian Portuguese is not listed in the database and Portuguese strangely does not have an entry for the position of interrogative phrases, although it lists the position of polar question particles as initial. Much work remains to be done with regards to checking whether every wh-movement language would permit non-echo wh-in-situ options, but I am inclined to suspect that this would be the case in many languages other than the ones mentioned above.

4.2 Optionality of EPP Satisfaction in Afrikaans

The basic idea which I will adopt for optional movement is based on the optionality of the satisfaction of the EPP feature on C. If the particle moves, we get wh-in-situ, not unlike Mathieu's (1999) account for French. If the wh-word moves, we get traditional wh-movement. There is also a third option, where the entire wh-phrase/particle complex is piedpiped and raised to [Spec,CP], this yields constructions such as (19c) in SgE, repeated here:

(19) c. **What ah** you eat?
what PRT you eat
`What did you eat?'

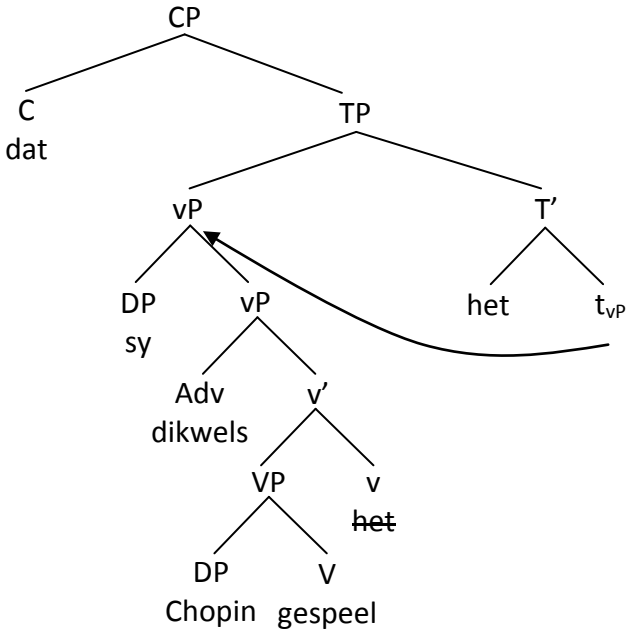
Biberauer and Richards' (2006) analysis of optional movement in Modern Spoken Afrikaans (MSA) is based on such an approach. In MSA, there can be alternations in the position of the finite auxiliary in embedded clauses, which are semantically equivalent as shown below, where the auxiliary *het* is italicised:

(38) a. ek weet dat sy dikwels Chopin gespeel *het*
I know that she often Chopin played has
b. ek week dat sy *het* dikwels Chopin gespeel
`I know that she has often played Chopin'

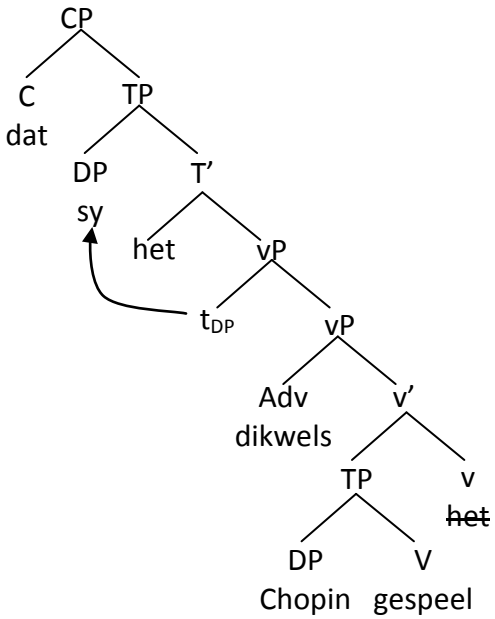
[6]As far as I know, WALS does not take into the word order of the language when it classifies the position of the interrogative phrase. Nevertheless, the findings here are significant.

This alternation arises from the fact that the EPP is blind as to whether a head X or XP raises, and in the case of MSA, either the DP or the vP can raise. The formal reasoning behind why the vP is eligible to raise to [Spec,TP] is too lengthy and not relevant and will be omitted.

(39) a. Spec-piedpiping (38a)



b. Spec-raising (38b)

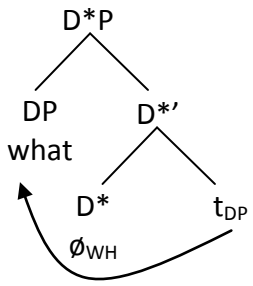


The two trees above illustrate a single economically equivalent movement operation, both of which satisfy EPP but yielding very different surface word orders. Based on such a conceptual framework, the proposal for optional wh-movement also revolves around the multiple ways in which the EPP on interrogative C can be satisfied. We now turn to the analysis of optional wh-movement proper.

