Two kinds of \textit{in-situ} languages and two ways to overcome islands

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1. Introduction

\textit{Wh-in-situ} or \textit{in-situ} languages do not show obligatory overt movement of \textit{wh}-phrases, and generally allow \textit{wh}-phrases to appear inside islands without violating the subjacency condition.\textsuperscript{1,2} However, this paper aims to show that the way subjacency is overcome differs among \textit{in-situ} languages, and they must be divided into at least two groups. For the sake of simplicity, let us call one \textit{QP} languages (e.g. Japanese, Korean, Sinhala, etc.) and the other non-\textit{QP} languages (e.g. Chinese, Malayalam, Turkish etc.).\textsuperscript{3}

They are different in two respects. First, \textit{QP} languages are not subject to intervention effects inside islands. Examine the following Japanese examples, where and elsewhere interveners are underlined:

\begin{enumerate}
  \item \textit{a}. ?*\{\textit{John-ka Bill/Daremo}\}-\textit{ga nani-o} nomimasita ka? [\textit{J(apanese)}]
    \begin{itemize}
    \item John-or Bill/everyone-Nom what-Acc drank \quad C
    \end{itemize}
    `What did \{John or Bill/everyone\} drink?'
  \item \textit{b}. \textit{nani-o}, \{\textit{John-ka Bill/daremo}\}-\textit{ga} \textit{ti} nomimasita ka \quad (scrambled)
    \begin{itemize}
    \item `What did \{John or Bill/everyone\} drink?' \quad (Hoji 1985: 268)
    \end{itemize}
  \item \textit{c}. Mary-wa \{\textit{John-ka Bill/daremo}\}-\textit{ga nani-o} katta atode]
    \begin{itemize}
    \item Mary-Top John-or Bill/everyone-Nom what-Acc bought after
    \item left \quad C \quad (Hagstrom 1998: 54, adapted)
    \end{itemize}
    `(Lit.) Mary left after \{John or Bill/everyone\} bought what?'
\end{enumerate}

(1)a is ungrammatical because an intervener, \textit{John-ka Bill} `John or Bill’, \textit{c}-commands a \textit{wh}-phrase in the same clause; however, when a \textit{wh}-phrase is
scrambled before an intervener, ungrammaticality is lifted as in (1)b. Interestingly, when an intervener c-commands a wh-phrase inside an island, such as an adverbial or a relative clause, intervention effects are not observed as in (1)c, which has been noticed since Hagstrom (1998).4

The same observation is made in Sinhala and Korean as follows:

(2)a. *Ranjit-dǝ Chitra mokak-dǝ kiwi-e? [Sinhala]
   Ranjit-or Chitra what-dǝ said-C
b. mokak-dǝ, Ranjit-dǝ Chitra ti kiwi-e? (scrambled)
   ‘What did Ranjit or Chitra say?’
c. [Ranjit-dǝ Chitra mokak kiwi-a] Kot-dǝ oyaa paadam kǝramin hiti-e?
   Ranjit-or Chitra what say when-dǝ you study doing were-C
   ‘(Lit.) You were studying [when Ranjit or Chita said what]?’

(3)a. ??Nwukwunka-ka mues-ul ilk-ess-ni? [Korean]
   everyone-Nom what-Acc read-Past-C
b. mues-ul, Nwukwunka-ka ti ilk-ess-ni? (scrambled)
   ‘What did everyone read?’
c. [Nwukwunka-ka mues-ul ilk-ess-ta-nun]-sasil-i munce-i-ni?
   everyone-Nom what-Acc read-Past-dec-rel-fact-Nom problem-be-C
   ‘(Lit.) [The fact that everyone read what] is problematic?’

Tomioka (2007: 1572, 1582)

Like Japanese, a disjunction phrase and a universal quantifier are interveners in Sinhala and Korean, and when they c-command a wh-phrase, intervention effects are detected as in (2)a and (3)a and scrambling makes the ungrammatical sentences grammatical as in (2)b and (3)b. Moreover, intervention effects disappear inside an island as in (2)c and (3)c.

In contrast, non-QP languages are subject to intervention effects even inside islands. Examine the following Malayalam examples:
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(4)a. *Rajan maatram aare kandu?* [M(alayalam)]

Rajan only whom saw

‘Whom did only Rajan see?’ Mathew (2015: 132)

b. Anup [Rajan (*maatram) aare kaND-appooL] koopiccu?

Anup Rajan (only) who saw-when got.angry

‘(Lit.) Anup got angry when only Rajan saw who?’

In Malayalam, *maatram* ‘only’ is an intervener, so when it c-commands a *wh*-phrase in the same clause, intervention effects surface, and even when both an intervener and a *wh*-phrase are inside an island, intervention effects are operative as in (4)b. The same phenomenon is observed in Chinese and Turkish as follows:

(5)a. *Lian Zhangsan dou chi-le shenme?* [C(hinese)]

even Zhangsan all eat-Perf what

‘What did even Zhangsan eat?’

b. *Mary kaisin su [yinwei lian Zhangsan dou chi-le shenme]?*

Mary happy is because even Zhangsan all eat-Perf what

‘(Lit.) Mary is happy because even Zhangsan ate what?’

(6)a. *Sadece John kim-i gör-dü?* [T(urkish)]

only John who-Acc see-Past

‘Who did only John see?’ Demirok (2016)

b. *Mary-yi [(*sadece) John kim-le konuş-tuk-tan sonra]*

Mary-Acc only John who-with talk-NML-ABL after

mutlu gör-dü-n?

happy see-Past.2sg

‘Which person is such that you saw Mary happy after (only) John talked to that person?’