4.3 The Framework

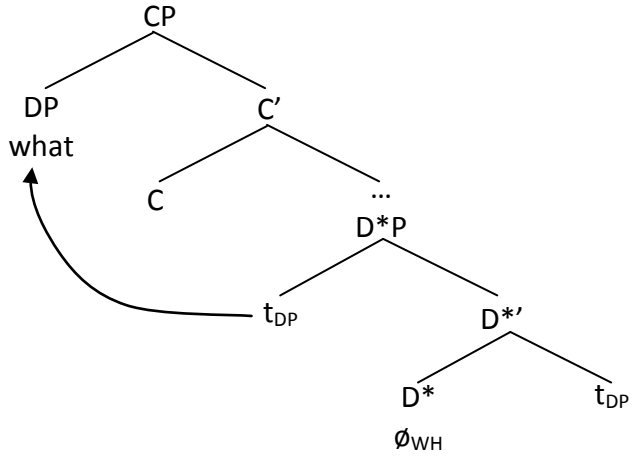
The proposal is this: SgE possesses a question particle, let us call this $ø_{WH}$, a particle which can satisfy EPP and [*u*wh], meaning that it contains the both a D-feature and a [wh] feature. Since particles are usually seen as heads (in wh-in-situ languages), let us suppose that $ø_{WH}$ is a head, which, for lack of a better name, heads a functional projection D*P. $ø_{WH}$ then takes a wh-phrase as its complement yielding a constituent made up of the particle and the wh-phrase. Suppose further that $ø_{WH}$ also possess an EPP feature which then motivates the raising of the wh-phrase into its specifier. This allows us to capture the correct word order of [wh PRT] in SgE[7]. This is illustrated below:

(40)



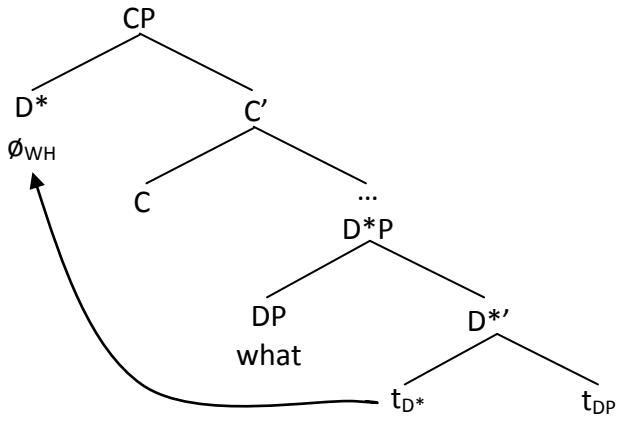
Given the structure in (40), optionality falls out like this: the EPP feature on C acts as probe, and searches for a valid D goal. The uninterpretable [wh] feature on C searches for an interpretable [wh] via Agree. Given the entire D*P is c-commanded by C, the edge of D*P is thus in the search domain of the EPP probe, which includes D* and its specifier. This means that both the wh-phrase and the head $ø_{WH}$ are valid and equidistant goals for an EPP probe. Depending on which element raises, wh-movement and wh-in-situ constructions automatically follow:

(41) a. Wh-movement (spec-to-spec)



[7] It is also possible that $ø_{WH}$ is head-final in SgE, removing the need to postulate the presence of an extra EPP feature. While this would predict the correct word order, postulating that there is an EPP feature on D* has an extra advantage. It allows us to parameterize the presence of an EPP feature on D*, and languages with [wh PRT] order like SgE possess this EPP feature while languages which have [PRT wh] do not.

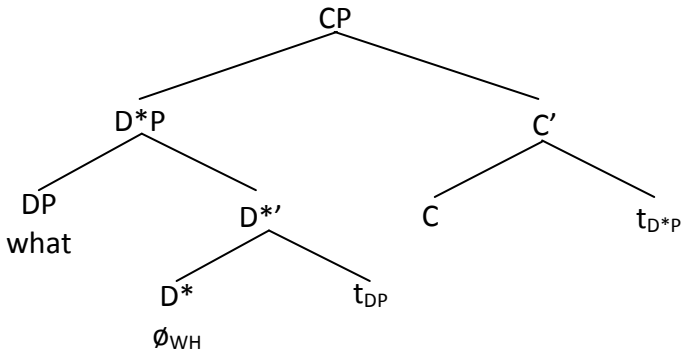
b. Wh-in-situ (head-to-spec)



(41a) and (41b) show the two possible options that fall out from such an approach. In (41a), traditional wh-movement takes place, with EPP on C targeting a wh-phrase in [Spec,D*P], causing it to raise into [Spec,CP] yielding wh-fronted constructions. (26b) on the other hand, has EPP on C targeting the D* head $ø_{WH}$, which then moves into [Spec,CP] giving rise to an in-situ construction.

There is also, a third possibility. In B&R's analysis of vP piedpiping, it was noted that the EPP is blind to the element which satisfies it, not only in the source dimension but also in the size dimension. We should expect a third possibility from this framework – one which allows piedpiping of the entire D*P into [Spec,CP]. This is less problematic than B&R's approach, we do not need to reason why the vP can move into [Spec,TP]. D*P possesses D features and is therefore a natural candidate for movement into [Spec,CP]:

(42) D*P raising (Piedpiping)



If we adopt such an analysis, we have to abandon the common idea that heads only move into head positions and specifiers into specifier positions and instead embrace head-to-spec movement as a valid movement operation. As far as I am concerned, I see no a priori reason to disallow head-to-spec movement. Current Minimalist assumptions do not explicit ban head-to-spec movement. The problems with head adjunction are discussed at length by several scholars (Matushansky 2006, Toyoshima 1997, Donati 2006, Roberts (to appear) amongst others). Chomsky (2000) himself notes that traditional head-movement and adjunction is countercyclic by violating the Extension Condition, which states that all movement must extend the root. Furthermore, head-to-head adjunction violates the Chain

Uniformity Condition (CUC), since an X^{min} at its base position, when adjoined to an XP will become maximal at the landing site, yielding a non-uniform chain. Another problem which head-to-spec movement avoids is the problem of the Head Movement Constraint (HMC). Since movement is not from a head to a head position, the HMC no longer applies. One argument against head-to-spec movement is that of the violation of the Structure Preservation Hypothesis. Given that D and S-structure are not longer available in the Minimalist framework, along with bar levels, the SPH is no longer tenable. Chomsky (1995:318) states "with D-structure gone, it [the SPH] is unformulable, its consequences derived –we hope to show– by the general properties of Merge and Move." Chomsky proceeds to accommodate head adjunction and circumvent the CUC by stating a rather ad hoc (43):

(43) At LF, X^0 is submitted to independent word interpretation processes WI; where WI ignores princicples of C_{HL}, within X^0. (Chomsky 1995:322)

At this juncture, I shall put this issue to rest. The arguments against head-to-head adjunction are many. Granted that none of the alternatives we have at present, be it Matushansky's (2006) m-merger or Donati's (2006) reprojection account are without problems, suffice to say that head-to-spec movement allows us here to predict some interesting facts of the various structural configurations of different wh-movement strategies.