Another difference between QP and non-QP languages is that the former are subject to the *wh*-island condition while the latter are not. Study the following Japanese, Sinhala, and Korean examples, which are QP languages:
In (7), (8), and (9) a \textit{wh}-phrase is inside a ‘whether’ clause, which forms a \textit{wh}-island and prevents the \textit{wh}-phrase from taking the matrix scope. Moreover, a ‘whether’ clause cannot contain a \textit{wh}-phrase in its scope, so the sentences are ungrammatical.

In contrast, non-QP languages can circumvent the \textit{wh}-island condition as follows:

(10) Ni xiang-zhidao [shei mai-le shenme]?  
\begin{quote}  
you wonder who bought what  
\end{quote}
\begin{quote}  
‘*Who did you wonder what \textit{ti} bought?’  
\end{quote}
\begin{quote}  
‘*What did you wonder who bought \textit{ti}?’  
\end{quote}
Shi (1994: 309)

(11) John [aara pooy-oo enna] coodiccu?  
\begin{quote}  
John who went-whether C asked  
\end{quote}
\begin{quote}  
‘*Who did John ask whether \textit{ti} went?’  
\end{quote}
Jayaseelan (2001: 76)

(12) Tolga [kim-in ne al-diğ-ı-nı] bil-iyor?  
\begin{quote}  
Tolga who-Gen what buy-NML-Poss-Acc know-Prog  
\end{quote}
\begin{quote}  
‘*Who does Tolga know what \textit{ti} bought?’  
\end{quote}
\begin{quote}  
‘*What does Tolga know who bought \textit{ti}?’  
\end{quote}
Çakır (2017: 77)

One of the two \textit{wh}-phrases can take the matrix scope while the other one takes the embedded scope in Chinese and Turkish as in (10) and (12). Similarly,
‘who’ inside a *wh*-island of ‘whether’ clause can take the matrix scope in Malayalam as in (11).

It has been recognized that the *wh*-island condition (against *in-situ* *wh*-phrases) disappears with an additional *wh*-phrase in the matrix clause, which is called an additional-*wh* effect in the literature, in many languages including English. In fact, in QP languages too, an additional *wh*-phrase in the matrix clause lifts the *wh*-island condition as follows:

(13) **Dare-ga** [dare-ga kitaˌkaˌdoo.ka] tazunemasita ka? (cf. (7)) [J]

who-Nom who-Nom came whether asked C

‘Who asked whether who came?’

(14) **Kau-tə-də** [Ranjit mokak gatta daŋ kiyəla] daneganne.oon-e? (cf. (8))[S]

who-Dat-də Ranjit what bought whether that want.to.know-C

‘Who wants to know whether Ranjit bought what?’

(15) **Nwukwu-ka** [Yeji-ka nwuku-ul manna-ss-nunci] tul-ess-ni? (cf. (9))[K]

who-Nom Yeji-Nom who-Acc meet-Past-whether hear-Past-C

‘Who heard whether Yeji met who?’

(13), (14) and (15) show that the presence of a *wh*-phrase in the matrix clause somehow enables a *wh*-phrase inside a *wh*-island to take the matrix scope across the *wh*-island in QP languages.

To summarize so far, the data regarding intervention effects and the *wh*-island condition indicate that there are two types of *in-situ* languages. One is QP languages, in which intervention effects are lifted inside islands, and *wh*-phrases cannot take scope outside *wh*-islands (except when there is a *wh*-phrase in the matrix clause). The other type is non-QP languages, in which intervention effects remain effective even inside islands, and *wh*-phrases can take scope beyond *wh*-islands (without an additional *wh*-phrase in the matrix).
2. An Account

To account for the differences between QP and non-QP languages introduced above, this section will present two distinct structures of a wh-phrase in QP and non-QP languages, and two different ways to overcome islands.

2.1. The structure of a wh-phrase

I propose the structure of a wh-phrase, ‘what’, in the two groups as follows:

(16) QP languages (e.g. (1), (2) and (3)):

\[ \text{DP} \xrightarrow{\text{QP}} \text{Q} \]
\[ \text{NP} \quad \text{D} \quad \emptyset/də/\emptyset \quad \text{(Japanese/Sinhala/Koren)} \]
\[ \text{nani/mokak/mues} \quad \emptyset \quad [\text{Qfoc}_{\text{syn, sem}}] \]
\[ \quad [\text{Qfoc}_{\text{phon}}] \]

(17) Non-QP languages (e.g. (4), (5) and (6)):

\[ \text{DP} \]
\[ \text{aarə/shenme/kim} \quad \text{(Malayala/Chinese/Turkish)} \]
\[ \quad [\text{Qfoc}_{\text{syn, sem, phon}}] \]

I start with one common feature between QP and non-QP languages. That is, a syntactic question focus feature, i.e. [\text{Qfoc}_{\text{syn}}], initiates Agree with [u\text{Qfoc}] of C\text{0}, which is omitted in (16) and (17), to derive wh-questions successfully. (However, I will claim below that non-QP (\textit{in-situ}) languages have another way to form wh-questions.)

However, there are also a few important differences regarding the structure of a wh-phrase. First, a (nominal) wh-phrase in QP languages projects to QP above DP as in (16) following Cable (2010), who denies unattested procedures such as feature percolation (from a wh-phrase to the top of the pied-piped phrase) to explain large-scale pied-piping and claims that what moves to CP is not a wh-phrase itself but a phrase headed by a “Q-particle”, which dominates a wh-phrase. He calls such a phrase QP. This phrase is explicitly marked by the Q-particle də in Sinhala. The
particle is normally adjacent to a \textit{wh}-phrase, but when a \textit{wh}-phrase is embedded inside an island, the particle must appear at the edge of the island ((20)a). As far as modern Japanese and Korean are concerned, I assume that their Q-particles are covert and project QP too.\textsuperscript{8,9} In contrast, \textit{wh}-phrases in non-QP languages project up to only DP as in (17).

Another difference between QP and non-QP languages is that the way subcomponent features of the question focus feature, that is, syntactic, semantic, and phonological features, are distributed differs between the two types of language. In QP languages, the syntactic and the semantic feature, i.e. \textit{Qfoc}_{<\text{syn, sem}>}, is separated from its phonological subcomponent, i.e. \textit{Qfoc}_{<\text{phon}>}. More specifically, the former pair is base-generated in \textit{Q}^0 and the latter is in \textit{D}^0. In contrast, in non-QP languages, the three subcomponent features are inseparable and they are an inherent feature of a \textit{wh}-phrase.

2.2. Two ways to avoid the island condition

Though both QP and non-QP languages can avoid the subadjacency condition in \textit{wh}-questions, the discussion in section 1 suggests that there is more than one method to do so. Specifically, non-QP languages can escape every island including a \textit{wh}-island, while QP languages normally cannot circumvent a \textit{wh}-island. Moreover, intervention effects are observed in non-QP languages whether it is inside an island or not. In contrast, the effects disappear inside (non-\textit{wh}) islands in QP languages. In the following two subsections, I will argue there are two procedures to overcome islands, but whether only one or both of the options are available in one language is attributed to the structure of a \textit{wh}-phrase introduced in (16) and (17).

2.2.1. General focus domain widening

I start with one method which non-QP languages adopt (and QP languages can employ it too under certain situations as will be discussed later). Rooth (1985 et
seq.) claims that phonologically focused items including *wh*-interrogative phrases represent sets of contextually relevant alternatives and each alternative increases its semantic content through pointwise functional application with predicates and modifiers it comes across as the semantic computations goes compositionally up in the tree, the process of which we call (domain) widening in this paper for the sake of exposition.

To describe the widening process explicitly in syntax, examine the following structure, where a *wh*-phrase is generated inside an island:

(18)  

I assume that a phonologically focused item projects FocPsource, the head of which carries [foc<phon>], and selects DP giving phonological stress to it. Widening is terminated by an operator (Shimoyama 2001: 63), which I claim is [foc<sem>] of Foc<sub>0</sub>domain. Unlike many proposals in the literature, I assume that the widening process is applied only to set the domain of quantification following Drubig (1994) and Wagner (2006), which is why the present paper calls it general focus domain widening (FDW, henceforth). FocPdomain is subsequently raised to spec of CP to set the nuclear scope.

In (18), Foc<sub>0</sub>source has [foc<phon>] and selects DP, ‘what’. General FDW starts from there and stops at [foc<sub>(syn, sem)></sub> of Foc<sub>0</sub>domain. If it is (4)b, the Malayalam example, the set of people such as {p₁, p₂, p₃, …} widens, so that it results in the set {when Rajan saw p₁, when Rajan saw p₂, when Rajan saw p₃, …}, which now serves as the domain of focus quantification. The *wh*-phrase independently has [Qfoc<sub>(syn, sem, phon)</sub>], which is omitted for the sake of presentation in (18), but it is
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invisible from C⁰, so no *wh*-movement is applied to the DP. Instead covert focus movement is applied to FocP\_domain and this movement defines the nuclear scope. In this way, general FDW enables focused phrases including *wh*-phrases inside islands to be interpreted properly without violating the subjacency condition.

2.3. Question FDW

There is another way to circumvent islands, which is available only in QP languages. Examine the following structure, first:

\[
(19) \quad \text{QP} \quad \text{Q}
\]

\[
\text{island} \quad \text{… DP … } \text{Ø/ðØ Ø/øØ Ø}
\]

\[
\text{what} \quad [Q\text{foc}_{\text{syn, sem}}]
\]

\[
\text{[Qfoc}_{\text{phon}}]
\]

(19) shows that it is possible to base-generate Q⁰ outside an island, which is indeed the case in Sinhala as in (20):

(20)a. [Chitra *mokak kiwia kotə]-[ðə] oyaa paadam kəramin hiti-e?

Chitra what say when-də you study doing were-C

b. *[Chitra *mokak-[ðə] kiwia kotə] oyaa paadam kəramin hiti-e?

Chitra what-də say when you study doing were-C ‘(Lit.) You were studying [when Chita said what]?’

*Đə*, which is Q⁰ in Sinhala, is normally adjacent to a *wh*-phrase (cf. (2)b), but when a *wh*-phrase is inside an island, the particle must appear at the edge of the island as in (20)a.

If syntactic operations such as Agree and Internal Merge across islands are forbidden (presumably due to Transfer of phases), then (19) leads to one conclusion. That is, there is no Agree between a Q-particle, i.e. Q⁰, and a *wh*-element, so a mechanism such as general FDW is necessary to link a Q-particle and a *wh*-element. However, the one employed in (19) cannot be general FDW because
the latter can circumvent wh-islands while (19) is not applicable to wh-islands.

Moreover, general FDW is subject to intervention effects even inside islands as in (4)b, (5)b, and (6)b while the present type of FDW in QP languages is not as in (1)c, (2)c, and (3)c. Note also that general FDW is a mechanism for focused elements in an island in general, so it is not limited to wh-phrases. In contrast, separation of a Q-particle and a wh-element is possible only when the phrase made of the two items is a wh-interrogative phrase as the following Sinhala examples show:11

(21) Chitra [DP {kaa-ge amma də / *kaa-ge də amma }] dækk-e? [S]
  Chitra {who-Gen mother də / who-Gen də mother} saw-C
  ‘Whose mother did Chitra see?’ Kishimoto (2005: 13, adapted)

(22) Chitra [DP {*kaa-ge amma də / kaa-ge də amma }] dækka. [S]
  Chitra { who-Gen mother də / who-Gen də mother } saw
  ‘Chitra saw someone’s mother.’

(21) is a wh-question, so kaa-ge ‘who-Gen’ and də can be separated. When the two items are employed in indicative clauses, the two as a whole compose an indefinite meaning ‘someone’; however, the two must be adjacent to each other as in (22). Thus, separation of a Q-particle from a wh-element is limited to wh-phrases. If the way to overcome an island is general FDW, we should not expect a difference between wh-interrogative and non-wh-interrogative phrases.