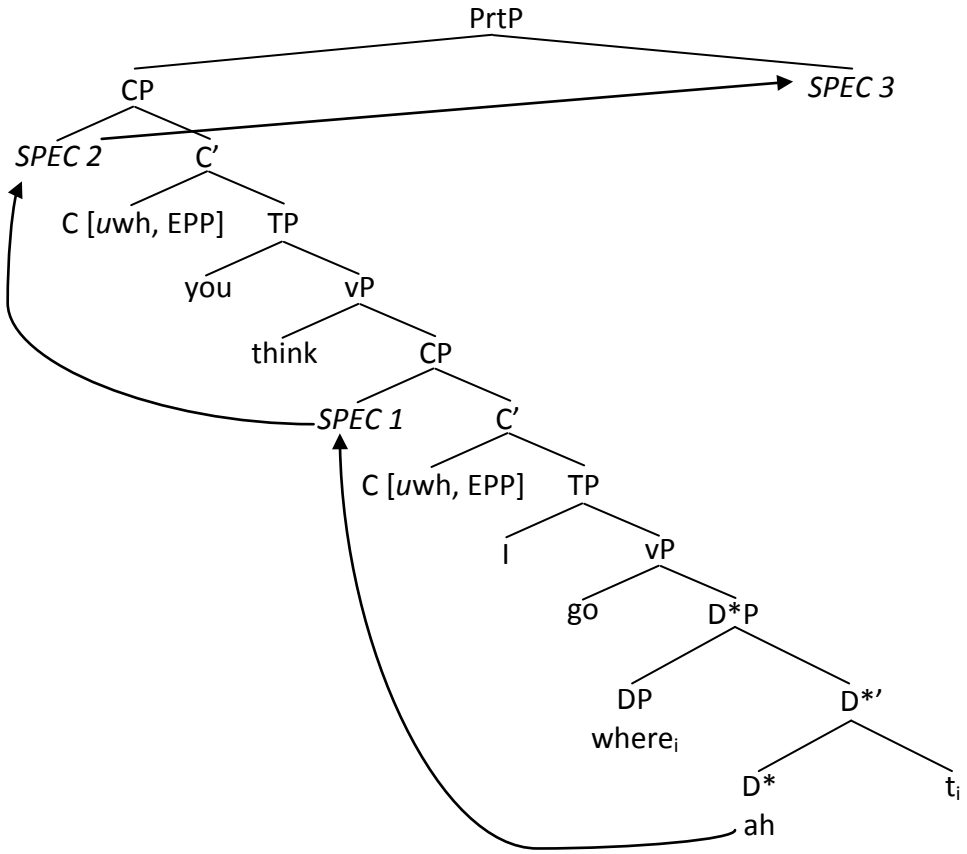
4.4 Accounting for the Data

Let us consider again the distribution of wh-constructions in SgE shown in (22), repeated here:

(22) a. You think I go **where ah**?
you think I go where PRT
`Where do you think I went?'
b. You think **where** I go **ah**?
c. **Where** you think I go **ah**?
d. *You think **ah** I go **where**?
e. ***Ah** you think I go **where**?
f. ??/*You think **where ah** I go?
g. **Where ah** you think I go?
h. **Where** you think **ah** I go?
i. ***Ah** you think **where** I go?

Let us construct a basic structure for (22), including only functional projections which are relevant. In SgE, $ø_{WH}$ is overt, manifested as *ah*:

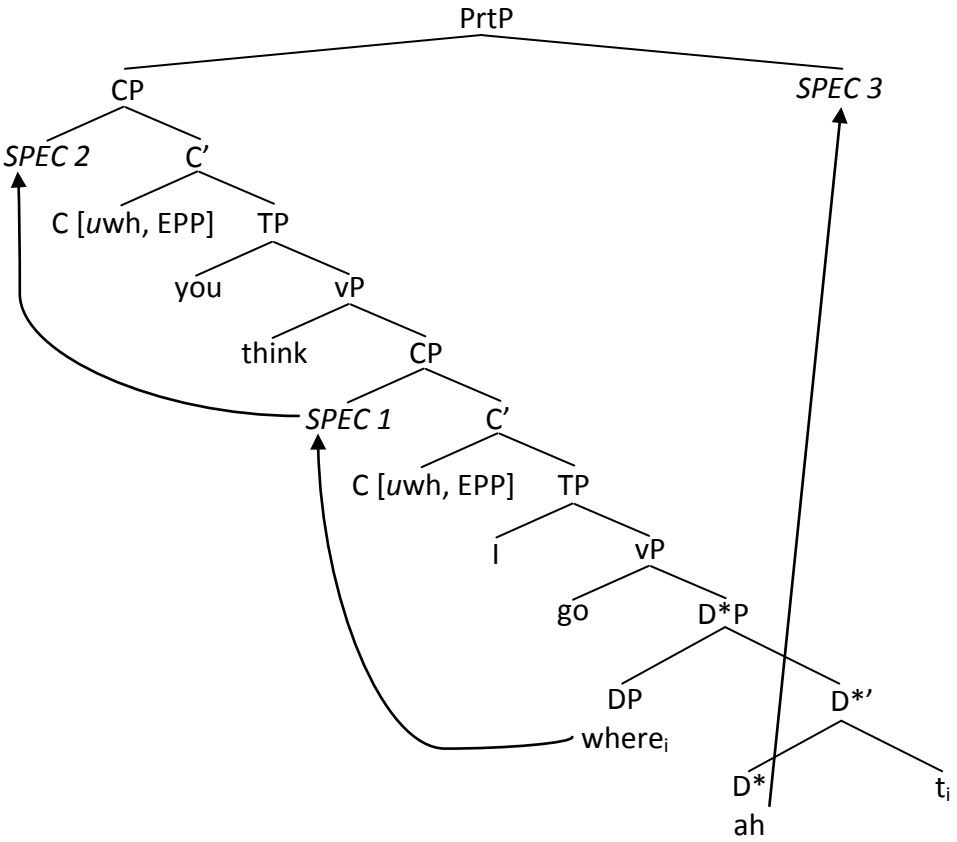
(44)



Let us consider how each of the sentences in (22) are derived in turn. To derive (22a), *ah* moves cyclically up each [Spec,CP] and ends up in *SPEC 3*, the specifier of PrtP. If *ah* ends up in *SPEC 1*, we get (22d) and the derivation crashes, because there are features left unchecked in the higher C and in Prt. At this point, *where* cannot raise to *SPEC 2*, since the closest candidate is attracted, as per Minimalist assumptions. However, If *ah* raises further and ends up in *SPEC 2*, we get (22e) and the derivation crashes because the features of Prt are not checked.