Now consider the following Malayalam examples, which is a non-QP language:

(23) [DP aar-uDe kuTTi-(y)e](y)oo naaya kaDiccu. [M]
  who-Gen child-Acc-Disj dog bit
  ‘A dog bit somebody’s child.’ Jayaseelan (2001: 72)

Unlike the other non-QP languages (i.e. Chinese and Turkish), Malayalam forms an indefinite out of a wh-element and a (disjunction) particle like QP languages. However, unlike QP languages, the particle does not need to be adjacent to a
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wh-element. Thus, no asymmetry is observed between wh-phrases and non-wh-phrases in Malayalam, which may suggest that the same strategy, i.e. general FDW, is employed to associate two elements across islands in the language.

To explain the idiosyncratic properties of QP languages, I propose another type of FDW, which is limited to wh-phrases, and call it question FDW. The difference is that general FDW stops when it hits an operator with [foc<sem>] whereas question FDW starts from [Qfoc<phon>] of D₀ and halts when it meets an operator with [Qfoc<sem>], which is carried by Q₀ in QP languages. Only QP languages allow decomposition of [Qfoc<syn, sem, phon>] into [Qfoc<syn, sem>] and [Qfoc<phon>] and the former to be base-generated at the edge of an island (cf. (16)); thus, question FDW is available only in wh-questions of QP languages. Non-QP languages cannot resort to question FDW due to lack of decomposition of [Qfoc<syn, sem, phon>].

3. Explaining the two differences between QP and non-QP languages

3.1. Difference regarding wh-islands

Because of the difference in the structure of wh-phrases between the two types of in-situ languages presented above, it is possible to explain why QP languages obey the wh-island condition while non-QP ones do not.

As proposed above, it is possible to base-generate Q₀ away from DP, so the following structure should be possible to overcome a wh-island in QP languages:

(24) * QP

\[
\begin{array}{c}
\text{CP}_{\text{wh-island}} \\
\text{... DP ... C} \\
\text{what} \text{ kal/da/nunci} \\
\text{[Qfoc<phon>] [Qfoc<sem>]} \\
\end{array}
\]
\[
\begin{array}{c}
\text{Q} \\
\text{Ø/da/Ø [Qfoc<syn, sem>]} \\
\end{array}
\]

However, (24) leads to unsuccessful derivations. The reason is that the embedded C also carries [Qfoc<sem>], which is clear in Sinhala, because ‘whether’ is also the
Q-particle, \( d\omega \) (cf. (8) and (14)). Also, Shimoyama (2001) claims \( ka \) (or \( ka.doo.ka \)), which appears at the final position of an interrogative clause, stops widening.\(^{12}\) Thus, question FDW never reaches \( Q^0 \) in (24), so it results in an illegitimate derivation. This is why QP languages are subject to the \( w\)h-island condition.

In contrast, the problem does not arise in non-QP languages, because general FDW is not halted by the embedded interrogative C as follows:

\[
\text{(25) describes an embedded clause in which one \( w\)h-phrase takes the embedded scope and the other \( w\)h-phrase takes scope over the matrix clause (which is omitted) as in (10) and (12). DP}_j \text{ is (covertly) raised to spec of the embedded CP to value [\( uQfoc \) of C\(^0\) while FocP\(_{source}\) remains \textit{in situ}. I assume that C\(^0\) obtains [\( Qfoc<\text{syn, sem}> \) after the feature valuation by the raised \( w\)h-phrase, DP}_j \text{ in (25), so it becomes a potential terminator of question FDW. General FDW starts from [\( foc<\text{phon}> \] of FocP\(_{source}\), ignores and passes [\( Qfoc<\text{syn, sem}> \) of the embedded C\(^0\), and manages to reach the edge of the \( w\)h-island, i.e. [\( foc<\text{syn, sem}> \) of FocP\(_{domain}\), unlike question FDW, (24). FocP\(_{domain}\) now serves as the domain of quantification and is (covertly) raised to spec of the matrix CP to set the scope, which is why the matrix scope is available for the FocP \( w\)h-phrase.}

Nevertheless, one may wonder why QP languages such as Japanese, Korean, and Sinhala cannot employ general FDW to circumvent a \( w\)h-island as follows:
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In fact, the domain of quantification is properly defined through general FDW in (26), but FocP\textsubscript{domain} cannot value [uQfoc] of *wh*-interrogative C. This is why another *wh*-phrase, i.e. QP, is necessary in the matrix clause to check interrogative C as in (13), (14), and (15) (so called, additional-*wh* effect), which indicates that C must go through Agree with at least one QP in QP languages.

By contrast, FocP\textsubscript{domain} can somehow license *wh*-interrogative C in non-QP languages such as Chinese, Malayalam and Turkish, which is the main reason why (*in-situ*) non-QP languages overcome the *wh*-island condition without an additional *wh*-phrase in the matrix clause.

There is evidence that FocP\textsubscript{domain} can license *wh*-interrogative C in non-QP (*in-situ*) languages unlike QP languages. For example, disjunction DP can derive alternative (or disjunctive) questions in Chinese, Malayalam and Turkish as follows:

(27) ni xiang [kan dianying haishi da majiang] {(*ma/ne)}? [C]
you want see movie or play mahjong Prty/Prwh
‘Would you see a movie or play mahjong?’
Huang et al (2009: 237, adapted)

(28) [Zhangsan haishi Lisi] zai jiali shangban? [C]
Zhangsan or Lisi at home work
‘Does Zhangsan or Lisi work at home?’ Huang et al (2009: 243)
In non-QP languages, it is possible to answer a question such as (27), (28), (29) or (30) by choosing one of the two alternatives (i.e. *kan dianying* ‘see a movie’ or *da majiang* ‘play mahjong’ in (27), *Zhangsan* or *Lisi* in (28), *John* or *Mary* in (29), *Ali* or *Ayşe* in (30)). Moreover, as (27) illustrates, a question with a disjunction is compatible with either a Yes/No question particle, *ma*, or a WH question particle, *ne*, in Chinese; however, when interpreted as alternative or disjunctive question, only the WH question particle is possible.

In contrast, alternative questions are impossible in QP languages as follows:

(31) [Taro ka Hanako]-ga zitaku-de hataraku {nokai/*ndai}? [J]  
Taro or Hanako-Nom home-at work Prty/a/Prtwh  
‘Does Taro or Hanako work at home?’

John tea-or coffee-or drank-Cy/a/drank-Cwh  
‘Did John drink tea or coffee?’ Weerasooriya (2017: 575, p.c.)

(33) Chelswu-ka [khophi-na cha]-lul masi-ess-ni? [K]  
Chelswu-Nom coffee-or tea-Acc drink-Past-C  
‘Did Chelswu drink tea or coffee?’ Han and Romero (2004: 543)

(31), (32), and (33) are interpreted only as a Yes/No question, so they are compatible with Yes/No question particles or complementizers, but not with WH question particles or complementizers.13,14

To account for the above difference between QP and non-QP languages, the present paper proposes that non-QP (*in-situ*) languages such as Chinese, Malayalam,
and Turkish can optionally omit $[uQfoc]$ and instead host $[ufoc]$ in $wh$-questions.\textsuperscript{15}

Thus, FocP\textsubscript{domain} can be interpreted as $wh$-phrase in the non-QP languages, which accounts for why the $wh$-island condition is overcome without an additional $wh$-phrase in the matrix clause. In contrast, without an additional $wh$-phrase in the matrix, the condition persists because $wh$-interrogative C in QP languages cannot drop $[uQfoc]$.

Disjunctive questions are possible in non-QP languages because (certain) disjunction phrases project FocP\textsubscript{domain}. They function as $wh$-phrases when covertly raised to CP to value $[ufoc]$ of C following Nicolae (2013). That is, covert focus movement of $wh$-phrases licenses $wh$-questions in non-QP languages.\textsuperscript{16,17}

By contrast, disjunction phrases cannot be interpreted as $wh$-phrase in QP languages because they do not project FocP\textsubscript{domain} in those languages. Thus, even if C carries $[ufoc]$, disjunction phrases are not raised to CP by the feature; accordingly, they cannot be interpreted as $wh$-phrases in QP languages.

The difference between the two types of language is schematically represented as follows:

\begin{enumerate}
\item \textbf{Wh-interrogative C in QP languages:}
\begin{equation}
\begin{array}{cccccc}
\text{CP} & \ldots & \text{[QP wh]} & \ldots & C & \\
\text{[Qfoc}_{<\text{syn}>} \rangle & [uQfoc]
\end{array}
\end{equation}
\item \textbf{Wh-interrogative C in non-QP languages:}
\begin{enumerate}
\item \textbf{(i):}
\begin{equation}
\begin{array}{cccccc}
\text{CP} & \ldots & \text{[QP wh]} & \ldots & C & \\
\text{[Qfoc}_{<\text{syn}>} \rangle & [uQfoc]
\end{array}
\end{equation}
\item \textbf{(ii):}
\begin{equation}
\begin{array}{cccccc}
\text{CP} & \ldots & \text{[FocP wh]} & \ldots & C & \\
\text{[foc}_{<\text{syn}>} \rangle & [ufoc]
\end{array}
\end{equation}
\end{enumerate}
\end{enumerate}

According to (35), \textit{(in-situ)} non-QP languages have two ways to derive $wh$-questions, which is why they allow disjunctive questions and overcome $wh$-islands.

\subsection*{3.2. Difference regarding intervention effects inside (non-$wh$) islands}

The sections above have indicated that there are two strategies to
circumvent islands: Question and general FDW. Moreover, only QP languages can resort to question FDW. Another difference between QP and non-QP languages is whether intervention effects are observed inside islands or not; more specifically, intervention effects do not surface inside (non-\textit{wh}) islands in QP languages (cf. (1)c (2)c, and (3)c) unlike non-QP languages (cf. (4)b, (5)b, and (6)b). To explain this property, I claim that interveners carry [foc\textsubscript{\textit{sem}}] as follows:

(36)  No intervention effects inside islands (cf. (1)c, (2)c, and (3)c)

\[
\begin{array}{c}
\text{island} \\
\ldots \text{intervener} \ldots \text{DP} \ldots \\
[foc\textsubscript{\textit{sem}}] \quad \text{what} \\
[Qfoc\textsubscript{\textit{syn, sem}}] \\
[Qfoc\textsubscript{\textit{phon}}]
\end{array}
\]

(36) describes question FDW. Note that the domain widening stops at the first [Qfoc\textsubscript{\textit{sem}}], so [foc\textsubscript{\textit{sem}}] of an intervener does not block it.

In contrast, non-QP languages are subject to intervention effects inside islands, because general FDW is the only available option in the languages as follows:

(37)  Intervention effects inside islands (cf. (4)b, (5)b, and (6)b)

\[
\begin{array}{c}
\text{island} \\
\ldots \text{intervener} \ldots \text{FocP\textsubscript{source}} \ldots \\
\text{Foc\textsubscript{domain}} \\
\emptyset \\
[foc\textsubscript{\textit{sem}}] \quad \text{what} \\
[foc\textsubscript{\textit{syn, sem}}] \\
[foc\textsubscript{\textit{phon}}]
\end{array}
\]

(37) results in intervention effects because general FDW meets [foc\textsubscript{\textit{sem}}] of the intervener and does not reach Foc\textsubscript{domain}. Thus, Foc\textsubscript{domain} above cannot function as the domain of quantification resulting in crash in the C-I interface.