Next, if we raise *where* instead:

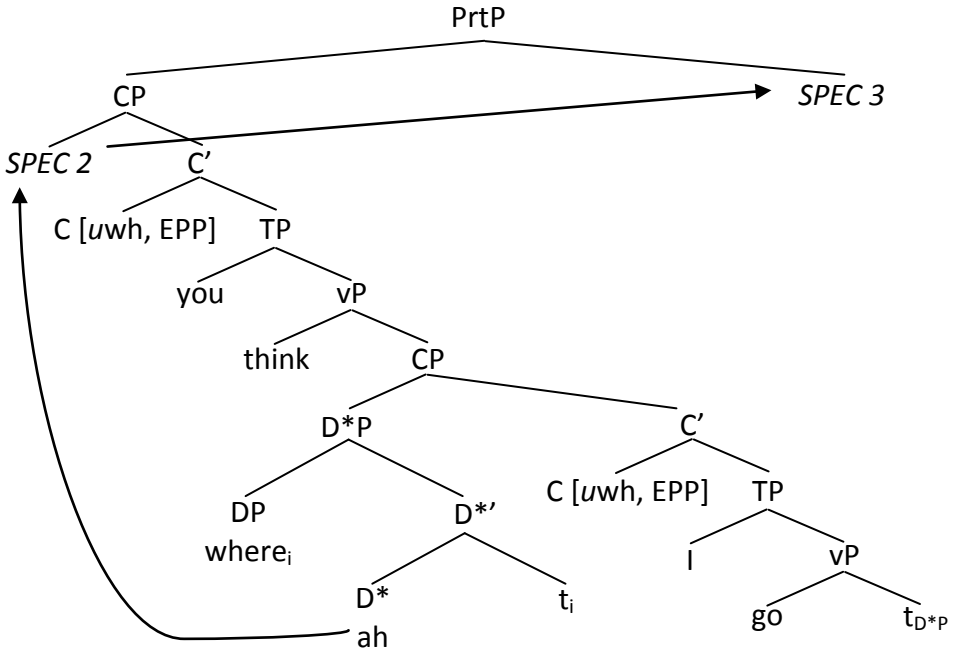
(45)



First, let us consider what happens when *where* is raised into *SPEC 1*. The particle a*h* is not an eligible goal for the higher C probe, since *where* is closer. If the derivations terminates, it crashes, since full interpretation is not achieved. This would predict (22b) to be ungrammatical, contrary to fact. This means that (22b) is derived by other means. Proceeding with the derivation, *where* must raise further to *SPEC 2*. It cannot raise into *SPEC 3*, since it is not a particle. The only remaining result is that *ah* raises into *SPEC 3*. This yields (22c).

Next, the entire D*P is raised into *SPEC 1*,the specifier of the intermediate CP:

(46)



If *ah* raises into *SPEC 2*, *where* obviously cannot raise, since *SPEC 2* is filled, *ah* then proceeds to raise into *SPEC 3*, yielding (22b). If the derivation terminates, full interpretation is not achieved and the derivation crashes, ruling out (22f). If *ah* raises to *SPEC 2* but does not raise further to *SPEC 3*, the derivation crashes, ruling out (22i).

The remaining two derivations are slightly more problematic. Consider (22g) and (22h), repeated for convenience below:

(22) g. **Where ah** you think I go?
h. **Where** you think **ah** I go?

(22g) is obviously derived by further raising of the entire D*P to *SPEC 2.* The question is what happens to PrtP? The derivation will crash if full interpretation is not achieved. Only *ah* is eligible to raise to *SPEC 3*, and if it does, we will get the surface order of (22c). Perhaps it is the case that since PrtP is optionally projected (in clauses without particles), in order to yield (22g), PrtP is not projected. D*P raises to *SPEC 2* and the derivation ends, achieving full interpretation without PrtP. A similar case might be made for (22h). From (46), *where* is raised to *SPEC 2*, resulting in (22h). If PrtP is projected, *ah* is obliged to move, yielding (22c), which is clearly not the case. It must be that PrtP in this case is not projected, allowing full interpretation to be achieved and the derivation to terminate.