Remember that QP languages are not subjected to intervention effects inside
Two kinds of *in-situ* languages and two ways to overcome islands

islands because of question FDW. Recall also that they are subjected to *wh*-islands, but the use of general FDW lifts the island condition, which requires another QP in the matrix clause. This leads to one prediction: *wh*-islands may be lifted due to an additional *wh*-phrase, but intervention effects will be detected when there is a c-commanding intervener, the prediction of which is indeed borne out as follows:

(38) a. **Dare-ga** [Ken-ga nani-o katta ka.doo.ka] (to) Mary-ni tazuneta no?
   who-Nom Ken-Nom what-Acc bought whether (C) Mary-Dat asked Q
   *(Lit.) Who asked whether Ken bought what?*

   b. *Dare-ga* [Ken-ka John-ga nani-o katta ka.doo.ka] (to)
   who-Nom Ken-or John-Nom what-Acc bought whether (C)
   Mary-ni tazuneta no?
   Mary-Dat asked Q
   *(Lit.) Who asked whether Ken or John bought what?*

(38)a is another example of lifting a *wh*-island in Japanese (see (13), (14) and (15) for other examples of *wh*-island lifting in QP languages). In this case, question FDW is disallowed, so general FDW must be employed, which necessitates another *wh*-phrase in the matrix clause, because FocP\_domain cannot license *wh*-interrogative C in QP languages. In (38)b, the embedded subject, a disjunction, is an intervener, and it shows that the embedded *wh*-phrase, *nani* ‘what’, is indeed subjected to intervention effects, which indicates that the way to circumvent *wh*-islands is different from non-*wh*-islands and confirms two ways to avoid islands in natural languages.

In brief, the discussion above shows more than one type of intervention effects inside embedded clauses in natural languages. One type, which surfaces in non-QP languages, is observed when general FDW is blocked by ordinary interveners such as ‘only’ and universal quantifiers. The present discussion has also indicated that a *wh*-island, which is operative only in QP languages, is another kind of intervention effect, where question FDW is intervened by an interrogative embedded C\(^0\). Thus, there are two kinds of intervention effects inside islands as schematically represented as follows:
(39) Two types of intervention effect in embedded clauses

(I) General FDW Intervention
\[
* [ \ldots \text{intervener} \ldots [\text{FocP}_{\text{source}} \text{wh}] \ldots ] \text{Foc}^0_{\text{domain}} \\
[\text{foc}_{\text{sem}}] \quad [\text{foc}_{\text{phon}}] \quad [\text{foc}_{\text{sem}}]
\]

(II) Question FDW Intervention
\[
* [ \ldots [\text{DP wh}] \ldots \ldots C^0 ] \quad Q^0 \\
[Q\text{foc}_{\text{phon}}] \quad [Q\text{foc}_{\text{sem}}] \quad [Q\text{foc}_{\text{sem}}]
\]

4. Conclusion

The present paper has proposed two ways to circumvent islands: question and general FDW. The former is an option limited to QP languages, in which wh-phrases normally project to QP and Q$^0$ can be base-generated away from its wh-phrase, due to which Q$^0$ can be base-generated outside an island, and association between Q$^0$ and the wh-phrase is achieved through question FDW. However, question FDW is unavailable in the case of wh-islands, because its domain widening procedure stops at the first [Qfoc$_{\text{sem}}$], and the embedded C$^0$ also carries the feature, so the association between Q$^0$ and the wh-phrase is never accomplished across the embedded interrogative C$^0$. We regard it as one type of intervention effect (cf. (39)(II)). Nonetheless, general FDW, the other strategy to overcome islands, is possible in QP languages, in which case an additional wh-phrase is needed in the matrix clause because FocP$_{\text{domain}}$ cannot value [uQfoc] of wh-interrogative C.

On the other hand, non-QP languages have only one way to avoid islands: general FDW, which base-generates Foc$^0_{\text{domain}}$ outside an island and associates [foc$_{\text{syn, sem}}$] of Foc$^0_{\text{domain}}$ and [foc$_{\text{phon}}$] of FocP$_{\text{source}}$ within. This type of widening is not subjected to any type of islands including wh-islands. However, general FDW halts when it hits the first [foc$_{\text{sem}}$] and interveners such as ‘only’ and universal quantifiers too carry [foc$_{\text{sem}}$], which we have called general FDW intervention effects in (39)(I). This type of intervention effect is observed even inside islands in non-QP languages when an intervener is placed between a wh-phrase and Foc$^0$ at
the edge of an island. In contrast, question FDW does not have this problem, because widening stops at the first [Qfoc<sem>], which is why general FDW intervention is unobserved inside islands in QP languages. Moreover, FocP\textsubscript{domain} can license \textit{wh}-interrogative C\textsubscript{0} in non-QP languages such as Chinese, Malayalam and Turkish because \textit{wh}-interrogative C can carry [u\texttt{foc}] instead of [uQfoc] in those languages. Accordingly, no additional \textit{wh}-phrase is necessary to overcome \textit{wh}-islands in non-QP languages.

The consequences of the present proposal are the following. First, since there are two kinds of \textit{in-situ} language, they can be no longer analyzed in a uniform manner. Second, we have claimed that FocP\textsubscript{domain}, which normally goes through covert movement to C\textsubscript{0}, can be interpreted as \textit{wh}-phrase (although it is not clear to us at the moment what kind of semantics it has), because of which disjunctive phrases can function as \textit{wh}-phrases in the C-I module. Accordingly, (overt or covert) \textit{wh}-movement, which is triggered by [uQfoc] in C\textsubscript{0}, is not the only procedure to derive the semantics of \textit{wh}-questions. This finding may prompt a new way to analyze other related phenomena. For example, Pesetsky (2000) discusses superiority violation in the case of multiple-\textit{which} questions, which may be explained if the c-commanding \textit{which}-phrase is FocP\textsubscript{domain}, hence avoiding overt \textit{wh}-movement. A similar treatment of alternative questions is possible in the \textit{in-situ} strategy in French \textit{wh}-questions (Cheng and Rooryck 2000), which too are subject to intervention effects (Mathieu 1999). Such \textit{in-situ} strategies are possible because they are derived by (covert) focus movement.