The question which immediately follows is why PrtP projects in some cases and not in others? One part of the answer could be that there could be PF output constraints that disallow the particle from preceding the wh-phrase, since there are no cases where the particle precedes the wh-phrase.

The second part of the answer I believe, is more convincing – scope assignment. One of the key driving factors of positing a wh-phrase/particle framework is to be able to eliminate LF movement from in-situ constructions. So far we have done part of this, explaining how a wh-raising language with an EPP feature on C can license wh-in-situ.

Without LF movement however, there is no way the wh-in-situ can be assigned wide scope in (22), as should be the case. Suppose that wh-phrases make scope in CP while particles like *ah* are only able to mark scope in PrtP. If the wh-phrase raises to the highest [Spec,CP], scope is correctly assigned and PrtP is not required to project. On the other hand, if the wh-phrase does not raise to the highest [Spec,CP], and the particle instead does the job of satisfying EPP on matrix C, PrtP is required to project. If such an analysis is correct, then this explains why sentence-initial *ah* constructions are not possible in (22e) and (22i). In (22g), the entire D*P is raised into matrix [Spec,CP], marking scope while in (22h) *where* performs the same job, dispensing with the need for PrtP to project, allowing *ah* to remain in place. Consider multiple wh-constructions in SgE:

(47) a. Who bought what ah?
b. *Who ah bought what?
c. *What did who buy ah?
d. *What ah did who buy?

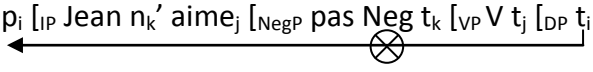
(47c,d) are automatically ruled out by superiority effects as found in English. (47b) is ruled out because either PrtP is projected and full interpretation is not achieved because *ah* does not raise; or if PrtP is not projected, because the scope of in-situ *what* is not assigned. Since we do not want to appeal to LF movement, the particle *ah* can only take *what* as its complement, not *who*, before raising to [Spec,PrtP] to yield (47a). (47a) cannot be derived by moving *ah* from (47b) to [Spec,PrtP] since this only (redundantly) assigns the scope of *who*, leaving *what* unassigned.

Allowing the particle marks scope is not a new concept. Mathieu (1999) gives a somewhat similar account for French. French displays alternations of the sort shown in (36), repeated here:

(36) a. Qu' est-ce que Marie a acheté?
What EST-CE QUE Marie has bought
b. Marie a acheté quoi?
Marie has bought what
`What has Marie bought?'

Mathieu claims that in French, wh-phrases form a split-DP construction with an operator. This operator binds the wh-variable before raising into [Spec,CP] to yield in-situ constructions. Crucially, the trace that the operator leaves behind is non-referential, subjecting its movement to intervention effects from negation and other scopal elements:

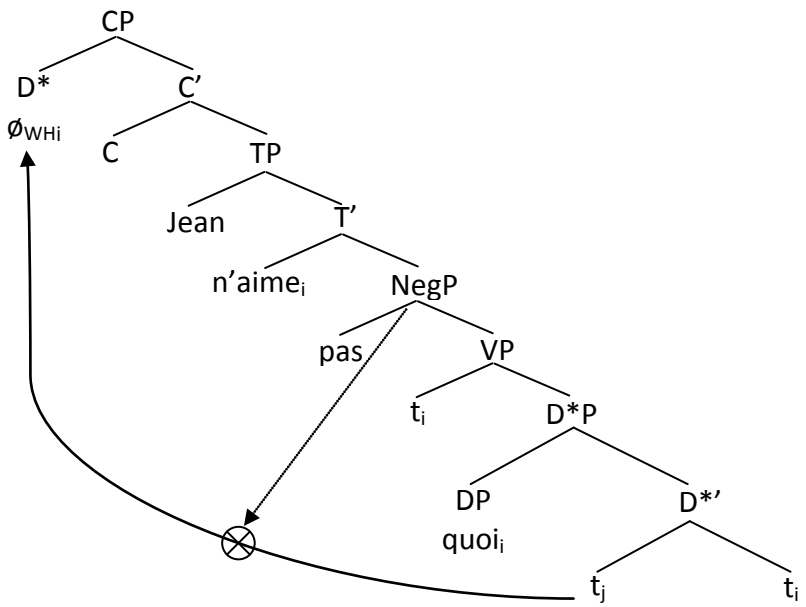
(48) a. *Jean n' aime pas quoi?
Jean NEG like not what
`What doesn't Jean like?'
b. $[_{CP}\ Op_i\ [_{IP}$ Jean n_k' $aime_j\ [_{NegP}$ pas Neg $t_k\ [_{VP}$ V $t_j\ [_{DP}\ t_i$ $quoi_i$]]]]] (Mathieu 1999:464)



The analysis presented here can be adapted to fit Mathieu's. The crucial difference between SgE and French is that the particles in SgE are referential (on par with wh-words), meaning that they are not subject to intervention conditions, which accounts for the embedded in-

situ facts in (22). The null operator that Mathieu proposes can simply be recast as a non-overt $ø_{WH}$, and movement follows as per the schema above. This is shown below in (49), with irrelevant movement and intermediate projections omitted:

(49)



Neg, being a scopal element, blocks the raising of $ø_{WH}$ to [Spec,CP] since the trace t_j is, according to Mathieu, non-referential in the case of French. If it were not present, raising would occur as per normal without intervention, yielding constructions of the type in (36b). Crucially, *quoi* in [Spec,D*P] being a scopal element as well does not intervene with the movement of $ø_{WH}$, since both the head and specifier of D*P are equidistant goals for the C probe.

A similar account will work for all the languages discussed above. For Pires and Taylor's (2007) data in English and Brazilian Portuguese in (49) as well as the Spanish data in (50):

(49) a. A: I made desserts.
b. B: [$_{CP}$ $ø_{WHi}$ [$_{TP}$ you [$_{vP}$ made [$_{D*P}$ what kind of desserts [$_{D*'}$ t_i]]]]]
c. B: [$_{CP}$ $ø_{WHi}$ [$_{TP}$ você [$_{vP}$ fez [$_{D*P}$ que tipo de sobremesa [$_{D*'}$ t_i]]]]]

(50) a. (y) [$_{CP}$ $ø_{WHi}$ [$_{TP}$ tú [$_{NegP}$ no [$_{vP}$ sabes [$_{CP}$ cómo [$_{vP}$ llegó [$_{D*P}$ quién [$_{D*'}$ t_i]]]]]]]]
and you NEG know how arrived who
`Who is such that you don't know how he/she arrived?'
b. *(y) tú no sabes quién llegó cómo?
c. (y) tú dijiste [$_{CP}$ $ø_{WHi}$ [$_{C'}$ que Pedro llegó [$_{D*P}$ cómo t_i]]]?
and you said that Pedro arrived how

d. quién no sabes cómo llegó
who NEG you-know how he-arrived
`Who is such that you don't know how he/she arrived?'

e. *Cómo no sabes quién llegó
(Reglero 2007, citing data from Etxepare and Uribe-Etxebarria 2005)

In Spanish, unlike French, negation does not intervene. This means that the trace left by the movement of $ø_{WH}$ is referential, whereas in French it is non-referential. (50a) is straightforward, *cómo* is in the intermediate [Spec,CP], forcing the particle to raise into the matrix [Spec,CP] to give wide scope to *quién*. (50b) can be ruled out because if the particle raises from *quién* to assign scope, scope for *cómo* is not assigned, since it remains in-situ. If the particle raises from *cómo* to matrix [Spec,CP], *cómo* is wrongly assigned matrix scope while *quién* is wrongly assigned embedded scope. In (50c) the particle raises to the embedded [Spec,CP] to correctly allow scope *cómo* over the lower clause. (50d) is straightforward with *quién* raising to take matrix scope. (50e) like (50b) assigns *cómo* matrix scope and *quién* embedded scope. This analysis is cursory and far from complete, since the same patterns do not emerge with *dónde* (*where*); (50b) type constructions are grammatical with *dónde* but not (50d). Presumably, *how* and *where* behave differently I do not have full grasp of the wh-adjunct behaviour and scope facts in Spanish and more work needs to be done in this area.

The framework also works for Babine-Witsuwit'en. In fact, BW displays the most similarities to SgE. It is much like SgE without an overt particle. I argue that for the case of BW, there is no need to postulate optional selection of C and an extra Typing Phrase. Instead, the C is always selected, and in BW, possesses an EPP feature. I show the relevant positions of of the particle for (12) below:

(51) a. [$_{CP}$ **ø$_{WHi}$** George [Lillian [$_{D*P}$ **ndïtnï book** t_i] yik'iyelhdic] yilhnï]?
George Lillian which book 3s.read(opt).3s 3s.told.3s
b. [$_{CP}$ **ø$_{WHi}$** George [[$_{D*P}$ **ndïtnï book** t_i] Lillian yik'iyelhdic] yilhnï?
c. [**ndïtnï book ø$_{WH}$**]$_i$ George [Lillian **t_i** yik'iyelhdic] yilhnï?
`Which book did George tell Lillian to read?'