Notes

1. Crosslinguistically \textit{wh}-phrases such as ‘why’ and ‘how’ cannot escape the island condition. The generalization is that the escaping strategy is limited to nominal \textit{wh}-phrases. They include ‘when’ and ‘where’ too, which can assume the status of
adjuncts by positing a null preposition or postposition over DP. The present paper discusses nominal wh-phrases only.

2. Iraqi Arabic is exceptional in that it is an in-situ language but is subject to islands. See Abdel-Razaq (2015) for details.

3. As will be clear, QP represents the projection of a “Q-particle” following Cable (2010). Moreover, we will concentrate on in-situ languages mostly, so overt wh-movement languages such as English and German will not be discussed in this paper except a few occasional remarks in the footnotes.

4. However, QP languages are subjected to the wh-island condition as will be discussed below.

5. Existence of the wh-island condition is controversial in Japanese and Korean. A generalization is that interpretations in violation of the condition are much dispreferred and specific contexts and extremely unnatural intonation patterns are required to obtain such interpretations if any. Thus, the present paper assumes that Japanese and Korean are subject to wh-islands. See Morita (2014) for a summary of the controversy in Japanese and Cho (2017) for an acceptability experiment in Korean, which supports the wh-island condition in Korean.

6. This statement may be oversimplification. See Morita (2019a) for Japanese examples where ‘whether’ and a wh-phrase take the same scope.

7. Cable (2010) similarly argues that languages are divided into two categories depending on whether Agree is necessary between a Q-particle and a wh-element. According to his criterion, languages such as Chinese, Malayalam and Turkish require Agree while ones such as Japanese, Sinhala and Korean do not. His and the present account are compatible as far as intervention effects are concerned. However, the present paper makes a different proposal from Cable’s for two reasons. First, it seems that QP languages are not rare, but not so widespread
either, which seems to suggest that QP is not a universal category. Moreover, it is reasonable to assume that not every language has QP when discussing other differences, such as formation of indefinites, between QP and non-QP languages as will be shown later.

8. In old Japanese, *ka* used to be a Q-particle and appear adjacent to a *wh*-element like Sinhala, which now appears clause-finally and marks the clause as (Yes/No or WH) interrogative in present Japanese. Actually, Hagstrom (1998) assumes that clause-final *ka* in present Japanese is equivalent to what Cable calls a Q-particle by claiming that it first merges with a *wh*-element and then it alone overtly moves to CP. In contrast, the present paper assumes that a Q-particle in present Japanese is phonologically null and clause-final *ka* is base-generated in C⁰.

The main motivation for the latter assumption is that *ka* appears to be a head rather than a phrase because of its morphological character (i.e. monosyllabic) and the location (a phrase appearing at the end of a sentence or a clause seems unlikely in a strongly head-final language such as Japanese). Moreover, no phrase can intervene between *ka* and the preceding verbal elements. All of these facts indicate that *ka* is a head. However, in Hagstrom’s approach the movement of *ka* must be phrasal because it can be long-distance. Moreover, as Morita (2019a) shows, a *wh*-phrase inside an intensional predicate necessarily presents a *de re* interpretation while an indefinite in the same environment is ambiguous between a *de re* and a *de dicto* reading in Japanese, which indicates that what is moved to CP in *wh*-questions in Japanese is not a Q-particle alone but the whole QP as the present account claims.

9. Sinhala, Japanese, Korean, and Malayalam are similar in that a variety of operators, such as indefinites, universal quantifiers, NPIs and of course *wh*-phrases, are derived by attaching to a *wh*-element a (coordination) particle
such as conjunction and disjunction particle (see Slade (2011) for Sinhala, Morita (2005) for Japanese, Shin (2005) for Korean, and Jayaseelan (2001) for Malayalam). In Chinese and Turkish, in contrast, \textit{wh}-elements can be interpreted in various ways without adjacent particles depending on where they appear (see Li (1992) and Lin (1998) for Chinese data and Görgülü (2006) for Turkish data). Thus, mere existence of adjacent particles to generate a variety of quantifiers is not a good indicator to distinguish QP from non-QP languages. Nevertheless, according to Morita (2018c, 2019b), there is a subtle distinction between Japanese, Korean, and Sinhala on one hand and Malayalam on the other in terms of separability between a \textit{wh}-element and a disjunction particle in the meaning of indefinites. In other words, in QP languages, the two elements must be adjacent to each other, whereas they can be separated in Malayalam (see (22) and (23) for Sinhala and Malayalam, and footnote 11 for Japanese and Korean). We may argue that nominal \textit{wh}-elements in non-QP languages are functional, and hence, project DP whether they are \textit{wh}-interrogative or not, so that any quantification including disjunction must be generated outside DP. Hence, Malayalam allows separation of a \textit{wh}-element and a disjunction particle. In contrast, \textit{wh}-elements in QP languages can be lexical and remain to be NP when they denote indefinites, which makes it possible for a quantificational element such as a disjunction particle to be generated in D\text{\textsuperscript{0}} (or part of DP) above the NP as Tsai (1994) argues; thus, a \textit{wh}-element and a disjunction particle cannot be separated in Japanese, Korean and Sinhala. In this manner, different morphological structures of existential quantifiers between QP and non-QP languages can be attributed to the different structures of \textit{wh}-elements in QP and non-QP languages under the present account. See Morita (2019b) for details.