4.5 Summary

To summarise and close this section, any language which possesses an EPP feature on C has the option to leave wh-phrases in-situ. Whether this option is exercised or not is not governed by narrow syntax. I have shown that there is no need to appeal to LF movement to explain wh-in-situ facts, and I have shown, although in a very preliminary way how such an analysis could apply cross linguistically to wh-movement languages which display in-situ options. I have also shown that Babine-Witsuwit'en, which appears to be a truly wh-optional language can actually be seen as a wh-movement one, like SgE. Despite the fact that the concept of a "wh-movement language" has been weakened throughout this paper – it simply means that there is an EPP feature on C – it is still meaningful to talk about language typology along these lines. True wh-in-situ languages are not expected to display optionality, since there is no EPP feature on C, and thus we would not expect any kind of overt raising to [Spec,CP] of any sort. This of course does not preclude focus movement or topicalisation,

but when it does happen, it is usually easy to identify due to presence of overt focus or topic markers.

5. Speculative Remarks and Conclusion

Before we conclude, a brief speculative remark is in order. Given the framework proposed here, there is actually another option which has not been discussed above. Consider at the point when $ø_{WH}$ merges with the wh-phrase, say *which man*:

(52) a. $[_{D*'}\ ø_{WH}\ [_{DP}\ [_{D'}$ which $[_{NP}$ man]]]]
b. $[_{D*P}$ which$_i$ $[_{D*'}\ ø_{WH}\ [_{DP}\ t_i$ man]]]]

From (52a), the analysis we have adopted so far is the the DP raises into [Spec,D*P]. However, note that *which* is a D head and if the EPP on C can attract either the head, particle or the entire phrase, why should the same strategy not be available at this point? In this case however, only the specifier and head of DP are eligible, since the NP does not possess a D feature. Suppose that instead of the entire DP raising, only the D head raises, resulting in (52b). Now, when C probes D*P, only the specifier *which*, head $ø_{WH}$ and phrase [*which* $ø_{WH}$ *man*] are eligible (and equidistant) goals. If the head or the phrase raises, seemingly normal wh-movement takes place. However, if the specifier *which* raises, we arrive at a Left Branch extracted sentence. Now suppose that the language is question is Polish:

(53) a. $[_{CP}\ [_D$ **którego**$_i$] $[_{C'}$ C $[_{TP}$ Jan widział $[_{D*P}\ t_i\ ø_{WH}$ **mężczyzną**]]]]?
which Jan saw man
b. $[_{CP}\ [_{D*P}$ **którego** $ø_{WH}$ **mężczyzną**$]_i$ $[_{C'}$ C $[_{TP}$ Jan widział t_i]]]?
`Which man did Jan see?

The alternation from LBE type constructions also fall out naturally from the analysis of optionality presented here. Of course, this is purely speculative and much more testing is required to constraining the LBE phenomena to only the languages in question.

To conclude, I have presented here an alternative view to the fundamental way wh-DPs are constructed. The preliminary results I have arrived at as described in this paper appear to be rather hopeful, although much more cross-linguistic work needs to be done in both breadth and depth before any kind of firm conclusion can be arrived at.

There are some important issues which arise as a consequence of adopting such an approach. Firstly, if this framework could be made to work for a sufficient number of "wh-movement" type languages, this means that question particles are a language universal.

The second issue which warrants much more investigation is whether all wh-movement languages are allowed to exhibit in-situ options in some form. The framework presented here certainly expects this to be the case. If there are many wh-movement languages which do not allow in-situ of any kind, even in echo questions, then this poses a serious problem for the proposals made here. There is much more work to be done here. Perhaps the model proposed in this paper might be too powerful and unrestricted. After all, much of the variation occur in relatively restricted cases (more so in some languages than others); regardless, it seems to me that we are on the right track. The Minimalist Programme eschews optionality, which happens to be an integral part of natural language,

along with all the problems it raises for the theory. This does not mean that it should be ignored but instead pursued with more vigour to deepen our understanding of the nature of Universal Grammar. Optionality as Biberaurer and Richards (2006) states is "not an imperfection of C_{HL}" but rather, is a predicted and necessary by-product of Move and its motivator the EPP – it is available by default given the current system. If however, we do find a language which does not allow for any variation in the position of its wh-elements whatsoever, would we truly need to be concerned.

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