10. To explain the lack of intervention effects inside islands in QP languages, one could propose a different kind of mechanism such as binding to overcome islands
as I did in a previous paper such as Morita (2018a). However, \textit{wh}-phrases in QP languages are also subject to a minimality constraint (i.e. embedded interrogative C). If the mechanism employed in QP languages were binding, it should not show minimality. Accordingly, the present paper claims that another kind of focus domain widening, which is limited to \textit{wh}-questions, is applied to \textit{wh}-phrases in QP languages. I would like to thank Mitcho Erlewine (p.c.) for suggesting different kinds of mechanism for QP and non-QP languages.

11. The other two QP languages exhibit the same phenomenon regarding \textit{wh}-elements and particles to form indefinites. In other words, the two items must be adjacent to each other in Japanese as in Sinhala as follows:

(i) inu-ga [\text{DP}{*\text{dare}-no kodomo-}ka-o/\text{dare-}ka-no kodomo-o}] kannda.[J]

\textit{dog-Nom} {who-Gen child-Disj-Acc/who-Disj-Gen child-Acc} bit

‘A dog bit somebody’s child.’

Korean too shows a similar effect although a particle which forms an indefinite out of a \textit{wh}-item is not a disjunction particle but one homophonous to a question particle as follows:

(ii) {\text{*nwukwu-ui ai-}nka/ nwukwu-\text{nka-ui ai}} [K]

\text{who-Gen child-nka/ who-nka-Gen} child

‘somebody’s child’

Namkil Kang (p.c.)

These data support that a particle gives quantificational force to a \textit{wh}-element, so that an indefinite DP on the whole is quantificational in QP language whereas an operator outside DP gives quantificational force to DP, so that the DP itself is not quantificational in non-QP languages as Tsai (1994) and Shin (2005) argue.

However, as Nishigauchi (1990: 121) observes, a postposition can intervene between a \textit{wh}-element and \textit{ka} in Japanese as follows:
(iii) {**dare-**[ka]kara/*dare-**kara-[ka]} henna tegami-ga todoi.ta.
who-Disj-from/ who-from-Disj strange letter-Nom arrived

‘A strange letter came from somebody.’

He also notes an interpretational difference between the two orders: the speaker has no clue about the identity of the reference in the latter case while it is ambiguous in the former case. I claim that separated cases are results of ellipsis in a cleft structure; thus, *ka* is a question particle there, so it is originally the following:

(iv) (proi todoi.ta nowa) **dare-**kara[ka](sira), henna tegami-ga todoi.ta.
arrived that who-from C (I.wonder) strange letter-Nom arrived

‘A strange letter came, and I wonder from whom it is that it came.’

One piece of evidence for this claim is that the separated one cannot cooccur with an intensional predicate as follows:

(v) watasi-wa {**dare-**[ka]kara/*dare-**kara-[ka]} tegami-ga hosii.
I-Top who-Disj-from/who-from-Disj letter-Nom want

‘I want a letter from somebody.’

The unacceptability arises because an elided cleft structure presupposes the speaker has the letter from somebody, so s/he cannot want it. If the account here is correct, the generalization that a *wh*-element and disjunction must be adjacent to each other in QP languages still holds.

12. Shimoyama (2001) argues that widening is applied to set the scope of a question; in other words, the widening process alone is sufficient to derive the meaning of a *wh*-question, i.e. a set of propositions. This is a dominant view in the literature. However, we assume that the process applies only to determine the domain of quantification of a *wh*-operator, so subsequent covert *wh*-movement is necessary to set the scope.

13. To make alternative questions in Japanese, one has to resort to clausal
disjunction. See Uegaki (2014) for details.

14. Sinhala has another disjunction particle, which is homophonous to the Q-particle \( d\) and is limited to interrogative contexts. With this disjunction, a disjunctive question is possible in Sinhala contrary to the current claim as follows:

(i) John \([\text{tee-}d\ \text{coopy-}d\] \{\text{*biiwa-}d\ / biiw-e\}? \\
John tea-or coffee-or drank-\(C_{3/n}\) / drank-\(C_{wh}\)

‘Did John drink tea or coffee?’

Weerasooriya (2017: 575)

In fact, (i) allows only a disjunctive question, so it cannot be used as a Yes/No question. Despite an example such as (i), I still maintain that FocP\text{domain} cannot license \(wh\)-interrogative \(C\) in QP languages. To explain examples such as (i), I assume the second (or final) \(d\) in the disjunction phrase is a Q-particle with \([Qfoc_{\text{<syn, sem, phon>}}]\), so the disjunction phrase is not FocP\text{domain} but QP in (i), which accounts for why disjunction \(d\) is possible only in interrogative contexts.

15. It seems that non-QP languages with overt \(wh\)-movement, such as English and German, do not have this option. In other words, one DP (or PP) with \([Qfoc_{\text{<syn, sem, phon>}}]\) must be overtly raised to value \([uQfoc]\) of \(C\), which is why an \textit{in-situ} \(wh\)-phrase in a \(wh\)-island requires another \(wh\)-phrase in the matrix clause in English and German too.

16. This statement applies only to nominal \(wh\)-phrases. It is possible that \(wh\)-interrogative \(C\) must bear \([uQfoc]\) even in non-QP languages when adjunct \(wh\)-phrases such as ‘why’ are present. This is indeed likely considering that there are two types of intervention effects in the matrix context (i.e. outside islands) in Chinese. See Yang (2012) for details.

17. Non-QP languages with overt \(wh\)-movement such as English and German allow disjunctive questions although their \(wh\)-interrogative \(C\) cannot drop \([uQfoc]\) like QP languages. This difference can be accounted for if disjunctive questions in
overt wh-movement non-QP languages are Yes/No questions, so they do not have [uQfoc] and no wh-movement is initiated. It is possible to interpret FocP-domain of disjunction as wh-phrase because C can optionally have [ufoc].

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